

**Sport Fisheries in the Prince William Sound
Management Area in 2023 to Inform the Alaska Board
of Fisheries in 2024**

by

Brittany J. Blain-Roth

Donald E. Arthur

and

Clayton McKean

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code		all standard mathematical signs, symbols and abbreviations	
deciliter	dL		AAC		
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H _A
hectare	ha			base of natural logarithm	<i>e</i>
kilogram	kg			catch per unit effort	CPUE
kilometer	km	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	coefficient of variation	CV
liter	L			common test statistics	(F, t, χ^2 , etc.)
meter	m	at	@	confidence interval	CI
milliliter	mL	compass directions:		correlation coefficient (multiple)	R
millimeter	mm	east	E	correlation coefficient (simple)	r
Weights and measures (English)		north	N	covariance	cov
cubic feet per second	ft ³ /s	south	S	degree (angular)	°
foot	ft	west	W	degrees of freedom	df
gallon	gal	copyright	©	expected value	<i>E</i>
inch	in	corporate suffixes:		greater than	>
mile	mi	Company	Co.	greater than or equal to	≥
nautical mile	nmi	Corporation	Corp.	harvest per unit effort	HPUE
ounce	oz	Incorporated	Inc.	less than	<
pound	lb	Limited	Ltd.	less than or equal to	≤
quart	qt	District of Columbia	D.C.	logarithm (natural)	ln
yard	yd	et alii (and others)	et al.	logarithm (base 10)	log
Time and temperature		et cetera (and so forth)	etc.	logarithm (specify base)	log ₂ , etc.
day	d	exempli gratia (for example)	e.g.	minute (angular)	'
degrees Celsius	°C	Federal Information Code	FIC	not significant	NS
degrees Fahrenheit	°F	id est (that is)	i.e.	null hypothesis	H ₀
degrees kelvin	K	latitude or longitude	lat or long	percent	%
hour	h	monetary symbols (U.S.)	\$, ¢	probability	P
minute	min	months (tables and figures): first three letters	Jan.,...,Dec	probability of a type I error (rejection of the null hypothesis when true)	α
second	s	registered trademark	®	probability of a type II error (acceptance of the null hypothesis when false)	β
Physics and chemistry		trademark	™	second (angular)	"
all atomic symbols		United States (adjective)	U.S.	standard deviation	SD
alternating current	AC	United States of America (noun)	USA	standard error	SE
ampere	A	U.S.C.	United States Code	variance	
calorie	cal			population sample	Var var
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

FISHERY MANAGEMENT REPORT NO. 24-27

**SPORT FISHERIES IN THE PRINCE WILLIAM SOUND MANAGEMENT
AREA IN 2023 TO INFORM THE ALASKA BOARD OF FISHERIES IN
2024**

by
Brittany J. Blain-Roth
Alaska Department of Fish and Game, Division of Sport Fish, Anchorage
Donald E. Arthur
Alaska Department of Fish and Game, Division of Sport Fish, Anchorage
and
Clayton McKean
Alaska Department of Fish and Game, Division of Sport Fish, Anchorage

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

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Brittany J. Blain-Roth
Alaska Department of Fish and Game, Division of Sport Fish
333 Raspberry Road, Anchorage, Alaska, 99518, USA

Donald E. Arthur
Alaska Department of Fish and Game, Division of Sport Fish
333 Raspberry Road, Anchorage, Alaska, 99518, USA

and

Clayton McKean
Alaska Department of Fish and Game, Division of Sport Fish
333 Raspberry Road, Anchorage, Alaska, 99518, USA

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ABSTRACT

This report provides a detailed summary of the sport fisheries in the Prince William Sound Management Area (PWSMA) through 2023 that will be discussed at the 2024 Prince William Sound Finfish Alaska Board of Fisheries (BOF) meeting. These include the saltwater salmon fisheries and groundfish fisheries, specifically rockfish, and freshwater coho salmon fisheries in the Copper River Delta area. Included for each sport fishery are a description and historical overview, current management strategies, and recent fishery performance of effort, catch, and harvest. Included for each fishery is information specific to the proposals that the BOF will address. An appendix guiding the reader to information relevant to each proposal is also included. Overall, sport fishing effort in PWSMA has showed a slight decline in recent years due to reduced effort. Recent fishery harvest trends in saltwater fisheries show ongoing increases in harvest of rockfish (*Sebastes* spp.), and recent increases in harvest for Chinook salmon (*Oncorhynchus tshawytscha*). Coho salmon continue to be the largest proportion of the overall salmon harvest.

Keywords: Prince William Sound Management Area, Alaska Board of Fisheries, Copper River Delta, effort, harvest, Chinook salmon, coho salmon, sockeye salmon, Pacific halibut, rockfish, lingcod, fisheries management, sport fisheries, terminal fisheries, personal use

INTRODUCTION

This fisheries management report provides information regarding the sport fisheries in Prince William Sound Management Area (PWSMA) that will be discussed at the 2024 Prince William Sound Finfish Alaska Board of Fisheries (BOF) meeting December 10–16, 2024. These fisheries are managed by the Alaska Department of Fish and Game (ADF&G), Division of Sport Fish (SF) out of the Anchorage office. This report covers the background and recent fishery performance of the salmon (*Oncorhynchus* spp.) and rockfish (*Sebastes* spp.) fisheries. Background information includes a fishery description, history, management and regulatory structure, and any additional fishery and stock monitoring that has occurred. Recent fisheries performance information includes effort, catch, and harvest in 2023 compared to a historical period (2003–2022). The recent performance also includes any management actions that occurred in 2023 and pertinent fishery or stock monitoring information. Appendix A1 contains a table guiding the reader to specific information relevant to each BOF proposal.

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. To implement these goals, SF has in place a fisheries management process that includes an annual regional review of fisheries status and research needs, development of fisheries stock assessments, a formal operational planning process, and use of biological and fishing effort data and input from user groups to assess the need for and development of management plans and regulatory proposals.

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 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. 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.

This area management report provides information for the PWSMA and its fisheries for 2023. This report is organized into primary sections including a management area overview and major fisheries sections for fisheries addressed by the 2024 Prince William Sound Finfish BOF meeting. The overview contains a description of the management area, a list of management plans and policies relevant to the BOF meeting, and a summary of effort, harvest, and catch. Each major fishery section includes a description, and fisheries performance and management actions taken during the 2023 reporting period.

MANAGEMENT AREA OVERVIEW

MANAGEMENT AREA DESCRIPTION

The PWSMA (Figure 1) consists of all waters of the Gulf of Alaska and its drainages west of the longitude of Cape Suckling (143°53'W long) and east of the longitude of Cape Fairfield (148°50'W long), including waters of the Copper River drainage downstream of Haley Creek (Figure 1). Western Prince William Sound and Eastern Prince William Sound marine waters are divided along 147°W long. Principal land managers in PWSMA include the United States Forest Service; various native corporations; the cities of Valdez, Cordova, and Whittier; the Bureau of Land Management; and the State of Alaska. all waters between Gore Point (156°96'25"W long) and Cape Fairfield (148°50'25"W long).

