

Fishery Management Report No. 23-22

**Report on Selected Sport Fisheries of the Kodiak
Management Area, 2013–2022**

by

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December 2023

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



Symbols and Abbreviations

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

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by

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ABSTRACT

This report provides a detailed summary of the sport fisheries occurring within the Kodiak Management Area and includes a description of the area and programs related to area management objectives. Summaries of the major sport fisheries include a fishery description and a historical overview covering 2013 through 2022, a review of current management strategies, and recent fisheries performance with a focus on 2022. Escapement and harvest information are presented through 2023 when available.

Keywords: Kodiak Management Area, Kodiak Regulatory Area, Alaska Peninsula–Aleutian Islands Regulatory Area, Kodiak Road Zone, Kodiak Remote Zone, stocked lakes, stocking projects, escapement, Chinook salmon, *Oncorhynchus tshawytscha*, coho salmon, *Oncorhynchus kisutch*, sockeye salmon, *Oncorhynchus nerka*, steelhead, rainbow trout, *Oncorhynchus mykiss*, halibut, *Hippoglossus stenolepis*, rockfish, *Sebastes* spp., lingcod, *Ophiodon elongatus*, Alaska Board of Fisheries

INTRODUCTION

This fisheries management report provides a summary of the sport fisheries occurring within the Kodiak Area (KMA¹), which is managed by the Alaska Department of Fish and Game (ADF&G), Division of Sport Fish (SF) Kodiak office. This report is provided for the Alaska Board of Fisheries (BOF), Fish and Game Advisory Committees (ACs), the general public, and other interested parties. Included is a description of the management area and research programs related to area management objectives. Fisheries are described and organized by species, management areas, subunits, and specific drainages or fisheries locations. A historical overview and description of each fishery, historical harvests and salmon escapements, management objectives, and fishery performance are discussed for the primary sport fisheries throughout the area. Estimates of harvest for most fisheries are presented through 2022 (2023 charter logbook and statewide harvest survey estimates are unavailable at this time), and estimates of escapement in all salmon fisheries are presented through 2022. Weir and survey counts for salmon through 2023 are included to give the most recent information available. Many estimates of escapement for 2023 rely on harvest estimates so these will be presented in future reports, but those that do not rely on harvest estimates are presented through 2023 and noted. Fisheries occurring in 2023 are only discussed when complete information is available.

The mission of SF is to protect and improve the state’s fishery resources by managing for sustainable yield of wild stocks of sport fish, providing diverse sport fishing opportunities, and providing information to assist the BOF in optimizing social and economic benefits from sport fisheries. The guiding document for SF continues to be the Strategic Plan,² which highlights key issues currently facing SF and acts as a guide for division leaders and managers in decision making. The plan is also used to communicate internally as well as to the public regarding the most important issues for SF and the management of Alaska’s sport fisheries, and it is updated periodically to reflect future issues and needed changes in strategic direction. Operational plans and budget submissions are also linked to this plan based on regional needs and priorities.

SF management and research activities are funded by ADF&G and Federal Aid in Fisheries Restoration funds. ADF&G funds are derived from the sale of state sport fishing licenses. Federal Aid funds are derived from federal taxes on fishing tackle and equipment established by the

¹ The acronym KMA (Kodiak Management Area) is the terminology used for the commercial fishing management area and will be used here for consistency, but for the sport fisheries in regulation, the area is called just the Kodiak Area.

² Division of Sport Fish Strategic Plan 2022–2027. Alaska Department of Fish and Game Division of Sport Fish. Available at http://www.adfg.alaska.gov/static/fishing/PDFs/sport/Strategic_Plan_2022.pdf.

Federal Aid in Sport Fish Restoration Act (also referred to as the Dingell-Johnson Act or D-J Act). D-J funds are provided to the states at a match of up to 3-to-1 with state funds. Additional funding specified for providing, protecting, and managing access to fish and game is provided through a tax on boat gas and equipment established by the Wallop-Breaux (W-B) Act. Other peripheral funding sources may include contracts with various government agencies and the private sector, or in a few cases, State of Alaska general funds (GF).

This area management report is organized into 2 primary components: (1) a management area overview, including a description of the management area and a summary of effort, harvest, and catch for the area; and (2) sections focusing on the significant area fisheries. Appendix G1 contains a cross-referenced list of information pertinent to the 2024 Kodiak Finfish BOF meeting proposals.

MANAGEMENT AREA OVERVIEW

MANAGEMENT AREA DESCRIPTION

The KMA (Figure 1) includes all freshwater drainages and adjacent salt waters of the Kodiak Archipelago. It is divided into 2 regulatory zones: the Kodiak Road Zone (KRZ) and the Kodiak Remote Zone (“Remote Zone” hereafter). The KRZ includes all fresh waters east of a line extending from Crag Point in the north to the westernmost point of Saltery Cove in the south and includes the fresh waters of Woody and Long Islands (Figure 2). It also includes all nearby salt waters of the KRZ, including bays and estuaries associated with KRZ drainages as shown in Figure 2 and described in Appendix B3. The Remote Zone encompasses all other fresh waters and adjacent salt waters of the Kodiak Archipelago. Except for road-accessible fisheries located on Kodiak Island, virtually all significant sport fishing opportunities in the KMA are remote and relatively difficult to access. A coastal climate with high precipitation and mild temperatures characterizes much of the area.

Principal land managers include the United States Fish and Wildlife Service (USFWS), various Alaska Native corporations, the Kodiak Island Borough, the U.S. Coast Guard, and the State of Alaska. The community of Kodiak is the largest community in the KMA, but the area also has 6 small villages.

Management and research operations for the KMA are administered through ADF&G SF for the Southcentral Region and are based in the Kodiak Area Office. During the report years 2013–2022, area staff members stationed in Kodiak included 3 permanent full-time Fishery Biologists, 1 Program Technician, and several seasonal Fish and Wildlife Technicians. Additional support for the Kodiak office is provided through the regional office based in Anchorage. Programmatic functions of the Kodiak office include operating salmon counting weirs, collecting and analyzing biological samples, conducting angler creel and salmon escapement surveys, and implementing sport fisheries stocking projects.

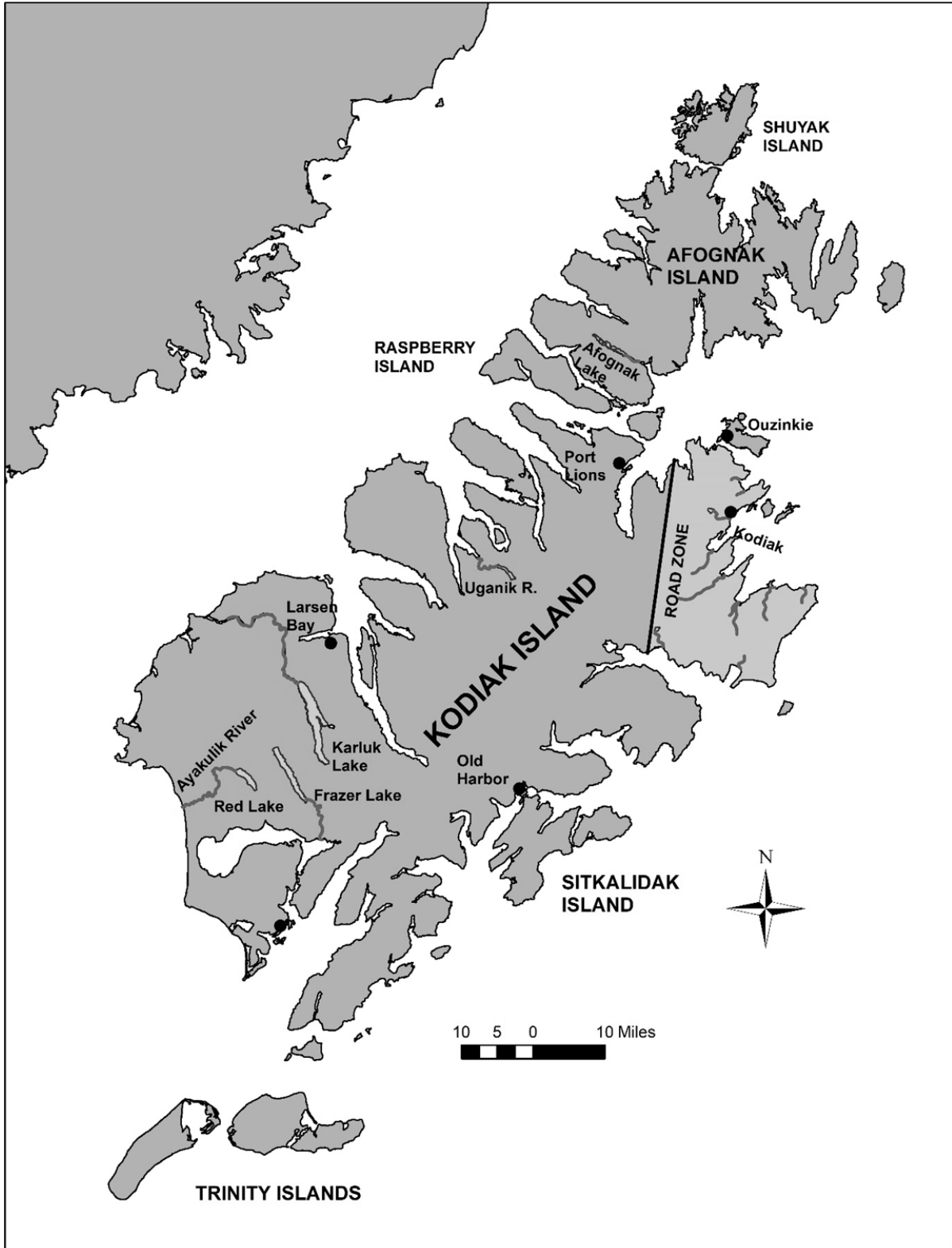


Figure 1.—Map of the Kodiak Management Area (KMA) including the Kodiak Road Zone (KRZ) and the Remote Zone.

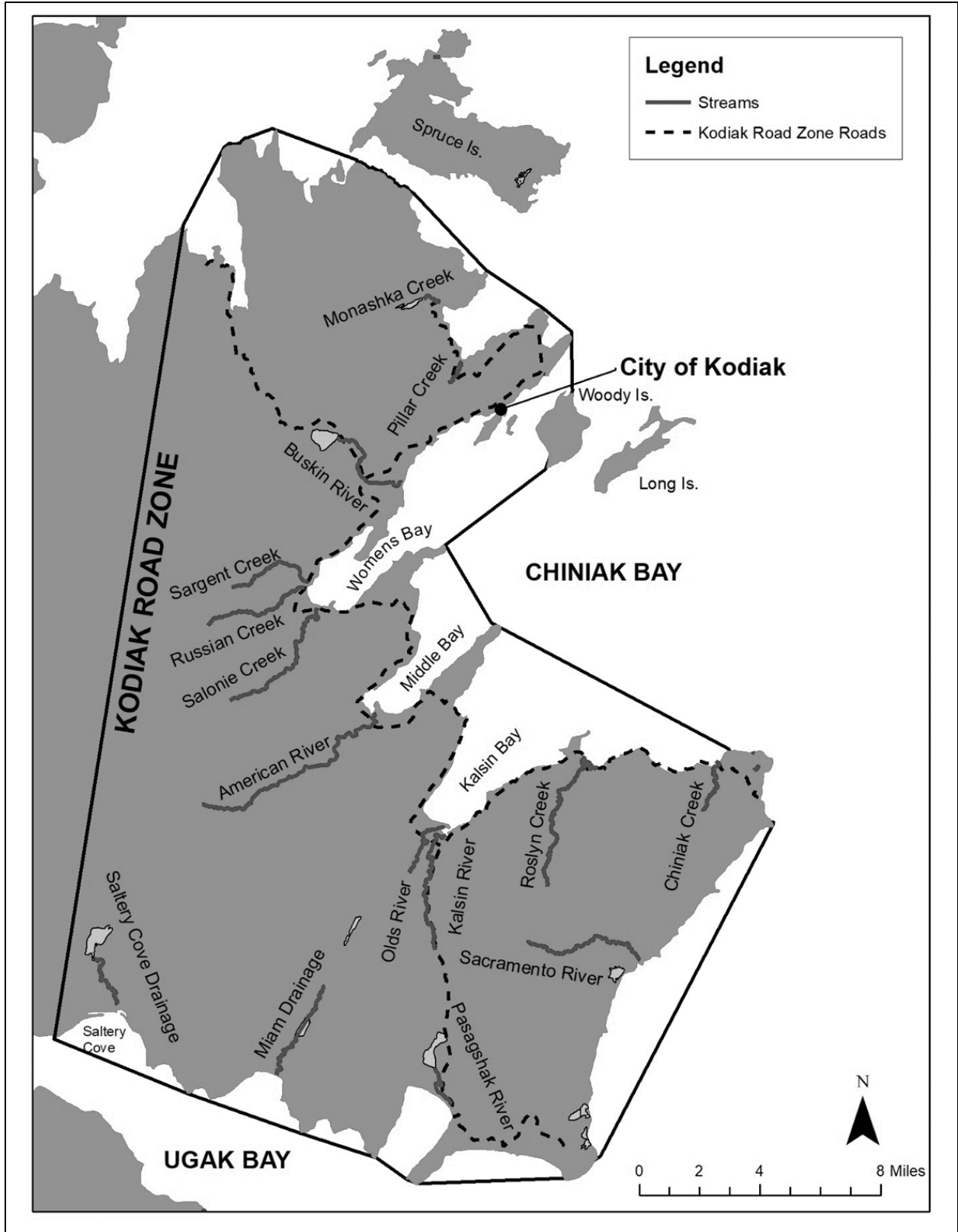


Figure 2.—Map of the Kodiak Road Zone (KRZ).

FISHERY RESOURCES

Major sport fisheries in the KMA include popular coho salmon (*Oncorhynchus kisutch*) fisheries in the freshwaters of the KRZ and many remote rivers throughout the area, sockeye salmon (*O. nerka*) fisheries in 3 KRZ drainages and several Remote Zone rivers, and fisheries for steelhead (*O. mykiss*) and stocked rainbow trout (*O. mykiss*). Saltwater fisheries include significant effort for Chinook salmon (*O. tshawytscha*), coho salmon, halibut (*Hippoglossus stenolepis*), and rockfish (*Sebastes* spp.).

FISHERY DEVELOPMENT AND REGULATION

Codified regulations governing sport fisheries of the KMA are established in Chapter 64, Title 5 of the Alaska Administrative Code (AAC). Regulatory provisions of the KMA not specified in this chapter may be found in the Chapter 75 Administrative Code pertaining to statewide regulation of Alaska sport fisheries.

Fisheries regulations are developed within the established BOF process. Public input concerning regulation changes and fishery allocation issues is accommodated in this process through various means including submission of proposals, direct testimony to the BOF, and participation in local fish and game AC meetings. The ACs have been established throughout Alaska specifically to provide a conduit for public access to the BOF and to assist the BOF in addressing fisheries issues. SF serves as technical advisor at both AC and BOF meetings. In this way, the meetings provide for direct public interaction with ADF&G staff involved with fish resource issues of local concern. Within the KMA, there is one AC, which is called the Kodiak AC. The BOF meets on a 3-year cycle for specific geographical areas and fish resource groupings. Regulatory proposals concerning KMA sport fisheries were most recently addressed in January 2020. The next regularly scheduled BOF meeting for KMA sport fishing issues is in January 2024. Summaries of recent BOF regulatory actions are provided in Appendix A1.

ESTABLISHED MANAGEMENT PLANS AND POLICIES

To resolve allocation conflicts between or within user groups while instituting effective conservation measures, the BOF may institute fishery-specific management plans and policies to guide ADF&G. These plans attempt to assure sustained yield of fish resources in conjunction with the establishment of allocations based on management actions and guidelines. Current regulatory management plans specific to sport fisheries occurring within the KMA are found in 5 AAC 64.060 *Kodiak Area Saltwater King Salmon Sport Fishery Management Plan* and 5 AAC 64.070 *Kodiak Area Rockfish Management Plan*. Descriptions of these plans are provided in Appendices B1 and B2.

SPORT FISHING EFFORT, HARVEST, AND CATCH

Sport fishing effort and harvest of sport fish species in Alaska have been estimated and reported annually since 1977 using a mail survey. The Alaska Sport Fishing Survey (commonly referred to as the Statewide Harvest Survey [SWHS]) is a questionnaire mailed to a stratified random sample of (resident or nonresident) households with at least 1 valid fishing license, which contacts approximately 10% of the state sport fishing license recipients.³ The SWHS estimates total days

³ Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

of sport fishing effort (referred to as “angler-days”) expended by all anglers (both guided and unguided) fishing Alaska waters, plus angler harvest and (since 1990) total catch by species. Final estimates are available during the early fall of the following year. The SWHS is designed to provide estimates of effort, harvest, and catch by fishing location, and although harvest and catch are available by species, the SWHS does not estimate effort directed toward individual species. SWHS sport fishing effort, harvest, and catch are reported here for 2013–2022, but estimates for prior years back to 1977 are available in prior KMA management reports (Schwarz 1994, 1995, 1996, 1997; Schwarz and Clapsadl 2000; Schwarz et al. 2002; Tracy and Polum 2015; Polum 2016; Polum et al. 2019b; Polum et al. 2019a).

Since 1998, SF has operated a program to register and license both sport fishing guides and sport fishing guide businesses and to collect information on sport fishing participation, effort, and harvest by saltwater and freshwater charter clients (Sigurdsson and Powers 2009). Logbook data on charter activity since 2006 have been published from this program, and this source is considered a census of guided effort due to mandatory reporting of harvest, catch, and effort of all trips made by guides with clients. Although the freshwater logbook program ended in 2018, the saltwater logbook program continues to operate. Logbook information will be presented where applicable, but in cases where 3 or less guide businesses report fishing in a particular area, the information will not be presented to assure confidentiality. Data for 2013–2022 are presented here but estimates for prior years back to 2006 are available in prior KMA management reports (Tracy and Polum 2015; Polum 2016; Polum et al. 2019b; Polum et al. 2019a).

Effort

In 2022, KMA anglers accounted for 68,536 angler-days of effort (Table 1). From 2013 to 2022, an average of 87,542 angler-days of effort were expended annually by anglers fishing the KMA. The average effort expended by anglers in the KMA has been about 4% of the average statewide total and 12% of the average Southcentral Region⁴ total between 2013 and 2022 (calculated from Table 1 and totals from the SWHS database). During this 10-year period, KMA angler effort peaked at 116,192 angler-days in 2013.

Significant fisheries in the KMA occur in fresh and salt waters of the KRZ, and the 2013–2022 average of 42,635 angler-days of effort in the KRZ accounts for 49% of the average KMA effort (Tables 1 and 2). In 2022, the KRZ had 25,737 angler-days of effort, which was 38% of the KMA effort in 2022. A decrease in overall KMA sport fishing effort has occurred over the last 10 years, with effort primarily decreasing in the KRZ; angler-days expended in the KRZ in 2022 were well below average and less than half of the effort prior to 2015. The Buskin River, accessible from Kodiak’s primary roadway, is the most heavily fished drainage in the KMA, accounting for an average of 13,768 angler-days from 2013 to 2022 (Table 2). In 2022, anglers expended 6,274 angler-days in the Buskin River drainage. Other major fisheries within the KRZ include the Saltery, Olds, and Pasagshak Rivers. Most of the KMA saltwater sport fisheries occur near the KRZ as well, near the community of Kodiak, but are generally accounted for in Remote Zone fisheries in SWHS estimates.

⁴ ADF&G, Division of Sport Fish, Southcentral Region (i.e., Region II) includes the following management areas: Anchorage Area, Bristol Bay, Kodiak–Aleutians, Lower Cook Inlet, Northern Cook Inlet (Matanuska–Susitna, Knik Arm), Prince William Sound Area, Seward–North Gulf Coast, and Upper Kenai Peninsula.

Harvest

An average of 125,941 fish were harvested annually by anglers fishing the KMA during 2013–2022 (Table 3). Rockfish made up the largest portion of the average harvest (21%) followed by coho salmon (20%), but halibut (15%) and sockeye salmon (12%) were also very common.

In 2022, a total of 115,859 fish were harvested by anglers in the KMA (Table 3), and most of this harvest was made up of rockfish (27%) and halibut (17%). Sockeye salmon (8%), Chinook salmon (7%), and lingcod (*Ophiodon elongatus*; 7%) also composed significant portions of the total harvest. Other species harvested in 2022 included pink salmon (*O. gorbuscha*), chum salmon (*O. keta*), black cod (*Anoplopoma fimbria*), Dolly Varden (*Salvelinus malma*), and shellfish species such as clams and crab. However, none of these individually represented more than 5% of the 2022 harvest.

Catch

SWHS estimates of the total number of fish caught (harvest plus release) by anglers fishing KMA waters indicate that although release to harvest ratios vary substantially by species, overall, from 2013 to 2022, an average of 1 fish was released for every 1 harvested (calculated from Tables 3 and 4). In 2022, rockfish and pink salmon were the most commonly caught species, with coho salmon, halibut, and Dolly Varden also caught in large numbers (Table 4). Species with the highest catch-and-release rates in 2022 were Dolly Varden, chum salmon, and steelhead and rainbow trout; almost all steelhead and rainbow trout were caught and released, and very few were harvested. Chum salmon, pink salmon, and Dolly Varden are most frequently caught incidentally while fishing for sockeye salmon, Chinook salmon, and coho salmon, but are harvested at a much lower rate because they are generally less desirable species, although there is some directed catch-and-release effort for these species.

Table 1.—Total angler-days of sport fishing effort expended in Kodiak Management Area waters, 2013–2022.

Type of effort	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average 2013–2022
Salt water											
Angler-days	52,867	44,127	51,107	40,413	38,925	38,690	40,007	28,674	44,012	37,328	41,615
Percent of area	45%	40%	50%	50%	39%	51%	48%	48%	58%	54%	48%
Fresh water											
Angler-days	63,325	66,858	51,787	39,657	61,405	37,519	43,784	31,369	32,353	31,208	45,927
Percent of area	55%	60%	50%	50%	61%	49%	52%	52%	42%	46%	52%
Area total	116,192	110,985	102,894	80,070	100,330	76,209	83,791	60,043	76,365	68,536	87,542

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 2.—Total angler-days of sport fishing expended in major fisheries of the Kodiak Management Area, 2013–2022.

Management area	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average 2013–2022
KRZ											
Buskin River	21,545	20,276	13,704	8,141	19,218	9,471	11,508	15,953	11,587	6,274	13,768
Pasagshak River	6,840	5,612	5,534	5,160	6,063	5,125	1,760	1,795	3,208	2,923	4,402
Olds River	7,432	10,739	7,977	7,507	11,041	4,748	4,288	2,880	3,167	4,292	6,407
American River	5,448	5,236	5,947	4,038	4,247	1,379	5,131	1,755	2,244	2,125	3,755
Saltery Cove freshwater	5,061	6,644	3,693	3,038	2,527	2,523	6,862	1,820	3,973	4,098	4,024
Roadside lakes	2,266	1,546	2,660	–	461	510	154	348	410	143	1,135
Other KRZ sites	11,420	8,525	7,697	5,401	10,528	6,576	9,501	3,610	3,507	6,676	7,907
Total ^a	68572	59673	52422	36746	52628	31421	40638	29364	29152	25737	42,635
Remote Zone											
Chiniak Bay boat	15,769	18,169	24,254	17,099	21,146	14,931	22,652	13,222	20,227	17,826	18,530
Ugak Bay boat	2,839	3,210	2,427	2,269	1,457	3,439	1,771	847	2,193	678	2,113
Karluk River system	1,167	860	1,621	2,577	1,455	1,701	1,693	–	1,535	–	1,576
Afognak/Shuyak Islands	6,968	5,471	3,413	3,921	3,213	3,633	3,994	3,167	6,599	6,117	4,650
Uyak and Larsen Bays	4,982	5,391	4,148	2,257	1,723	3,142	1,435	2,519	3,862	2,847	3,231
Other remote saltwater	10,720	9,158	7,975	9,592	7,877	9,559	8,721	6,981	9,174	7,282	8,704
Other remote freshwater	5,175	7,420	3,567	3,795	8,348	7,057	2,887	3,208	3,623	6,363	5,144
Total ^a	47,620	51,312	50,472	43,324	47,702	44,788	43,153	30,679	47,210	42,799	44,906

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: An en dash means insufficient survey responses to generate an estimate. KRZ = Kodiak Road Zone.

^a Totals represent total effort in each zone and may include other effort beyond the individual sites listed in the table.

Table 3.—SWHS estimates of the number of fish harvested by anglers fishing Kodiak Management Area fresh and salt waters combined, 2013–2022.

Species	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average 2013–2022
Salmon											
Pink	80,088	38,791	68,627	37,504	51,331	38,363	62,729	28,477	52,435	40,595	49,894
Coho	47,622	59,703	75,147	30,201	43,247	47,927	34,104	22,514	44,184	27,176	43,183
Sockeye	41,004	38,929	26,591	28,660	31,194	25,246	20,662	10,522	19,822	17,554	26,018
Chinook	14,600	13,070	14,810	19,135	20,549	11,167	9,700	10,771	17,205	10,901	14,191
Chum	5,795	5,536	12,854	4,107	5,181	6,007	4,376	1,037	2,793	3,956	5,164
Groundfish and shellfish											
Halibut	42,462	40,488	30,459	24,082	27,510	22,815	22,237	20,133	38,157	25,689	29,403
Rockfish	33,739	47,182	40,974	44,230	34,442	41,099	51,261	26,981	58,580	48,028	42,652
Lingcod	6,137	6,600	5,493	4,116	3,890	5,364	9,862	9,272	13,642	11,537	7,591
Pacific Cod	14,866	34,208	29,522	21,886	8,958	5,067	6,025	8,253	23,941	18,467	17,119
Black cod	1,736	1,870	3,680	2,126	3,420	2,580	2,579	762	1,794	2,350	2,290
Tanner Crab	4,777	2,890	884	1,089	268	1,407	725	1,021	3,977	4,939	2,198
Dungeness Crab	71	1,051	229	483	116	4,234	1,175	1,841	1,539	2,002	1,274
Clams	297	2,363	0	1,919	485	724	2,030	3,110	885	0	1,181
Trout and char											
Dolly Varden	34,635	45,879	40,989	29,519	11,836	21,067	14,033	6,784	16,085	23,884	24,471
Rainbow trout	4,364	3,580	4,421	1,621	2,045	1,711	3,300	1,218	1,450	3,216	2,693
Steelhead	717	1,562	2,881	3,295	1,313	3,411	928	1,100	1,990	2,371	1,957
Other fish ^a	8,453	5,950	4,304	5,151	2,881	2,887	4,882	2,939	5,691	2,834	4,597
Total	341,363	349,652	361,865	259,124	248,666	241,076	250,608	156,735	304,170	245,499	275,876

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: An en dash means there were insufficient survey responses to generate an estimate.

^a Includes sharks, skates, landlocked salmon, smelt, and other unspecified fish species.

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Note: An en dash means there were insufficient survey responses to generate an estimate.

^a Includes sharks, skates, landlocked salmon, smelt, and other unspecified fish species.

CHINOOK SALMON FISHERIES

FISHERY DESCRIPTION

Wild KMA Chinook salmon stocks are found only in the Karluk River and Ayakulik River drainages, and stocked Chinook salmon runs have been developed for the KRZ. Chinook salmon typically return to the Karluk and Ayakulik Rivers from late May through July with peak immigration typically occurring in mid to late June (Appendices D1 and D2). Both the Karluk and Ayakulik Rivers have a Chinook salmon sport fishing season of 1 January through 25 July in regulation when they are not closed by emergency order (EO). KMA Chinook salmon bag limits are 2 fish per day, 2 in possession, with an annual limit of 5 for fish harvested in freshwater.

Angler interest in the Karluk and Ayakulik Rivers was historically high through the early 2000s, but due to declining abundance and subsequent fishery closures, interest is now minimal for these runs and nearly all angler effort for Chinook salmon in the KMA is directed at saltwater Chinook salmon fisheries, with some freshwater effort directed at KRZ stocked runs.

Although a variety of users have harvested KMA Chinook salmon runs in sport, commercial, and subsistence fisheries, the primary interest in utilizing these stocks has been from anglers. Anglers target Chinook salmon in the fresh waters of the KRZ where stocking efforts have occurred, but much more effort occurs in several saltwater areas of the KMA. This effort occurs primarily in the vicinity of Chiniak Bay near the City of Kodiak. A guideline harvest level (GHL) has been established for the saltwater sport fishery for Chinook salmon within the KMA (Appendix B1).

FISHERY MANAGEMENT OBJECTIVES

Management objectives for KMA Chinook salmon stocks include achieving established escapement goals and managing for the saltwater Chinook salmon GHL. The Karluk and Ayakulik Chinook salmon runs are monitored annually for escapement using weirs, and saltwater Chinook salmon fisheries are monitored through harvest estimates reported in the SWHS. To ensure escapement goals and the GHL are attained, sport harvests may be limited or increased by adjusting daily or seasonal bag limits, prohibiting bait, and reducing time and areas open to fishing via EO (Appendices C1–C4) or through the BOF process (Appendix A2). Stocks that consistently fall below escapement goal levels may be closed to sport fishing. EOs are regularly used as a way to achieve escapement goal objectives for Chinook salmon runs in the KMA.