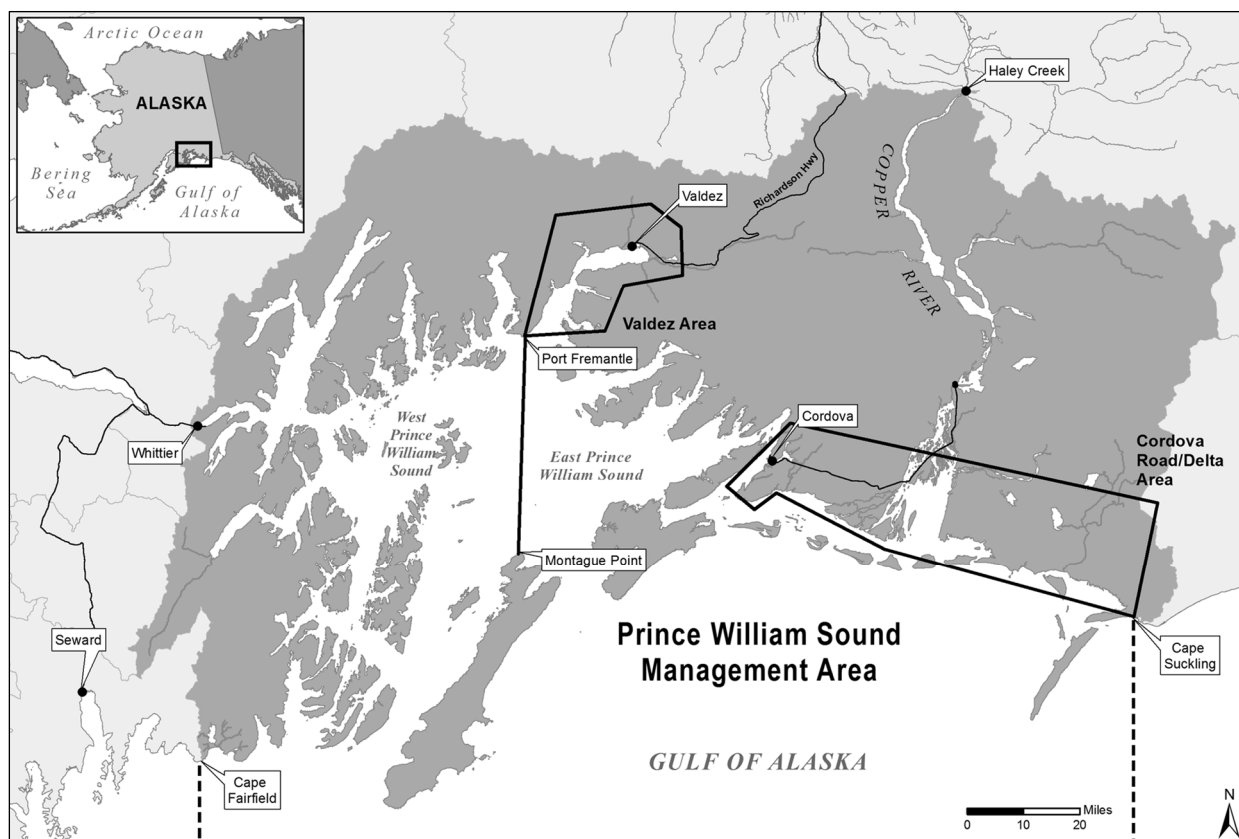


Figure 1.—Map of the Prince William Sound Management Area.

Access to PWSMA includes 3 road-accessible ports (Valdez, Whittier, and Seward); commercial aircraft and ferry services to Valdez, Cordova, Chenega Bay, and Tatitlek; and chartered float plane and boat shuttle services for remote drop-offs out of Whittier and Valdez. Except for some road-accessible streams in Cordova and Valdez, virtually all PWSMA sport fisheries are remote and relatively difficult to access.

FISHERY RESOURCES

PWSMA offers sport anglers some of the most diverse angling opportunities available in Southcentral Alaska. Readily accessible marine waters with complex physical habitat provide anglers with opportunities to target halibut (*Hippoglossus stenolepis*), lingcod (*Ophiodon elongatus*), and rockfish in day trips from any of the 4 ports that provide access to PWSMA (Whittier, Valdez, Seward, and Cordova). Hundreds of streams and lakes throughout PWS, combined with large-scale hatchery operations (e.g., Prince William Sound Aquaculture Corporation [PWSAC]), provide angling opportunities for 4 species of Pacific salmon during May through October: coho salmon (*O. kisutch*), sockeye salmon (*O. nerka*), pink salmon (*O. gorbuscha*), and chum salmon (*O. keta*). ADF&G provides Chinook salmon (*O. tshawytscha*) angling opportunities in PWS salt waters through stocked fisheries. PWS also supports noncommercial sport and subsistence shrimp (*Pandalus* spp.) fisheries, and provides opportunities to harvest Pacific razor clams (*Siliqua patula*) and several species of hardshell clams (e.g., Pacific littleneck [*Protothaca staminea*] and Washington butter clam [*Saxidomus giganteus*]). Salmon sharks (*Lamna ditropis*) are present in PWS throughout the summer months and are targeted by a small number of anglers annually, but not enough data are collected from these fisheries to report. PWSMA represents the northern edge of the range of coastal cutthroat trout (*O. clarkii clarkii*), providing anglers with unique trout fishing opportunities. Rainbow trout (*O. mykiss*) and Dolly Varden (*Salvelinus malma*) are available year-round throughout PWSMA.

ESTABLISHED MANAGEMENT PLANS AND POLICIES RELEVANT TO THE PRINCE WILLIAM SOUND FINFISH BOF MEETING

Regulations governing the sport fisheries of PWSMA are found in Alaska statute and administrative codes (AAC). Prince William Sound freshwater and saltwater sport regulations are found in 5 AAC 55.000; statewide sport provisions and definitions are found in 5AAC 75.000.

STOCKING PROGRAM

Stocking of hatchery-raised fish has increased fishing opportunities for sport anglers. These stocking activities include 2 programs. The first program aims to increase harvest for commercial fisheries and incidentally enhance the availability of fish for sport anglers. The second program conducts stocking for sport fishery enhancement. However, all hatchery-released salmon are the common property of all fisheries and are thus available to any fishery regardless of the target group. To allow for greater, mostly saltwater angling opportunities for both boat and shore anglers, and larger harvests of fish, terminal harvest areas (THA) have been established near some communities in PWS (Figure 2) for the return of hatchery fish that are meant for harvest, not reproduction, and to relieve fishing pressure on nearby wild stocks of fish.

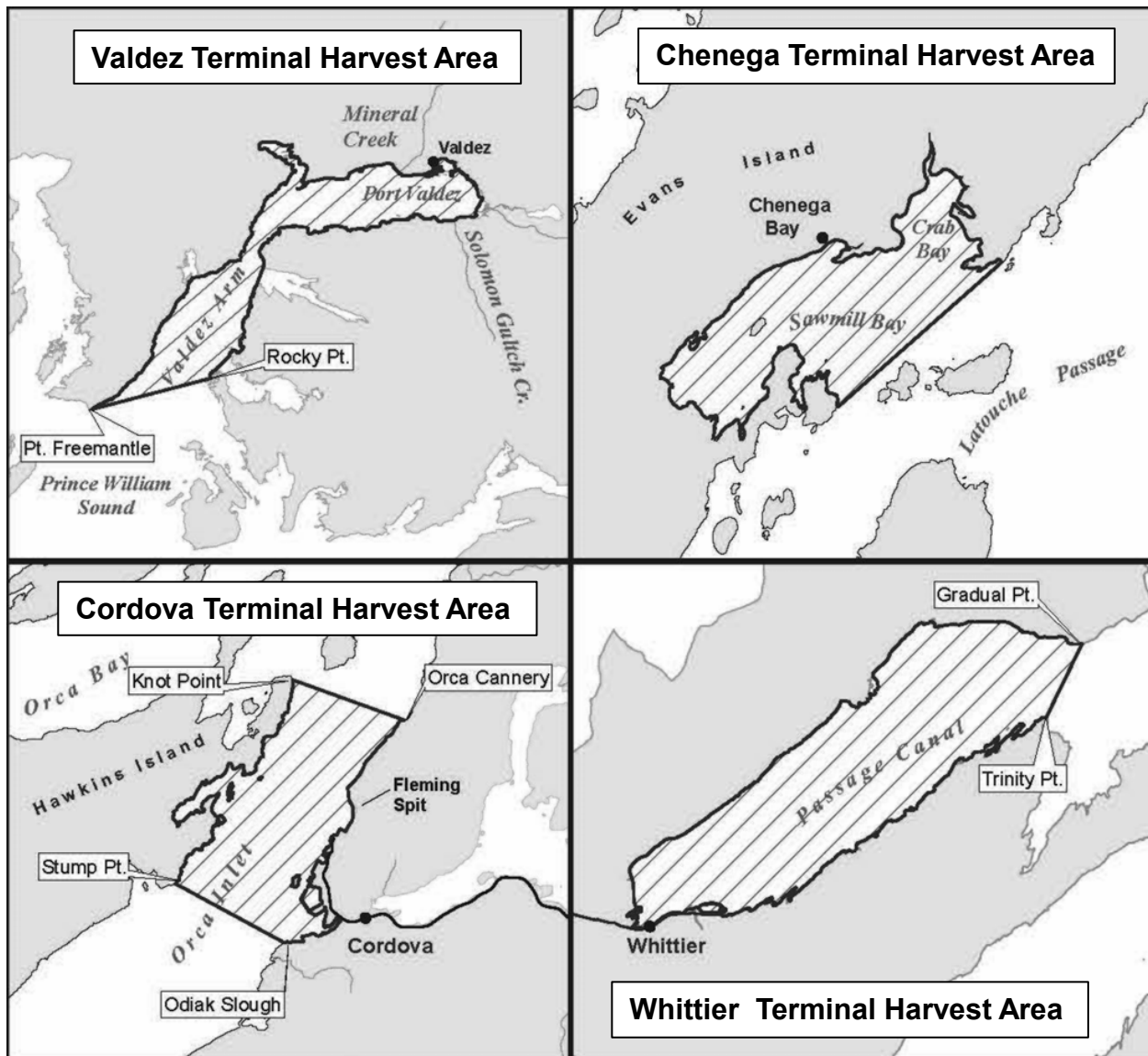


Figure 2.—Terminal harvest areas (hatching) in select locations of Prince William Sound.

ADF&G currently provides a Chinook salmon stocking program that aims to increase opportunities for sport anglers in nearshore salt waters of Cordova and Whittier. In Cordova, approximately 100,000 Chinook salmon are stocked annually at Fleming Spit. Historically, Valdez was also part of the Chinook salmon stocking program, but this was put on hold in 2014 until a new release site is developed; a new release site has not been developed to date. ADF&G has provided Chinook salmon releases in PWS since 1999, except for Chenega Bay stockings, which were discontinued by PWSAC in 1999 but resumed by PWSAC in 2012. ADF&G provides PWSAC with approximately 50,000 eyed Chinook salmon eggs to rear to smolt size for this release near Chenega Bay annually. Whittier releases were temporarily halted by ADF&G from 2006 through 2010 due to budgetary constraints and reduced hatchery production (Appendix B1).

Coho salmon are stocked by PWSAC to provide sport fishing opportunity near the village of Chenega Bay, in Passage Canal near Whittier, and at Fleming Spit near Cordova. The Valdez Fisheries Development Association (VFDA), another private nonprofit (PNP) hatchery, provides

hatchery coho salmon opportunity in Valdez Arm. (Appendix B2). These PNPs also release pink, sockeye, and chum salmon at locations throughout PWSMA, primarily to enhance commercial fisheries, but these fish are also targeted by sport anglers. Pink salmon are released from the 3 PWSAC hatcheries and the VFDA hatchery. Sockeye salmon are reared in a single PWSAC hatchery and released at several sites in PWSMA. Chum salmon are reared in the other 2 PWSAC hatcheries and released directly from those 2 hatcheries, as well as at 2 remote locations.

SPORT FISHING EFFORT, HARVEST, AND CATCH

Statewide Harvest Survey

Since 1977, sport angler effort and harvest in the PWSMA have been estimated using the ADF&G Alaska Sport Fishing Survey (commonly known as the Statewide Harvest Survey, or SWHS; Mills 1979–1980, 1981a, 1981b, 1982–1991, 1992a, 1992b, 1993, 1994; Howe et al. 1995, 1996).¹ The SWHS is a mail survey that is used to estimate annual sport fishing effort and harvest. Final estimates are available during the early fall of the following year. The survey estimates effort in angler-days and the number of fish caught and harvested by location. Although harvest and catch are estimated for each species, the SWHS is not designed to estimate directed effort towards each species.

The SWHS has been modified over time to add additional stratifications to the estimates and to incorporate changes to the regulatory structure. Starting in 1986, the survey was modified to produce estimates by nonguided and charter anglers. Beginning in 1990, the survey was modified to also estimate catch (number of fish released plus number of fish harvested) by location. Since 1993, angler residency data have been available. The SWHS has also been modified several times to facilitate producing Chinook salmon catch and harvest estimates for saltwater fisheries.

The precision of the SWHS estimates is related to the number of household respondents who reported participating in those fisheries. For any given fishery, SWHS estimates based on fewer than 12 household respondents are not used. Estimates based on 12 or more, but less than 30 household respondents can be useful for detecting relative trends. Estimates based on 30 or more respondents generally represent fishing effort, catch, and harvest levels (Mills and Howe 1992).

In this report, SWHS data from 2004 through 2023 are presented along with the 5-year average for 2018–2022 (representing the previous reporting period), and the 10-year average for 2008–2017 (representing historical data). These historical and previous reporting period averages provide context for the effort, catch, and harvest estimates and trends during this reporting period (2023).

Sport Fish Guide Licensing and Charter Logbook Program

Beginning in 1995, ADF&G required sport fishing guide businesses and guides to register before fishing in Alaska. Since 1998, SF has operated a program to register and license both in order to collect information on sport fishing participation, effort, and harvest by saltwater and freshwater charter clients (Sigurdsson and Powers 2009). In 1998, the BOF adopted statewide sport fishing guide regulations (5 AAC 75.075) requiring all sport fishing guides and businesses to register annually with ADF&G. At this time, the BOF also adopted statewide regulations requiring logbooks for saltwater charter vessels. The logbooks were used to collect information on charter activity (location, effort, and harvest) necessary to the BOF for allocation and management decisions specific to Chinook salmon, rockfish, and lingcod, and for the North Pacific Fishery

¹ Hereafter, “SWHS” will refer to these references for 1977–1995 data, and to the Alaska Sport Fishing Survey database [Internet] Anchorage, AK for data 1996–present: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Management Council (NPFMC) for allocation of Pacific halibut. From 2002 through 2005, for both technical and policy-based reasons, the Charter Logbook program did not required reporting of Pacific halibut catch and harvest (Sigurdsson and Powers 2009).

In 2004, the Alaska Legislature adopted House Bill 452, which established licensing requirements for sport fishing guide business owners and sport fishing guides statewide (effective 2005). This legislation also required logbook reporting for all freshwater guiding businesses in addition to the existing saltwater reporting requirements. The freshwater logbook data provided location of fishing effort, level of participation, and number of species kept and released by clients annually beginning in 2006, and the information was used for the regulation, development, and management of fisheries (Sigurdsson and Powers 2009–2014).

Since 2006, the Charter Logbook data have been consistently reported, but the freshwater sport fishing Charter Logbook program ended following the 2018 fishing season. This action was a result of ADF&G's budget reduction process; no estimates from this program are presented here. The saltwater Charter Logbook program was continued because ADF&G agreed to provide these data for Southeast Alaska Chinook salmon treaty obligations and federal (National Oceanic and Atmospheric Administration Fisheries) halibut management actions. The saltwater Charter Logbook data provide both spatial and temporal distribution of the charter sport fishing effort because guides are required to record a daily trip log including a statistical area code for the primary area fished; however, these data are not reported here. Saltwater Charter Logbook data are presented in this report for 2006–2023, along with averages for 2008–2017 and 2018–2022.

Area Effort and Harvest Overview

Since 2004, the PWSMA has accounted for an average of 8% of the total statewide sport fishing effort (calculated from Table 1). Saltwater sport fisheries dominate the PWSMA, whereas only a small portion of the PWSMA effort occurs in fresh waters, most of which occurs in the Copper River Delta area of Cordova. During 2008–2017, the highest proportion of effort occurred in western PWS (Table 1). Overall, effort has declined slightly when comparing the recent 5-year average (2018–2022) to the historical (2004–2017) average, which could be attributed to a variety of factors (economy, weather, COVID-19; Table 1). Both guided and nonguided nonresident effort show sharp declines in 2020, with recovery the following year (Table 2). The recent 5-year average (2018–2022) of nonguided resident angler effort shows a slight increase when compared to the previous 10-year average (2011–2017), which can be attributed to a noticeable increase in resident effort during 2019–2021 (Table 2).