Since 2001, freshwater KMA Chinook salmon runs have generally experienced decreasing abundance and have fallen to record low levels (Figures 3 and 4). To meet escapement goals and rebuild declining runs, the Karluk and Ayakulik River drainages have been closed to sport fishing for Chinook salmon beginning in 2008 for the Karluk River and beginning in 2017 for the Ayakulik River. Prior to 2001, freshwater Chinook salmon harvests had been a significant contributor to the overall sport harvest of salmon in the area; however, harvests of Chinook salmon in fresh water now make up a small component of the overall harvest and angler effort and occur almost entirely in the KRZ stocked runs.

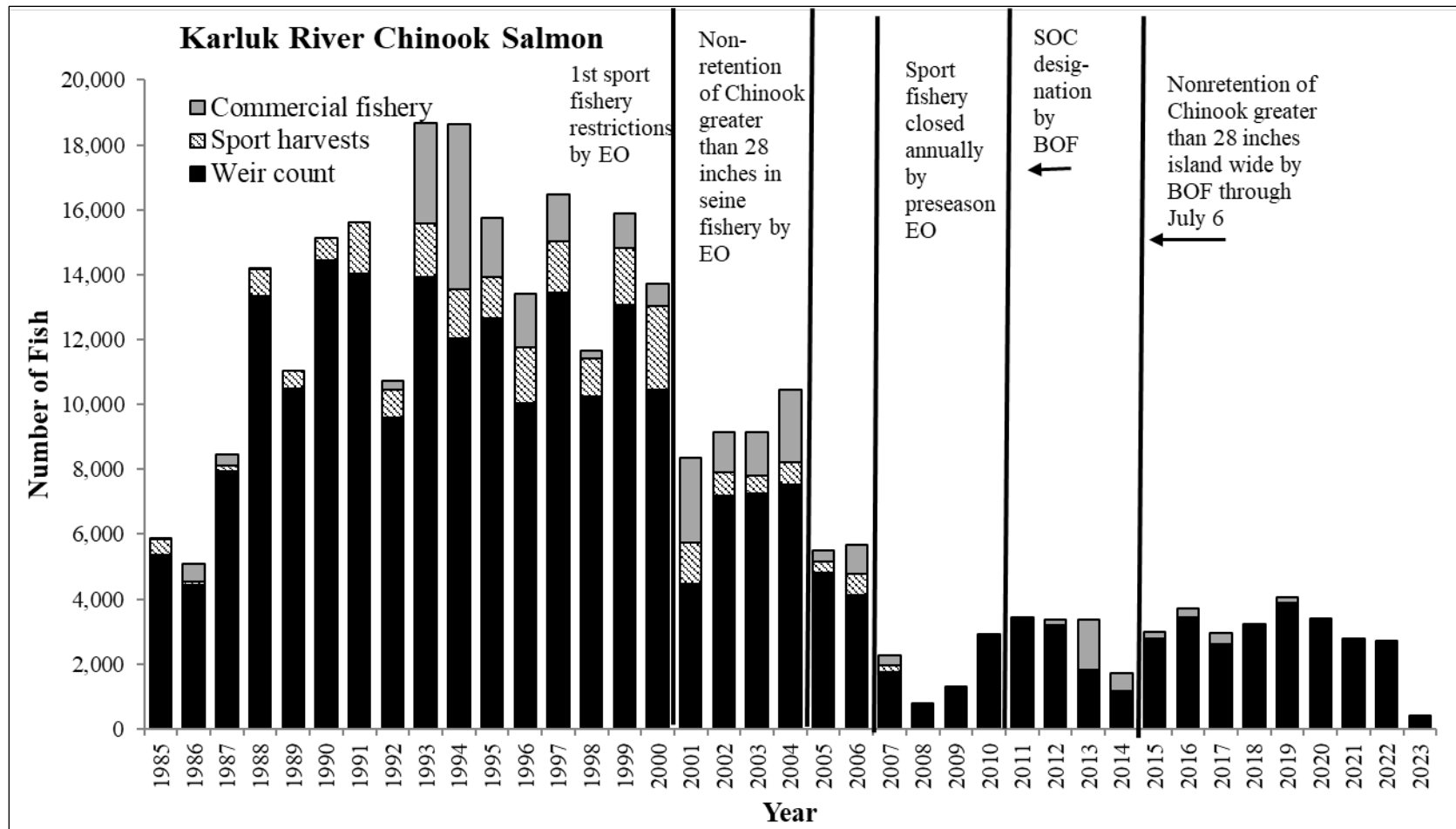


Figure 3.—Karluk River Chinook salmon weir counts, sport and commercial harvests, and management history, 1985–2023.

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>; Schwarz et al. 2002; ADF&G Division of Commercial Fisheries, Kodiak, 2023.

Note: Sport harvests represent total sport harvests. Commercial harvest from Inner and Outer Karluk sections through 15 July are assumed bound for the Karluk River.

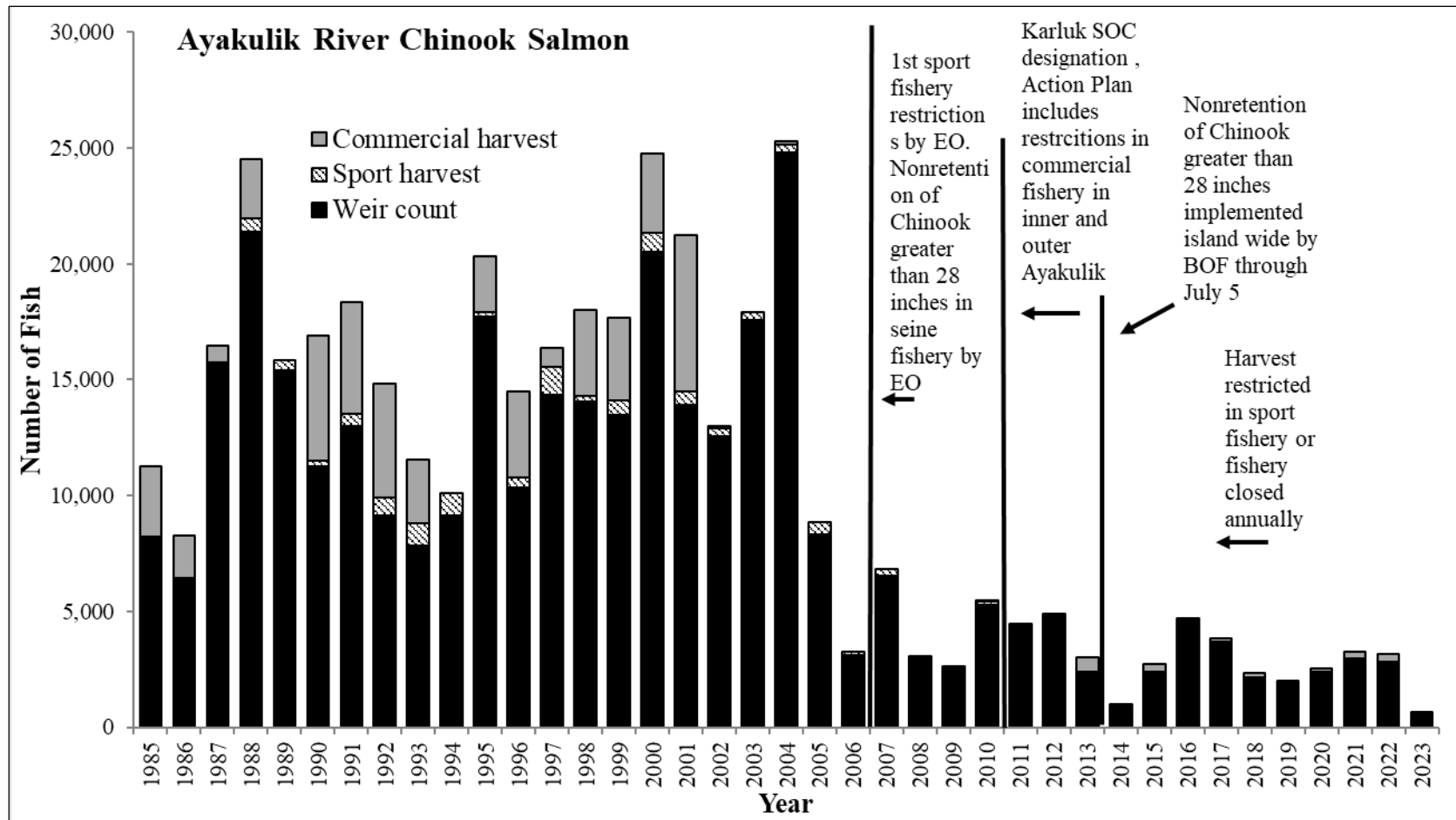


Figure 4.—Ayakulik River Chinook salmon weir counts, sport and commercial harvests, and management history, 1985–2023.

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>; Schwarz et al. 2002; ADF&G Division of Commercial Fisheries, Kodiak 2023.

Note: Sport harvests are typically unavailable for Ayakulik River through the SWHS and an estimate of 20 fish is used in years when harvest is allowed in the sport fishery. Commercial harvest from Inner and Outer Ayakulik sections through July 15 are assumed to be bound for the Ayakulik River.

KARLUK RIVER

Fishery Description and Historical Harvest

The Karluk River is located on the southwest end of Kodiak Island approximately 60 miles (97 km) from the City of Kodiak. The river runs approximately 22 miles (35 km) from Karluk Lake to the lagoon and is generally accessible to anglers only by aircraft. Access is further limited by private ownership of most of the uplands surrounding the drainage.

The Karluk River Chinook salmon run has seen record low counts since 2001 and has also seen a dramatic reduction in sport fishing effort (Figure 3; Polum et al. 2019a). At one time, both guided and unguided anglers frequented the river and targeted Chinook salmon, and interest in the fishery was great enough that access was only allowed by a limited-use permit. Low runs to the Karluk River have persisted, and restrictions on the fishery have been implemented to varying degrees since 2001, with the drainage closed to sport fishing for Chinook salmon since 2008. Inconsistent fishing opportunity and generally small runs have caused a dramatic reduction in angler effort and currently few, if any, anglers fish the Karluk River during the Chinook salmon run. Some anglers do target sockeye salmon near the lagoon and in other locations in the drainage, but fishing effort is generally limited during this time and is almost entirely by guided anglers.

Due to few SWHS respondents, annual estimates of total effort and catch are currently generated only occasionally for the Karluk River, and no Chinook salmon have been reported harvested in the Karluk River since 2007.

Escapement and Management

Escapements of Karluk River Chinook salmon are monitored through operation of a salmon counting weir established in 1976 a short distance above the Karluk Lagoon. Annual weir counts of Karluk River Chinook salmon reached record lows in 2023. The biological escapement goal (BEG⁵) is 3,000–7,000 Chinook salmon and has been met in only 4 of the last 10 years, although management measures were taken to conserve escapements in each of these years (Figure 5). Weir counts are considered equal to escapement because of the lack of harvest above the weir. Although the 2016 and 2018–2020 weir counts achieved the BEG, the 2021–2023 counts were below the goal, with the 2023 count of 379 being the lowest count on record (Figure 5).

In addition to being closed to sport fishing for much of the last 20 years, the BOF designated Karluk River Chinook salmon a stock of management concern in 2011 and adopted restrictions pertaining to the commercial fishery aimed at protecting Chinook salmon bound for the Karluk River (Appendix A2). An action plan was developed that prohibits retention of Chinook salmon larger than 28 inches in length in commercial seine fisheries in the Inner and Outer Karluk and Ayakulik sections through 30 July. In 2014, the BOF took further action and prohibited the retention of Chinook salmon greater than 28 inches for the whole of the KMA by regulation through July 5. Prior to action by the BOF, the Division of Commercial Fisheries (CF) had issued EOs prohibiting retention of Chinook salmon greater than 28 inches for the whole KMA since 2005 to try to meet the Karluk River Chinook salmon BEG.

⁵ The biological escapement goal is an estimate of escapement that most closely approximates the maximum sustainable productivity of a population.

Recent Fishery Performance

In all years from 2020 to 2023, the Karluk River was closed to sport fishing for Chinook salmon by emergency order (Appendices C1–C4).

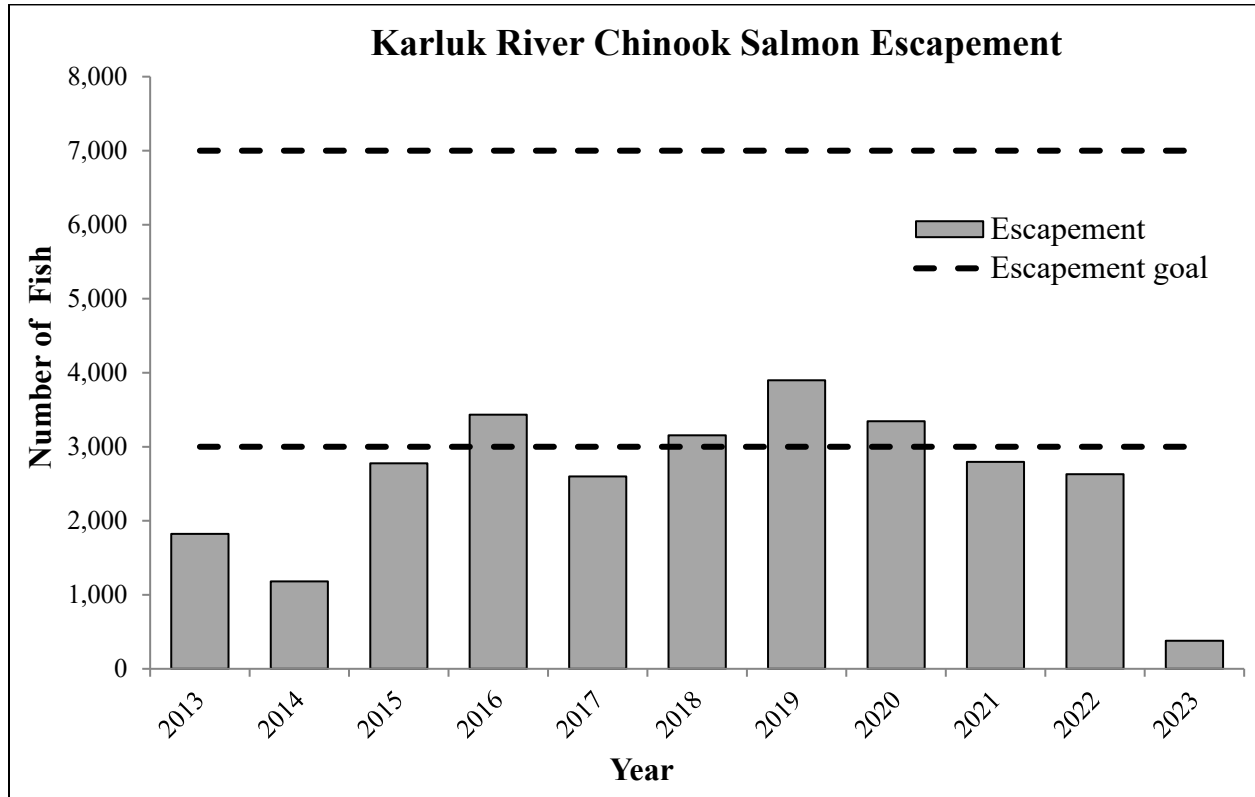


Figure 5.—Escapement of Karluk River Chinook salmon, 2013–2023.

Source: ADF&G Division of Commercial Fisheries, Kodiak, 2023.

AYAKULIK RIVER

Fishery Description and Historical Harvest

The Ayakulik River drainage is approximately 20 miles (32 km) south of the Karluk River and is the largest watershed in the KMA. The mainstem, where nearly all sport fishing occurs, extends approximately 13 miles (21 km) from its confluence with the Red River to the mouth. It is accessible almost exclusively via aircraft. Access to the lower 1 mile (1.6 km) of the river is limited due to private land ownership; however, the remainder of the drainage is part of the Kodiak National Wildlife Refuge and open to public access. Changes in the structure of the lower river also may limit aircraft access at times, whereas there are several consistently accessible locations further up the drainage. Historically, the Ayakulik River has sustained the second-largest wild Chinook salmon population in the KMA and the second-most popular Chinook salmon sport fishery.

The Ayakulik River Chinook salmon run has seen record high and low weir counts since 2001 and, like the Karluk River, has also seen a significant reduction in fishing effort since 2006 (Figure 4). Since then, historically low runs to the Ayakulik River have persisted, and frequent

restrictions in the fishery have resulted in reduced angler interest during the Chinook salmon run. This has also been coupled with increased occurrence of limited access due to changes in access points on the lower river such that floatplanes can no longer land predictably to allow anglers to float the river via raft or boat and be picked up near the mouth of the river. With low runs, reduced fishing opportunity, and difficult access, angler effort is currently limited mostly to a few guided anglers fishing for sockeye salmon in various locations throughout the river that will target Chinook salmon if the season is open. Unguided anglers are few on the river and mostly fish the river coinciding with area hunting seasons, which occur after the Chinook salmon run.

Due to few SWHS respondents, annual harvest, catch, and effort information for Ayakulik River Chinook salmon are only intermittently available from the SWHS, and no known harvest occurs due to nearly annual closures of the Chinook salmon sport fishery.

Escapement and Management

Ayakulik River Chinook salmon escapements have been monitored via a weir established in 1970, a short distance above the river mouth. The 2013–2022 average weir count was 2,629 fish. Since 2006, the weir counts of Ayakulik River Chinook salmon include some of the lowest on record; the lowest count of 590 fish occurred in 2023 (Figure 6). Weir counts are considered the escapement in years when no harvest is allowed in the sport fishery, and in years when harvest is allowed, 20 fish are subtracted from the weir count to account for sport harvest above the weir and to estimate final escapement. The BEG (4,800 to 8,400 fish) has not been achieved since 2016, which was the only time it was achieved in the last 10 years (Figure 6).

SWHS-based annual estimates of harvest by anglers are typically unavailable due to low response rates. Annual harvests above the weir are very small; however, and “20 fish” is used as a proxy by managers in season when making decisions regarding the sport fishery based on records from the ADF&G Freshwater Logbook program when it was active. Weir counts have also included estimates of escapement during flooding events; in 2014 and from 2016 to 2018, significant and prolonged floods occurred during the historical peak of Chinook salmon migration (Fuerst 2020). Escapement estimates during years with flooding events should be considered minimums.

Harvest has only been allowed when escapements meet the BEG with enough extra fish that the BEG will still be achieved with additional harvest upstream of the weir. However, with recent escapements, the fishery has been closed completely since 2017. In 2020, the BOF designated the Ayakulik River Chinook salmon run a stock of management concern and developed an action plan similar to that of the Karluk River. The BOF directed ADF&G to manage the Chinook salmon run conservatively, and pre-season EOs have been issued annually to close the fishery at the start and then determine the run strength prior to allowing harvest or catch-and-release fishing. Commercial fishing regulations do not allow retention of Chinook salmon in the KMA prior to July 5 in the purse seine fishery, and the action plan further directs ADF&G not to open the Inner Ayakulik section to commercial salmon fishing until it determines the early run sockeye salmon BEG will be exceeded.

Recent Fishery Performance

In all years from 2020 to 2023, the Ayakulik River was closed to sport fishing for Chinook salmon by EO (Appendices C1–C4).

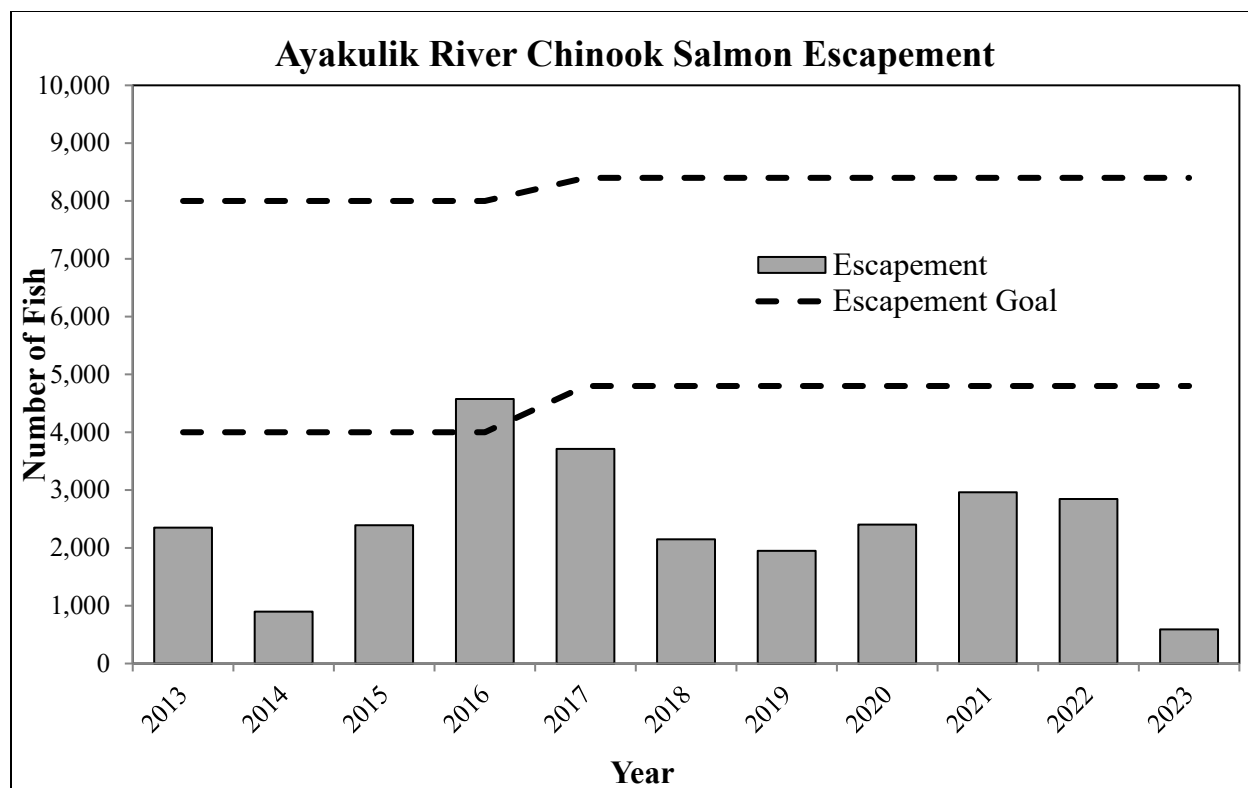


Figure 6.—Escapement of Ayakulik River Chinook salmon, 2013–2023.

Note: Escapement is estimated by subtracting from the annual weir count an inseason management measure of sport harvest above the weir (20 fish) in years when harvest is allowed.

Source: ADF&G Division of Commercial Fisheries, Kodiak, 2023.

SALTWATER CHINOOK SALMON FISHERY

Fishery Description and Historical Harvest

Significant angler effort for Chinook salmon occurs in the salt waters of the KMA, mostly adjacent to the City of Kodiak but also in other areas of the KMA accessible from more remote ports. Waters surrounding the Kodiak Archipelago provide ocean-rearing areas for Chinook salmon populations across the North Pacific and, in turn, year-round access to Chinook salmon for anglers. Recoveries of coded-wire-tagged fish harvested near Kodiak Island identified wild and hatchery-reared stocks of origin not only in Alaska but also Canada and the Pacific Northwest (Schwarz et al. 2002). More recently, ADF&G has collected genetic samples from Chinook salmon harvested in the saltwater sport fishery to apportion the harvest by stock of origin (Shedd et al. 2016). Results are similar to Schwarz et al. (2002) showing harvested fish originating from the same primary areas of Alaska, Canada, and the Pacific Northwest. Both guided and unguided saltwater sport harvest of Chinook salmon occurs. Saltwater harvest estimates for Chinook salmon are provided by the SWHS for all anglers and guided angler statistics for charter vessel trips are available from ADF&G’s Saltwater Charter Logbook Database. Between 2013 and 2022, an average of 8,474 Chinook salmon were harvested by all anglers in the KMA (Table 5). Harvests over the last 10 years have ranged widely from 6,647 in 2019 to 11,673 in 2021. Over the last 20 years, and over the duration of the current management plan, there has been little growth in the sport fishery on average, although harvests ranged substantially between years. Prior to this reporting period,

harvest levels exceeded 10,000 in 2006 and 2007 but fell to a low of 5,128 in 2010. The previous 10-year average from 2003 to 2012 was 8,410 Chinook salmon, 64 fish fewer than the most recent 10-year average (Tracy and Polum 2015; Table 5). Guided anglers harvest significant numbers of Chinook salmon in KMA salt waters and a census of harvest is gathered through the Charter Logbook program. The 2013–2022 average harvest for guided anglers was 3,243 Chinook salmon and the 2022 harvest was 5,203. Availability of fish for the sport harvest appears to be largely dependent on nearshore ocean conditions and the availability of bait fish that schooling Chinook salmon feed on, which varies between years but also by the day and week at times. In times when food is abundant, Chinook salmon harvests are generally high and consistent, but in years when these conditions are scarcer near shore, harvests fall.

Table 5.–SWHS estimates of Kodiak Management Area (KMA) saltwater Chinook salmon harvest for all anglers, 2013–2022.

Year	Chiniak Bay	Ugak Bay	Uyak Bay area ^a	Afognak Island area ^b	KMA Total
2013	4,098	770	452	1,816	8,452
2014	3,719	776	732	1,063	8,049
2015	2,949	128	200	1,056	6,709
2016	3,792	419	376	1,026	9,499
2017	6,013	1,180	169	423	11,065
2018	3,858	343	343	236	7,090
2019	3,416	485	113	925	6,647
2020	4,205	43	241	543	7,677
2021	7,499	84	555	762	11,673
2022	4,436	514	93	1,191	7,880
Average 2013–2022	4,399	474	327	904	8,474

Source: Statewide Harvest Survey (SWHS) estimates (Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish [cited November 2023]. Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>).

^a Includes Uyak Bay and Larsen Bay estimates.

^b Includes Afognak, Shuyak, and Raspberry Islands estimates.

Table 6.–Charter Logbook guided angler harvest (Hvst) and release (Rels) of Kodiak Management Area (KMA) saltwater Chinook salmon, 2013–2022.

Year	Chiniak Bay Area		Ugak Bay		Afognak Island Area		Uyak Bay Area		KMA Total	
	Hvst	Rels	Hvst	Rels	Hvst	Rels	Hvst	Rels	Hvst	Rels
2013	198	18	136	0	276	206	179	7	1,687	285
2014	900	38	620	17	164	134	485	130	2,915	343
2015	405	4	78	2	416	29	328	25	2,707	84
2016	218	8	347	11	113	11	107	2	2,061	65
2017	1,428	56	416	6	759	149	379	10	4,423	296
2018	535	2	378	15	148	91	88	8	2,412	164
2019	1,120	12	859	26	527	35	352	54	3,563	160
2020	986	10	148	8	151	3	351	30	2,316	107
2021	820	7	310	25	545	27	948	96	5,147	267
2022	1,686	120	204	20	97	1	553	49	5,203	601
Average 2013–2022	830	28	350	13	320	69	377	41	3,243	237

Source: Saltwater Logbook Database (Alaska Department of Fish and Game, Division of Sport Fish. 2006–present. Accessed November 2023. [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests]).

Fishery Management

The KMA saltwater Chinook salmon fishery has a management plan that was established in 2002 and amended in 2008 to prescribe a GHF of 11,000 fish for the KMA with the exclusion of Chinook salmon caught in Monashka Bay (Appendix B1). Additional provisions stipulate periodic review of the plan by the BOF when harvests in the KMA exceed the GHF between BOF cycles. Achievement of the GHF is measured by the SWHS. The daily bag and possession limits for Chinook salmon in all salt waters of the KMA are currently set at 2 with no annual limit.

Recent Fishery Performance

The 2022 KMA Chinook salmon harvest was 7,880, and if the harvest from Monashka Bay is excluded it was 7,833, which was similar to the 2013–2022 average of 8,363 excluding Monashka Bay (Table 5 and Figure 7). The 2022 guided Chinook salmon harvest was 5,203 fish, which was much more than the 2013–2022 average of 3,243 (Table 6). Since the current version of the management plan was established in 2008, harvest levels only exceeded the GHF in 2021 when the SWHS estimated harvest excluding Monashka Bay was 11,449 Chinook salmon (Figure 7).