The saltwater charter industry operating in the PWSMA started to decline in 2012, when the number of licensed charter businesses fell below 100 and never recovered. The number of registered charter vessels in operation also declined from a high of 188 in 2006 to an average of 111 vessels during 2018–2022 (Table 3). Guided angler-days of effort have ranged from a low of 19,857 in 2020 to a high of 35,795 in 2007, and averaged 29,910 from 2008 to 2017 (Table 3). The low number in 2020 was because of a significant decline in nonresident anglers during the COVID-19 pandemic. Historically, groundfish were the target of charter trips, and these still dominate as the primary target, whereas trips targeting salmon have declined over the years (Table 3). In PWSMA salt waters, Chinook salmon are caught in year-round fisheries, whereas coho, pink, sockeye, and chum salmon are caught during their spawning migration through PWS salt waters. Historically (2008–2017), 62% of charter effort came from nonresident anglers, and this has not changed during the last 5 years (average 63%; calculated from Table 3). Weather, fuel

prices, economic reasons, or regulations could all influence the number of charter trips, but 2020 was the only year since 2006 the percentage of nonresident guided anglers made up less than 55% of the effort (calculated from Table 3).

Historically (2008–2017), coho salmon made up most of the PWSMA salmon harvest, composing nearly 73% of the total salmon harvest, on average (2008–2017), whereas other species made up the remaining 21% (Chinook: 3%, pink: 16%, sockeye: 7%, chum: 1%; calculated from Table 4). From 2018 to 2022, nonguided anglers harvested, on average, 85% of the salmon in the PWSMA, with resident anglers making up 59% of nonguided salmon harvest (Table 5). Guided anglers harvested, on average, 15% of the salmon in the PWSMA, with resident anglers accounting for approximately one-third of the guided angler salmon harvest (calculated from Table 5).

Table 1.—Number of angler-days expended in the Prince William Sound Management Area (PWSMA) by geographical region compared to statewide, 2004–2023.

Year ^a	Geographic region				PWSMA total	Statewide total
	CRD ^b	Eastern PWS ^c	Western PWS ^d	Other-unknown ^e		
2004	15,005	81,075	70,467	0	166,547	2,473,961
2005	11,870	76,060	66,946	0	154,876	2,463,929
2006	12,179	77,860	61,035	139	151,213	2,297,961
2007	18,961	91,401	96,247	19	206,628	2,543,648
2008	13,042	77,593	79,526	0	170,161	2,315,592
2009	17,022	78,206	81,798	0	177,026	2,216,436
2010	21,300	73,038	65,491	0	159,829	2,000,152
2011	18,282	61,880	80,286	0	160,448	1,919,312
2012	17,205	61,228	54,538	0	132,971	1,885,692
2013	16,125	71,433	84,858	0	172,416	2,202,957
2014	20,268	56,521	88,130	0	164,919	2,309,851
2015	22,037	66,008	73,006	0	161,051	2,212,331
2016	13,830	55,516	80,829	100	150,275	1,982,300
2017	17,647	52,795	60,147	229	130,818	2,006,244
2018	15,837	63,313	63,530	0	142,680	1,878,009
2019	18,584	70,842	90,061	0	179,487	2,075,431
2020	13,407	56,993	79,617	278	150,295	1,566,516
2021	17,229	63,004	80,585	117	160,935	1,978,718
2022	14,627	45,791	58,011	0	118,429	1,822,478
2023	18,876	49,666	55,185	51	123,778	1,775,094
Average						
2008–2017	17,676	65,422	74,861	33	157,991	2,105,087
2018–2022	15,937	59,989	74,361	79	150,365	1,864,230

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^a To increase precision in data collection, Statewide Harvest Survey changed from reporting area of harvest of port of landing in 2001. This had no effect on data for PWSMA totals.

^b CRD = Copper River delta: includes angler effort on the Cordova road system and delta, and for saltwater trips returning to Cordova.

^c Includes effort of anglers for trips on the eastern side of PWS, including Valdez.

^d Includes effort of anglers on the western side of PWS, including Whittier.

^e Includes effort of anglers in unknown and other areas of PWS.

Table 2.—Statewide Harvest Survey (SWHS) estimates of finfish sport fishing effort by user group and residency in the Prince William Sound Management Area, 2011–2023.

Year	Guided			Nonguided		
	Nonresident	Resident	Total	Nonresident	Resident	Total
2011	13,320	8,326	21,646	36,804	101,998	138,802
2012	15,055	8,881	23,936	36,243	72,792	109,035
2013	14,860	11,380	26,240	29,142	117,034	146,176
2014	11,618	10,035	21,653	36,429	106,837	143,266
2015	15,401	8,818	24,219	35,870	100,962	136,832
2016	14,315	9,061	23,376	24,998	101,901	126,899
2017	12,625	7,186	19,811	30,957	80,050	111,007
2018	14,052	7,292	21,344	28,851	92,485	121,336
2019	15,536	9,668	25,204	34,502	119,781	154,283
2020	6,467	8,825	15,292	15,953	119,050	135,003
2021	15,847	8,918	24,765	32,433	103,737	136,170
2022	13,137	9,796	22,933	26,039	69,457	95,496
2023	12,017	7,568	19,585	32,021	72,172	104,193
Average						
2011–2017	13,885	9,098	22,983	32,920	97,368	130,288
2018–2022	13,008	8,900	21,908	27,556	100,902	128,458

Source: Alaska Sport Fishing Survey database [Internet]. 2011–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: SWHS began collecting reliable residency data in 2011.

Table 3.—Charter Logbook data for the Prince William Sound Management Area (PWSMA), 2006–2023.

Year	Businesses	Vessels	Angler days				Number of trips with primary target			
			Resident	Nonresident	Other ^a	Total	Salmon	Groundfish	Both	Total
2006	143	188	11,861	19,124	3,751	34,736	1,018	2,797	1,170	4,985
2007	143	187	12,772	22,350	673	35,795	825	2,937	1,569	5,331
2008	139	181	10,958	19,702	707	31,367	671	2,723	1,180	4,574
2009	124	162	10,938	16,027	629	27,594	499	2,181	1,331	4,011
2010	111	144	10,836	17,750	2,459	31,045	494	2,255	1,337	4,086
2011	100	132	10,016	17,694	2,493	30,203	583	1,741	1,577	3,901
2012	90	115	9,482	17,110	2,467	29,059	253	2,238	1,051	3,542
2013	83	119	10,558	19,345	2,861	32,764	514	1,995	1,590	4,099
2014	86	126	8,604	17,534	1,103	27,241	245	2,013	1,263	3,521
2015	81	122	8,787	19,774	1,651	30,212	360	1,363	2,140	3,863
2016	71	116	9,418	19,712	1,087	30,217	168	2,813	920	3,901
2017	67	112	8,237	19,461	1,702	29,400	328	1,736	1,716	3,780
2018	73	118	6,966	17,932	1,276	26,174	368	2,265	947	3,580
2019	66	115	8,244	19,120	1,453	28,817	415	2,376	1,157	3,948
2020	56	98	9,906	9,013	938	19,857	255	1,656	931	2,842
2021	66	115	7,972	19,384	1,121	28,477	407	2,259	1,286	3,952
2022	62	111	7,234	18,658	1,331	27,223	355	2,594	977	3,926
2023	60	110	6,126	16,330	1,736	24,192	343	1,774	1,320	3,437
Average										
2008–2017	95	133	9,783	18,411	1,716	29,910	412	2,106	1,411	3,928
2018–2022	65	111	8,064	16,821	1,224	26,110	360	2,230	1,060	3,650

Source: Charter Logbook database [Internet]. 2006–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests.

^a Includes complementary, crew, or unreported angler-days.

Table 4.—Sport fishing harvest of salmon species in the Prince William Sound Management Area, 2004–2023.

Year	Chinook salmon		Coho salmon		Sockeye salmon		Chum salmon		Pink salmon		Total	
	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
2004	5,660	2,414	186,208	107,407	13,107	9,971	12,820	1,972	114,519	28,980	332,314	150,744
2005	6,702	3,350	195,672	126,583	8,960	6,144	4,870	720	123,012	39,935	339,216	176,732
2006	7,021	4,647	138,446	99,608	7,020	4,978	7,968	1,937	68,144	19,180	228,599	130,350
2007	6,874	3,193	188,535	134,449	17,966	12,672	7,432	1,077	136,220	35,506	357,027	186,897
2008	6,187	3,886	136,305	101,645	11,500	7,652	9,492	1,149	82,518	24,081	246,002	138,413
2009	8,935	4,379	120,611	85,353	12,929	9,401	6,171	932	64,957	21,460	213,603	121,525
2010	5,275	3,477	158,982	118,371	8,909	6,960	5,084	2,299	49,273	20,310	227,523	151,417
2011	4,954	1,990	143,718	100,417	9,869	7,528	13,406	701	51,597	14,903	223,544	125,539
2012	2,523	1,929	56,754	39,705	6,849	4,442	3,348	937	37,700	15,933	107,174	62,946
2013	5,692	3,609	145,363	104,681	11,029	8,499	5,787	1,372	38,921	10,282	206,792	128,443
2014	3,537	2,751	66,420	42,825	14,993	10,875	3,988	858	33,040	11,312	121,978	68,621
2015	3,365	2,227	153,066	113,352	6,982	4,548	3,180	584	50,874	16,382	217,467	137,093
2016	4,607	3,457	47,648	34,610	5,267	4,784	844	253	36,741	15,635	95,107	58,739
2017	3,754	1,928	84,295	67,858	7,614	4,726	3,389	678	39,798	12,692	138,850	87,882
2018	5,086	2,954	60,570	47,122	7,214	6,112	1,653	468	48,176	15,445	122,699	72,101
2019	8,186	4,528	83,514	63,726	12,443	10,005	4,950	1,468	63,276	20,432	172,369	100,159
2020	12,051	7,222	61,267	43,577	13,813	10,312	2,200	239	38,205	11,882	127,536	73,232
2021	8,715	5,433	93,115	68,275	10,612	7,536	2,092	544	54,134	13,664	168,668	95,452
2022	4,310	3,411	52,332	43,474	11,665	9,345	1,686	456	36,527	12,606	106,520	69,292
2023	9,638	6,325	64,021	47,189	7,327	5,343	2,972	403	36,157	12,237	120,115	71,497
Average												
2008–2017	4,883	2,963	111,316	80,882	9,594	6,942	5,469	976	48,542	16,299	179,804	108,062
2018–2022	7,670	4,710	70,160	53,235	11,149	8,662	2,516	635	48,064	14,806	139,558	82,047

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Table 5.—Sport fishing harvest of salmon by user group and residency in the Prince William Sound Management Area, 2011–2023.

Year	Guided			Nonguided			Combined total
	Nonresident	Resident	Total	Nonresident	Resident	Total	
2011	12,930	6,459	19,389	36,235	69,915	106,150	125,539
2012	7,628	4,004	11,632	25,548	25,766	51,314	62,946
2013	16,164	8,315	24,479	34,518	69,446	103,964	128,443
2014	6,863	3,815	10,678	26,936	31,007	57,943	68,621
2015	18,114	9,575	27,689	39,466	69,938	109,404	137,093
2016	4,860	1,845	6,705	19,621	32,413	52,034	58,739
2017	11,142	4,235	15,377	29,043	43,462	72,505	87,882
2018	7,799	1,793	9,592	24,759	37,750	62,509	72,101
2019	9,877	5,971	15,848	26,993	57,318	84,311	100,159
2020	3,891	4,335	8,226	12,379	52,627	65,006	73,232
2021	11,015	5,197	16,212	24,417	54,823	79,240	95,452
2022	6,704	5,006	11,710	18,592	38,990	57,582	69,292
2023	8,798	4,398	13,196	29,610	28,691	58,301	71,497
Average							
2018–2022	7,857	4,460	12,318	21,428	48,302	69,730	82,047

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

AREA FISHERIES 2023 PERFORMANCE

Angler effort in the PWSMA has declined in recent years, with effort in 2023 (123,778 angler-days) approximately 82% of the 2018–2022 average (150,365 angler-days), which was the second lowest on record. The largest decline in effort for 2023 was observed in western PWS, where effort (55,185 angler-days) was far below the 2018–2022 average of 74,361 angler-days (Table 1), the lowest estimate since 2012 and only 74% of the historical average (calculated from Table 1). In 2023, nonguided anglers accounted for 84% of the effort (104,193 angler days; calculated from Table 2), which is similar to previous percentages. However, the percentage of nonresident angler effort in 2023 (36%) was the highest since 2012, and was 9% greater than the 2018–2022 average when the COVID-19 pandemic impacted these numbers; thus, nonresident effort has returned to pre-pandemic levels in the PWSMA (Table 2).

The number of saltwater charter trips targeting salmon continued to be low in 2023 (343 vs. 2008–2017 average of 412). Salmon harvest for the entire PWSMA (71,497) was below the previous 5-year (2018–2022) average of 82,047 and much lower than the historical (2008–2017) average harvest of 108,062 (Table 4).

COHO SALMON

COHO SALMON FISHERY DESCRIPTION

Supported by both wild and hatchery coho salmon runs, the saltwater sport fishery for coho salmon in PWSMA provides the highest harvest levels among all the salmon species. Wild stocks are scattered and run sizes are unknown or small. A large number of hatchery coho salmon return to Valdez, Cordova, and Whittier THAs (Figure 2) in most years. A majority of the PWSMA coho salmon catch and harvest occurs in these terminal saltwater fisheries, although wild coho salmon are predominantly targeted in Copper River delta (CRD) fresh waters. Adult coho salmon typically return to freshwater streams to spawn from August through October and are caught in salt water during this time.

Most of PWSMA is open to the taking of coho salmon year-round. In all salt and fresh waters of PWSMA, the bag limit for coho salmon is 3 per day and 3 in possession (established in 1999 for PWS and 1989 for CRD), except for THAs encompassing the hatchery release sites in Valdez, Cordova, Chenega Bay, and Whittier (Figure 2). Coho salmon bag limits in THAs are 6 per day and 12 in possession. Regulations restrict coho salmon harvest to 1 per day, 1 in possession in Shelter Bay on Hinchinbrook Island. Several streams or sections of streams in the Cordova area are closed to fishing for coho salmon including Eccles Creek and Eyak Lake and its tributaries (exception Eyak River). Ibeck Creek is closed to all sport fishing upstream from ADF&G markers located approximately 3 miles upstream of the Copper River Highway bridge, and Hartney Creek is closed above Whitshed Road. Clear Creek (upriver of the Carbon Mountain Bridge) was closed to salmon fishing in 1999 but was reopened following a BOF decision in 2018. In addition, all freshwater drainages to the Port of Valdez except for a portion of the Robe River and Solomon Gulch Creek are closed to fishing for salmon. In the Robe River near Valdez, the bag and possession limits are 1 coho salmon. Coho salmon removed from fresh waters crossed by the Copper River Highway must be retained and become part of the daily bag limit of the person who originally hooked the fish. A person may not remove a coho salmon from the water before releasing it. In addition, from August 15 to September 15, bait may not be used in Copper River Highway streams to catch and release coho salmon if an angler has caught their daily bag limit.

Copper River Delta Coho Salmon

The coho salmon fishery on CRD is composed of numerous road-accessible streams west of the Copper River (west delta), and both fly-out and boat-accessible streams east of the Copper River (east delta). Most angler effort on the west delta is expended on Eyak River, Ibeck Creek, and Alaganik Slough. Smaller streams on the west delta, such as those at 18-mile and 20-mile along the Copper River Highway, receive angler effort during the coho salmon season but the low number of SWHS respondents fishing these systems precludes reliable estimates of catch and harvest of coho salmon in these areas. As such, stream-specific estimates of catch and harvest are only available for Eyak River, Ibeck Creek, and Alaganik Slough. Major streams on the east delta include the Martin and Katalla Rivers. Like the smaller systems on the west delta, catch and harvest estimates are not available for the Martin and Katalla Rivers due to the low number of SWHS respondents fishing these systems. Streams east of the delta became less accessible in 2011 when a bridge at mile 37 of the Cooper River Highway washed out. These streams are now accessible only by airboat and plane, and receive even less fishing pressure as a result.