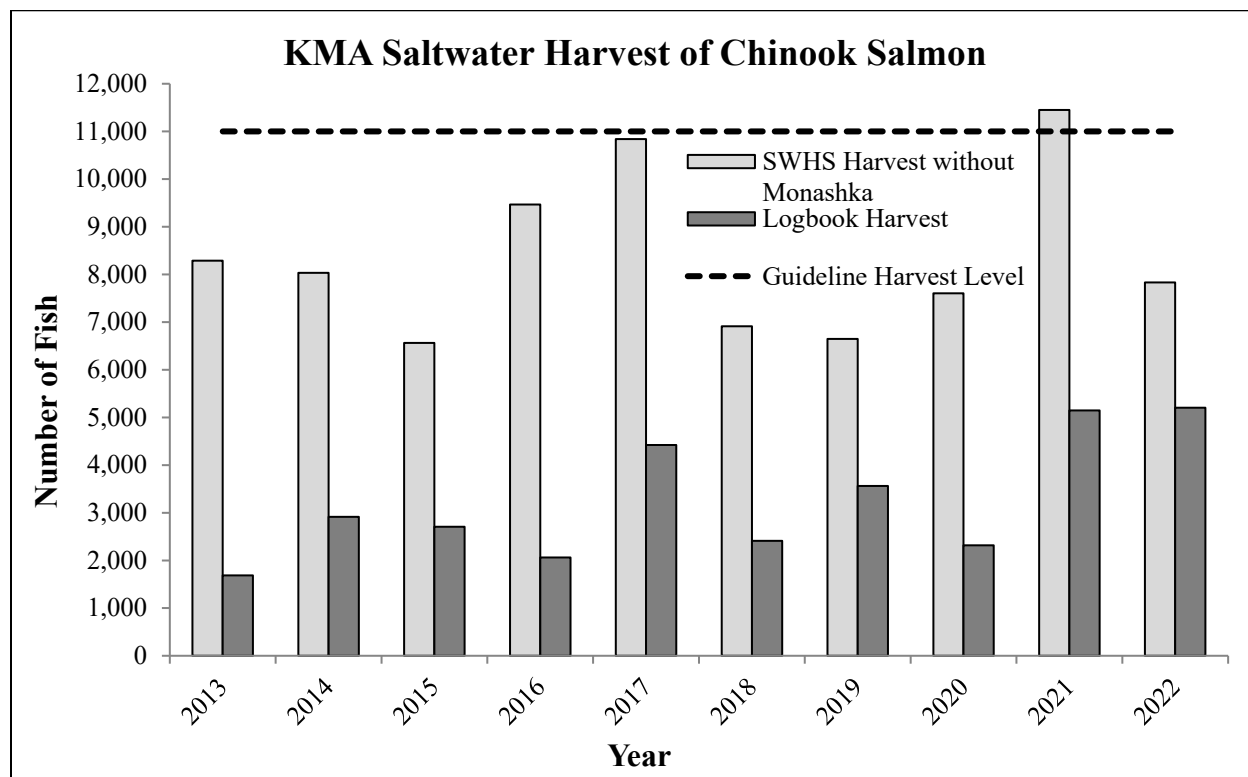


Figure 7.—Comparison of SWHS and Charter Logbook estimates of saltwater Chinook salmon harvest in the Kodiak Management Area (KMA), 2013–2022.

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>. Saltwater Logbook Database. (Alaska Department of Fish and Game, Division of Sport Fish. 2006–present. Accessed November 2023. [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests]).

Note: SWHS estimates do not include Monashka Bay because these are excluded from the KMA Chinook salmon GHF.

STOCKED CHINOOK SALMON FISHERIES

To create opportunities for road-accessible harvest of Chinook salmon, SF began a cooperative program with Kodiak Regional Aquaculture Association (KRAA) in 2000 to stock Chinook salmon at Monashka Creek with fish reared at the Pillar Creek Hatchery (PCH) facility (Figure 2). All stocking is conducted in accordance with current guidelines set forth in the SF Statewide Stocking Plan for Sport Fisheries⁶ (SSP), which is a 5-year stocking document updated annually to reflect stocking needs based on funding, changes in land status, or other considerations.

There are no Chinook salmon runs native to the KRZ, and Chinook salmon stocking is intended to provide relatively easy and low-cost access to Chinook salmon fishing where it was not previously available. KRZ Chinook salmon stocking has occurred since the 1970s, and Chignik River Chinook salmon were initially used as a brood source into the 1980s. Beginning in 2000, and using Karluk River Chinook salmon as the original brood source, Chinook salmon were stocked into Monashka Creek with the intent to sustain continued egg collection there. From 2005 to 2010, Chinook salmon egg takes solely utilized hatchery-reared fish in the Monashka Creek run. Chinook salmon releases were expanded in 2007 to include the American and Olds Rivers, and then expanded again in 2014, when Salonie Creek was added as an additional release location. Egg takes from 2010 through 2018 incorporated hatchery-reared broodstock from all 4 drainages due to declining runs in Monashka Creek, and beginning in 2019, egg takes have been solely from the American and Olds Rivers and Salonie Creek. They have not included any wild stocks, such as the Karluk River stock, since returns began at Monashka Creek in 2005. Eggs and juvenile Chinook salmon are reared at PCH, and smolt are currently released into the American and Olds Rivers and Salonie Creek. They are occasionally released at Monashka Creek when there are disease concerns and the fish must be segregated; however, no further brood collection is planned at Monashka Creek for any fish returning to this location.

All stocked Chinook salmon are released as smolt. Current provisions of the SF–KRAA cooperative agreement and SSP goals identify a target release size of 15 g, although this varies with winter temperatures at PCH. Smolt are stocked annually during May after 2 years of hatchery rearing and are imprinted in holding pens in their destination drainage for up to 2 weeks prior to release. Males return in small numbers as ocean-age-1 and -2, and both males and females return at ocean-age-3 and -4. Any returning adults not harvested by the sport fishery or other users are collected as broodstock for the egg take and little, if any, natural spawning has been observed.

Smolt releases into Monashka Creek had been as high as 82,000 fish (2010), although stocking was discontinued after 2015 due to a lack of production from this drainage (Appendix E1). Releases at the American and Olds Rivers and Salonie Creek during 2013–2022 have ranged from 0 fish to nearly 300,000 fish depending on the availability of surviving smolt.

Fishery Description and Historical Harvest

Although large adult fish from Monashka Creek have been available for both the sport fishery and egg takes since 2005, runs to the American and Olds Rivers did not include full-sized adult fish until 2010 and more recently in Salonie Creek until 2017. Stocking goals have not been achieved since 2015, however, due to low broodstock numbers as a result of low adult returns to the KRZ. In addition, other limiting factors have caused stocking locations to shift annually based on the

⁶ Available at <http://www.adfg.alaska.gov/index.cfm?adfg=fishingSportStockingHatcheries.stockingPlan> (Accessed November 2023).

availability of fish. From 2019 through 2021, the road at the American River washed out due to a large flood, which made it impossible to access the stocking location for this river and subsequently, the American River has not been stocked since 2018.

Estimates of harvest for Chinook salmon in the American and Olds Rivers are available through the SWHS annually but are only sporadically available for Monashka Creek and never for Salonie Creek due to a low numbers of respondents for these areas. Anecdotes from both freshwater and saltwater anglers targeting KRZ Chinook salmon runs and observations from ADF&G staff indicate that peak returns produced up to 1,000 Chinook salmon returning to the American, Olds, and Salonie drainages, although this has been much lower in the last 5 years. Returns have been influenced by factors including low stocking numbers, poor ocean conditions that have been noted in wild Chinook salmon runs, extremely dry river conditions from 2016 through 2021 in KRZ streams, and probably other unknown factors that influence returns of hatchery fish.

Anglers targeting Chinook salmon within the KRZ are subject to the same freshwater and saltwater bag, possession, and annual limits in effect for the remainder of the KMA. However, Chinook salmon harvested in Monashka Bay are excluded from the current GHF for salt waters.

Recent Fishery Performance

Salonie Creek was the only location where Chinook salmon were consistently stocked between 2020 and 2023. Olds River was stocked once in 2020. In 2022, just 8,158 smolt were stocked in Salonie Creek, and in 2023, there were 46,503 smolt stocked in Salonie and Monashka Creeks together. Stocking resumed at Monashka Creek since it was last stocked in 2015 because a portion of the fish at PCH needed to be isolated due to concerns with potential bacterial kidney disease. This was accomplished by selecting Monashka Creek as a suitably isolated stocking location where these fish would not be collected for future brood stock but would be available to the sport fishery. Returns for the project as a whole for both 2022 and 2023 were among the lowest that have been observed, and the best available information indicates no more than 100 fish returned to each of the Olds River or Salonie Creek in either year, and no fish returned to the American River.

Since 2017, the SWHS estimates zero Chinook salmon have been harvested in the American River, and estimates for the Olds River only show harvests of 17 and 22 Chinook salmon in 2018 and 2020, respectively. It is known, however, from SF staff observations and angler reports that a few fish were harvested in the Olds River even in years when the SWHS reports zero harvest, although the harvest is thought to be no more than 50 fish annually.

COHO SALMON FISHERIES

FISHERY DESCRIPTION

Coho salmon runs to the KMA include a large number of stocks that support the most popular KMA sport fishery. The greatest angler effort is concentrated near population centers where the easiest and least expensive access to the sport fishery is available. Accordingly, drainages adjacent to the KRZ are the most heavily exploited and are consequently prioritized for escapement monitoring and management. The saltwater coho salmon sport fishery is also highly popular near the KRZ, particularly within the area of Chiniak Bay, although there is significant effort that falls in the Remote Zone offshore of the KRZ boundary. Significant remote coho salmon fisheries occur in nearshore salt waters next to streams on Afognak Island and on nearby Shuyak Island, the Karluk and Ayakulik Rivers, and nearly all Olga Bay streams. Harvests of coho salmon in remote

areas are generally small compared to run abundance, and estimates of catch and harvest by individual locations are therefore rarely available from the SWHS for most locations of the KMA.

Management of KMA coho salmon stocks is generally passive through standard regulations for the area, and only 4 escapement goals have been established (Buskin River, American River, Olds River, and Pasagshak River). Because of run timing and associated environmental factors as well as budgetary constraints, few coho salmon runs are monitored for escapement using weirs and most monitoring is conducted by foot and aerial surveys. To ensure stocks are conserved, when necessary, angler harvests can be limited by reducing daily and seasonal bag limits, prohibiting bait, and reducing time and areas open to fishing, although this is primarily conducted in areas with the most robust monitoring. Coho salmon sport fishing regulations in the KRZ have been both liberalized and restricted by EO to achieve escapement objectives on several occasions.

Other than the Karluk River (in the Remote Zone), the largest freshwater harvests occur in drainages located within the KRZ (Table 7).

KODIAK ROAD ZONE (KRZ) FISHERIES

Fishery Description and Historical Harvest

With logistically convenient access and a historically high abundance of fish, the freshwaters of the KRZ are, in aggregate, the largest coho salmon sport fishery in the KMA. Kodiak roads are intersected by 15 fishable streams supporting modest to large coho salmon runs plus 3 nearby drainages accessible by off-road vehicle and aircraft. Some of the more historically productive KRZ coho salmon stocks are from the Buskin, Pasagshak, Saltery, Olds, Roslyn, Miami, and American Rivers (Figure 2).

Coho salmon runs in KRZ streams typically start in early to mid-August and, in some drainages, continue through early November. Spawning begins in late October and can continue through the winter months but typically peaks in early to mid-November. Spawning areas include both mainstem stream sections above intertidal zones as well as almost all tributary creeks. Some shoal spawning also occurs within the Pasagshak River drainage in Lake Rose Teed.

Uplands surrounding KRZ streams targeted by coho salmon anglers include municipal, state, and private land ownership. Angler access to the sport fishery is limited in some areas of private land ownership but a land-use permit for fishing can be obtained for a small fee.

From 2013 to 2022, SWHS estimates of freshwater harvest and catch of KRZ coho salmon have been consistently available only for the Buskin, Pasagshak, American, Olds, and Saltery River drainages. Among these selected locations, the largest harvests usually come from the Buskin River. The average annual harvest during 2013–2022 for the Buskin River was 2,764 fish, which accounts for a third of the total average harvest for those major fisheries, and about 22% of the average harvest from the KMA (Table 7). By comparison, the 2013–2022 average annual harvest for the Pasagshak, American, Olds, and Saltery Rivers individually ranged between 658 and 2,075 fish (Table 7). Annual harvests in each of these drainages fluctuate significantly and are most closely tied to run timing and environmental conditions prevalent during the coho salmon runs. Anglers can harvest more fish early in the season during low water conditions when fish are concentrated in intertidal zones; however, if low water conditions prevail late into the season, fishing slows due to the inactivity of coho salmon waiting to access fresh waters. For all 5 locations, anglers reported releasing about 1 coho salmon for each harvested, on average.

Table 7.—Statewide Harvest Survey estimates of freshwater coho salmon harvest and catch for selected locations, 2013–2022.

Location	Estimate	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average 2013–2022
Buskin River (KRZ)												
	Harvest	4,926	5,388	4,889	1,895	2,337	1,793	934	1,205	2,462	1,809	2,764
	Catch	7,721	7,813	7,308	2,841	3,636	3,080	1,439	2,280	4,131	2,731	4,298
Pasagshak River (KRZ)												
	Harvest	2,336	3,020	2,849	2,145	2,336	1,508	615	549	1,728	876	1,796
	Catch	4,645	5,415	7,704	3,829	2,960	4,993	895	820	2,726	1,568	3,556
American River (KRZ)												
	Harvest	790	1,323	1,268	651	351	129	905	182	783	196	658
	Catch	1,203	2,245	2,253	1,599	351	390	1,612	337	956	537	1,148
Olds River (KRZ)												
	Harvest	1,047	5,343	2,634	3,452	2,206	1,208	1,216	1,051	1,421	1,171	2,075
	Catch	2,906	8,836	6,237	5,148	5,173	2,109	2,135	1,226	2,323	1,998	3,809
Saltery Cove (KRZ)												
	Harvest	1,574	2,010	2,303	617	712	473	584	345	465	623	971
	Catch	3,698	4,259	5,010	2,012	1,575	1,207	864	517	1,274	944	2,136
Karluk River (Remote Zone)												
	Harvest	1,200	447	866	557	505	569	573	–	415	–	642
	Catch	2,081	826	4,995	1,037	1,400	1,569	1,574	–	2,997	–	2,060
Total KMA ^a												
	Harvest	16,647	24,051	20,118	11,742	14,553	10,172	8,206	5,242	9,782	7,386	12,790
	Catch	30,174	45,829	46,466	21,082	29,268	26,369	14,575	9,754	26,575	15,097	26,519

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^a Includes all freshwater harvest in the KMA.

Note: An en dash means insufficient survey responses to generate an estimate. KRZ = Kodiak Road Zone.

Escapement and Fishery Management

Because of higher exploitation rates by anglers, coho salmon escapements to the KRZ are monitored more closely than for other salmon stocks within the KMA. Buskin River has the only weir established for coho salmon in the KRZ; other streams are monitored by foot, small autonomous aerial vehicle (AAV), and fixed-wing aerial surveys.

Buskin River escapements have been monitored by SF since 1985 via a salmon counting weir about a mile above the river mouth. Escapement is estimated by subtracting sport harvests upstream of the weir from the weir count. Harvest occurring above the weir is estimated as a percentage of the SWHS-estimated coho salmon harvest for the Buskin River drainage. Annual harvest above the weir was estimated as 20% of the SWHS-estimated annual harvest during 2013 through 2016 and 17% from 2017 to present based on past creel surveys; this percentage was subtracted from the annual weir count, respectively (Murray 1987; Stratton and Evans 2020).

From 2013 to 2023, completed weir counts of Buskin River coho salmon ranged from a high of 8,413 fish in 2014 to a low of 2,513 fish in 2016 (Appendix D3). The average escapement during this time was 5,369 fish (excluding 2015, 2020, and 2023, which were incomplete counts). In most years, the weir count includes estimates that substitute for daily counts lost as a result of high-water events that rendered the weir inoperable; for example, estimated days ranged from 8% of the total weir count to 69% during 2014–2017 (Stratton and Evans 2020). Weir counts from 2015, 2020, and 2023 are considered incomplete due to a combination of significant high-water events, when daily counts were estimated, and low water events that precluded fish passage until after the weir was removed. In 2020 through 2022, inseason estimates were added during weir operation due to periods of high water that rendered the weir inoperable. A postseason estimate was added in 2022 based on a foot survey conducted after the weir was pulled. Recent low escapements resulted in sport fishery closures in 2016, 2019, and 2022 (Figure 8). In 2021, the Buskin River coho salmon bag limit was liberalized due to inseason run strength. In general, however, there have been very few management actions taken in the Buskin River coho salmon sport fishery to date. A recent review and analysis of Buskin River coho salmon escapements recommended changing the goal from a BEG of 4,700–9,600 fish to a sustainable escapement goal (SEG)⁷ of 4,700–9,600 fish (Schaberg et al. 2019), primarily because weir counts are often composed of a significant percentage of estimates due to flooding events and should represent an index of escapement rather than a census.

Coho salmon runs in other KRZ drainages are monitored annually by postseason foot surveys and more recently, AAV surveys, to obtain index counts of escapement. In addition to the Buskin River, coho salmon escapement goals have been established for 3 other KRZ drainages. Lower bound SEGs are established for the Pasagshak River (1,200 coho salmon), American River (400 coho salmon), and Olds River (500 coho salmon). The Saltery River drainage, although it is in the KRZ, is only accessible by off-road vehicle or airplane, and access is more difficult than other KRZ drainages. There is not an established escapement goal for coho salmon in Saltery River and escapement is only monitored by aerial survey early in the coho salmon run, and these do not generally capture peak escapement because the survey is focused on counting pink salmon runs.

⁷ SEG means sustainable escapement goal, which is a level of escapement, indicated by an index or an escapement estimate, that is known to provide for sustained yield over a 5- to 10-year period.

Coho salmon counts in the Pasagshak, American, and Olds Rivers are an index of actual escapement into the streams. Escapement indices for the Pasagshak River drainage have averaged 2,078 fish from 2013 to 2022, whereas American River has averaged 543 fish, and Olds River has averaged 1,248 fish (Table 8). Attempts are made to count fish during peak spawning and under ideal observation conditions; however, given variable weather and timing of spawning, counts may underestimate the number of fish present. Survey counts should be used to observe trends in abundance rather than assessing known abundance for a particular year.

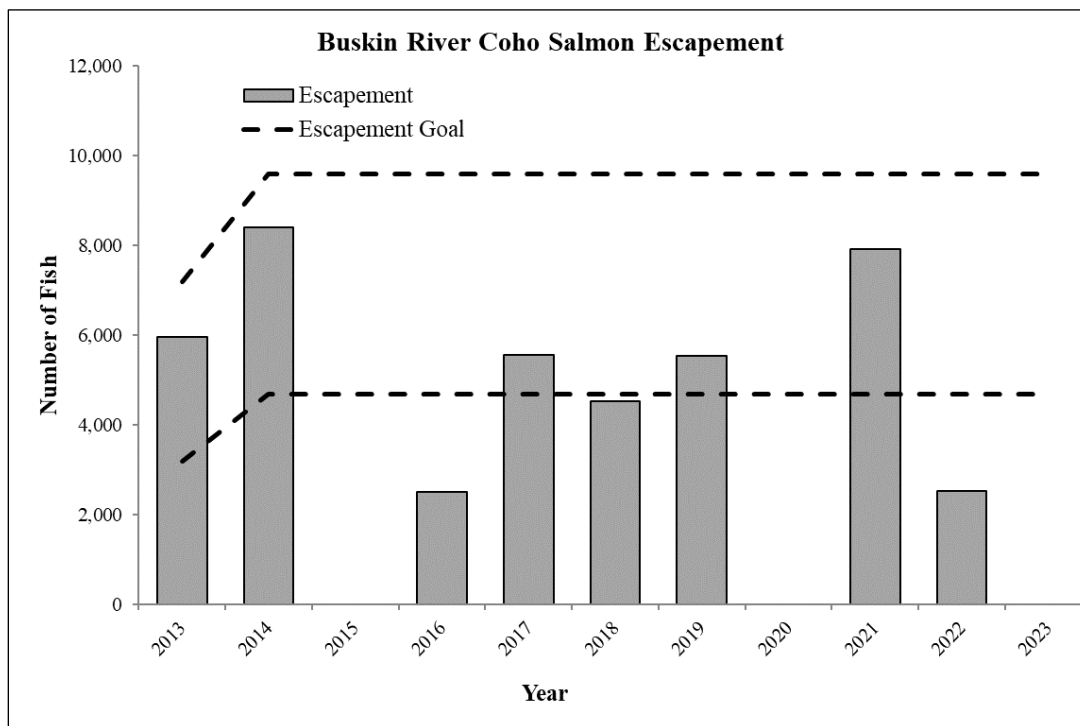


Figure 8.—Escapement of Buskin River coho salmon, 2013–2023.

Source: ADF&G Division of Sport Fish, Kodiak, 2023.

Note: Data not available for 2015, 2020, and 2023 due to incomplete weir counts.

Table 8.—Coho salmon escapement index counts in the Kodiak Road Zone, 2013–2022.

Location	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013–2022 Avg.
American River	841	1,595	530	500	410	78	NS	279	297	360	543
Chiniak Creek	43	31	NS	3	1	NS	NS	NS	NS	NS	20
Felton Creek	50	22	33	27	62	0	NS	NS	NS	NS	32
Monashka Cr.	679	230	100	60	66	210	46	102	384	80	196
Olds River	2,145	1,320	1,357	1,634	1,054	878	NS	794	923	1,129	1,248
Pasagshak R.	1,648	4,934	1,790	667	701	3,186	488	2,031	4,721	618	2,078
Pillar Creek ^a	1,043	750	180	116	417	1,273	106	566	805	451	571
Roslyn Creek	460	3,900	271	45	365	15	NS	104	NS	14	647
Russian Creek	214	246	70	345	820	35	151	211	734	93	292
Salonie Creek	286	509	215	218	502	6	NS	164	NS	24	241
Sargent Creek	40	75	39	107	377	125	65	204	269	16	132

Source: Data archives, ADF&G Division of Sport Fish, Kodiak Area Office.

Note: The abbreviation “NS” means not surveyed.

^a Pillar and Monashka Creeks coho salmon runs are primarily from stocked coho salmon smolt, though a small amount of natural spawning occurs.

Regulations for the KRZ coho salmon sport fishery are more restrictive than elsewhere in the KMA due to the relatively high levels of angler effort, small run sizes, and associated potential for overharvest. KRZ coho salmon bag and possession limits are 2 fish per day through 15 September and 1 fish per day 16 September–31 December to limit harvest rates during times when most coho salmon runs are inriver and still spawning. The only exceptions are the stocked returns to Monashka Bay, including Pillar and Monashka Creeks, and Mill Bay and Mission Beaches, all of which have a bag and possession limit of 2 per day year-round. Because Buskin River runs are monitored by weir, bag limits can be restricted or liberalized in season as needed to achieve the SEG. A lack of inseason run strength information for the other KRZ streams has meant taking a more passive management approach, although EOs have been issued at times to restrict portions of specific rivers or to allow liberalized harvests in specific rivers when inseason information on run timing and strength has been available.

Autonomous Aerial Vehicle (AAV) Surveys and Mark–Recapture Estimates of Abundance for Pasagshak River

Pasagshak River index counts have been difficult to obtain recently because physical changes in the upper portion of the lake have limited fish access to spawning grounds, resulting in sporadic, independent spawning events that coincide with periods of high rainfall. Historically, several foot surveys were conducted on spawning tributaries in the drainage around the peak spawn timing, and the peak count of those surveys was used as an index of escapement. More recently, however, survey counts have captured discrete spawning events without a distinct “peak” that is representative of the relative size of the annual escapement, making it difficult to assess whether the escapement goal was achieved.

A more accurate (that is, more representative of total escapement) index of Pasagshak River escapement began in 2020 with a mark–recapture study in which fish were tagged in Lake Rose Teed and recovered with AAV and foot surveys. In 2020, a total of 233 coho salmon were captured in 3 tagging events. In 2021, a total of 120 coho were captured in 1 tagging event. In 2022, a total of 124 fish were captured in 1 tagging event. The fish were captured with a beach seine in the southwest portion (2020 and 2022) and northeast portion (2021) of Lake Rose Teed. In 2020, the 3 tagging events were spaced approximately 1 week apart, and each event was characterized by a distinct tag color. In 2021 and 2022, significant rain and wind events precluded additional tagging events from occurring. Weekly surveys of the lake perimeter and river were conducted with the AAV and the total number of observed fish was recorded as well as sightings of individual tags. Additionally, later in the season, AAV surveys were conducted in conjunction with foot surveys as coho salmon started to migrate to the spawning grounds. Through examination of the number of fish observed and the proportion of each tag color observed in sequential surveys, an estimation of the total population can be made. The Pasagshak River drainage coho salmon population estimate in 2020, 2021, and 2022 was 7,500 fish, 12,500 fish, and 3,800 fish, respectively.

Recent Fishery Performance

In 2022, 1,809 coho salmon were harvested in Buskin River; the Pasagshak River harvest was 876 fish; the American River harvest was 196 fish; and the Olds River harvest was 1,171 fish (Table 7). The 2022 harvest of coho salmon in Saltery River was 623 (Table 7).

During 2020, the bag limits for coho salmon in the Pasagshak, Olds, and American River drainages were increased to 2 fish per day (Appendix C1) after AAV surveys in the Pasagshak drainage and foot surveys in the American and Olds Rivers observed a large number of coho salmon in each

drainage. In 2021, after the regulatory bag limit reduction on 16 September, EOs were issued to increase the bag limits in the Buskin and Pasagshak River drainages to 2 fish per day (Appendix C2). In 2022, the Buskin River coho salmon sport fishery was closed beginning 22 September when it appeared escapement objectives would not be achieved (Appendix C3). In 2020 through 2022, Olds River achieved the SEG, but the American River did not achieve the SEG in any of the 3 years. In 2020 and 2021, the Pasagshak River drainage achieved the SEG with 2,031 and 4,721 fish counted, respectively (Table 8). In 2022, 2 surveys were conducted on the Pasagshak River drainage and 618 fish were counted, which was below the escapement goal. However, fish were observed in multiple drainages into late November and surveys were probably conducted prior to peak spawning.

SALTWATER COHO SALMON FISHERY

Fishery Description and Historical Harvest

Saltwater coho salmon are the target of a popular KMA sport fishery that, like the saltwater Chinook salmon fishery, largely occurs in nearshore waters adjacent to the KRZ. Angler reports indicate that although the KMA saltwater coho salmon fishery generally lasts from early July through mid-September, peak effort occurs during late July and early August. Many harvested fish taken later in the season at the beginning of the freshwater runs are probably stocks of local origin, whereas those caught earlier may also consist of a larger portion of migratory fish. Fishing opportunity in this fishery may also be supplemented by annual coho salmon returns to the Kitoi Bay Hatchery on Afognak Island and to PCH in the KRZ. About half of the harvest of saltwater coho salmon in the KMA is attributable to guided anglers, but a larger portion of the harvest in salt waters near the City of Kodiak is attributed to unguided anglers.

Saltwater coho salmon harvests in the KMA averaged 12,743 fish from 2013 to 2022 (Table 9). Relatively few fish were reported released during any years, averaging less than 1 fish released for every fish harvested. Guided angler coho salmon harvests reported from the Charter Logbook program during 2013–2022 averaged 5,921 fish (Table 10).

Table 9.—SWHS estimates of Kodiak Management Area (KMA) saltwater coho salmon harvest and catch, 2013–2022.

Year	Chiniak Bay		Afognak		Total KMA	
	Harvest	Catch	Harvest	Catch	Harvest	Catch
2013	3,126	3,513	4,594	5,665	13,428	17,448
2014	3,087	3,385	1,915	2,589	10,391	13,874
2015	7,730	10,049	1,879	2,868	20,189	28,681
2016	3,087	4,004	609	620	7,429	9,119
2017	5,593	6,946	961	1,298	10,807	13,979
2018	7,524	9,392	845	1,346	17,535	21,558
2019	8,533	10,289	2,584	2,891	15,884	19,529
2020	5,576	7,299	796	1,059	9,235	12,760
2021	6,587	6,958	1,185	1,779	13,710	17,609
2022	4,065	5,949	1,242	1,665	8,826	12,079
Average						
2013–2022	5,491	6,778	1,661	2,178	12,743	16,664

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 10.—Charter Logbook guided angler harvests of Kodiak Management Area (KMA) saltwater coho salmon, 2013–2022.

Year	Chiniak Bay	Afognak	Total KMA
2013	258	1,108	3,371
2014	196	1,478	5,216
2015	1,447	2,919	12,413
2016	170	458	1,443
2017	176	882	4,075
2018	1,433	2,285	9,228
2019	1,497	1,734	6,806
2020	1,252	1,109	5,153
2021	406	1,347	6,025
2022	504	917	5,479
Average 2013–2022	734	1,424	5,921

Source: Saltwater Logbook Database (Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. Accessed November 2023. [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.]

Fishery Management

The KMA saltwater coho salmon fishery is managed through the establishment of daily bag and possession limits applied uniformly in all waters except the KRZ, where more restrictive limits prevail to provide a conservation buffer for local coho salmon stocks. The daily bag and possession limits for coho salmon in the Remote Zone are 5 fish, whereas inside the KRZ, the bag and possession limits are currently set at 2 fish and follow KRZ freshwater limits that reduce the daily bag and possession limit to 1 per day from 16 September through 31 December. The only exceptions to this are a bag and possession limit of 2 per day year-round in the salt waters of Monashka Bay, and Mill Bay and Mission Beaches, due to stocked returns to these areas.

Recent Fishery Performance

The 2022 saltwater coho salmon harvest was 8,826 fish in KMA, and the harvest in Chiniak Bay was 4,065 fish (Table 9). Guided harvest in 2022 was 5,479 fish for the whole of the KMA, and the harvest in Chiniak Bay was 504 fish (Table 10). Harvests of coho salmon in Chiniak Bay can fluctuate depending on nearshore conditions, similar to trends observed for saltwater Chinook salmon fisheries. If food is available for coho salmon in areas where anglers are able target them, harvests generally increase; however, there are times when fishing is poor in salt waters near the KRZ but the coho salmon runs to freshwater drainages are still quite good. Fishing opportunity in this fishery is probably driven more by nearshore ocean conditions than the actual abundance of coho salmon returning to nearby drainages.

STOCKED COHO SALMON FISHERIES

Both anadromous and landlocked releases of coho salmon have occurred at several KRZ locations intermittently since the 1980s. Coho salmon fingerlings were stocked in landlocked locations until 2014, when this program was discontinued due to changes in the SF–KRAA cooperative agreement that specified coho salmon smolt would only be produced for anadromous releases to supplement shortfalls in Chinook salmon stocking in the KRZ. Coho salmon smolt had been produced to specifically address this purpose since 2005, but these are now the only coho salmon

releases specified in the current cooperative agreement. Production of coho salmon has occurred annually since 2016 due to the continued shortfalls in Chinook salmon production and the establishment of a coho salmon brood source at Pillar Creek large enough to sustain the hatchery project.

Release locations for coho salmon smolt are outlined in the ADF&G SSP and the SF–KRAA cooperative agreement. Releases occur at Pillar and Monashka Creeks annually, and when surplus fish are available, they are also released in Island and Mission Lakes, producing returns to Mill Bay and Mission Beaches. Target release sizes for coho salmon smolt specified in the cooperative agreement are set at 15 g, and smolt releases usually occur in May. Unlike Chinook salmon releases, coho salmon smolt are not generally held for imprinting, although the timing of stocking promotes a reasonable period of acclimation and natural rearing. Adults return at ocean-age-1, and some are known to survive long enough to spawn in the drainages where they return.

Fishery Description

Sport fishing effort in this fishery occurs in the nearshore salt waters of Monashka Bay, and Mill Bay and Mission Beaches, as well as the fresh waters of Pillar and Monashka Creeks (Figure 2). Releases since 2019 have occurred in all 4 stocking locations. Releases since 2013 have ranged from a high of 289,062 smolt in 2016 to a low of 56,090 smolt in 2013 (Appendix E1). Returns have generally been very strong, and interest in this fishery has quickly grown. Smolt-to-adult survival rates can be up to 10%, and adult returns to Pillar and Monashka Creeks have been estimated at greater than 5,000 fish annually. Hatchery-reared coho salmon are also caught in saltwater fisheries in Monashka Bay and in Chiniak Bay in the vicinity of Spruce Cape. It is likely that these releases have enhanced the saltwater fisheries in many nearby areas because anglers report excellent coho salmon fishing into late September, which has only occurred recently in conjunction with these returns of hatchery-reared coho salmon.

Recent Fishery Performance

Exceptionally late run timing occurred in 2022, with fish returning in mid to late October and continuing through mid-November, after most anglers stopped fishing for the season. Few coho salmon were caught or observed in Monashka Bay, Pillar Creek, or Monashka Creek prior to the second week of October. The 2023 returns in Monashka Bay and Pillar and Monashka Creeks were exceptionally strong with some of the largest returns seen to date by ADF&G staff and angler reports. Coho salmon began schooling in Monashka Bay in mid-August, and fishing in the bay and at Pillar and Monashka Creeks continued to be good through mid-October.

OTHER COHO SALMON FISHERIES

Angler effort for coho salmon occurs in nearshore salt waters adjacent to numerous KMA drainages outside the KRZ, with the largest effort occurring near the numerous Afognak Island coho salmon supporting drainages, including Afognak, Pauls, and Portage Rivers. Shuyak Island streams and the Uganik, Karluk, and Ayakulik Rivers along the west side of Kodiak Island also support relatively large coho salmon fisheries in both fresh and salt water. Although these are significant and important Remote Zone coho salmon saltwater fisheries, individually, these locations rarely support effort at levels that are adequately captured by the SWHS, and generally they have low exploitation rates on the affected coho salmon stocks. Saltwater areas near Afognak Island streams, as an aggregate, do produce SWHS estimates annually, and harvests averaged 1,661 fish from 2013 to 2022 (Table 9). The 2022 harvest near Afognak Island was 1,242 fish.

Guided angler effort at Afognak Island saltwater locations appears in the saltwater Charter Logbook database records, and harvests have averaged 1,424 from 2013 to 2022 and was 917 in 2022, although individual locations are confidential due to the low number of guide businesses operating near specific drainages (Table 10).

SOCKEYE SALMON FISHERIES

Although there are many individual KMA sockeye salmon stocks of interest to anglers, most sport fishing for this species occurs within the KRZ and targets stocks at the Saltery, Pasagshak, and Buskin Rivers (Figure 2). Exploitation rates by anglers fishing these streams are significant enough to warrant formal consideration of sport harvests for inseason fisheries management and stock assessment purposes. All other KMA stocks are lightly exploited by anglers relative to the size of the runs.

KODIAK ROAD ZONE (KRZ) FISHERIES

Fishery Description and Historical Harvest

The Saltery, Pasagshak, and Buskin Rivers are the only sockeye salmon runs in the KRZ and are highly utilized by anglers. The Buskin River sport fishery occurs primarily in June due to its earlier run timing, whereas the Pasagshak and Saltery River sport fisheries occur in July. The Buskin River sockeye salmon run is the only salmon run in the KRZ that occurs in the early part of the summer, and it is highly popular among anglers, which are primarily unguided and residents of the City of Kodiak. The Buskin River is also very close to the City of Kodiak and has excellent angler access to many parts of the river. The Pasagshak and Saltery Rivers are also highly popular among local anglers and also attract a larger number of anglers from off island. Access to the Saltery River is by off-road vehicle (typically ATV), and while it is more difficult to get to than the Buskin or Pasagshak Rivers, it is the most popular sockeye salmon sport fishery in the KMA and the largest freshwater sport fishery by harvest in the KMA.

The Saltery River has been gaining popularity due to improvements in the capabilities of off-road vehicles used to access the drainage, large run sizes, relatively liberal bag limits, and increasing interest by guides in taking clients to the drainage. The largest harvest since 2013 was 10,649 sockeye salmon in 2014, which accounted for nearly half of the total KMA sockeye salmon harvest at that time (Table 11). The Saltery River sockeye salmon harvest has continued to represent about half of the KMA harvest in the past few years. From 2013 to 2022, harvests averaged 5,859 fish. Sport harvest of sockeye salmon from the Buskin River from 2013 to 2022 averaged 1,854 fish (Table 11). The Pasagshak River typically has somewhat smaller harvests than either the Buskin or Saltery Rivers, averaging 595 fish from 2013 to 2022.

Table 11.—Statewide Harvest Survey estimates of freshwater sockeye salmon harvest and catch in the Kodiak Management Area (KMA), 2013–2022.

Location	Estimate	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average 2013–2022
Buskin River												
	Harvest	1,310	4,237	3,978	2,503	3,161	335	1,063	1,715	100	137	1,854
	Catch	2,395	6,201	5,807	3,247	4,701	487	1,434	2,170	411	235	2,709
Pasagshak River												
	Harvest	1,685	522	31	572	2,084	262	227	169	106	287	595
	Catch	2,577	771	255	572	3,270	439	332	329	267	2,726	1,154
Saltery River												
	Harvest	9,940	10,649	7,035	7,072	2,460	2,793	6,927	2,560	4,973	4,177	5,859
	Catch	15,103	13,590	8,289	9,512	3,511	6,755	10,056	3,752	8,970	6,548	8,609
Karluk River												
	Harvest	2,099	841	1,052	2,417	3,412	3,936	1,815	–	846	–	2,052
	Catch	4,215	2,123	2,036	3,319	7,359	4,522	3,863	–	2,053	–	3,686
KMA Total												
	Harvest	19,920	22,204	14,737	15,599	16,834	11,094	10,989	5,560	7,526	7,666	13,213
	Catch	33,092	35,230	21,044	23,551	29,244	23,525	18,534	9,406	13,942	13,948	22,152

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>

Note: An en dash means insufficient survey responses to generate an estimate.

Escapement and Fishery Management

Sockeye salmon runs in the KRZ are monitored primarily for management of sport and subsistence fisheries in the Buskin and Pasagshak Rivers, whereas the Saltery River also has a modest commercial fishery in salt waters in addition to sport and subsistence fisheries. Regulations for sockeye salmon sport fisheries in the KRZ are generally more restrictive than the Remote Zone. Due to higher levels of angler effort and the potential for overexploitation of relatively small sockeye salmon runs, the bag and possession limits in the KRZ are 2 sockeye salmon per day for the Buskin and Pasagshak Rivers but 5 per day for the Saltery River, whereas in almost all other areas of the KMA, the limits are 5 per day, 10 in possession while following the general salmon bag limits established in both areas.

Buskin River

SF operates a weir annually on the Buskin River to count the sockeye salmon run and permit inseason management of the sport and subsistence fisheries. Annual weir counts and accounting of removals by the various user groups have allowed establishment and periodic review of a Buskin River sockeye salmon BEG that is currently 5,000–8,000 fish. Timing of the Buskin River run typically peaks during the month of June and is historically 95% complete by the end of July (Appendix D4). Weir counts in this drainage can be considered equal to escapement because no sport fishing for sockeye salmon occurs upstream of the weir. From 2013 to 2022, sockeye salmon escapements have ranged from 2,330 to 16,189 fish and averaged 9,246 fish (Table 12, Figure 9).

Table 12.—Sockeye salmon weir counts for selected locations within the Kodiak Management Area, 2013–2023.

Year	Buskin River	Saltery Creek	Pasagshak River	Karluk River	Ayakulik River	Dog Salmon Creek
2013	16,189	39,697	11,421	571,359	282,164	136,059
2014	13,976	31,772	1,582	795,566	297,711	200,296
2015	8,719	42,468	2,077	629,654	326,435	219,093
2016	11,584	57,867	7,053	488,809	254,967	122,585
2017	7,222	39,315	11,021	628,495	324,858	129,227
2018	4,284	22,845	2,019	633,279	266,333	201,161
2019	12,297	22,183	4,537	507,549	279,639	169,627
2020	7,741	24,987	3,992	451,993	302,595	181,384
2021	2,330	64,602	8,551	507,984	384,174	219,098
2022	8,121	25,615	4,377	503,809	352,462	137,565
Average						
2013–2022	9,246	37,135	5,663	571,850	307,134	171,610
2023	1,761	47,936	4,345	787,640	318,099	123,986

Source: ADF&G Divisions of Commercial Fisheries and Sport Fish, Kodiak, 2023.

The Buskin River has seen both very strong and very weak runs since 2013. The run rebounded from very small runs in 2008 and 2009 to consistently large runs from 2010 to 2016. More recent escapements have been smaller, however. Escapements have only achieved the BEG a few times during this reporting period (2013–2023), exceeding the BEG in 2013–2016, 2019, and 2022, and falling below the BEG in 2018, 2021, and 2023. Angler interest in the Buskin River sockeye salmon run generally fluctuates with escapement, but due to its proximity to the City of Kodiak, road access to most of the drainage, and limited locations in the drainage where sockeye salmon hold, the Buskin River sockeye salmon run can see large amounts of fishing effort and exploitation even in years with small runs.

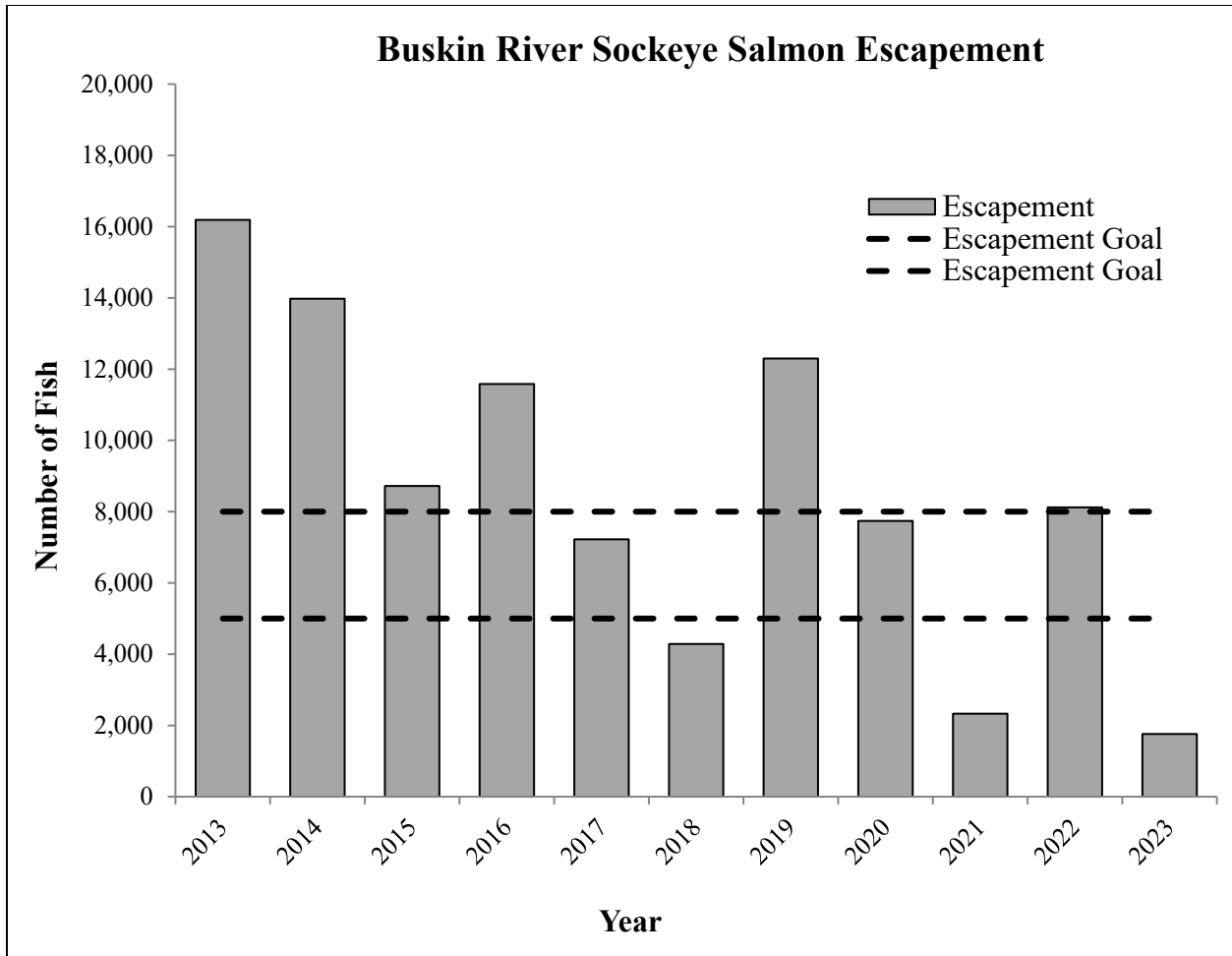


Figure 9.—Escapement of Buskin River sockeye salmon, 2013–2023.

Source: ADF&G Division of Sport Fish, Kodiak, 2023

Saltery River

Saltery River sockeye salmon escapements are also monitored by a weir established just below Saltery Lake. Very little sport harvest of sockeye salmon occurs above the weir and weir counts can be considered equal to escapement. The escapement goal for Saltery River sockeye salmon is a BEG with a range of 15,000–35,000 fish. Escapements from 2013 to 2023 averaged 37,135 fish and ranged from 22,183 to 64,602 (Table 12, Figure 10). The Saltery River run occurs later than the Buskin River but is very similar to the Pasagshak River in timing, usually peaking in mid-July (Appendix D5). Escapements have been within or above the BEG in all years (Figure 10).

The Saltery Cove sockeye salmon run has sustained liberalized bag limits and accordingly higher levels of harvest due to relatively more difficult access that limits angler effort as well as being the largest sockeye salmon run in the KRZ. Management of the fishery occurs in season and limits have been both restricted and liberalized based on inseason weir counts.

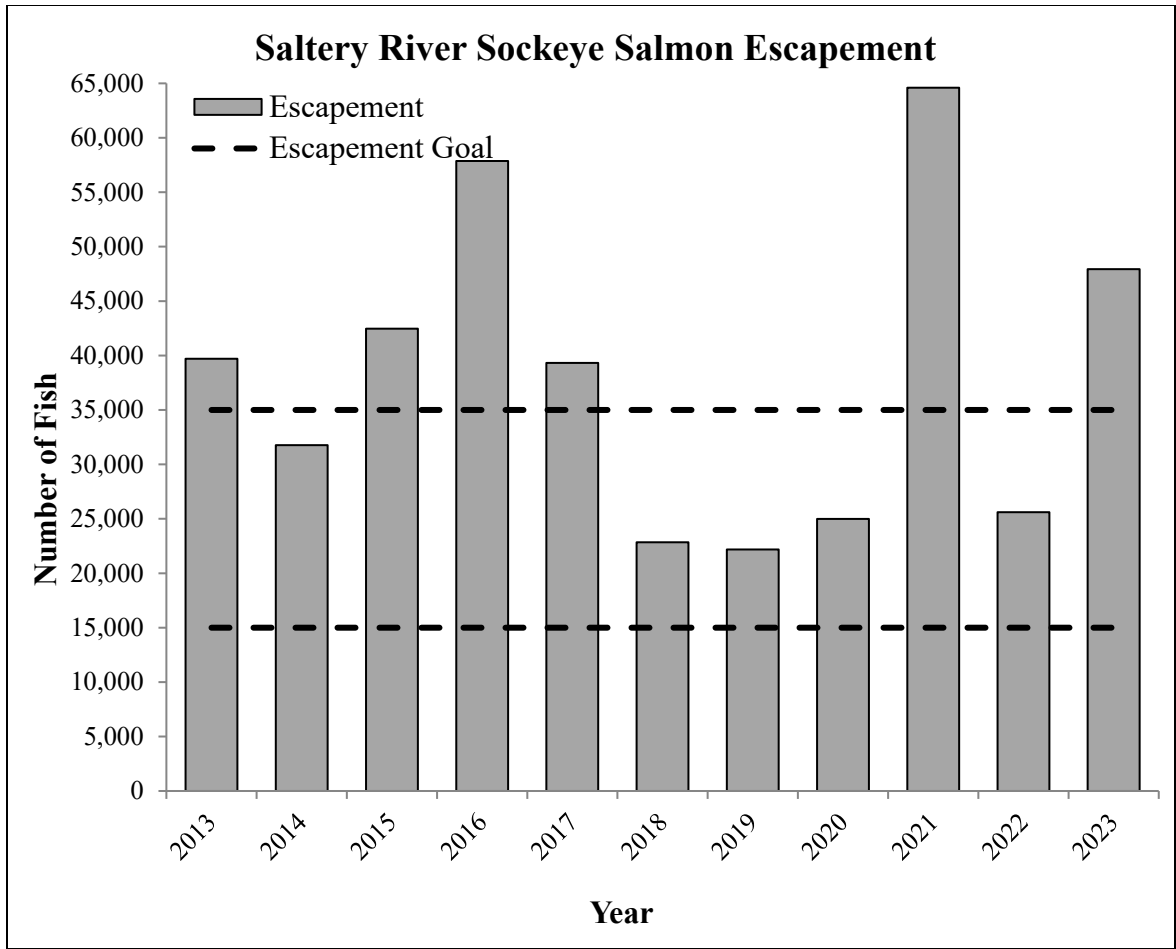


Figure 10.—Escapement of Saltery River sockeye salmon, 2013–2023.

Source: ADF&G Division of Commercial Fisheries, Kodiak, 2023.

Pasagshak River

The Pasagshak River sockeye salmon run has been monitored by weir since 2011, and counts from 2013 to 2022 have averaged 5,656, ranging from 1,582 to 13,402 (Table 12, Figure 11). Weir counts in the Pasagshak River can also be considered equal to escapement because very little harvest of sockeye salmon occurs above the weir. Recent escapements have been both very high and very low, and the Pasagshak River has seen variable run sizes similar to the Buskin River.

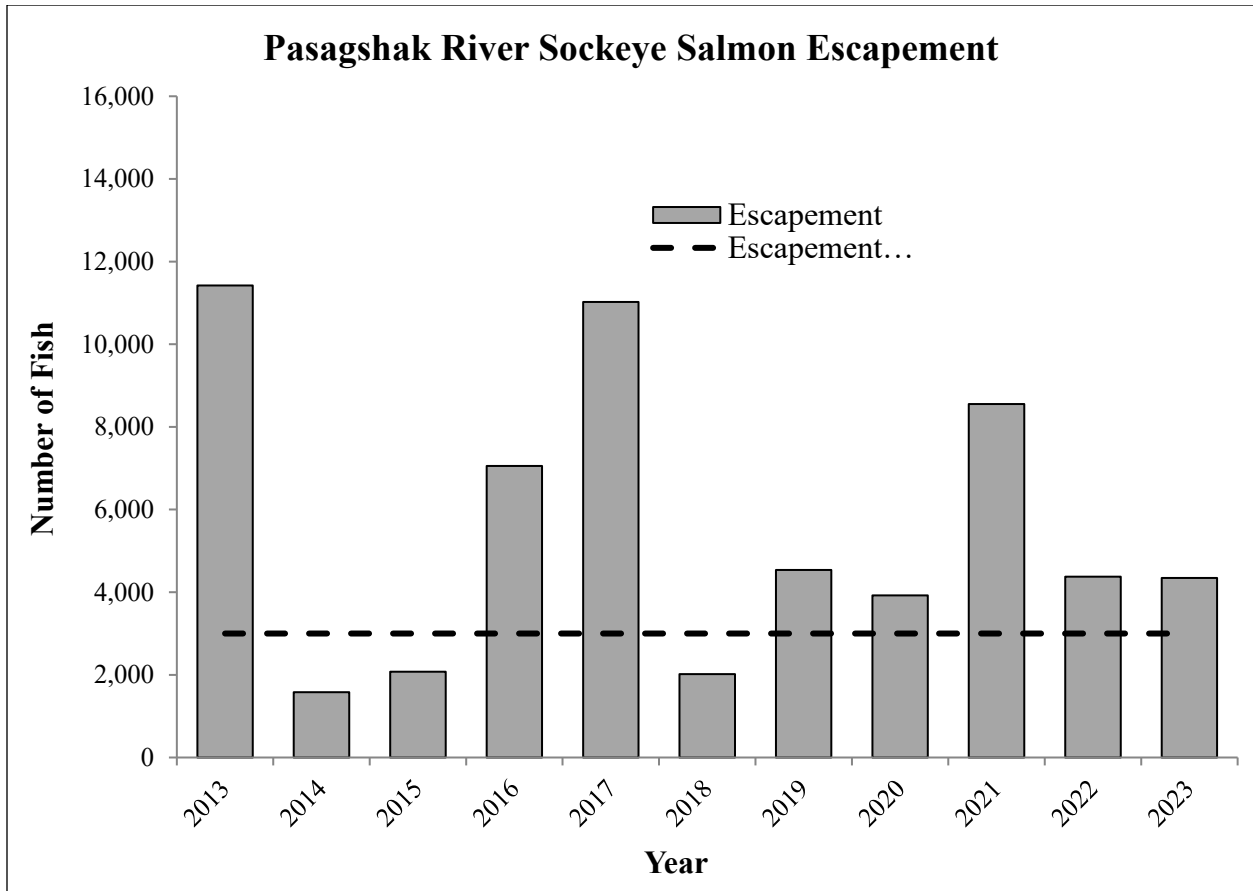


Figure 11.—Escapement of Pasagshak River sockeye salmon, 2013–2023.

Source: ADF&G Division of Commercial Fisheries, Kodiak, 2023.

Recent Fishery Performance

Overall KRZ sockeye salmon harvests during 2020–2022 were close to half of typical harvests during 2013–2019 (calculated from Table 11). The 2022 SWHS-estimated freshwater KRZ sockeye salmon harvest of 4,601 fish was well below the 2013–2022 average of 8,307 (calculated from Table 11); the relatively low harvests in the Buskin and Pasagshak Rivers contributed to this, although there was a strong harvest of 4,177 fish from the Saltery River in 2022.

The Buskin River harvest was 100 in 2021 and 137 in 2022, some of the lowest harvests on record. The 2022 Buskin River sockeye salmon run exceeded the escapement goal; however, run timing was very late, with most of the fish returning in July rather than June. Subsequently, the sport fishery was closed from June 11 through July 2 due to low weir counts but was reopened for the remainder of the season and the BEG was exceeded. The 2023 Buskin River run was very weak, and the sport fishery was closed by EO on June 17 as a way to achieve the BEG. The escapement of 1,761 sockeye salmon fell below the BEG of 5,000–8,000 fish, however, and the sport fishery remained closed for the season.

The 2023 Saltery River harvest was 4,177 fish in 2022, which was similar to the 2021 harvest. The 2022 and 2023 sockeye salmon runs continued to be strong (Appendix D5), and harvests correspond to these run sizes. The 2022 escapement achieved the BEG at 25,615 fish and the 2023

escapement was above the BEG range at 47,936 fish, despite liberalized bag limits during both years.

Pasagshak River harvest in 2021 was 106 fish followed by just 287 fish in 2022, some of the lowest harvests on record for that river. The 2022 and 2023 escapements of 4,377 and 4,345 sockeye salmon, respectively, achieved the lower bound SEG of 3,000 fish; however, sport fishing was closed for a period of about 2 weeks during July in 2023 to achieve the goal (Figure 11).

REMOTE ZONE FISHERIES

There are several streams in the Remote Zone that are popular with sockeye salmon anglers and these include the Karluk, Ayakulik, and Dog Salmon Rivers, and to a lesser extent, the Afognak River and several Olga Bay streams. Due to remote locations and more difficult access, most angler effort is guided, except the Afognak River where there is moderate unguided effort. The numbers of sockeye salmon that are caught and subsequently released are higher in comparison to rates documented for KRZ streams. Anglers accessing these more remote rivers will more often catch and release sockeye salmon after filling their bag limits.

These runs are lightly exploited by anglers, and sport harvests have a relatively small impact on escapements due to the relative size difference between the escapements and harvests. For weir-monitored stocks, inseason restrictions can still be imposed when necessary, despite low harvest rates, and bag limits can be liberalized to allow additional angling opportunity when warranted. Sockeye salmon sport fisheries occurring in KMA waters without inseason escapement monitoring are managed through relatively conservative bag limits established for each area. In addition to low angler effort, this generally provides adequate measures for conserving individual stocks.

Annual SWHS freshwater sockeye salmon harvest estimates for the Remote Zone are only available from the Karluk River and only sporadically. Karluk River harvests averaged 2,052 fish from 2013 to 2022 (excluding 2020 and 2022 when SWHS estimates were not available; Table 11). The Karluk River has both early and late sockeye salmon runs, and sport fishing is generally concentrated on the early run but does continue through the late run to some degree. The 2022 total Karluk River sockeye salmon weir count was 503,809 fish, and the 2023 count was 787,640 fish; the 2013–2022 average was 574,850 (Table 12). Weir counts are considered equal to escapement because little, if any, harvest occurs above the weir. The early-run BEG is 150,000–250,000 fish, and this was achieved in both 2022 and 2023; the late-run BEG is 200,000–450,000 fish, and this was achieved in 2022 and exceeded in 2023.

The Ayakulik River also has both early and late sockeye salmon runs; however, angler effort is spread throughout both runs. The 2022 and 2023 Ayakulik River sockeye salmon weir counts totaled 352,462 fish and 318,099 fish, respectively; both were higher than the 2013–2022 average of 307,134 fish (Table 12). Weir counts are considered equal to escapement as little, if any, harvest occurs above the weir. The early-run BEG of 140,000–280,000 fish was achieved in 2022 and 2023; the late-run BEG of 60,000–120,000 fish was achieved in both 2022 and 2023 as well.

The Dog Salmon River has 1 sockeye salmon run and is monitored for escapement at a fish pass near Frazer Lake. This river has a BEG of 75,000–170,000 fish. The 2022 count was 219,098 fish and the 2023 count was 123,986 fish (Table 12). The 2013–2022 average was 171,610 fish. Weir counts at Frazer Lake are also considered equal to escapement because little, if any, harvest occurs above the pass.

STEELHEAD–RAINBOW TROUT FISHERIES

Most angler effort for wild rainbow trout and steelhead populations within the KMA target steelhead, the anadromous form of *O. mykiss*, although several drainages on both Kodiak and Afognak Islands support some targeted fishing for resident rainbow trout. Anglers that target other species also annually report incidental catches of resident rainbow trout in many streams throughout the KMA. The Karluk River is the most popular stream for anglers targeting steelhead, and most of the fishing effort occurs during the month of October through early November. Other KMA drainages supporting steelhead runs include the Ayakulik, Dog Salmon, Little, Afognak, Buskin, and Saltery Rivers.

Annual stock assessment of steelhead populations is currently limited to documenting kelts migrating out of drainages where weirs are otherwise used to monitor salmon. Steelhead research conducted previously on KMA stocks has included mark–recapture experiments to estimate single-year spawning abundance of the Ayakulik River population in 2005 (Kevin VanHatten, Fishery Biologist, Kodiak National Wildlife Refuge; personal communication), and a multiyear study of the Karluk River run to estimate the annual spawning population using kelt age composition and abundance from 1992 through 1997 (Begich 1999). More recently, ADF&G has conducted a mark–recapture study to estimate the annual spawning population size of Karluk River steelhead from 2017 through 2019 (Polum and Reimer 2021).

The current management strategy for steelhead sport fisheries relies on conservative regulations, and rainbow trout and steelhead share a common bag limit. Restrictions on harvest include year-round catch-and-release only fishing within the KRZ and an annual limit of 2 fish over 20 inches in the rest of the KMA. Where harvest is allowed, the daily bag limit for steelhead is 2, only 1 of which may be longer than 20 inches. Historical harvest statistics available from logbooks and the SWHS indicate that anglers rarely retain steelhead even when it is permissible. Angler reports and observations by ADF&G staff suggest that most of the targeted steelhead fishery is made up of anglers seeking only to catch and release steelhead, usually using fly-fishing gear.

Resident rainbow trout are periodically sought by anglers in just a few KMA locations, including the Buskin, Uganik, Saltery, and Afognak Rivers. Most angler interest in resident populations within KMA waters is limited to those introduced through stocking into KRZ lakes.