There are no stream-specific management objectives for any of the wild coho salmon that are found throughout PWS; therefore, individual stream escapement goals have not been established and there is no monitoring of inseason escapement. There is currently a CRD-wide coho salmon sustainable escapement goal (SEG; an indexed level of escapement known to provide sustained yield) of 32,000–50,000 coho salmon that has been met or exceeded every year since 1989, excluding 2022 when it fell short by 1,630 fish (Donaldson et al. 1995, Appendix B15 (1985–1993); Ashe et al. 2005, page 72 (1993–2004); Sheridan et al. 2014, page 79 (2003–2013); Botz et al. 2024, page 79 (2013–2023)). The Division of Commercial Fisheries monitors inseason escapement of coho salmon via these aerial surveys in several streams on the CRD.

Harvest of coho salmon in the CRD sport fishery is most likely dependent on an interaction between 3 variables: angler effort, stream conditions, and the size of the run. For example, low, clear stream conditions on the Eyak River and Alaganik Slough in 2004 (S. Hochhalter, Fishery Biologist, ADF&G, Anchorage, personal communication) coupled with the largest aerial survey counts of coho salmon on record for these streams (Sheridan et al. 2014, page 79) coincided with a very high catch and harvest of coho salmon in the sport fishery (Table 6). However, catch and harvest of coho salmon in the sport fishery can remain low despite large runs of fish when stream conditions are poor during a large portion of the season. Two independent 100-year floods during the coho salmon season of 2006 resulted in poorer fishing conditions than in 2004 and lower catch and harvest of coho salmon than 2004 (Table 6); however, the 2006 coho salmon run was the fourth largest in the 11 years between 2000 and 2010 (Botz et al. 2012, page 93). Differences in stream conditions between the Eyak River, Ibeck Creek, and Alaganik Slough within a given year can also influence the proportional contribution of these streams to the total catch and harvest of coho salmon.

Although catch and harvest may be impacted by stream conditions as described previously, escapement is expected to be impacted by harvest levels. The largest harvest between 2004 and 2023 was documented in the sport fishery in 2015 (Table 6), which coincided with a below average total escapement index (42,165 fish) during this period (Sheridan et al. 2014; Botz et al. 2024; calculated average was 53,473 for 2004–2023), although this was well above the lower bound of the CRD SEG (32,000 fish). Conversely, the lowest sport harvest occurred in 2006 (8,014 fish; Table 6), which coincided with a well above average escapement index of 89,270 fish (Sheridan et al. 2014). This is not a general rule, however, because in 2022, there were both low returns and

harvest was the lowest it's been since 2006 (8,087 coho salmon; Table 6), and the escapement of 30,370 fish did not meet the lower bound of the SEG. In addition, during 2022, inseason restrictions were implemented to reduce harvest opportunity and stay within the escapement goal range (Appendix C1). Low numbers of coho salmon returned in 2022, probably resulting from the 2019 drought and its effect on fry and returning adults that year.

After a substantial drop in catch and harvest in 2016 (23,308 and 13,682 fish, respectively) following the highest catch and harvest estimated in the last 20 years (49,296 and 25,667 fish in 2015, respectively), lower catches and harvests have followed (Table 6). In 2019, despite drought conditions present for much of the coho salmon fishing season, and approximately 1,000 coho salmon becoming stranded and dying on a seasonal side channel of Ibeck Creek (J. Botz, Fishery Biologist, Division of Commercial Fisheries, ADF&G, Cordova, personal communication), there was an observed increase in coho salmon harvest (13,641 fish) over the previous 2 years (10,447 and 11,089; Table 6), even with the implementation of inseason regulation changes (Appendix C1). In 2020, the COVID-19 pandemic likely influenced effort and harvest of coho salmon in the CRD. The third lowest harvest in the last 20 years occurred in 2020 (9,194 fish).

COHO SALMON STOCKING PROGRAM

ADF&G does not stock coho salmon in the PWSMA. PWSAC stocks coho salmon at Fleming Spit in Cordova, Chenega Bay, and near Whittier; the VFDA stocks coho salmon in the Valdez area. Hatcheries place smolt in pens and then release them once they have had sufficient time to imprint on that location. These stocked coho salmon create popular shore fisheries and help reduce angler effort on wild stocks. Recent stockings (2018–2022) have averaged 4.57 million coho salmon annually among all hatchery programs combined (calculated from Appendix B2).

COHO SALMON FISHERY 2023 PERFORMANCE

Salt Waters

In 2023, the annual coho salmon harvest for the entire PWSMA was 47,189, which was below the recent historical average (2018–2022) of 53,235, and well below the prior 10-year average (2008–2017) of 80,882 fish (Table 6). Harvest by guided anglers composed 19% of the total harvest, which was slightly higher than the recent 5-year average (16%; calculated from Table 7). Between 2018 and 2022, resident anglers took an average of 62% of the coho salmon harvest annually; however, in 2023, coho salmon harvest by resident anglers was only 43% (calculated from Table 7).

Table 6.—Statewide Harvest Survey (SWHS) estimates of coho salmon catch and harvest in the Prince William Sound Management Area, 2004–2023.

Year	Geographical region									
	Western		Eastern		Valdez		CRD		Total	
	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
2004	33,294	21,374	27,966	19,301	70,346	49,680	54,602	17,052	186,208	107,407
2005	55,286	38,485	24,256	18,111	86,018	57,944	30,112	12,043	195,672	126,583
2006	28,151	20,891	22,176	17,586	70,833	52,505	16,674	8,014	138,446 ^a	99,608 ^a
2007	50,663	35,292	41,011	30,021	77,467	59,605	19,394	9,531	188,535	134,449
2008	26,335	22,119	28,647	21,724	60,022	48,451	21,301	9,351	136,305	101,645
2009	23,264	18,981	20,926	16,379	48,278	35,461	28,143	14,532	120,611	85,353
2010	28,480	23,277	19,768	15,800	80,199	62,631	30,535	16,663	158,982	118,371
2011	43,056	30,180	13,821	8,699	56,773	46,451	30,068	15,087	143,718	100,417
2012	11,486	8,953	5,428	4,450	11,717	10,648	28,123	15,654	56,754	39,705
2013	33,048	23,906	17,946	12,938	62,960	49,375	31,409	18,462	145,363	104,681
2014	15,593	13,262	7,328	2,550	12,094	10,088	31,405	16,925	66,420	42,825
2015	39,112	33,730	23,048	17,346	41,610	36,609	49,296	25,667	153,066	113,352
2016	7,949	6,871	3,138	2,662	13,253	11,395	23,308	13,682	47,648	34,610
2017	25,450	21,825	9,947	8,472	31,085	27,114	17,813	10,447	84,295	67,858
2018	11,288	9,390	9,633	7,224	23,106	19,419	16,543	11,089	60,570	47,122
2019	22,588	17,809	12,094	10,027	26,261	22,249	22,571	13,641	83,514	63,726
2020	16,148	13,334	4,704	3,722	21,690	17,327	18,725	9,194	61,267	43,577
2021	23,657	17,666	11,451	7,735	36,074	30,210	21,933	12,664	93,115	68,275
2022	11,434	10,365	2,463	1,974	25,740	23,048	12,695	8,087	52,332	43,474
2023	13,389	10,495	6,209	4,864	17,445	15,957	26,978	15,873	64,021	47,189
Average										
2008–2017	25,377	20,310	15,000	11,102	41,799	33,822	29,140	15,647	111,316	80,882
2018–2022	17,023	13,713	8,069	6,136	26,574	22,451	18,493	10,935	70,160	53,235

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <https://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: CRD = Copper River delta.