KARLUK RIVER

The Karluk River steelhead sport fishery is the most popular steelhead sport fishery in the KMA. Angler effort is extensive enough to be captured in most years in SWHS statistics, although is not specific to steelhead but includes effort for all species. Guided angler effort and harvest were previously recorded in freshwater logbooks but have not been available since 2016. Most effort occurs near the Karluk River portage, approximately 10 miles below Karluk Lake and is primarily conducted during the month of October and into early November when steelhead are returning from the ocean. Estimates of catch from the SWHS show anglers caught an average of 686 fish from 2013 to 2022 and harvested an average of 11 (Table 13), although estimates were not available in 2020 and 2022. In 2021, the most recent SWHS estimate, an estimated 1,437 steelhead were caught with 24 harvested. According to angler reports, steelhead fishing can vary dramatically between years depending on the size and timing of the run as well as environmental conditions such as early freezes. Fish become less active when colder temperatures prevail in

October even though there could be a sizeable run, but warmer conditions and smaller run sizes could also produce less than ideal fishing.

Karluk River weir-based steelhead kelt counts since 2013 have ranged from 1,168 to 4,624 and averaged 2,155 from 2013 to 2022 (Table 13). The 2022 and 2023 kelt counts were 1,251 and 2,480, respectively. Kelt counts can be a general indicator of abundance, but they can be highly unreliable as an index for that year’s spawning population because of variable spawning survival rates as well as timing of weir installation in the spring. For these reasons, SF conducted a mark–recapture experiment to estimate the size of the spawning population of Karluk River steelhead (Polum and Reimer 2021). Steelhead were tagged with visual tags prior to spawning in the spring near known wintering and spawning areas of the drainage and recaptured during normal weir operations at the Karluk weir. Finalized estimates were only available for the 2019 project year, and the estimated steelhead spawning population was 7,952. Past estimates of spawning abundance have ranged from about 3,500 steelhead to more than 10,000 (Begich 1997). The Karluk River has the largest known steelhead run in the KMA.

Table 13.— Statewide Harvest Survey (SWHS) estimates of Karluk River steelhead harvest and catch, and kelt counts from a Karluk River weir, 2013–2023.

Year	SWHS		Karluk weir kelt counts
	Harvest	Catch	
2013	8	22	1,605
2014	7	108	1,381
2015	15	1,005	1,278
2016	15	2,709	1,168
2017	20	74	4,624
2018	0	120	3,148
2019	0	15	2,877
2020	–	–	2,066
2021	24	1,437	2,151
2022	–	–	1,251
Average			
2013–2022	11	686	2,155
2023	NA	NA	2,480

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>; ADF&G Division of Commercial Fisheries, Kodiak, 2023.

Note: “NA” means data not available. An en dash means insufficient survey responses to generate an estimate.

OTHER STEELHEAD FISHERIES

Smaller, but significant, steelhead fisheries exist on the Ayakulik, Dog Salmon, Buskin, and Afognak Rivers, with only the Buskin River having enough effort for the SWHS to estimate annual numbers of steelhead caught. The Ayakulik River probably has the next largest steelhead run to the Karluk River but is primarily fished opportunistically by those in the area on hunting trips in the fall. Kelt counts are available from the Ayakulik River weir and have averaged 979 from 2013

to 2022. In 2022, 375 steelhead kelts were counted and in 2023, 402 were counted (ADF&G Division of Commercial Fisheries, Kodiak, unpublished data).

The Buskin River has a small but highly popular steelhead run due to ease of access to the drainage for unguided anglers; the Buskin River is close to the City of Kodiak and has numerous access points from the road. Angler effort is still low but does occur throughout the winter months into spring until spawning. The SWHS estimates that zero steelhead were caught in 2022 in the Buskin River, but an average of 232 were caught from 2013 to 2022. Not all catch of steelhead in the Buskin River is from directed effort, and steelhead are often intercepted by anglers targeting sockeye salmon and Dolly Varden in the spring and coho salmon in the fall.

Steelhead fishing also occurs in numerous other drainages to some degree. Some of the more notable locations are the Dog Salmon, Afognak, and Saltery Rivers. In general, effort is very low, and fisheries primarily consist of a few guided anglers.

STOCKED RAINBOW TROUT FISHERIES

KMA rainbow trout stocking became widespread as early as 1953. Historically, the broodstock has come from steelhead in the Karluk River and rainbow trout populations in various locations in Alaska, as well as rainbow trout from hatcheries located in Montana and Washington. Prior to 2007, all stocked fish were reared at the former Fort Richardson SF hatchery facility in Anchorage and subsequently transported to Kodiak Island shortly before being released. Since then, fertilized eggs from the current William J. Hernandez Sport Fish Hatchery in Anchorage have been transported to PCH and the resultant rainbow trout fry have been reared locally.

All stocking is conducted in accordance with current guidelines set forth in the SSP. All stocked lakes represent new sport fisheries because stocked species were not present before stocking occurred. Most stocking is directed toward road-accessible lakes that offer alternative opportunities to angling for local wild salmon and Dolly Varden.

Since 2013, up to 18 KRZ lakes have been stocked with rainbow trout (Appendix E2). Yearly hatchery production of rainbow trout has varied between zero fish and 122,000 fish due to occasional losses resulting from transport and (or) release mortality, occasional surpluses of available fish, and a COVID-19 related pause in rainbow trout stocking. In 2022, 57,761 rainbow trout were stocked into 17 lakes, and in 2023, 45,295 were stocked into 17 lakes. About half of the lakes can be stocked via SF truck because they are very near the road, whereas the rest require either a boat, hiking, or aircraft for access. SF staff have annually assembled volunteers to hike fish into the more remote lakes, used the SF skiff to haul fish to outlying island lakes, and gathered air support from the Alaska Wildlife Troopers and United States Coast Guard.

All rainbow trout are stocked as fingerlings when they are reared to 1 g. Releases occur within the egg-take brood year, typically in the months of July or August. Past age composition studies have shown that fingerlings released at less than 1 g reach catchable size (100 g) within 2–3 years after being released.

Current SSP objectives for rainbow trout releases in the KRZ include providing anglers at least 1,000 additional days of sport fishing effort annually. Estimates of total catch from the SWHS are unreliable due to relatively small numbers of respondents captured by the survey; however, anecdotal evidence suggests that most fishing effort is attributable to local residents who frequent the stocked lakes regularly but consequently make up too small of an angler demographic to be adequately represented by SWHS sampling. Regulations for enhanced rainbow trout allow a daily

bag and possession limit of 10 fish, only 1 of which may exceed 20 inches in length with no annual limit. Anglers harvest stocked rainbow trout regularly and target them both in open water and through the ice.

GROUNDFISH FISHERIES

Halibut is the groundfish species most commonly targeted by anglers in KMA salt waters, but rockfish are also highly popular as well as lingcod to a lesser degree. Angler effort primarily occurs between May and early September when the weather is best. Halibut, rockfish, and lingcod are harvested throughout the area wherever anglers fish salt waters, although most of the harvest is taken from waters near the City of Kodiak in Chiniak, Marmot, and Ugak Bays. Most angler effort that is not within a short boat ride from the City of Kodiak can be attributed to guided anglers, whereas unguided effort in the more remote areas is generally limited to anglers in remote villages.

HALIBUT

Fishery Description and Historical Harvest

Halibut remains the most targeted groundfish species for both guided and unguided anglers and is entirely under federal management. Halibut fishing occurs in most salt waters of the KMA, although it is concentrated in waters near the City of Kodiak for both charter boats and unguided anglers. Significant effort also occurs around Afognak Island and in many remote areas of the KMA, attributable to both remote lodges and residents of remote communities, but effort is less concentrated in these areas than in the more populated locations of the KMA. Some effort also occurs by anglers traveling from Cook Inlet to the KMA, particularly around Shuyak Island and Afognak Island.

From 2013 to 2022, halibut harvests estimated by the SWHS averaged 18,832 in the KMA (Table 14). About a third of the harvest of halibut from the KMA occurs within Chiniak Bay, and harvests averaged 7,881 from 2013 to 2022 (Table 14).

Guided angler harvests of halibut in the KMA averaged 11,051 from 2013 to 2022 (Table 14). In Chiniak Bay, during the same time, guided anglers harvested an average of 1,920 halibut. A significant amount of harvest also occurs in Afognak Island waters by guided anglers who harvested an average of 2,376 halibut and in Uyak Bay where they harvested an average of 2,326 halibut from 2013 to 2022 (Table 14).

Table 14.—Halibut harvest and catch in Kodiak Management Area (KMA) from Statewide Harvest Survey (SWHS) estimates for all sport anglers, and guided angler harvest and release of halibut in the KMA from Charter Logbook database, 2013–2022.

Year	SWHS-estimated harvest for all anglers				Guided Logbook estimated harvest for guided anglers									
	Chiniak Bay		Total KMA		Chiniak Bay		Ugak Bay		Afognak Island Area		Uyak Bay		Total KMA	
	Harvest	Catch	Harvest	Catch	Harvest	Release	Harvest	Release	Harvest	Release	Harvest	Release	Harvest	Release
2013	9,227	15,007	26,591	42,462	2,542	911	722	51	2,252	2,324	2,509	4,676	13,764	11,341
2014	10,784	14,299	25,386	40,488	2,468	638	846	143	2,045	2,786	2,992	4,007	12,912	9,558
2015	8,800	10,891	18,326	30,459	2,137	702	494	84	1,978	1,384	1,856	1,645	9,218	4,779
2016	5,885	9,228	14,619	24,082	1,666	717	586	163	1,848	1,807	1,380	1,827	9,035	8,197
2017	7,545	10,506	17,834	27,510	955	388	725	99	1,908	2,239	1,425	1,954	8,123	6,361
2018	4,788	6,124	13,898	22,815	1,054	81	518	46	1,987	1,002	1,816	1,533	8,039	4,208
2019	8,288	10,550	14,889	22,237	1,417	169	452	64	2,150	667	2,255	3,394	8,799	5,260
2020	5,491	7,124	12,435	20,133	1,535	229	205	45	2,611	578	2,081	1,597	8,756	3,154
2021	9,724	12,943	25,047	38,157	2,748	376	652	181	3,989	895	3,015	2,009	16,026	5,222
2022	8,275	10,919	19,291	25,689	2,674	304	341	85	2,994	800	3,931	2,255	15,833	5,577
Average														
2013–2022	7,881	10,759	18,832	29,403	1,920	452	554	96	2,376	1,448	2,326	2,490	11,051	6,366

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>. Saltwater Logbook Database (Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. Accessed November 2023. [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.]).

Fishery Management

Halibut stocks throughout Alaska are managed by the federal government through an international treaty with Canada. Direct regulatory authority rests with the International Pacific Halibut Commission (IPHC) and by delegation from the commission to the North Pacific Fishery Management Council (NPFMC). All regulations adopted for the halibut sport fishery by the State of Alaska must reflect those previously established in federal law.

Part of the KMA lies within the federal management area 3A, which has more restrictive regulations for guided halibut anglers than the rest of the KMA, which falls in area 3B. Within area 3B, sport fishing regulations for guided and unguided anglers are the same, with a daily bag limit of 2 halibut and a possession limit of 4. Area 3A has an annually changing set of regulations for guided anglers including size limits, annual limits, 1 or more days per week closed, restrictions on the number of trips charter boats may take daily, and a limited entry permit requirement. Unguided anglers in this area do not fall under this regulatory structure but have a bag limit of 2 fish per day and possession limit of 4. Recent declines of halibut biomass have prompted increased restrictions in the guided sport harvest of halibut, and annual changes in regulations for guided anglers attempt to reduce harvest levels to meet harvest targets set by the IPHC and NPFMC.

Recent Fishery Performance

The 2022 SWHS-estimated harvest of halibut was 19,291 for the KMA, and in Chiniak Bay, anglers harvested 8,275 halibut, both of which were similar to harvests in previous years (Table 14). Guided anglers harvested 15,833 halibut in 2022 in the KMA, and in Chiniak Bay, the 2022 guided angler harvest was 2,674 fish, both of which were larger than the respective 2013–2022 averages (Table 14). The guided angler harvest in Afognak Island waters in 2022 was 2,994 fish and the Uyak Bay harvest was 3,931 halibut.

ROCKFISH

Fishery Description and Historical Harvest

Both pelagic and nonpelagic rockfish are harvested in KMA waters. Catches of pelagic species consist primarily of black (*S. melanops*), dark (*S. ciliatus*), and dusky (*S. variabilis*) rockfish, whereas nonpelagic catches consist mainly of yelloweye rockfish (*S. ruberrimus*). Pelagic species historically have constituted most of the rockfish catch in both areas. Although a portion of annual rockfish catches are taken incidentally by anglers targeting halibut and salmon, there is also directed effort for these species.

In the KMA, sport harvests of rockfish have shown a strong increasing trend since 2001, first detected in the SWHS estimates but now shown in the newer harvest estimation method outlined in Howard et. al. (2020; Tracy and Polum 2015; Polum et al. 2019a). SWHS estimates of rockfish harvest for all anglers in the KMA are routinely smaller than harvests reported in saltwater Charter Logbooks for guided anglers and subsequently the SWHS estimates of rockfish harvest are no longer used for management of rockfish in the KMA. However, SWHS estimates are still used to inform estimates generated from the Howard et. al. (2020) method as well as for inseason estimates created by SF staff in Kodiak using a simplified version of the method outlined in Polum and Huang (2019; Appendix F1). Further, the newer estimation methods provide estimates of black and yelloweye rockfish harvest, which are the primary species of concern in the KMA. Estimates

are also broken down for individual management districts and allow sport harvests of rockfish to be managed in the same areas and for the same species as overlapping commercial fisheries. There are 6 management districts used for both sport and commercial fisheries management (Figure 12); however, estimates of harvest in the Southeast and Southwest Districts are combined due to a lack of information for the individual districts, and they also include Alaska Peninsula harvests due with low harvest rates as well. These combined districts are reported as the SKMA group (Figure 13). The Westside District is also grouped with the mainland Shelikof Strait area for similar reasons and is reported as the WKMA reporting group.

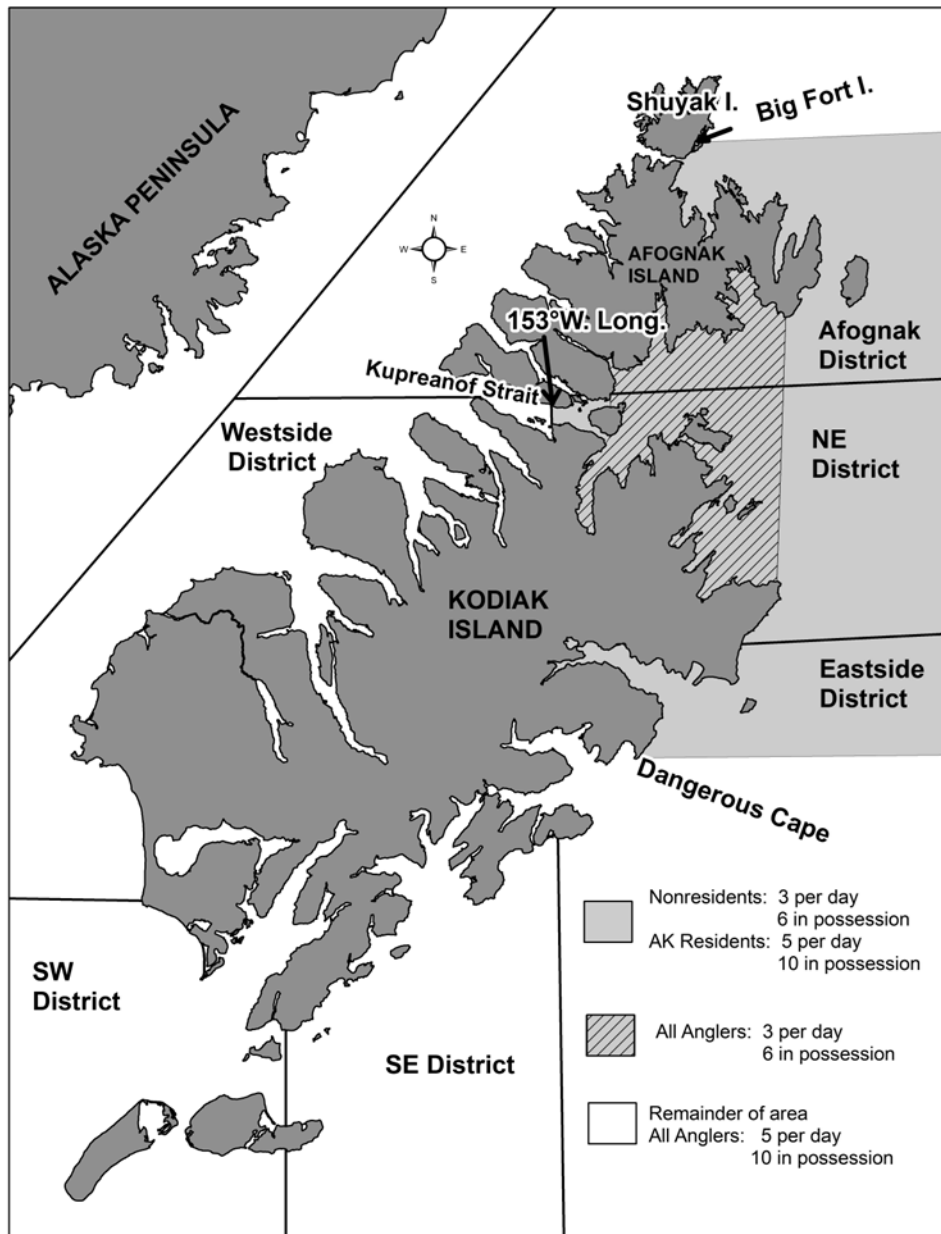


Figure 12.—Map of the Kodiak Management Area showing rockfish management districts and area affected by recent emergency orders.

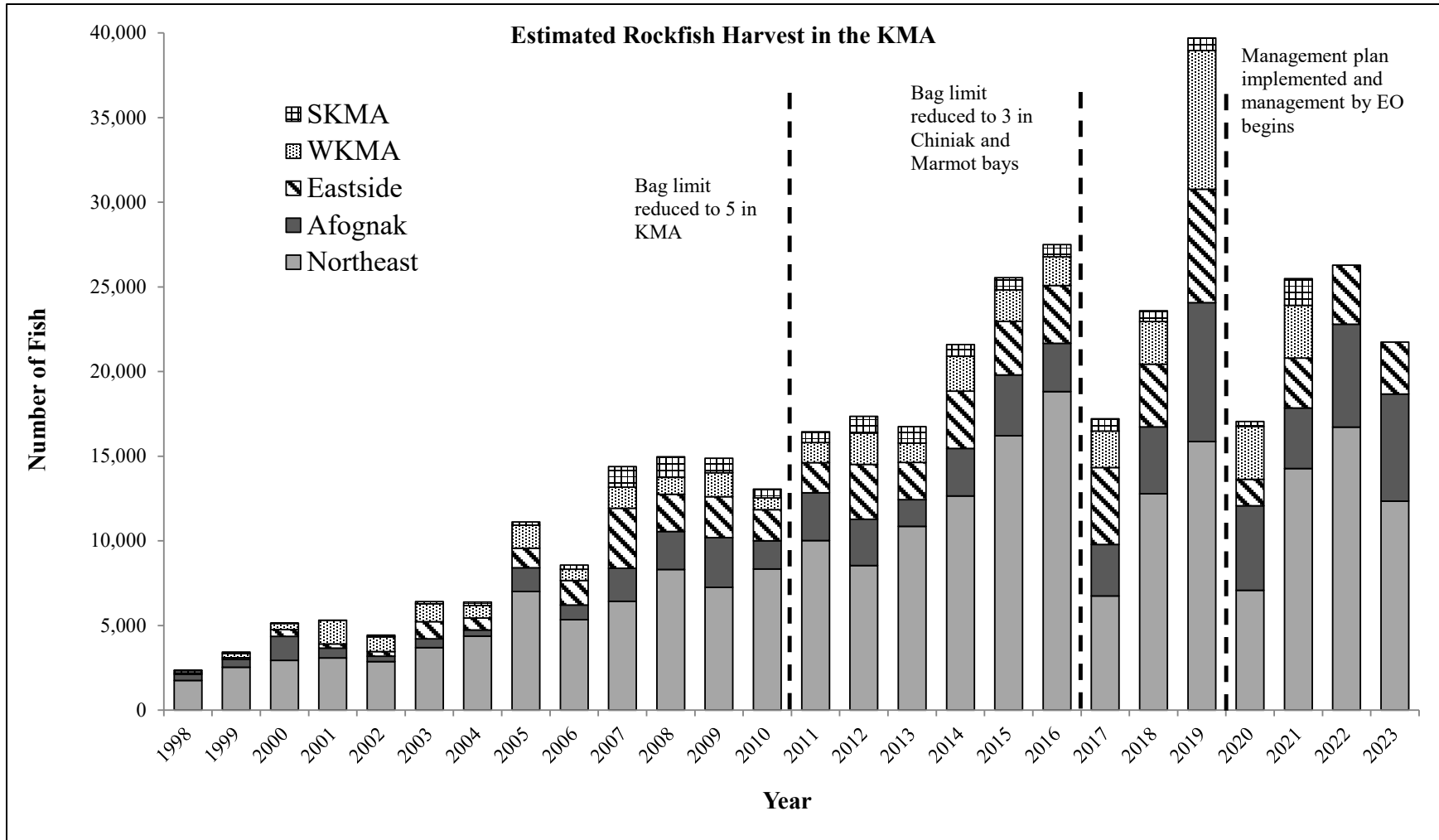


Figure 13.—Estimated sport fish harvest of rockfish in the management districts of the Kodiak Management Area (KMA), 1998–2023.

Source: Rockfish harvest from 1998 to 2021 is estimated through the method outlined in Howard et. al. (2020); rockfish harvest in 2022 and 2023 is estimated through logbook data received in season in the Kodiak office using a simplified version of the method outlined in Polum and Huang (2019); see Appendix F1.

Harvest of black rockfish peaked in 2019 with an estimated harvest of 39,696 fish in the KMA sport fishery (Figure 13, Table 15). From 2013 to 2022, an average of 24,071 black rockfish were harvested. The primary harvests occur in the Northeast, Afognak, and Eastside Districts due to their proximity to the City of Kodiak as well as a number of remote lodges and charter services that fish these districts. The Northeast District harvest averaged 13,200 black rockfish annually from 2013 to 2022. The Eastside District saw an average harvest of 3,481 black rockfish during this same time, and the Afognak District had an average harvest of 4,068 (Table 15).

Table 15.—Estimated harvest of black rockfish in 3 primary management districts, 2013–2023.

Year	Northeast	Eastside	Afognak	Total KMA
2013	10,856	2,198	1,581	16,744
2014	12,651	3,385	2,804	21,596
2015	16,217	3,172	3,583	25,543
2016	18,816	3,415	2,858	27,499
2017	6,753	4,458	3,031	17,214
2018	12,775	3,707	3,958	23,595
2019	15,861	6,697	8,203	39,696
2020	7,078	1,353	5,001	17,050
2021	14,272	2,947	3,575	25,487
2022 ^a	16,717	3,482	6,082	26,281
2023 ^a	12,354	3,073	6,316	21,743
Average				
2013–2022	13,200	3,481	4,068	24,071

Source: Rockfish harvest from 1998 to 2021 is estimated through the method outlined in Howard et. al. (2020); rockfish harvest in 2022 and 2023 is estimated through logbook data received in season in the Kodiak office using a simplified version of the method outlined in Polum and Huang (2019); see Appendix F1.

^a Estimates from 2022 and 2023 are preliminary and used only until estimates are finalized via the Howard et. al. (2020) method.

Yelloweye rockfish harvest in the KMA generally makes up a small portion of the overall rockfish fishery, with an average of 2,255 yelloweye rockfish harvested from 2013 to 2021 (Table 16). Yelloweye harvest in the Northeast District averaged 581 during this time with Eastside harvests averaging 122 and Afognak harvests averaging 719. Yelloweye rockfish appear to be harvested opportunistically by anglers without discernable trends noted in the harvest data. According to angler reports, they are targeted less frequently than other species given the distance that is often needed to travel to find water depths that yelloweye rockfish prefer.

Table 16.—Estimated harvest of yelloweye rockfish in 3 primary management districts, 2013–2021.

Year	Northeast	Eastside	Afognak	Total KMA
2013	679	66	472	1,697
2014	821	139	586	2,155
2015	706	180	635	2,055
2016	646	113	602	2,095
2017	244	82	482	1,540
2018	383	112	634	1,864
2019	663	169	1,261	4,008
2020	629	55	817	2,129
2021	455	180	985	2,755
Average				
2013–2022	581	122	719	2,255

Source: Rockfish harvest from 1998 to 2021 is estimated through the method outlined in Howard et. al. (2020).

Guided angler harvests of all rockfish species combined in the KMA have averaged 24,085 from 2013 to 2022 (Table 17). The areas with the greatest effort and harvest are Chiniak Bay, the Afognak Island area, and Uyak Bay. Harvests from 2013 to 2022 have averaged 5,308 in Chiniak Bay, 5,477 in Afognak Island waters, and 3,486 in Uyak Bay.

Table 17.—Guided angler harvest (Hvst) and release of rockfish in the Kodiak Management Area (KMA), 2013–2022.

Year	Chiniak Bay		Uyak Bay		Afognak Island Area		Uyak Bay		Total KMA	
	Hvst	Release	Hvst	Release	Hvst	Release	Hvst	Release	Hvst	Release
2013	5,035	385	1,562	555	2,475	1,722	1,157	264	17,674	4,133
2014	6,669	473	2,193	549	2,841	2,290	1,767	790	21,339	5,444
2015	7,036	522	1,884	699	3,868	1,515	1,341	508	21,724	4,128
2016	5,982	471	2,485	737	5,264	1,266	1,882	529	26,568	5,605
2017	3,452	245	2,530	618	4,680	1,355	2,006	668	18,977	3,959
2018	5,229	257	2,172	568	5,643	872	3,153	565	23,059	4,258
2019	6,649	935	2,398	652	6,637	833	5,979	1,681	30,013	6,026
2020	2,953	63	676	379	5,575	285	3,354	1,207	16,156	2,646
2021	4,940	317	1,396	575	8,781	1,474	5,521	1,756	30,999	6,220
2022	5,130	425	833	281	9,007	584	8,697	1,391	34,336	4,311
Average										
2013–2022	5,308	409	1,813	561	5,477	1,220	3,486	936	24,085	4,673

Source: Saltwater Logbook Database (Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. Accessed November 2023. [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.]).

Fishery Management

Long-lived and slow-reproducing species such as rockfish can be prone to overharvest. Rockfish are also highly aggressive, easy to catch, and susceptible to localized depletion. A conservative management approach is warranted with all rockfish fisheries and considerable effort has been made to manage KMA rockfish stocks sustainably for both sport and commercial fisheries, which is why SF and CF have the common goal of compiling total removals and comparing them to abundance estimates generated from a hydroacoustic survey of black rockfish populations in the KMA to determine current harvest rates (Polum and Worton 2018). Annual black rockfish management planning meetings are held between CF and SF staff in the Kodiak Office, and beginning in 2018, the meetings have incorporated estimates of total removals from both fisheries to discuss appropriate management measures to ensure sustainable harvest rates, given a single stock is being managed for both fisheries.

Several management measures have been implemented for the KMA rockfish sport fishery. In 2011, to address concerns about increasing rockfish sport harvests initially noted in SWHS estimates, the BOF reduced the bag limit for KMA rockfish from 10 per day, 20 in possession to a daily bag limit of 5 and a possession limit of 10, of which only 2 per day and 4 in possession may be nonpelagic species, and of the nonpelagic species, only 1 per day and 2 in possession may be a yelloweye rockfish. The goal of these regulations was to restrain growth in the fishery rather than reduce harvests; however, harvests continued to increase beyond what was seen up to 2010. From 2011 to 2015, the harvest of KMA rockfish grew substantially again, and in response, during the 2017 Kodiak meeting, the BOF reduced the bag limit within Chiniak and Marmot Bays to the current bag limits of 3 per day, 6 in possession (with the same nonpelagic and yelloweye limits) to specifically address the areas with greatest effort and potential harvest.

Although these bag limit reductions worked to temporarily reduce harvests (Figure 13), the initial effect was to see harvests grow in other areas of the KMA and then continue to see increased harvests even in the Chiniak and Marmot Bays area as interest in rockfish continues to grow. In response, the BOF adopted a management plan in 2020 aimed at giving ADF&G flexibility to manage black rockfish for sustainability in the specific management districts of the KMA but also within a guideline harvest range (GHR) of 0–26,000 black rockfish annually. A similar GHR was adopted for the commercial fishery. The management plan gives the ADF&G EO authority to manage individual districts according to a prioritized list of management options (Appendix B2). Since adoption of the plan, EOs have been issued to restrict nonresident harvest of rockfish for much of the Afognak, Northeast, and Eastside management districts (Figure 12) as a way to manage black rockfish populations for sustainable harvests and keep the overall KMA harvest within the GHR.

Recent Fishery Performance

The 2022 and 2023 black rockfish harvests were 26,281 and 21,743, respectively; however, these are preliminary estimates generated by tracking logbook harvests in season and are only available for the Northeast, Eastside, and Afognak Districts and do not include the remainder of the KMA. Final estimates of black rockfish harvest for 2022 and 2023 will be presented in future reports. The Northeast District harvest was 16,717 in 2022 and 12,354 in 2023. The Eastside District harvest was 3,482 in 2022 and 3,073 in 2023, and the Afognak District harvest was 6,082 in 2022 and 6,316 in 2023 (Table 15). Estimates of yelloweye harvest in 2022 and 2023 are not available at this time.

Guided angler harvest of all rockfish species combined in the KMA was 34,336 in 2022, which is the culmination of a steady increase since 2013 (Table 17). Guided angler harvests in Chiniak Bay, in Afognak Island waters, and in Uyak Bay in 2022 were 5,130, 9,007, and 8,697 fish, respectively.

OTHER GROUND FISH

In addition to halibut and rockfish, the other groundfish species primarily targeted in the KMA is lingcod. Although a portion of annual lingcod catches are taken incidentally by anglers targeting halibut, rockfish, and salmon, there is also some directed effort for lingcod.

Lingcod catches in KMA waters historically have remained much lower than those of other groundfish species, but the species appears to be growing in popularity as a sport fish. SWHS estimates averaged 4,723 fish harvested annually between 2013 and 2022, with an estimated harvest in 2022 of 7,744 lingcod (Table 18). Recent harvest trends show a decrease in harvest in the KMA through 2017 and then an increasing trend through 2022, with an estimated harvest of more than 8,000 lingcod in 2021. Logbook harvests of lingcod averaged 3,234 fish from 2013 to 2022, and the 2022 harvest was 7,873 fish (Table 18). The 2022 logbook harvest is slightly more than the SWHS-estimated harvest for all anglers, and it is apparent that the SWHS underestimated lingcod harvest in 2022.

Other groundfish species such as Pacific cod and kelp greenling are harvested in KMA waters; however, harvests are relatively small. There is increasing interest by anglers for other groundfish species besides rockfish and halibut, but it is unknown whether this will continue to be a trend like rockfish, or if anglers will focus on traditional species as targets and continue to harvest other species opportunistically.

Table 18.—Lingcod harvest and catch in Kodiak Management Area (KMA) from Statewide Harvest Survey (SWHS) estimates for all sport anglers, and guided angler harvest and release of lingcod in the KMA from Charter Logbook database, 2013–2022.

Year	SWHS-estimated harvest for all anglers				Guided Logbook estimated harvest for guided anglers									
	Chiniak Bay		KMA		Chiniak Bay		Ugak Bay		Afognak Island Area		Uyak Bay		Total KMA	
	Harvest	Catch	Harvest	Catch	Harvest	Release	Harvest	Release	Harvest	Release	Harvest	Release	Harvest	Release
2013	1,416	2,201	4,344	6,137	334	22	102	26	992	411	176	43	2,256	597
2014	2,252	2,663	4,434	6,600	279	17	106	8	964	213	47	21	1,800	327
2015	1,591	2,766	2,945	5,493	271	19	41	2	776	383	40	22	1,437	476
2016	981	1,365	2,896	4,116	225	11	85	1	625	209	33	47	1,473	361
2017	873	1,157	2,428	3,890	180	13	96	3	909	152	44	17	1,632	319
2018	1,758	2,392	3,930	5,364	336	17	132	9	1,152	184	156	52	2,454	457
2019	2,906	5,040	5,206	9,862	849	153	136	30	1,166	132	280	107	3,283	719
2020	2,007	3,187	4,897	9,272	692	25	176	40	1,620	183	257	121	3,411	678
2021	3,619	5,717	8,410	13,642	1,204	376	342	30	2,701	285	584	316	6,717	1,228
2022	3,501	5,770	7,744	11,537	1,366	55	334	33	3,248	361	734	287	7,873	1,295
Average														
2013–2022	2,090	3,226	4,723	7,591	574	71	155	18	1,415	251	235	103	3,234	646

Source: Statewide Harvest Survey (SWHS) estimates from the Alaska Sport Fishing Survey database [Intranet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited November 2023). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.; Saltwater Logbook Database (Alaska Department of Fish and Game, Division of Sport Fish. 2006 to present. Accessed November 2023. [URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.]).

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**APPENDIX A: BOARD OF FISHERIES REGULATORY
ACTIONS FOR THE KODIAK MANAGEMENT AREA
REVELANT TO THIS REPORT**

2020 KMA Board of Fisheries:

1) 5AAC 64.005—Description of the Kodiak Area.

The BOF amended the description of the Kodiak Road Zone (KRZ). Previously, the KRZ included salt waters within 1 mile of the shoreline of the KRZ including within 1 mile of Spruce Island. The new boundary includes salt waters within specific points of land following the shoreline of the KRZ to allow anglers to better assess which regulatory zone they are in and in turn follow the bag limits for those areas. The waters surrounding Spruce Island were also excluded from the KRZ.

2) 5AAC 64.022—Waters; seasons; bag, possession, annual, and size limits; and special provisions for the Kodiak Area.

The BOF established a sport fishing season for Chinook salmon in the Dog Salmon River from January 1 to July 25. Chinook salmon fishing is limited to catch and release only, and bait is prohibited during the season.

3) 5AAC 64.051—Waters closed to sport fishing in the Kodiak Area.

The BOF opened the waters of Monashka Creek upstream from the highway bridge to a marker about 50 yards upstream to sport fishing.

4) 5AAC 64.070—Kodiak Area Rockfish Management Plan.

The BOF established a management plan regarding the sport harvest of rockfish for the KMA. The management plan establishes a guideline harvest range (GHR) of zero to 26,000 black rockfish, within which ADF&G must manage the sport harvest. The plan also sets out a list of prioritized management actions that ADF&G can take by emergency order to manage for the GHR as well as for sustainable harvests within specific areas of the KMA.

Appendix A2.—Actions taken by the Alaska Board of Fisheries (BOF) to address declining Chinook salmon runs to the Karluk and Ayakulik Rivers and the “stock of concern” designations.

5AAC 18.395. Retention of king⁸ salmon taken in a commercial fishery. (a) In the Inner Karluk, Outer Karluk, Inner Ayakulik, and Outer Ayakulik Sections, if the department determines that the king salmon runs will not meet seasonal escapement goals, the commissioner may, by emergency order, close the commercial salmon fishery and immediately reopen the commercial salmon fishery, during which king salmon 28 inches or greater in length may not be retained, and king salmon 28 inches or greater in length taken incidentally in the commercial salmon fishery must be returned to the water unharmed.

(b) Before July 30, if the department projects that the Karluk River biological escapement goal will not be met and the sport fishery is restricted in the Karluk watershed to the nonretention of king salmon or the sport fishery for king salmon is closed, the commissioner shall, by emergency order, close the commercial salmon seine fishery season in the waters south of a line from Cape Kuliuk at lat 57° 48.20'N, to the southern boundary of the Inner Ayakulik Section by the latitude of Low Cape, and immediately reopen a commercial salmon seine fishery season during which

(1) king salmon 28 inches or greater in length may not be retained; and

(2) king salmon 28 inches or greater in length taken incidentally must be returned to the water unharmed.

(c) In addition to the other provisions in this section, in the Kodiak Area, from June 1 through July 5, king salmon 28 inches or greater in length taken during the commercial salmon seine fishery may not be retained and must be immediately returned to the water. The provisions of this subsection do not apply after December 31, 2016.

5AAC 18.362. Westside Kodiak Salmon Management Plan. (g) The Inner Ayakulik, and Outer Ayakulik Sections must be managed

(1) From June 1 through approximately July 15 based on early-run sockeye salmon returning to the Ayakulik River; during this time, the commissioner may open, by emergency order, fishing periods in the Inner Ayakulik Section only if the department determines that the upper bound of the Ayakulik River early-run sockeye salmon escapement goal will be achieved;

5 AAC 28.450. Closed waters in Kodiak Area. (e) The waters of Alaska in the Kodiak Area that are approximately three miles on either side of the mouth of the Karluk River bounded on the north by a line from lat 57°36.26'N, long 154°23.73'W, to a point at the state waters boundary at lat 57°38.51'N, long 154°27.92'W, and bounded on the south by a line from lat 57°32.34'N, long 154°32.15'W, to a point at the state waters boundary at lat 57°34.84'N, long 154°36.80'W are closed to fishing with trawl gear.

⁸ In the regulatory language, Chinook salmon are called “king” salmon, “the board” refers to the Alaska Board of Fisheries, and “the department” refers to the Alaska Department of Fish and Game.

**APPENDIX B: CURRENT FISHERY MANAGEMENT
PLANS AND SPECIAL REGULATORY AREAS FOR THE
KODIAK MANAGEMENT AREA**

5 AAC 64.060. *Kodiak Area Saltwater King⁹ Salmon Sport Fishery Management Plan.*

- (a) The purpose of the management plan under this section is to meet the Board of Fisheries' goal of stabilizing the sport harvest of king salmon in the salt waters of the Kodiak Area.
- (b) In the Kodiak Area saltwater king salmon sport fishery,
- (1) the guideline harvest level is 11,000 king salmon;
 - (2) the sport harvest will be estimated annually by the department's statewide harvest survey;
 - (3) king salmon taken in Monashka Bay will not count towards the guideline harvest level established in (1) of this subsection;
 - (4) the bag and possession limit for king salmon is two fish, with no size limit;
 - (5) the annual limit and harvest record specified in 5 AAC 64.022 and 5 AAC 64.025 do not apply.
- (c) If the guideline harvest level is exceeded, the board will consider restrictions that may be necessary to avoid exceeding the guideline harvest level at a regularly scheduled meeting for the Kodiak Area. If the board finds that restrictions are necessary, the board will adopt one or more of the following restrictions in the following order:
- (1) reduce the nonresident bag and possession limit for king salmon in salt waters to one fish;
 - (2) prohibit a sport fishing guide from taking a king salmon while a client is present or is within the guide's control or responsibility;
 - (3) allow only king salmon 28 inches or greater in length to be retained;
 - (4) reduce the resident bag and possession limit for king salmon in salt waters to one fish.

⁹ In the regulatory language, Chinook salmon are called "king" salmon, "the board" refers to the Alaska Board of Fisheries, and "the department" refers to the Alaska Department of Fish and Game.

5 AAC 64.070. Kodiak Area Rockfish Management Plan.

(a) The purpose of the management plan under this section is to meet the Board of Fisheries' goal of stabilizing the sport harvest of black rockfish in the waters of the Kodiak Area particularly in the areas of Chiniak Bay and Marmot Bay. Black rockfish will be managed for harvest levels within the established guideline harvest range until a time when survey abundance estimates suggest an increase in harvest is appropriate. In recognition that commercial and sport users harvest the same populations of black rockfish, a management plan is also in place for commercial fisheries to maintain harvest within the guideline harvest range specified in 5 AAC 28.466(h).

(b) In the Kodiak Area rockfish sport fishery:

(1) the guideline harvest range is 0–26,000 black rockfish;

(2) the sport harvest will be estimated annually by the department using saltwater guide logbooks, statewide harvest survey data, and dockside sampling data;

(3) the bag and possession limit for rockfish is five fish and ten in possession, only two fish per day and four in possession of which may be nonpelagic and only one fish per day and two in possession of which may be a yelloweye, except that, in the waters of Chiniak Bay and Marmot Bay, west of a line from Cape Chiniak at 57° 37.10' N. lat., 152° 9.28' W. long., to Pillar Cape at 58° 8.91' N. lat., 152° 6.78' W. long., and east of a line from Head Point on Afognak Island at 57° 59.67' N. lat., 152° 46.75' W. long., to Dolphin Point at 57° 59.15' N. lat., 152° 43.40' W. long., on Whale Island and from Bird Point at 57° 55.30' N. lat., 152° 47.50' W. long., on Whale Island to Inner Point at 57° 54.05' N. lat., 152° 47.75' W. long., on Kodiak Island

(A) the bag limit for rockfish is three fish per day and six in possession, of which only two fish per day and four in possession may be nonpelagic rockfish, and only one fish per day and two in possession may be yelloweye rockfish; no size limit;

(B) charter vessel operators and crewmembers may not retain rockfish while clients are on board the vessel.

(c) If the harvest increases and it is anticipated that the upper bound of the guideline harvest range will be exceeded or has been exceeded, the commissioner may implement restrictions that may be necessary to restrict the increase of harvest in the sport fishery. When the commissioner finds that restrictions are necessary, the commissioner shall adopt one or more of the following restrictions:

(1) implement an annual limit for non-residents for rockfish;

(2) reduce nonresident bag and possession limit for rockfish;

(3) reduce the rockfish bag limit by area as specified by the department;

(4) implement a rockfish season;

(5) reduce the resident bag and possession limit for rockfish.

5 AAC 64.005. *Description of the Kodiak Area.*

The Kodiak Area consists of all waters of Alaska circumjacent to the Kodiak and Afognak Island groups and including all drainages. For management purposes, the Kodiak Area is divided into the following zones:

(1) Kodiak Road Zone: all freshwaters of Kodiak Island that are east of a line extending south from Crag Point on the west side of Anton Larsen Bay to the westernmost point of Saltery Cove, including the waters of Woody and Long Islands; all salt waters inside or landward of the following lines:

- (A) Anton Larsen Bay south and east of a line from Crag Point at 57° 52.83' N. lat., 152° 40.42' W. long., to Kizhuyak Point at 57° 55.04' N. lat., 152° 38.13' W. long.;
- (B) From the outermost points of Shakmanof Cove at 57° 55.31' N. lat., 152° 36.96' W. long., to 57° 55.55' N. lat., 152° 35.36' W. long.;
- (C) From the easternmost point of Shakmanof Cove at 57° 55.55' N. lat., 152° 35.36' W. long., to Otmeloi Point at 57° 54.56' N. lat., 152° 30.95' W. long.;
- (D) From Course Point near Split Rock at 57° 53.53' N. lat., 152° 27.94' W. long., to Termination Point at 57° 51.37' N. lat., 152° 24.11' W. long.;
- (E) Termination Point at 57° 51.37' N. lat., 152° 24.11' W. long., to Miller Point at 57° 50.24' N. lat., 152° 21.16' W. long.;
- (F) Miller Point at 57° 50.24' N. lat., 152° 21.16' W. long., to Spruce Cape at 57° 49.55' N. lat., 152° 19.62' W. long.;
- (G) Spruce Cape at 57° 49.55' N. lat., 152° 19.62' W. long., to the northern tip of Woody Island at 57° 47.82' N. lat., 152° 19.61' W. long.;
- (H) The southern tip of Woody Island at 57° 45.63' N. lat., 152° 21.18' W. long., to Cliff Point at 57° 43.51' N. lat., 152° 26.62' W. long.;
- (I) Cliff Point at 57° 43.51' N. lat., 152° 26.62' W. long., to Broad Point at 57° 41.27' N. lat., 152° 23.77' W. long.;
- (J) Broad Point at 57° 41.27' N. lat., 152° 23.77' W. long., to the western tip of Cape Chiniak at 57° 37.47' N. lat., 152° 11.75' W. long.;
- (K) Cape Greville at 57° 35.31' N. lat., 152° 9.37' W. long., to the eastern tip of Narrow Cape at 57° 25.92' N. lat., 152° 19.11' W. long.;
- (L) The southernmost part of Narrow Cape at 57° 25.28' N. lat., 152° 20.98' W. long., to Pasagshak Point at 57° 25.27' N. lat., 152° 29.00' W. long.;
- (M) North and east of a line from the outermost points of Pasagshak Bay at 57° 25.27' N. lat., 152° 29.00' W. long., to 57° 25.98' N. lat., 152° 31.13' W. long.;
- (N) From the westernmost point of Pasagshak Bay at 57° 25.98' N. lat., 152° 31.13' W. long., to Shark Point at 57° 26.77' N. lat., 152° 35.18' W. long.;
- (O) From Shark Point at 57° 26.77' N. lat., 152° 35.18' W. long., to the westernmost point of Portage Bay at 57° 27.98' N. lat., 152° 41.14' W. long.;
- (P) From the westernmost point of Portage Bay at 57° 27.98' N. lat., 152° 41.14' W. long., to the westernmost point of Saltery Cove at 57° 29.62' N. lat., 152° 48.160' W. long.

(2) Kodiak Remote Zone: all other waters of the Kodiak Area that are not within the Kodiak Road Zone.

**APPENDIX C: EMERGENCY ORDERS ISSUED IN
2020–2023 FOR KODIAK MANAGEMENT AREA
FISHERIES**

2020 Emergency Orders:

- 1) EO 2-KS-4-10-20 closed the Ayakulik River to sport fishing for Chinook salmon and prohibited the use of bait for all sport fishing in the Ayakulik River drainage, effective 1 June.
- 2) EO 2-KS-4-11-20 closed the Karluk River to sport fishing for Chinook salmon and prohibited the use of bait for all sport fishing in the Karluk River drainage below Karluk Lake, effective 1 June.
- 3) EO 2-RS-4-40-20 reduced the sockeye salmon bag limit in the Saltery Cove drainage from 5 fish to 2 fish, effective 25 July.
- 4) EO 2-RS-4-44-20 closed sport fishing for sockeye salmon in the Saltery Cove drainage, effective 1 August.
- 5) EO 2-RS-4-49-20 opened sport fishing for sockeye salmon in the Saltery Cove drainage and restored the bag limit to 5 fish, effective 11 August.
- 6) EO 2-SS-4-54-20 increased the bag limit for coho salmon in the Pasagshak, Olds and American River drainages from 1 to 2 fish, effective 16 September.
- 7) EO 2-RF-4-12-20 reduced the bag and possession limit for rockfish for nonresident anglers for most of the eastside of Afognak and Kodiak Islands from Shuyak Island to Left Cape from 5 rockfish per day with 10 in possession to 3 rockfish per day with 6 in possession, effective 1 April.
- 8) EO 2-RF-4-20-20 rescinded EO 2-RF-4-12-20 when it became apparent that most nonresidents would not be able to travel to the KMA to fish for rockfish due to COVID related travel restrictions, effective 10 June.

2021 Emergency Orders:

- 1) EO 2-KS-4-12-21 closed the Ayakulik River to sport fishing for Chinook salmon and prohibited the use of bait for all sport fishing in the Ayakulik River drainage, effective 1 June.
- 2) EO 2-KS-4-13-21 closed the Karluk River to sport fishing for Chinook salmon and prohibited the use of bait for all sport fishing in the Karluk River drainage below Karluk Lake, effective 1 June.
- 3) EO 2-RS-4-19-21 closed the Buskin River to sport fishing for sockeye salmon, effective 15 June.
- 4) EO 2-RS-4-27-21 increased the bag limit for sockeye salmon in the South Olga Lakes drainage (Upper Station) from 5 fish to 10 fish, effective 23 June.
- 5) EO 2-RS-4-26-21 increased the bag limit for sockeye salmon in the Ayakulik River drainage to 10 per day, effective 23 June.
- 6) EO 2-RS-4-26-21 increased the bag limit for sockeye salmon in the Saltery Cove drainage from 5 fish to 10 fish, effective 24 July.
- 7) EO 2-SS-4-59-21 increased the bag limit for coho salmon in the Buskin River drainage from 1 to 2 fish, effective 16 September.
- 8) EO 2-SS-4-60-21 increased the bag limit for coho salmon in the Pasagshak River drainage from 1 to 2 fish, effective 24 September.
- 9) EO 2-RF-4-11-21 reduced the bag and possession limit for rockfish for nonresident anglers for most of the eastside of Afognak and Kodiak Islands from Shuyak Island to Left Cape from 5 rockfish per day with 10 in possession to 3 rockfish per day with 6 in possession, effective 1 April.

2022 Emergency Orders:

- 1) EO 2-KS-4-15-22 closed the Ayakulik River to sport fishing for Chinook salmon and prohibited the use of bait for all sport fishing in the Ayakulik River drainage, effective 1 June.
- 2) EO 2-KS-4-14-22 closed the Karluk River to sport fishing for Chinook salmon and prohibited the use of bait for all sport fishing in the Karluk River drainage below Karluk Lake, effective 1 June.
- 3) EO 2-RS-4-27-22 closed the Buskin River to sport fishing for sockeye salmon, effective 11 June.
- 4) EO 2-RS-4-58-22 increased the bag limit for sockeye salmon in the Saltery Cove drainage from 5 fish to 10 fish, effective 21 July.
- 5) EO 2-SS-4-67-22 closed sport fishing for coho salmon in the Buskin River drainage, effective 22 September.
- 6) EO 2-RF-4-16-22 reduced the bag and possession limit for rockfish for nonresident anglers for most of the eastside of Afognak and Kodiak Islands from Shuyak Island to Left Cape from 5 rockfish per day with 10 in possession to 3 rockfish per day with 6 in possession, effective 1 April.

2023 Emergency Orders:

- 1) EO 2-KS-4-19-23 closed the Karluk and Ayakulik Rivers to sport fishing for Chinook salmon and prohibited the use of bait for all sport fishing in the drainages, effective 3 April.
- 2) EO 2-KS-4-24-19 closed the Ayakulik River to retention of Chinook salmon, effective 26 June–25 July.
- 3) EO 2-RS-4-26-23 closed the Buskin River drainage to sport fishing for sockeye salmon, effective 17 June.
- 4) EO 2-RS-4-45-23 closed the Pasagshak River drainage to sport fishing for sockeye salmon, effective 14 July.
- 5) EO 2-RS-4-46-23 increased the bag limit for sockeye salmon in the Saltery Creek drainage from 5 to 10 fish, effective 20 July.
- 6) EO 2-RS-4-50-23 opened sport fishing for sockeye salmon in the Pasagshak River drainage and restored the bag limit to 2 fish, effective 27 July.
- 7) EO 2-SS-4-65-23 increased the bag limit for coho salmon in the Pasagshak River drainage from 1 fish to 3 fish, effective 27 September.
- 8) EO 2-RF-4-17-22 reduced the bag and possession limit for rockfish for nonresident anglers for most of the eastside of Afognak and Kodiak Islands from Shuyak Island to Left Cape from 5 rockfish per day with 10 in possession to 3 rockfish per day with 6 in possession, effective 3 April.

**APPENDIX D: KODIAK MANAGEMENT AREA DAILY
CUMULATIVE WEIR COUNTS, 2013–2023**

Appendix D1.–Karluk River Chinook salmon cumulative weir counts, 2013–2023.

Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
21 May	0	0	0	0	0	3	0	0	0	0	0
22 May	0	0	0	0	0	3	0	0	0	0	0
23 May	0	0	0	0	0	3	0	0	0	0	0
24 May	8	0	0	1	2	4	0	2	0	0	0
25 May	30	0	0	7	2	5	0	2	0	1	0
26 May	55	5	0	12	12	10	2	6	0	2	0
27 May	60	6	1	17	13	11	3	6	0	7	0
28 May	60	7	9	23	41	13	3	9	0	7	0
29 May	66	23	11	37	63	14	3	14	0	15	0
30 May	72	25	14	51	73	17	6	14	1	21	0
31 May	118	41	20	80	92	22	6	20	1	24	0
1 Jun	129	50	37	82	102	24	27	20	1	33	2
2 Jun	207	61	58	93	122	26	48	25	3	45	22
3 Jun	210	66	92	131	126	27	67	35	3	70	39
4 Jun	305	87	115	134	143	32	120	39	6	85	45
5 Jun	463	106	127	200	166	45	153	41	26	112	49
6 Jun	521	113	132	315	191	51	178	49	42	174	56
7 Jun	588	121	155	464	209	170	243	69	50	224	69
8 Jun	604	131	174	484	260	250	267	183	53	288	72
9 Jun	632	142	248	518	289	329	360	236	79	315	74
10 Jun	689	160	281	542	356	374	406	320	90	398	82
11 Jun	764	170	299	564	383	517	483	320	97	467	90
12 Jun	798	195	388	752	436	683	531	348	119	727	95
13 Jun	867	212	480	857	461	725	757	411	205	905	102
14 Jun	974	223	592	878	530	902	817	419	274	1,123	116
15 Jun	1,031	237	773	944	572	955	941	550	383	1,200	135
16 Jun	1,059	244	888	1,057	606	1,000	1,121	739	541	1,225	146
17 Jun	1,101	256	994	1,287	668	1,048	1,220	783	628	1,273	151
18 Jun	1,128	297	1,013	1,523	766	1,190	1,249	804	664	1,386	157
19 Jun	1,264	349	1,054	1,634	841	1,219	1,420	849	744	1,422	165
20 Jun	1,332	449	1,254	1,705	900	1,262	1,525	906	800	1,446	179
21 Jun	1,350	626	1,279	1,749	970	1,323	1,764	955	925	1,458	183
22 Jun	1,356	651	1,393	1,913	1,110	1,472	1,892	1,022	1,087	1,464	201
23 Jun	1,439	767	1,487	1,985	1,398	1,601	1,978	1,073	1,276	1,478	216
24 Jun	1,475	786	1,626	2,136	1,441	1,669	2,055	1,170	1,369	1,589	227
25 Jun	1,495	808	1,670	2,190	1,520	1,749	2,126	1,280	1,508	1,607	243
26 Jun	1,522	841	1,743	2,338	1,578	1,854	2,209	1,321	1,535	1,686	249
27 Jun	1,530	865	1,845	2,438	1,607	1,903	2,296	1,405	1,596	1,741	255
28 Jun	1,558	874	1,997	2,476	1,656	2,008	2,382	1,470	1,687	1,741	273
29 Jun	1,594	904	2,056	2,528	1,742	2,066	2,504	1,633	1,834	1,748	275
30 Jun	1,598	919	2,169	2,565	1,779	2,196	2,626	1,701	1,921	1,917	280
1 Jul	1,629	930	2,207	2,602	1,813	2,260	2,681	1,880	1,969	1,938	282
2 Jul	1,629	955	2,238	2,782	1,890	2,295	2,766	1,965	2,014	2,143	288
3 Jul	1,648	963	2,360	2,806	1,930	2,385	2,963	2,149	2,035	2,166	295
4 Jul	1,668	973	2,421	2,874	1,967	2,433	3,052	2,264	2,071	2,175	297
5 Jul	1,675	1,005	2,464	2,941	2,001	2,477	3,082	2,313	2,147	2,176	309

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
6 Jul	1,686	1,021	2,475	2,975	2,107	2,492	3,151	2,320	2,184	2,178	314
7 Jul	1,718	1,040	2,525	3,026	2,126	2,523	3,293	2,442	2,196	2,182	323
8 Jul	1,721	1,044	2,538	3,039	2,166	2,540	3,343	2,454	2,204	2,188	326
9 Jul	1,725	1,052	2,559	3,073	2,180	2,566	3,377	2,478	2,216	2,190	327
10 Jul	1,725	1,076	2,569	3,121	2,258	2,606	3,487	2,489	2,228	2,195	331
11 Jul	1,726	1,084	2,574	3,148	2,303	2,648	3,525	2,594	2,270	2,199	335
12 Jul	1,731	1,098	2,580	3,168	2,315	2,685	3,573	2,609	2,307	2,201	339
13 Jul	1,735	1,133	2,593	3,180	2,332	2,796	3,626	2,611	2,308	2,220	340
14 Jul	1,735	1,138	2,608	3,200	2,354	2,803	3,651	2,631	2,321	2,237	341
15 Jul	1,736	1,149	2,620	3,211	2,373	2,853	3,669	2,658	2,329	2,357	342
16 Jul	1,743	1,157	2,664	3,214	2,383	2,868	3,681	2,669	2,350	2,398	342
17 Jul	1,745	1,158	2,674	3,226	2,388	2,884	3,689	2,676	2,426	2,399	345
18 Jul	1,748	1,158	2,678	3,292	2,398	2,894	3,691	2,745	2,491	2,412	347
19 Jul	1,748	1,159	2,687	3,307	2,400	2,905	3,694	2,828	2,573	2,415	351
20 Jul	1,750	1,162	2,689	3,316	2,404	2,925	3,704	2,862	2,585	2,416	352
21 Jul	1,750	1,162	2,697	3,317	2,419	2,939	3,714	2,876	2,611	2,417	354
22 Jul	1,750	1,163	2,698	3,326	2,420	2,959	3,733	2,910	2,667	2,429	355
23 Jul	1,754	1,167	2,703	3,342	2,424	2,962	3,745	2,920	2,677	2,429	356
24 Jul	1,754	1,168	2,704	3,351	2,440	2,980	3,764	2,994	2,692	2,430	359
25 Jul	1,756	1,168	2,706	3,353	2,456	2,990	3,768	3,030	2,693	2,431	359
26 Jul	1,759	1,169	2,712	3,358	2,462	2,993	3,775	3,067	2,699	2,435	359
27 Jul	1,761	1,174	2,718	3,360	2,491	2,995	3,786	3,119	2,701	2,439	360
28 Jul	1,762	1,174	2,720	3,361	2,494	2,997	3,789	3,125	2,703	2,464	360
29 Jul	1,766	1,176	2,724	3,364	2,504	3,006	3,798	3,140	2,705	2,471	362
30 Jul	1,767	1,176	2,726	3,366	2,528	3,024	3,800	3,147	2,707	2,497	362
31 Jul	1,767	1,177	2,733	3,371	2,530	3,061	3,807	3,157	2,708	2,505	364
1 Aug	1,769	1,177	2,737	3,373	2,532	3,066	3,816	3,223	2,720	2,514	364
2 Aug	1,772	1,177	2,742	3,377	2,535	3,067	3,825	3,226	2,722	2,517	366
3 Aug	1,772	1,177	2,745	3,378	2,542	3,070	3,828	3,233	2,725	2,517	367
4 Aug	1,772	1,177	2,751	3,384	2,546	3,080	3,833	3,233	2,730	2,518	367
5 Aug	1,772	1,178	2,753	3,385	2,548	3,088	3,834	3,269	2,730	2,526	367
6 Aug	1,787	1,178	2,757	3,391	2,552	3,091	3,835	3,274	2,733	2,527	367
7 Aug	1,788	1,178	2,761	3,395	2,561	3,093	3,836	3,280	2,743	2,527	367
8 Aug	1,789	1,178	2,761	3,396	2,567	3,094	3,837	3,282	2,750	2,527	367
9 Aug	1,795	1,178	2,765	3,396	2,577	3,096	3,839	3,284	2,753	2,536	371
10 Aug	1,796	1,179	2,765	3,396	2,577	3,098	3,841	3,287	2,774	2,594	371
11 Aug	1,797	1,179	2,765	3,396	2,577	3,101	3,842	3,292	2,776	2,619	371
12 Aug	1,800	1,179	2,767	3,396	2,578	3,133	3,843	3,296	2,776	2,620	371
13 Aug	1,803	1,180	2,768	3,396	2,578	3,146	3,843	3,297	2,776	2,621	372
14 Aug	1,804	1,180	2,768	3,398	2,579	3,148	3,844	3,297	2,776	2,621	372
15 Aug	1,805	1,181	2,768	3,398	2,579	3,148	3,847	3,297	2,777	2,621	372
16 Aug	1,805	1,181	2,768	3,401	2,580	3,148	3,848	3,297	2,777	2,622	375
17 Aug	1,805	1,181	2,772	3,409	2,585	3,149	3,848	3,297	2,778	2,622	376
18 Aug	1,809	1,181	2,777	3,411	2,585	3,149	3,848	3,300	2,780	2,623	376
19 Aug	1,811	1,181	2,777	3,411	2,586	3,150	3,849	3,302	2,780	2,623	376
20 Aug	1,815	1,182	2,777	3,411	2,587	3,150	3,849	3,303	2,780	2,628	376