^a There were 612 fish added to the grand total catch and harvest from an unknown harvest location.

Table 7.—Statewide Harvest Survey (SWHS) estimates of coho salmon harvest by user group and residency, in the Prince William Sound Management Area, 2004–2023.

	Coho salmon						
	Guided			Nonguided			Combined total
Year	Nonresident	Resident	Total	Nonresident	Resident	Total	
2011	11,103	6,153	17,256	27,913	55,248	83,161	100,417
2012	5,303	2,786	8,089	17,219	14,397	31,616	39,705
2013	13,859	7,291	21,150	30,352	53,179	83,531	104,681
2014	4,513	3,336	7,849	19,094	15,882	34,976	42,825
2015	15,340	9,059	24,399	31,201	57,752	88,953	113,352
2016	3,394	1,658	5,052	12,553	17,005	29,558	34,610
2017	10,180	3,821	14,001	21,387	32,470	53,857	67,858
2018	6,070	1,427	7,497	15,277	24,348	39,625	47,122
2019	6,220	4,482	10,702	17,873	35,151	53,024	63,726
2020	2,709	3,450	6,159	8,691	28,727	37,418	43,577
2021	7,538	4,610	12,148	18,569	37,558	56,127	68,275
2022	3,650	4,000	7,650	14,048	21,776	35,824	43,474
2023	5,781	3,272	9,053	21,293	16,843	38,136	47,189
Average							
2018–2022	5,237	3,594	8,831	14,892	29,512	44,404	53,235

Source: Alaska Sport Fishing Survey database [Internet]. 2004–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Copper River Delta (CRD)

The CRD coho salmon fishery made up 34% of the total harvest of coho salmon in PWSMA in 2023, which was much higher than both the 2008–2017 and 2018–2022 averages (23% and 21%, respectively; calculated from Table 6). The CRD coho salmon harvest of 15,873 fish in 2023 was the highest recorded since 2015, but it is not unprecedented; the high percentage also reflects lower harvest in other regions. In 2023, the coho salmon catch in the CRD totaled 26,978 fish, an increase compared to the previous 5-year average of 18,494 fish, and below the prior 10-year average of 29,140 fish (Table 6). Approximately 59% of the total catch was harvested (calculated from Table 6). The largest catch and harvest in 2023 came from Ibeck Creek (10,479 and 6,661 coho salmon, respectively), which has not seen catch or harvest this large since 2015.

The total CRD coho salmon escapement index of 44,440 fish during 2023 was above the lower bound of the SEG (32,000 fish; Botz et al. 2024, page79). Escapement indices are based on aerial surveys that were affected by observer efficiency and variability in environmental conditions, so these results probably represent a minimum escapement to CRD streams (J. Botz, Fishery Biologist, ADF&G, Division of Commercial Fisheries, Cordova, personal communication). In 2023, conditions were considered normal with some high-water events but, overall, good fishing conditions for sport anglers and both catch and harvest numbers returned to historical levels following reduced effort due to COVID-19 and inseason restrictions in prior years.

Table 8.—Catch and harvest of coho salmon by sport anglers from streams on the Copper River Delta by year, 2004–2023.

Year	Cordova area sites								Total	
	Eyak River		Alaganik Slough		Ibeck Creek		Other Cordova sites			
	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
2004	25,746	10,235	13,032	3,843	377	135	15,447	2,839	54,602	17,052
2005	10,639	5,228	4,049	1,777	4,120	2,437	11,304	2,601	30,112	12,043
2006	6,579	3,328	2,237	1,236	1,803	913	6,055	2,537	16,674	8,014
2007	8,141	4,677	1,641	1,052	2,260	927	7,352	2,874	19,394	9,530
2008	8,103	4,714	3,994	1,738	1,811	620	7,393	2,279	21,301	9,351
2009	13,065	8,464	2,425	1,379	7,925	3,780	4,728	909	28,143	14,532
2010	15,052	8,379	3,554	2,208	7,321	4,818	4,608	1,258	30,535	16,663
2011	8,633	5,206	2,303	1,332	12,223	7,351	6,909	1,198	30,068	15,087
2012	11,775	7,010	949	623	10,345	7,430	5,054	591	28,123	15,654
2013	10,260	7,229	4,698	2,752	13,204	6,986	3,247	1,495	31,409	18,462
2014	13,093	7,857	2,815	1,728	10,890	6,274	4,607	1,066	31,405	16,925
2015	10,655	8,338	12,483	5,862	22,875	10,315	3,283	1,152	49,296	25,667
2016	6,794	5,217	4,817	2,413	8,868	5,464	2,829	588	23,308	13,682
2017	4,429	3,088	1,980	887	8,081	5,584	3,323	888	17,813	10,447
2018	6,634	4,958	3,773	2,291	3,980	2,747	2,156	1,093	16,543	11,089
2019	8,950	5,900	5,831	3,102	4,578	3,899	3,212	740	22,571	13,641
2020	8,123	4,150	4,720	2,067	3,282	2,226	2,600	751	18,725	9,194
2021	7,293	4,813	3,670	1,612	7,907	5,541	3,063	698	21,933	12,664
2022	2,748	2,177	3,356	2,416	3,774	2,129	2,819	1,368	12,697	8,090
2023	4,456	3,212	7,359	4,836	10,479	6,661	4,684	1,164	26,978	15,873
Average										
2008–2017	10,186	6,550	4,002	2,092	10,354	5,862	4,598	1,142	29,140	15,647
2018–2022	6,750	4,400	4,270	2,298	4,704	3,308	2,770	930	18,494	10,936

Source: Alaska Sport Fishing Survey database [Internet]. 2004–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

CHINOOK SALMON

CHINOOK SALMON FISHERY DESCRIPTION

The saltwater fishery for Chinook salmon in PWSMA is relatively small and occurs year-round, although much of the effort and harvest occurs during the summer and fall months. Chinook salmon are targeted in salt water from shore primarily in the communities of Cordova and Whittier, where hatchery fish are released in THAs (Figure 2). However, most of the catch and harvest come from boat-based trolling or mooching fisheries by private and charter anglers fishing throughout PWS, although especially near Cape Cleare on Montague Island in the early summer. Because there are no known wild populations of Chinook salmon within the PWSMA, aside from the Copper River stock, most Chinook salmon caught in PWS salt waters are either stocks originating from outside the management area coming to feed in PWS (i.e., from other Alaska management areas, British Columbia, Washington, and Oregon) or are hatchery-origin (Barclay et al. 2016; Blain-Roth et al. 2021). Saltwater fisheries are primarily monitored with SWHS data and Charter Logbook data. Based on Charter Logbook data, annual charter saltwater effort primarily targeting salmon or both salmon and groundfish (number of trips) has been generally less (average 46% of trips during 2008–2017) than effort primarily targeting groundfish or both salmon and groundfish (average 90% of trips during 2008–2017; calculated from Table 3).

Although Chinook salmon have been found periodically in several streams throughout PWS (Botz et al. 2010), and retention in freshwater is allowed, freshwater effort and harvest for Chinook salmon is low. The lack of wild Chinook salmon returning to spawn in the PWSMA limits freshwater fishing effort for Chinook salmon in PWS, and the highly turbid water combined with seasonal restrictions on the use of bait (only artificial lures are allowed from 15 April to 14 June) prevent appreciable angler effort directed at the Copper River Chinook salmon stock downstream of Haley Creek (i.e., within PWSMA). Currently, freshwater fisheries are only monitored through the SWHS, and annual catch in fresh water seldom exceeds 500 fish or 10% of the total PWSMA Chinook salmon harvest, most of which comes from the CRD reporting area (Table 9). Between 2011 and 2022, resident anglers accounted for most of the Chinook salmon harvest (average 61%), with the majority of their harvest (average 89%) occurring in unguided settings (calculated from Table 10).

The bag and possession limits for Chinook salmon in the PWSMA are 2 per day, 4 in possession. These limits apply to Chinook salmon of any size in saltwater, but only apply to Chinook salmon 20 inches or longer in freshwater. The bag and possession limits for Chinook salmon less than 20 inches in length are 10. There is no annual limit or recording requirement for Chinook salmon harvest in the PWSMA.