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
21 Aug	1,817	1,182	2,777	3,413	2,587	3,152	3,849	3,303	2,781	2,628	376
22 Aug	1,820	1,182	2,777	3,416	2,587	3,152	3,850	3,306	2,784	2,628	376
23 Aug	1,820	1,182	2,777	3,418	2,591	3,152	3,850	3,307	2,785	2,628	377
24 Aug	1,820	1,182	2,777	3,419	2,592	3,152	3,850	3,308	2,786	2,628	377
25 Aug	1,820	1,182	2,777	3,421	2,595	3,153	3,850	3,311	2,787	2,628	377
26 Aug	1,820	1,182	2,777	3,424	2,596	3,153	3,850	3,314	2,787	2,628	377
27 Aug	1,820	1,182	2,777	3,430	2,597	3,153	3,852	3,321	2,787	2,628	378
28 Aug	1,820	1,182	2,777	3,430	2,597	3,154	3,852	3,326	2,787	2,628	378
29 Aug	1,820	1,182	2,777	3,430	2,597	3,154	3,858	3,328	2,790	2,628	378
30 Aug	1,820	1,182	2,777	3,430	2,597	3,154	3,867	3,330	2,795	2,628	378
31 Aug	1,820	1,182	2,777	3,431	2,598	3,154	3,868	3,338	2,795	2,629	378
1 Sep	1,823	1,182	2,777	3,431	2,598	3,154	3,870	3,342	2,795	2,629	378
2 Sep	1,824	1,182	2,777	3,433	2,599	3,154	3,875	3,343	2,796	2,629	378
3 Sep	1,824	1,182	2,777	3,433	2,599	3,155	3,876	3,344	2,796	2,629	378
4 Sep	1,824	1,182	2,777	3,434	2,600	3,155	3,880	3,344	2,796	2,629	378
5 Sep	1,824	1,182	2,777	3,434	2,600	3,155	3,883	3,344	2,796	2,629	379
6 Sep	1,824	1,182	2,777	3,434	2,600	3,155	3,888	3,344	2,796	2,629	379
7 Sep	1,824	1,182	2,777	3,434	2,600	3,155	3,889	3,344	2,796	2,629	379
8 Sep	1,824	1,182	2,777	3,434	2,600	3,155	3,892	3,344	2,796	2,629	379
9 Sep	1,824	1,182	2,777	3,434	2,600	3,155	3,896	3,344	2,796	2,629	379
10 Sep	1,824	1,182	2,777	3,434	2,600	3,155	3,896	3,344	2,796	2,629	379
11 Sep	1,824	1,182	2,777	3,434	2,600	3,155	3,896	3,344	2,796	2,629	379
Final	1,824	1,182	2,777	3,434	2,600	3,155	3,898	3,344	2,796	2,629	379

Source: ADF&G Division of Commercial Fisheries, Kodiak, 2023.

Appendix D2.–Ayakulik River Chinook salmon cumulative weir counts, 2013–2023.

Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
20 May	0	0	0	0	0	0	0	0	0	0	0
21 May	0	0	0	0	0	0	0	0	0	0	0
22 May	0	0	0	0	3	0	0	0	0	0	0
23 May	0	0	0	0	3	0	0	0	0	0	0
24 May	0	0	0	0	3	0	0	2	0	0	0
25 May	0	1	4	11	3	0	2	2	0	1	0
26 May	1	4	4	48	3	0	4	6	0	2	0
27 May	8	4	8	72	3	1	5	6	0	7	0
28 May	15	13	14	181	3	4	14	9	0	7	0
29 May	22	21	27	256	3	4	20	14	0	15	0
30 May	41	28	35	320	3	4	21	14	1	21	0
31 May	47	35	55	373	3	9	32	20	1	24	0
1 Jun	60	45	67	399	3	15	43	20	1	33	2
2 Jun	80	97	100	430	3	24	66	25	3	45	22
3 Jun	87	111	112	476	3	41	135	35	3	70	39
4 Jun	123	127	137	518	3	48	173	39	6	85	45
5 Jun	135	167	152	532	74	100	250	41	26	112	49
6 Jun	198	179	184	597	158	115	319	49	42	174	56
7 Jun	361	179	216	639	198	188	355	69	50	224	69
8 Jun	363	184	228	681	310	257	389	183	53	288	72
9 Jun	476	196	252	799	765	343	481	236	79	315	74
10 Jun	488	203	252	955	801	412	515	320	90	398	82
11 Jun	562	212	252	1,059	843	472	539	320	97	467	90
12 Jun	644	214	283	1,251	901	537	649	348	119	727	95
13 Jun	699	238	405	1,367	935	605	705	411	205	905	102
14 Jun	774	254	469	1,454	1,021	636	747	419	274	1,123	116
15 Jun	892	277	560	1,542	1,277	716	814	550	383	1,200	135
16 Jun	897	320	638	1,740	1,382	738	935	739	541	1,225	146
17 Jun	1,078	350	646	1,904	1,450	814	987	783	628	1,273	151
18 Jun	1,110	365	702	1,938	1,525	879	1,013	804	664	1,386	157
19 Jun	1,275	370	743	2,201	1,899	998	1,080	849	744	1,422	165
20 Jun	1,339	426	795	2,408	2,071	1,047	1,106	906	800	1,446	179
21 Jun	1,354	449	820	2,523	2,144	1,148	1,160	955	925	1,458	183
22 Jun	1,363	476	930	2,649	2,245	1,288	1,183	1,022	1,087	1,464	201
23 Jun	1,455	510	1,064	2,710	2,479	1,396	1,198	1,073	1,276	1,478	216
24 Jun	1,573	551	1,211	2,901	2,575	1,524	1,229	1,170	1,369	1,589	227
25 Jun	1,718	592	1,289	3,094	2,622	1,629	1,229	1,280	1,508	1,607	243
26 Jun	1,806	612	1,479	3,325	2,732	1,654	1,255	1,321	1,535	1,686	249
27 Jun	1,821	618	1,664	3,513	2,785	1,681	1,260	1,405	1,596	1,741	255
28 Jun	1,829	636	1,699	3,661	2,864	1,731	1,315	1,470	1,687	1,741	273
29 Jun	1,897	660	1,699	3,713	3,142	1,743	1,334	1,633	1,834	1,748	275
30 Jun	1,900	692	1,708	3,832	3,193	1,838	1,532	1,701	1,921	1,917	280
1 Jul	1,939	702	1,721	3,942	3,198	1,858	1,590	1,880	1,969	1,938	282
2 Jul	1,964	703	1,756	4,039	3,251	1,887	1,634	1,965	2,014	2,143	288
3 Jul	1,964	713	1,825	4,079	3,283	1,906	1,655	2,149	2,035	2,166	295
4 Jul	1,988	727	1,909	4,145	3,319	1,933	1,656	2,264	2,071	2,175	297

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
5 Jul	2,009	745	1,940	4,164	3,359	1,967	1,715	2,313	2,147	2,176	309
6 Jul	2,009	820	1,990	4,198	3,398	1,972	1,748	2,320	2,184	2,178	314
7 Jul	2,055	825	2,006	4,248	3,429	2,035	1,749	2,442	2,196	2,182	323
8 Jul	2,096	831	2,034	4,266	3,454	2,043	1,767	2,454	2,204	2,188	326
9 Jul	2,114	849	2,049	4,285	3,474	2,043	1,789	2,478	2,216	2,190	327
10 Jul	2,142	882	2,078	4,318	3,509	2,048	1,804	2,489	2,228	2,195	331
11 Jul	2,249	891	2,100	4,328	3,536	2,056	1,808	2,594	2,270	2,199	335
12 Jul	2,249	895	2,105	4,361	3,556	2,066	1,810	2,609	2,307	2,201	339
13 Jul	2,249	896	2,141	4,379	3,571	2,073	1,820	2,611	2,308	2,220	340
14 Jul	2,255	899	2,168	4,409	3,573	2,079	1,823	2,631	2,321	2,237	341
15 Jul	2,258	901	2,185	4,430	3,577	2,081	1,837	2,658	2,329	2,357	342
16 Jul	2,263	905	2,201	4,464	3,588	2,090	1,857	2,669	2,350	2,398	342
17 Jul	2,283	905	2,253	4,480	3,606	2,092	1,861	2,676	2,426	2,399	345
18 Jul	2,283	907	2,281	4,491	3,613	2,097	1,867	2,745	2,491	2,412	347
19 Jul	2,286	907	2,289	4,506	3,621	2,103	1,869	2,828	2,573	2,415	351
20 Jul	2,299	907	2,299	4,517	3,631	2,111	1,869	2,862	2,585	2,416	352
21 Jul	2,302	908	2,323	4,519	3,637	2,111	1,869	2,876	2,611	2,417	354
22 Jul	2,303	910	2,338	4,529	3,641	2,116	1,877	2,910	2,667	2,429	355
23 Jul	2,307	912	2,361	4,532	3,646	2,117	1,904	2,920	2,677	2,429	356
24 Jul	2,307	913	2,371	4,532	3,655	2,117	1,910	2,994	2,692	2,430	359
25 Jul	2,324	913	2,375	4,545	3,660	2,131	1,918	3,030	2,693	2,431	359
26 Jul	2,337	913	2,380	4,546	3,663	2,131	1,923	3,067	2,699	2,435	359
27 Jul	2,338	914	2,380	4,550	3,667	2,132	1,926	3,119	2,701	2,439	360
28 Jul	2,340	914	2,380	4,557	3,669	2,137	1,936	3,125	2,703	2,464	360
29 Jul	2,340	914	2,384	4,577	3,672	2,137	1,936	3,140	2,705	2,471	362
30 Jul	2,342	914	2,384	4,578	3,674	2,137	1,938	3,147	2,707	2,497	362
31 Jul	2,343	914	2,385	4,578	3,679	2,139	1,939	3,157	2,708	2,505	364
1 Aug	2,345	914	2,385	4,591	3,680	2,144	1,940	3,223	2,720	2,514	364
2 Aug	2,345	914	2,386	4,594	3,680	2,147	1,940	3,226	2,722	2,517	366
3 Aug	2,345	914	2,387	4,594	3,680	2,147	1,940	3,233	2,725	2,517	367
4 Aug	2,345	914	2,387	4,594	3,680	2,147	1,940	3,233	2,730	2,518	367
5 Aug	2,345	914	2,388	4,594	3,680	2,147	1,940	3,269	2,730	2,526	367
6 Aug	2,357	914	2,388	4,594	3,683	2,148	1,940	3,274	2,733	2,527	367
7 Aug	2,362	914	2,390	4,594	3,684	2,148	1,940	3,280	2,743	2,527	367
8 Aug	2,362	914	2,391	4,594	3,685	2,148	1,940	3,282	2,750	2,527	367
9 Aug	2,362	915	2,391	4,594	3,689	2,148	1,940	3,284	2,753	2,536	371
10 Aug	2,362	915	2,392	4,594	3,690	2,148	1,940	3,287	2,774	2,594	371
11 Aug	2,362	915	2,392	4,594	3,690	2,149	1,940	3,292	2,776	2,619	371
12 Aug	2,362	916	2,392	4,594	3,692	2,149	1,940	3,296	2,776	2,620	371
13 Aug	2,362	916	2,392	4,594	3,692	2,149	1,941	3,297	2,776	2,621	372
14 Aug	2,363	916	2,392	4,594	3,695	2,149	1,941	3,297	2,776	2,621	372
15 Aug	2,365	916	2,392	4,594	3,701	2,149	1,941	3,297	2,777	2,621	372
16 Aug	2,367	916	2,392	4,594	3,704	2,149	1,941	3,297	2,777	2,622	375
17 Aug	2,367	916	2,392	4,594	3,709	2,149	1,942	3,297	2,778	2,622	376
18 Aug	2,369	916	2,392	4,594	3,709	2,149	1,942	3,300	2,780	2,623	376
19 Aug	2,369	916	2,392	4,594	3,710	2,149	1,942	3,302	2,780	2,623	376

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
20 Aug	2,369	916	2,392	4,594	3,710	2,149	1,943	3,303	2,780	2,628	376
21 Aug	2,369	916	2,392	4,594	3,712	2,149	1,943	3,303	2,781	2,628	376
22 Aug	2,369	916	2,392	4,594	3,712	2,149	1,943	3,306	2,784	2,628	376
23 Aug	2,369	916	2,392	4,594	3,712	2,149	1,943	3,307	2,785	2,628	377
24 Aug	2,369	916	2,392	4,594	3,712	2,149	1,943	3,308	2,786	2,628	377
25 Aug	2,369	916	2,392	4,594	3,712	2,149	1,944	3,311	2,787	2,628	377
26 Aug	2,369	917	2,392	4,594	3,712	2,149	1,948	3,314	2,787	2,628	377
27 Aug	2,369	917	2,392	4,594	3,712	2,149	1,948	3,321	2,787	2,628	378
28 Aug	2,369	917	2,392	4,594	3,712	2,149	1,948	3,326	2,787	2,628	378
29 Aug	2,369	917	2,392	4,594	3,712	2,149	1,948	3,328	2,790	2,628	378
30 Aug	2,369	917	2,392	4,594	3,712	2,149	1,948	3,330	2,795	2,628	378
31 Aug	2,369	917	2,392	4,594	3,712	2,149	1,948	3,338	2,795	2,629	378
1 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,342	2,795	2,629	378
2 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,343	2,796	2,629	378
3 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,344	2,796	2,629	378
4 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,344	2,796	2,629	378
5 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,344	2,796	2,629	379
6 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,344	2,796	2,629	379
7 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,344	2,796	2,629	379
8 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,344	2,796	2,629	379
9 Sep	2,369	917	2,392	4,594	3,712	2,149	1,948	3,344	2,796	2,629	379
Final	2,369	917	2,392	4,594	3,712	2,149	1,948	3,344	2,796	2,629	379

Source: ADF&G Division of Commercial Fisheries, Kodiak, 2023.

Appendix D3.–Buskin River coho salmon cumulative weir counts, 2013–2023.

Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1 Aug	0	0	0	0	0	0	0	0	0	0	0
2 Aug	0	0	0	0	0	1	0	0	0	0	0
3 Aug	3	0	0	0	0	1	0	0	0	0	0
4 Aug	7	0	0	0	0	5	0	0	0	0	0
5 Aug	9	0	0	2	0	9	1	0	0	0	0
6 Aug	10	0	0	3	0	26	5	0	0	0	3
7 Aug	10	0	0	10	0	49	10	0	0	0	6
8 Aug	10	0	0	12	0	52	10	0	2	0	7
9 Aug	18	3	0	12	0	59	10	0	6	0	8
10 Aug	38	3	0	16	0	82	10	0	19	1	9
11 Aug	54	4	0	16	0	96	11	1	28	3	9
12 Aug	59	6	70	18	0	106	12	2	46	12	9
13 Aug	75	7	70	21	0	154	13	23	46	20	15
14 Aug	79	463	72	51	0	200	13	35	67	24	15
15 Aug	93	463	74	63	0	217	14	43	71	28	18
16 Aug	110	473	74	69	1	220	17	51	93	43	25
17 Aug	129	511	75	86	1	224	19	54	124	57	25
18 Aug	165	521	78	121	1	245	19	61	139	58	31
19 Aug	177	540	82	137	1	495	19	67	171	90	36
20 Aug	193	573	85	160	2	745	19	79	213	115	36
21 Aug	206	573	87	189	4	752	19	91	260	173	38
22 Aug	280	576	87	220	8	817	19	91	290	173	38
23 Aug	367	586	88	324	9	875	20	95	372	173	53
24 Aug	486	678	92	358	13	879	22	96	425	173	59
25 Aug	613	762	102	410	25	882	22	96	490	481	66
26 Aug	727	854	108	418	42	886	41	108	546	509	80
27 Aug	823	1,072	117	480	54	900	44	134	579	544	99
28 Aug	855	1,112	133	487	61	929	44	153	590	563	108
29 Aug	1,533	1,146	137	574	61	933	45	223	599	596	153
30 Aug	2,033	1,203	141	660	61	941	89	298	629	622	196
31 Aug	2,439	1,308	144	669	61	943	106	359	658	657	210
1 Sep	2,488	1,337	147	687	63	943	108	364	2,558	662	255
2 Sep	2,686	1,417	149	707	64	945	108	370	2,698	663	315
3 Sep	2,745	1,580	151	745	64	947	108	373	2,831	677	371
4 Sep	2,850	2,442	153	863	64	948	110	375	3,036	688	372
5 Sep	3,011	2,779	153	883	64	950	110	376	3,092	692	382
6 Sep	3,354	2,997	153	970	64	950	112	427	3,329	700	386
7 Sep	3,697	3,043	158	975	64	957	113	491	3,470	722	387
8 Sep	3,840	3,228	160	992	94	972	114	514	3,797	764	388
9 Sep	4,073	3,305	165	1,007	114	972	118	525	5,019	822	394
10 Sep	4,306	3,427	180	1,017	119	998	120	532	6,519	834	398
11 Sep	4,441	3,820	189	1,285	3,171	1,059	125	533	6,524	854	398
12 Sep	4,560	4,298	196	1,329	3,204	1,066	169	534	6,599	869	398
13 Sep	4,763	4,917	197	1,360	3,250	1,066	177	540	6,643	871	402
14 Sep	4,788	5,048	201	1,377	3,410	1,066	179	540	6,720	882	405
15 Sep	4,840	6,397	209	1,441	3,515	1,076	181	540	6,734	897	407

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
16 Sep	4,849	6,940	212	1,483	3,693	1,080	195	541	7,250	923	417
17 Sep	4,856	7,403	214	1,507	3,718	1,084	197	555	7,508	934	455
18 Sep	4,890	7,711	217	1,511	3,731	1,090	212	603	7,624	947	468
19 Sep	4,949	7,917	217	1,530	3,798	1,103	221	617	7,646	981	483
20 Sep	5,009	8,044	219	1,551	3,889	1,105	413	626	7,779	988	530
21 Sep	5,124	8,192	220	1,934	3,904	1,107	459	630	7,793	1,022	533
22 Sep	5,269	8,195	221	2,114	3,929	1,111	503	630	7,796	1,202	536
23 Sep	5,284	8,214	221	2,325	3,953	1,112	2,368	630	7,908	1,728	548
24 Sep	5,285	8,216	221	2,360	4,023	1,115	3,398	630	7,913	1,895	577
25 Sep	5,323	8,219	221	2,451	4,063	1,118	3,520	630	7,913	2,001	580
26 Sep	5,327	8,222	223	2,486	4,065	1,119	4,100	630	7,915	2,211	622
27 Sep	5,407	8,332	226	2,513	4,911	2,065	4,223	630	7,918	2,526	647
28 Sep	5,591	8,413	232	2,513	5,127	2,065	4,287	630	7,919	2,526	649
29 Sep	5,775	8,413	974	2,513	5,343	2,112	4,561	630	7,919	2,526	649
30 Sep	5,959	8,413	987	2,513	5,559	2,168	4,626	630	7,919	2,526	649
1 Oct	5,959	8,413	987	2,513	5,559	2,168	5,037	630	7,919	2,526	649
2 Oct	5,959	8,413	1,223	2,513	5,559	2,187	5,537	630	7,919	2,526	649
3 Oct	5,959	8,413	1,890	2,513	5,559	2,396	5,537	630	7,919	2,526	649
4 Oct	5,959	8,413	1,920	2,513	5,559	2,744	5,537	630	7,919	2,526	649
5 Oct	5,959	8,413	1,920	2,513	5,559	2,859	5,537	630	7,919	2,526	649
6 Oct	5,959	8,413	2,220	2,513	5,559	2,888	5,537	630	7,919	2,526	649
7 Oct	5,959	8,413	2,652	2,513	5,559	2,889	5,537	630	7,919	2,526	649
Final	5,959	8,413	4,341	2,513	5,559	4,523	5,537	630	7,919	2,526	649

Source: ADF&G Divisions of Commercial Fisheries and Sport Fisheries, Kodiak, 2023.

Appendix D4.–Buskin River sockeye salmon cumulative weir counts, 2013–2023.

Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
17 May	0	0	0	0	0	0	0	0	0	0	0
18 May	0	0	0	0	0	0	0	0	0	0	0
19 May	0	10	0	0	0	0	1	0	0	0	0
20 May	0	46	0	12	1	0	1	0	0	0	0
21 May	1	48	4	125	1	0	1	0	0	0	0
22 May	1	51	43	130	1	0	1	0	0	0	0
23 May	2	53	116	144	1	1	1	0	0	0	0
24 May	2	191	117	144	1	1	1	0	0	0	0
25 May	89	206	117	144	434	1	2	0	0	0	0
26 May	89	208	117	146	563	1	2	4	0	0	0
27 May	116	374	117	224	996	1	2	4	0	0	0
28 May	179	554	141	770	1,047	1	2	4	0	0	2
29 May	251	628	357	776	1,119	1	115	4	0	0	2
30 May	425	1,061	424	944	1,329	1	115	4	0	0	2
31 May	676	1,202	720	1,162	2,044	1	116	4	0	0	4
1 Jun	844	1,422	816	1,316	2,624	4	117	32	0	0	4
2 Jun	1,004	1,455	924	1,811	2,698	4	118	116	0	0	4
3 Jun	1,325	1,637	1,045	2,236	2,791	4	118	167	0	0	4
4 Jun	1,612	1,738	1,047	2,557	2,945	4	119	283	0	3	21
5 Jun	1,827	1,877	1,272	2,785	3,257	24	119	287	33	199	23
6 Jun	2,050	2,565	1,322	3,091	3,507	24	119	303	33	570	42
7 Jun	2,696	2,565	1,445	3,317	3,803	34	234	358	79	608	111
8 Jun	3,382	3,464	1,618	4,067	4,594	34	896	358	79	769	112
9 Jun	3,836	4,260	2,113	4,397	4,629	38	1,275	358	79	887	112
10 Jun	4,057	4,637	2,194	4,671	5,318	42	1,445	502	114	889	112
11 Jun	4,790	4,977	2,299	4,840	5,377	44	1,574	587	114	890	165
12 Jun	5,379	5,930	2,387	4,874	5,377	44	1,577	592	114	890	234
13 Jun	5,933	6,639	2,387	4,876	5,382	54	1,831	638	114	1,275	276
14 Jun	6,663	6,813	2,450	4,876	5,430	162	2,122	639	114	1,287	344
15 Jun	7,450	7,172	2,593	4,882	5,479	163	3,363	775	449	1,290	344
16 Jun	7,813	7,516	2,647	4,914	5,487	267	3,392	1,420	464	1,379	344
17 Jun	9,125	7,949	2,734	4,947	5,648	269	3,887	1,862	583	1,488	409
18 Jun	9,880	8,450	2,734	5,077	5,672	443	4,143	1,930	583	2,013	633
19 Jun	10,278	8,882	2,735	5,138	5,973	443	4,146	2,464	583	2,071	1,147
20 Jun	10,841	9,267	2,761	5,220	6,005	641	4,553	2,587	586	2,371	1,222
21 Jun	10,969	9,339	2,769	5,720	6,032	650	5,434	3,075	591	2,372	1,250
22 Jun	11,240	9,603	2,796	5,826	6,464	915	5,483	3,465	591	2,508	1,250
23 Jun	11,883	9,733	3,012	6,146	6,514	964	5,578	3,646	741	2,771	1,257
24 Jun	12,270	9,897	3,025	6,158	6,521	1,041	5,828	3,992	745	2,870	1,258
25 Jun	12,509	10,015	3,195	6,299	6,529	1,079	5,891	4,282	747	2,974	1,258
26 Jun	12,797	10,144	3,396	6,352	6,615	1,079	7,114	4,744	747	3,453	1,303
27 Jun	13,064	10,208	3,461	6,453	6,619	1,167	7,234	4,810	762	3,673	1,305
28 Jun	13,629	10,353	3,633	6,456	6,941	1,242	7,316	4,965	818	4,417	1,309
29 Jun	13,792	10,470	3,736	6,456	6,941	1,242	7,647	5,039	827	4,492	1,323
30 Jun	13,925	10,547	4,032	6,573	6,941	1,244	7,966	5,086	827	4,705	1,323
1 Jul	14,039	10,631	4,183	6,865	6,941	1,247	8,016	5,101	845	4,717	1,323

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2 Jul	14,124	10,680	4,350	6,881	6,980	1,254	8,192	5,107	854	5,083	1,333
3 Jul	14,224	10,746	4,570	6,881	7,026	1,263	8,671	5,206	854	5,357	1,333
4 Jul	14,272	10,825	4,717	6,924	7,026	1,308	8,677	5,937	866	5,398	1,333
5 Jul	14,289	10,956	5,133	7,236	7,026	1,377	8,893	5,943	866	5,403	1,333
6 Jul	14,318	11,018	5,516	7,311	7,027	1,378	8,994	6,009	907	5,418	1,333
7 Jul	14,404	11,185	5,550	7,377	7,075	1,384	9,082	6,209	909	5,528	1,355
8 Jul	14,475	12,151	5,560	7,407	7,100	1,388	9,134	6,244	909	6,209	1,355
9 Jul	14,546	12,195	5,579	8,053	7,103	1,408	9,265	6,309	909	6,215	1,355
10 Jul	14,978	12,242	5,795	8,056	7,115	1,451	9,283	6,355	912	6,493	1,355
11 Jul	15,070	12,276	5,888	8,090	7,139	1,523	9,312	6,380	912	6,536	1,357
12 Jul	15,089	12,294	5,911	8,113	7,140	1,524	9,352	6,409	924	6,553	1,461
13 Jul	15,113	12,310	5,922	8,147	7,153	1,528	9,361	6,452	924	6,623	1,526
14 Jul	15,145	12,388	5,990	8,475	7,176	1,657	9,832	6,527	944	6,625	1,550
15 Jul	15,256	12,416	6,195	8,521	7,176	1,761	9,918	6,539	944	6,688	1,584
16 Jul	15,264	12,698	6,599	8,620	7,179	1,775	10,134	6,574	947	6,694	1,592
17 Jul	15,281	12,743	6,621	8,684	7,179	1,792	10,201	6,603	948	6,736	1,639
18 Jul	15,295	12,795	6,622	9,204	7,184	1,842	10,222	6,620	972	6,790	1,656
19 Jul	15,301	12,810	6,950	9,272	7,186	1,864	10,258	6,805	1,029	6,791	1,666
20 Jul	15,307	13,078	6,986	9,279	7,186	1,868	10,300	6,845	1,104	6,827	1,666
21 Jul	15,320	13,101	7,125	9,281	7,186	1,944	10,327	6,930	1,133	6,827	1,667
22 Jul	15,322	13,106	7,519	9,296	7,188	2,017	10,358	6,997	1,133	6,830	1,673
23 Jul	15,341	13,111	7,522	9,357	7,205	2,466	10,399	7,024	1,180	7,217	1,691
24 Jul	15,345	13,118	7,522	9,383	7,205	2,709	10,534	7,032	1,223	7,255	1,693
25 Jul	15,363	13,120	7,528	9,389	7,208	2,709	10,722	7,115	1,236	7,364	1,693
26 Jul	15,387	13,124	7,560	9,417	7,208	2,751	10,938	7,131	1,240	7,366	1,694
27 Jul	15,390	13,145	7,572	9,505	7,208	2,760	11,256	7,144	1,240	7,410	1,694
28 Jul	15,392	13,148	7,774	9,522	7,208	2,760	11,332	7,153	1,240	7,415	1,695
29 Jul	15,413	13,149	7,791	9,579	7,208	2,845	11,332	7,196	1,247	7,415	1,703
30 Jul	15,440	13,196	7,808	9,826	7,210	2,921	11,380	7,378	1,248	7,426	1,706
31 Jul	15,448	13,198	7,814	10,351	7,210	2,946	11,471	7,390	1,255	7,427	1,706
1 Aug	15,530	13,200	7,835	10,369	7,210	2,950	12,045	7,420	1,287	7,543	1,741
2 Aug	15,587	13,201	7,841	10,369	7,210	2,993	12,074	7,437	1,289	7,546	1,741
3 Aug	15,691	13,419	7,885	10,371	7,210	3,243	12,084	7,445	1,290	7,912	1,741
4 Aug	15,732	13,425	8,174	10,378	7,211	3,259	12,122	7,448	1,389	7,912	1,747
5 Aug	15,746	13,438	8,208	10,452	7,211	3,280	12,160	7,453	1,389	7,927	1,747
6 Aug	15,789	13,447	8,215	10,611	7,211	4,150	12,173	7,456	1,409	7,927	1,747
7 Aug	15,789	13,450	8,288	10,632	7,212	4,165	12,199	7,459	1,411	7,929	1,747
8 Aug	15,789	13,466	8,303	10,635	7,212	4,170	12,205	7,463	1,499	7,935	1,748
9 Aug	15,809	13,647	8,375	10,635	7,212	4,178	12,213	7,465	1,525	7,944	1,749
10 Aug	15,833	13,698	8,394	10,646	7,212	4,179	12,216	7,465	1,608	7,986	1,750
11 Aug	15,837	13,710	8,413	10,646	7,212	4,185	12,216	7,469	1,661	8,000	1,750
12 Aug	15,844	13,720	8,423	10,653	7,212	4,201	12,228	7,472	1,685	8,022	1,750
13 Aug	15,848	13,730	8,448	10,655	7,213	4,228	12,230	7,506	1,685	8,040	1,753
14 Aug	15,851	13,739	8,458	10,765	7,213	4,252	12,241	7,539	1,701	8,046	1,753
15 Aug	15,858	13,749	8,465	10,775	7,213	4,270	12,241	7,560	1,716	8,052	1,754
16 Aug	15,859	13,751	8,470	10,789	7,213	4,272	12,243	7,592	1,759	8,059	1,754

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
17 Aug	15,893	13,753	8,512	10,926	7,213	4,273	12,243	7,609	1,899	8,104	1,754
18 Aug	15,936	13,754	8,526	10,961	7,213	4,274	12,243	7,616	1,925	8,104	1,754
19 Aug	15,947	13,761	8,536	11,010	7,213	4,274	12,243	7,617	1,957	8,104	1,754
20 Aug	15,955	13,763	8,550	11,024	7,213	4,274	12,243	7,629	2,016	8,105	1,754
21 Aug	15,957	13,764	8,553	11,044	7,213	4,275	12,243	7,669	2,034	8,107	1,754
22 Aug	15,962	13,772	8,554	11,053	7,213	4,278	12,243	7,669	2,067	8,107	1,754
23 Aug	15,972	13,776	8,556	11,062	7,213	4,278	12,243	7,671	2,092	8,107	1,754
24 Aug	15,998	13,791	8,559	11,068	7,213	4,278	12,243	7,671	2,109	8,107	1,754
25 Aug	16,001	13,801	8,560	11,069	7,214	4,278	12,244	7,671	2,121	8,107	1,754
26 Aug	16,003	13,813	8,563	11,075	7,214	4,278	12,266	7,673	2,135	8,107	1,754
27 Aug	16,013	13,817	8,578	11,085	7,214	4,278	12,267	7,678	2,141	8,107	1,754
28 Aug	16,013	13,838	8,584	11,099	7,214	4,278	12,267	7,680	2,146	8,107	1,755
29 Aug	16,023	13,842	8,586	11,125	7,214	4,278	12,268	7,689	2,151	8,109	1,755
30 Aug	16,024	13,845	8,587	11,130	7,214	4,279	12,289	7,699	2,174	8,114	1,756
31 Aug	16,024	13,845	8,588	11,137	7,214	4,279	12,290	7,703	2,213	8,114	1,756
1 Sep	16,049	13,850	8,593	11,137	7,216	4,279	12,290	7,703	2,263	8,114	1,756
2 Sep	16,050	13,852	8,595	11,144	7,216	4,279	12,290	7,704	2,294	8,114	1,756
3 Sep	16,064	13,853	8,599	11,157	7,216	4,279	12,290	7,705	2,296	8,114	1,757
4 Sep	16,071	13,864	8,604	11,180	7,216	4,279	12,290	7,705	2,300	8,114	1,757
5 Sep	16,077	13,882	8,608	11,187	7,216	4,279	12,290	7,705	2,301	8,114	1,757
6 Sep	16,142	13,886	8,612	11,206	7,216	4,279	12,290	7,711	2,302	8,116	1,757
7 Sep	16,160	13,887	8,613	11,206	7,216	4,280	12,291	7,736	2,307	8,116	1,757
8 Sep	16,168	13,887	8,618	11,209	7,217	4,281	12,293	7,737	2,311	8,116	1,757
9 Sep	16,175	13,900	8,621	11,229	7,217	4,281	12,294	7,738	2,323	8,117	1,757
10 Sep	16,178	13,905	8,624	11,235	7,217	4,281	12,295	7,738	2,323	8,117	1,757
11 Sep	16,179	13,905	8,626	11,236	7,217	4,281	12,295	7,738	2,323	8,117	1,757
12 Sep	16,179	13,947	8,627	11,238	7,218	4,281	12,296	7,738	2,325	8,117	1,757
13 Sep	16,180	13,961	8,628	11,241	7,218	4,281	12,296	7,739	2,326	8,118	1,757
14 Sep	16,180	13,961	8,631	11,243	7,218	4,281	12,296	7,739	2,326	8,118	1,757
15 Sep	16,180	13,967	8,641	11,249	7,218	4,281	12,297	7,739	2,327	8,118	1,757
16 Sep	16,180	13,969	8,647	11,256	7,218	4,281	12,297	7,739	2,330	8,118	1,758
17 Sep	16,180	13,972	8,654	11,256	7,218	4,281	12,297	7,739	2,330	8,118	1,758
18 Sep	16,183	13,972	8,658	11,256	7,218	4,281	12,297	7,741	2,330	8,118	1,758
19 Sep	16,186	13,974	8,660	11,259	7,218	4,283	12,297	7,741	2,330	8,118	1,758
20 Sep	16,186	13,974	8,669	11,260	7,221	4,283	12,297	7,741	2,330	8,118	1,759
21 Sep	16,186	13,974	8,671	11,561	7,221	4,283	12,297	7,741	2,330	8,119	1,759
22 Sep	16,187	13,976	8,671	11,569	7,221	4,283	12,297	7,741	2,330	8,119	1,760
23 Sep	16,187	13,976	8,676	11,577	7,221	4,283	12,297	7,741	2,330	8,121	1,761
24 Sep	16,187	13,976	8,676	11,580	7,221	4,283	12,297	7,741	2,330	8,121	1,761
25 Sep	16,187	13,976	8,676	11,583	7,222	4,283	12,297	7,741	2,330	8,121	1,761
26 Sep	16,187	13,976	8,682	11,583	7,222	4,283	12,297	7,741	2,330	8,121	1,761
27 Sep	16,189	13,976	8,689	11,583	7,222	4,284	12,297	7,741	2,330	8,121	1,761
28 Sep	16,189	13,976	8,692	11,584	7,222	4,284	12,297	7,741	2,330	8,121	1,761
29 Sep	16,189	13,976	8,693	11,584	7,222	4,284	12,297	7,741	2,330	8,121	1,761
30 Sep	16,189	13,976	8,697	11,584	7,222	4,284	12,297	7,741	2,330	8,121	1,761
Final	16,189	13,976	8,719	11,584	7,222	4,284	12,297	7,741	2,330	8,121	1,761

Source: ADF&G Divisions of Commercial Fisheries and Sport Fisheries, Kodiak, 2023.

Appendix D5.—Saltery River sockeye salmon cumulative weir counts, 2013–2023.

Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
17 Jun	0	0	0	0	22	76	0	0	0	0	1
18 Jun	0	0	0	0	137	102	5	0	18	0	56
19 Jun	1,033	24	269	1,338	255	134	23	37	34	8	82
20 Jun	1,261	104	308	1,416	562	146	25	62	117	8	192
21 Jun	1,284	172	442	1,442	1,076	187	29	75	148	41	282
22 Jun	1,427	275	491	1,503	1,190	241	43	79	247	193	346
23 Jun	1,538	375	503	2,049	1,464	284	82	83	331	290	357
24 Jun	2,232	398	558	2,393	1,645	354	116	85	370	394	395
25 Jun	3,043	405	1,434	3,356	1,659	428	121	121	394	591	407
26 Jun	5,949	507	1,537	4,724	2,087	538	129	130	472	771	432
27 Jun	7,652	641	1,656	5,652	2,714	646	129	175	701	894	448
28 Jun	8,889	760	1,732	6,022	2,797	711	143	226	807	1,078	492
29 Jun	9,347	814	1,886	6,798	3,442	994	165	235	1,002	1,308	581
30 Jun	10,773	993	1,968	8,500	3,737	1,071	196	266	1,161	1,534	860
1 Jul	11,807	1,002	2,118	11,015	4,200	1,290	247	269	1,672	1,665	887
2 Jul	12,292	1,082	2,472	11,552	6,049	1,295	281	291	1,744	1,819	1,062
3 Jul	12,915	1,225	2,494	12,040	7,788	1,322	309	369	1,828	2,047	1,724
4 Jul	13,596	1,279	2,870	12,537	8,234	1,382	374	886	2,003	2,661	2,023
5 Jul	14,651	1,944	3,283	13,101	8,690	1,389	492	924	2,224	2,964	2,068
6 Jul	14,964	3,009	5,691	13,898	9,752	1,394	620	1,448	2,852	3,131	2,205
7 Jul	15,422	4,182	7,049	14,350	9,999	1,567	766	1,648	3,953	3,505	2,949
8 Jul	15,940	4,877	7,380	14,947	10,191	1,704	814	1,735	5,386	4,781	3,314
9 Jul	17,253	5,734	7,734	15,671	10,556	1,938	890	1,832	5,981	7,162	3,692
10 Jul	17,876	6,251	8,179	16,341	10,816	2,025	933	1,859	6,548	7,710	3,832
11 Jul	18,281	6,735	8,320	17,125	11,189	2,272	1,211	1,868	7,129	8,606	4,345
12 Jul	19,333	7,088	8,894	18,018	11,334	2,617	1,737	1,972	7,674	9,192	4,674
13 Jul	20,229	7,730	10,170	19,362	12,307	3,146	1,939	2,002	8,471	10,093	6,983
14 Jul	21,366	8,597	11,233	20,049	13,217	3,465	2,044	2,093	8,967	11,319	9,906
15 Jul	21,794	11,169	11,946	20,339	14,231	4,616	2,609	2,487	10,929	12,623	11,438
16 Jul	22,461	12,819	13,682	21,492	15,477	5,909	3,054	3,140	13,640	13,285	12,458
17 Jul	23,068	14,188	15,228	22,948	15,713	6,582	3,225	3,903	13,995	14,128	13,499
18 Jul	24,227	16,948	16,320	24,616	16,531	7,256	3,313	4,868	16,123	14,458	15,450
19 Jul	25,853	17,342	18,068	25,957	17,901	8,816	4,907	5,428	16,519	14,694	16,594
20 Jul	26,380	18,424	19,472	28,871	19,114	9,371	6,726	5,749	17,560	15,325	17,683
21 Jul	26,927	18,599	22,058	31,163	19,775	10,024	7,058	5,773	19,430	15,725	18,663
22 Jul	27,733	19,004	24,016	34,333	21,364	10,731	7,534	5,791	20,283	16,062	19,779
23 Jul	28,132	21,048	25,120	35,511	22,933	11,290	8,539	5,799	24,922	16,264	20,558
24 Jul	29,354	22,335	25,835	39,793	23,663	12,195	9,368	5,810	26,339	18,415	21,117
25 Jul	30,078	22,987	26,322	42,098	26,334	12,890	10,595	5,859	28,140	19,192	22,293
26 Jul	31,352	23,354	28,478	43,629	28,004	13,351	11,023	5,884	29,922	20,109	23,321
27 Jul	32,086	24,129	30,423	45,356	29,071	14,223	11,226	6,074	32,828	20,551	24,385
28 Jul	32,456	24,281	31,706	47,346	30,769	14,512	11,333	6,074	34,500	20,815	26,003
29 Jul	32,826	25,342	33,652	51,517	31,339	15,048	11,796	6,275	36,081	21,223	26,453
30 Jul	33,271	25,824	34,657	52,588	32,970	15,259	12,196	6,773	37,525	21,355	27,258
31 Jul	33,470	26,470	35,164	55,632	33,947	16,413	13,125	6,831	38,278	21,400	29,844

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1 Aug	33,519	26,553	35,273	57,431	34,710	16,824	13,681	6,837	38,709	21,992	32,005
2 Aug	33,914	27,189	37,448	57,867	35,796	18,342	14,489	6,847	41,197	22,814	32,459
3 Aug	35,518	27,449	39,355	57,867	36,729	18,966	15,310	6,848	43,251	23,090	33,545
4 Aug	35,952	28,100	40,422	57,867	37,724	19,567	15,995	7,413	44,943	23,298	35,206
5 Aug	36,097	28,494	42,335	57,867	38,485	19,990	16,215	13,278	48,549	23,409	35,677
6 Aug	39,697	29,110	42,468	57,867	38,604	20,847	16,434	18,047	49,741	24,581	36,463
7 Aug	39,697	29,307	42,468	57,867	38,915	20,988	16,803	18,414	52,642	24,786	37,196
8 Aug	39,697	30,772	42,468	57,867	39,315	21,319	17,215	18,846	53,811	25,248	38,228
9 Aug	39,697	31,772	42,468	57,867	39,315	21,562	17,373	20,546	55,295	25,507	39,223
10 Aug	39,697	31,772	42,468	57,867	39,315	22,269	17,497	20,820	57,345	25,615	40,204
11 Aug	39,697	31,772	42,468	57,867	39,315	22,307	17,587	21,228	59,457	25,615	41,006
12 Aug	39,697	31,772	42,468	57,867	39,315	22,326	17,611	22,453	59,506	25,615	44,889
13 Aug	39,697	31,772	42,468	57,867	39,315	22,415	17,651	23,202	64,602	25,615	45,875
14 Aug	39,697	31,772	42,468	57,867	39,315	22,438	17,683	23,487	64,602	25,615	46,838
15 Aug	39,697	31,772	42,468	57,867	39,315	22,845	22,183	24,439	64,602	25,615	47,876
16 Aug	39,697	31,772	42,468	57,867	39,315	22,845	22,183	24,610	64,602	25,615	47,936
17 Aug	39,697	31,772	42,468	57,867	39,315	22,845	22,183	24,987	64,602	25,615	47,936
Final	39,697	31,772	42,468	57,867	39,315	22,845	22,183	24,987	64,602	25,615	47,936

Source: ADF&G Division of Commercial Fisheries, Kodiak, 2023.

Appendix D6.—Pasagshak River sockeye salmon weir counts, 2013–2023.

Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
16 Jun	0	0	0	0	0	0	0	1	64	5	0
17 Jun	401	17	0	2	0	6	0	3	82	5	0
18 Jun	450	49	35	57	0	6	0	3	97	5	0
19 Jun	467	49	37	115	0	6	0	3	147	5	9
20 Jun	467	93	54	125	0	6	0	3	160	5	9
21 Jun	485	93	63	129	0	6	0	6	192	5	9
22 Jun	485	93	71	179	0	6	0	13	196	94	11
23 Jun	1,042	93	72	191	50	6	0	14	199	94	128
24 Jun	1,829	124	74	191	50	6	0	70	199	94	128
25 Jun	2,485	135	74	209	50	27	0	277	199	94	134
26 Jun	3,007	135	75	209	58	27	0	282	199	96	134
27 Jun	3,378	140	75	212	236	84	100	308	199	96	144
28 Jun	3,380	141	75	212	449	84	100	309	264	191	149
29 Jun	3,989	164	341	373	457	134	100	465	487	191	161
30 Jun	4,149	165	436	440	457	149	100	503	650	191	167
1 Jul	4,214	165	580	1,004	472	168	127	555	806	191	175
2 Jul	4,236	172	610	1,428	480	221	289	577	1,009	282	242
3 Jul	4,245	260	610	1,628	666	221	289	622	1,123	360	242
4 Jul	4,288	268	618	1,703	666	221	289	720	1,218	372	252
5 Jul	4,293	268	619	1,794	826	221	289	739	1,443	572	257
6 Jul	4,299	268	619	1,794	885	221	327	775	1,601	653	312
7 Jul	4,303	268	619	1,804	906	221	327	936	1,602	681	314
8 Jul	4,971	268	619	2,314	1,270	221	331	1,085	1,722	734	333
9 Jul	5,129	280	619	2,443	1,343	221	453	1,103	1,836	808	350
10 Jul	5,170	299	629	2,718	1,354	252	455	1,184	1,871	886	390
11 Jul	5,364	299	629	3,084	1,453	328	649	1,243	1,913	1,168	601
12 Jul	5,403	350	679	3,084	1,870	344	680	1,258	2,077	1,200	755
13 Jul	5,487	361	680	3,084	2,108	428	718	1,291	2,363	1,237	886
14 Jul	5,519	410	680	3,085	2,304	479	783	1,362	2,595	1,266	1,072
15 Jul	5,520	463	682	3,211	2,435	642	1,153	1,392	2,990	1,498	1,124
16 Jul	6,350	468	682	3,211	2,531	671	1,516	1,441	3,195	1,765	1,167
17 Jul	6,721	548	682	3,352	2,634	830	1,749	1,461	3,389	1,772	1,241
18 Jul	7,069	626	730	3,352	2,835	830	1,932	1,469	3,597	2,123	1,574
19 Jul	7,179	678	731	3,383	3,239	830	2,139	1,586	3,774	2,123	1,615
20 Jul	7,308	766	731	4,047	3,770	830	2,262	1,641	3,780	2,123	1,803
21 Jul	7,792	766	731	4,244	4,363	830	2,408	1,747	3,936	2,123	1,907
22 Jul	8,014	820	731	4,244	4,744	856	2,447	1,847	4,088	2,123	2,065
23 Jul	8,140	924	731	4,244	5,071	980	2,571	1,897	4,336	2,123	2,233
24 Jul	9,093	933	840	4,566	5,347	1,039	2,769	2,005	4,700	2,123	2,532
25 Jul	9,367	979	840	4,596	5,645	1,042	2,826	2,135	4,991	2,123	2,686
26 Jul	9,778	982	840	4,798	5,705	1,047	2,830	2,195	5,211	2,417	2,828
27 Jul	9,899	998	840	4,837	5,802	1,106	2,877	2,343	5,358	2,883	2,829
28 Jul	10,002	998	1,009	4,938	6,563	1,192	2,920	2,347	5,446	3,145	2,833
29 Jul	10,138	1,185	1,013	5,336	6,987	1,206	2,992	2,369	5,691	3,290	2,899
30 Jul	10,280	1,185	1,013	5,368	7,290	1,260	3,432	2,516	5,794	3,501	2,899
31 Jul	10,283	1,201	1,103	5,373	7,581	1,292	3,669	2,610	5,867	3,512	3,158

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Date	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1 Aug	10,320	1,201	1,134	5,373	7,611	1,292	3,739	2,646	6,437	3,672	3,227
2 Aug	10,324	1,201	1,215	5,401	7,615	1,447	3,938	2,703	6,466	3,709	3,303
3 Aug	10,776	1,201	1,221	5,404	7,659	1,494	3,999	2,787	6,603	3,715	3,376
4 Aug	10,913	1,201	1,317	5,404	7,837	1,529	4,067	2,830	6,727	3,825	3,475
5 Aug	10,921	1,203	1,317	5,542	8,247	1,531	4,146	2,960	6,889	3,850	3,542
6 Aug	11,021	1,288	1,327	5,542	8,736	1,626	4,243	3,066	7,289	3,865	3,559
7 Aug	11,421	1,309	1,333	5,542	8,946	1,638	4,250	3,170	7,329	3,909	3,564
8 Aug	11,421	1,413	1,339	5,542	9,146	1,686	4,259	3,251	7,554	4,086	3,720
9 Aug	11,421	1,480	1,411	5,732	9,243	1,688	4,260	3,301	7,641	4,086	3,765
10 Aug	11,421	1,482	1,481	5,909	9,332	1,750	4,260	3,369	8,189	4,295	3,802
11 Aug	11,421	1,550	1,496	6,092	9,676	1,809	4,275	3,480	8,311	4,357	3,903
12 Aug	11,421	1,582	1,505	6,092	9,900	1,898	4,396	3,497	8,551	4,375	3,940
13 Aug	11,421	1,582	1,600	6,092	10,080	1,948	4,434	3,518	8,551	4,375	4,153
14 Aug	11,421	1,582	1,626	6,302	10,695	1,984	4,481	3,522	8,551	4,377	4,195
15 Aug	11,421	1,582	1,627	6,323	10,875	2,019	4,487	3,922	8,551	4,377	4,345
Final	11,421	1,582	2,077	7,053	11,021	2,019	4,537	3,922	8,551	4,377	4,345

Source: ADF&G Division of Commercial Fisheries, Kodiak, 2023.

**APPENDIX E: ADF&G AND KODIAK REGIONAL
AQUACULTURE ASSOCIATION SPORT FISH
ENHANCEMENT IN THE KODIAK ROAD ZONE**

Appendix E1.–Kodiak Road Zone (KRZ) anadromous waters stocking by species and location, 2013–2023.

Species and stage	Location	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Coho salmon fingerling												
	Dark Lake	7,767	7,500	0	0	0	0	0	0	0	0	0
	Island Lake	25,000	31,481	0	0	0	0	0	0	0	0	0
	Mayflower Lake	6,488	6,500	0	0	0	0	0	0	0	0	0
	Mission Lake	13,394	13,141	0	0	0	0	0	0	0	0	0
	Potato Patch Lake	10,391	10,192	0	0	0	0	0	0	0	0	0
	Total	63,040	68,814	0	0	0	0	0	0	0	0	0
Coho salmon smolt												
	Island Lake	0	0	0	30,056	50,137	0	30,085	30,204	30,427	30,436	30,334
	Mission	0	0	0	20,023	20,107	0	20,327	20,035	20,350	20,313	20,088
	Monashka Creek	28,020	0	0	99,582	75,021	46,132	74,768	94,397	70,198	80,052	40,037
	Pillar Creek	28,070	0	0	139,401	77,685	43,295	82,325	90,093	72,864	92,038	81,922
	Total	56,090	0	0	289,062	222,950	89,427	207,505	234,729	193,839	222,839	172,381
Chinook salmon smolt												
	Monashka Creek	51,207	70,000	73,272	0	0	0	0	0	0	0	27,001
	American River	50,072	70,000	75,272	0	26,520	26,561	0	0	0	0	0
	Olds River	40,000	70,000	75,044	0	26,509	45,015	0	36,098	0	0	0
	Salonie Creek	0	62,561	71,042	29,800	20,518	45,972	0	39,964	26,782	8,158	19,502
	Total	141,279	272,561	294,630	29,800	73,547	117,548	0	76,062	26,782	8,158	46,503

Source: ADF&G Division of Sport Fish, Kodiak Area Office data archives.

Appendix E2.– Kodiak Road Zone (KRZ) lakes rainbow trout stocking by location, 2013–2023.

Location	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Abercrombie	6,162	2,550	7,059	8,403	4,000	3,756	4,430	4,695	0	4,205	4,028
Aurel Lake	3,464	0	6,400	7,563	3,700	3,820	0	4,139	0	3,746	2,431
Big–Kings Diner Lake	4,915	2,747	8,847	10,084	5,065	4,626	5,405	4,409	0	4,406	3,667
Bull Lake	3,038	3,312	4,471	5,294	2,500	2,285	2,826	1,529	0	1,414	1,245
Caroline Lake	2,154	2,647	3,700	4,286	2,200	2,253	0	1,985	0	2,264	1,332
Cicely Lake	1,138	2,794	4,050	4,538	2,350	3,000	0	2,526	0	2,459	1,684
Dark Lake	6,123	2,535	8,824	10,588	5,240	4,626	5,488	4,625	0	4,156	3,882
Dolgoi Lake	0	0	0	0	0	0	0	815	0	5,624	3,206
Dragonfly Lake	2,215	1,471	4,353	5,294	3,000	2,285	2,826	2,175	0	1,955	1,838
Heitman Lake	5,000	5,005	6,824	7,983	0	3,754	0	4,462	0	4,193	2,972
Horseshoe Lake	1,408	0	2,824	6,723	1,700	1,554	1,843	1,492	0	1,355	1,280
Island Lake	6,538	2,559	8,941	10,588	4,900	4,626	5,496	4,835	0	4,466	3,875
Lee Lake	3,250	0	5,950	6,723	4,200	3,573	3,769	3,210	0	2,973	2,514
Lilly Pad Lake	2,692	3,369	4,176	4,874	2,420	2,212	2,529	2,181	0	1,896	1,809
Long Lake	4,398	4,371	7,100	8,403	3,876	3,946	0	738	0	4,342	1,258
Long Lagoon Lake	3,571	4,731	0	0	0	0	0	0	0	0	0
Mosquito Lake	1,490	2,191	2,800	1,681	0	0	0	0	0	0	0
Tanignak Lake	4,872	4,457	7,200	8,403	3,111	3,946	0	692	0	4,334	2,403
Twin Lake	5,363	5,562	8,388	10,756	2,500	4,736	5,570	5,230	0	3,973	5,871
Total	67,791	50,301	101,907	122,184	50,762	54,998	40,182	49,738	0	57,761	45,295

Source: ADF&G Division of Sport Fish, Kodiak Area Office data archives.

**APPENDIX F: INSEASON BLACK ROCKFISH HARVEST
ESTIMATION METHODS**

Black rockfish harvests are tracked in season by Division of Sport Fish (SF) staff in Kodiak annually to assess harvest trends throughout the season but also to create preliminary harvest estimates for use in annual planning meetings between Division of Commercial Fisheries and SF staff for rockfish management strategies. Final estimates, from either the Statewide Harvest Survey or produced using the Howard et al. (2020) method, are typically available 12–18 months after the fishing season so these preliminary estimates allow managers to make more timely and informed decisions for harvest strategies for the upcoming fishing season prior to final estimates being available. They are used to account for total removals of black rockfish when combined with commercial harvests and compared to abundance estimates from an annual hydroacoustic survey to assess the sustainability of current harvest rates. Sport harvests were previously only managed through Alaska Board of Fisheries action, but more recently, management has been by emergency order (Appendices C1–C4), in part due to the availability of new information such as these harvest estimates. The steps for this process are outlined here and are a simplified version of the method presented in Polum and Huang (2019):

- 1) Saltwater charter logbook pages are collected by the Kodiak office daily and manually entered for harvest of pelagic, nonpelagic, and yelloweye rockfish for the Northeast, Afognak, and Eastside management districts. Logbook pages from other districts are rarely available due to being more remote.
 - a. Drop boxes are provided at the Kodiak office but also in each of the boat harbors and all guides operating out of the Port of Kodiak have been asked to participate by routing their logbook pages through the Kodiak office.
- 2) Total Charter Logbook rockfish harvest is summed for each district by day and grouped by sampling periods (roughly 2 weeks long) established for the groundfish dockside sampling program in the Port of Kodiak.
- 3) Over each of these 2-week periods, the dockside sampling program collects (among other information) the ratio of guided to unguided harvest, the species composition, and the average weight of rockfish, and these are used to estimate the total harvest of black rockfish for all anglers, as well as the total harvest in pounds so it is directly comparable to commercial removals.
- 4) To estimate the total harvest (and subsequently unguided harvest), the total Charter Logbook rockfish harvest recorded for each period for each district is summed and then divided by the proportion of the harvest that is attributable to guided anglers (from port sampling data). Unguided harvest can be estimated by subtracting the guided harvest from the total.
- 5) The estimated total rockfish harvest is then multiplied by the proportion of the port sampling harvest that is made up of black rockfish to estimate the total black rockfish harvest for each district in each period.
- 6) The estimated number of black rockfish harvested is also multiplied by the average weight of black rockfish from port sampling to estimate the total weight removed by anglers.
- 7) Black rockfish harvest is estimated for each period throughout the season to get an early indication of harvest and any changes in harvest trends from previous years, but a postseason preliminary estimate of total harvest is also created using the same method but pooling all harvest and dockside sampling data for the season.
 - a. The pooled season total estimates are used as a placeholder for black rockfish harvests for the Northeast, Eastside, and Afognak management districts for all management activities and as a proxy for the total Kodiak Management Area harvest until estimates are finalized via the Howard et al. (2020) method. These are presented in Figure 13 and Table 15 for 2022 and 2023.

**APPENDIX G: CROSS REFERENCED BOARD OF
FISHERIES INFORMATION**

Appendix G1.–Cross reference of tables and figures specific to the 2024 Kodiak Finfish Alaska Board of Fisheries meeting proposals.

Proposal number	Stock or species	Background and recent performance pages	Tables	Figures
46	Sockeye salmon	Pages 30–36	11–12 (pages 31–32)	9–11 (pages 33–35)
47	Stocked coho salmon	Pages 28–29	–	–
48	Road Zone coho salmon	Pages 22–27	7–8 (pages 23, 25)	8 (page 25)
49	Saltwater Chinook salmon	Pages 17–19	5–6 (page 18)	7 (page 19)
50	Rockfish	Pages 42–47	15–17 (pages 45–46)	12–13 (pages 43–44)