CHINOOK SALMON STOCKING PROGRAM

As established in the ADF&G Statewide Stocking Plan,² Chinook salmon are stocked in 3 locations in PWS to create terminal Chinook salmon fisheries where angling for Chinook salmon is limited or nonexistent: Fleming Spit (Cordova), Passage Canal (Whittier), and the Chenega Bay area. The brackish lagoon at Fleming Spit in Cordova has been stocked with Chinook salmon smolt since 1990. Various locations near Whittier have been stocked since 2000, but currently, Chinook salmon smolt are imprinted in net pens near the mouth of Cove Creek. In addition to these ADF&G

² <https://www.adfg.alaska.gov/index.cfm?adfg=fishingSportStockingHatcheries.stockingPlan>.

hatchery stockings, Chinook salmon eggs from the William Jack Hernandez Sport Fish Hatchery have been transported to and reared at the Wally Noerenberg Hatchery for release as smolt in Chenega Bay since 2012 as a cooperative project between the Village of Chenega, ADF&G, and PWSAC. Historically (2004 through 2013), the Valdez area was stocked with Chinook salmon smolt, including a release site at Old Town Valdez, but extremely low returns resulted in the termination of this project between VFDA and ADF&G. The goal of the ongoing stocking programs is to generate a return of approximately 200 adult Chinook salmon and 500 angler-days of effort at each stocking location.

The amount of time that Chinook salmon typically spend feeding in marine waters can vary from 3 to 6 years, so it is difficult to associate a particular stocking event or year class to the yearly catch. From 2018 through 2022, the average number of Chinook salmon smolt released into Fleming Spit and Whittier (when releases occurred) was 113,542 and 114,036, respectively (Appendix B1). These are increases of over 15,000 Chinook salmon smolt than the 2008–2017 averages (95,868 and 92,810, respectively; Appendix B1). Despite this increase in smolt releases, these shore-based locations generally do not receive enough responses in the SWHS to accurately estimate effort or harvest; however, angler reports do indicate that stocked Chinook salmon are targeted to some degree in Whittier and Cordova.

CHINOOK SALMON FISHERY 2023 PERFORMANCE

According to the SWHS, the annual Chinook salmon catch and harvest for the entire PWSMA in 2023 was 9,638 fish and 6,325 fish, respectively (Table 9); this equates to a harvest rate of approximately 66% (calculated from Table 9). The Chinook salmon harvest in 2023 was more than double the historical average of 2,963 (2008–2017), and was a 34% increase from the recent 5-year (2018–2022) average of 4,710 (Table 9). Indeed, the 2023 annual catch and harvest estimates were the second highest on record since 2004, and was only exceeded by a peak catch and harvest in 2020 (12,051 fish and 7,222 fish, respectively; Table 9).

In 2023, more than half (53%) of the Chinook salmon harvest (3,349 fish) came from Western PWS, but this harvest was only slightly more than the recent (2018–2022) average of 3,125 fish. This is not unusual because Western PWS has made up the largest proportion of the total PWSMA Chinook salmon harvest in 11 of the last 15 years (2008–2022; calculated from Table 9). This may be due to the popular fishery near Cape Cleare (Montague Island) in Western PWS that produces high Chinook salmon catches in May and June. Cape Cleare is commonly accessed by charter vessels from both Seward and Whittier. Chinook salmon harvest in 2023 for the Eastern and Valdez geographical regions of PWSMA increased the most (153% and 58% increases, respectively) relative to the recent (2018–2022) averages (calculated from Table 9). Anecdotal angler reports indicated high catch rates of Chinook salmon in Valdez Arm and surroundings area (Eastern PWS) throughout the late summer and early fall, possibly explaining these substantial increases in the Eastern and Valdez regions of PWSMA.

Chinook salmon were mostly harvested by resident anglers (65%) in 2023, which was slightly greater than the 2018–2022 average contribution by resident anglers. Approximately 88% of the 2023 resident angler Chinook salmon harvest was unguided (calculated from Table 10). Unguided resident anglers contributed 57% (or 3,621 fish) to the overall Chinook salmon harvest in 2023, followed by nonresident guided (19%; 1,180 fish), and nonresident unguided anglers (16%; 1,037 fish). Guided resident anglers accounted for the smallest share of the 2023 Chinook salmon harvest, at 8% (487 fish; Table 10).

Table 9.—Statewide Harvest Survey (SWHS) estimates of Chinook salmon catch and harvest in the Prince William Sound Management Area, 2004–2023.

Year	Geographical region								Total	
	Western		Eastern		Valdez		CRD			
	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
2004	2,891	1,166	391	174	1,879	922	499	152	5,660	2,414
2005	1,522	1,025	1,941	893	2,709	1,087	530	345	6,702	3,350
2006	1,989	1,576	350	209	4,666	2,846	16	16	7,021	4,647
2007	1,773	1,311	2,697	828	2,324	974	80	80	6,874	3,193
2008	2,732	2,027	966	748	1,883	1,069	606	42	6,187	3,886
2009	1,972	1,334	2,430	1,576	4,268	1,264	265	205	8,935	4,379
2010	1,896	1,429	1,241	435	1,980	1,455	158	158	5,275	3,477
2011	1,224	959	829	466	2,818	514	83	51	4,954	1,990
2012	1,395	1,148	639	516	489	265	0	0	2,523	1,929
2013	3,672	2,328	1,127	627	851	633	42	21	5,692	3,609
2014	2,412	1,809	767	676	327	235	31	31	3,537	2,751
2015	1,795	1,288	517	427	694	365	359	147	3,365	2,227
2016	1,126	835	3,122	2,426	73	73	286	123	4,607	3,457
2017	2,374	1,211	427	201	870	433	83	83	3,754	1,928
2018	2,920	1,588	1,231	673	166	62	769	631	5,086	2,954
2019	5,313	2,969	1,308	677	1,247	601	318	281	8,186	4,528
2020	8,345	4,809	1,609	897	2,068	1,495	29	21	12,051	7,222
2021	6,107	3,653	1,255	794	1,353	986	0	0	8,715	5,433
2022	2,930	2,608	619	378	761	425	0	0	4,310	3,411
2023	4,248	3,349	3,487	1,733	1,788	1,128	115	115	9,638	6,325
Average										
2008–2017	2,060	1,437	1,207	810	1,425	631	191	86	4,883	2,963
2018–2022	5,123	3,125	1,204	684	1,119	714	223	187	7,670	4,710

Source: Alaska Sport Fishing Survey database [Internet]. 2004–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: CRD = Copper River delta.

Table 10.—Statewide Harvest Survey (SWHS) estimates of Chinook salmon harvest by user group and residency in the Prince William Sound Management Area, 2011–2023.

	Chinook salmon						
	Guided			Nonguided			Combined total
Year	Nonresident	Resident	Total	Nonresident	Resident	Total	
2011	475	74	549	596	845	1,441	1,990
2012	495	94	589	315	1,025	1,340	1,929
2013	560	271	831	460	2,318	2,778	3,609
2014	543	163	706	342	1,703	2,045	2,751
2015	1,106	88	1,194	352	681	1,033	2,227
2016	404	89	493	214	2,750	2,964	3,457
2017	474	110	584	240	1,104	1,344	1,928
2018	691	198	889	202	1,863	2,065	2,954
2019	1,505	406	1,911	910	1,707	2,617	4,528
2020	463	679	1,142	885	5,195	6,080	7,222
2021	987	362	1,349	1,115	2,969	4,084	5,433
2022	943	327	1,270	656	1,485	2,141	3,411
2023	1,180	487	1,667	1,037	3,621	4,658	6,325
Average							
2018–2022	918	394	1,312	754	2,644	3,397	4,710

Source: Alaska Sport Fishing Survey database [Internet]. 2004–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

PINK SALMON

PINK SALMON FISHERY DESCRIPTION

Due to their abundance and hatchery stockings, pink salmon are the second most commonly caught and harvested salmon species in the PWSMA, accounting for approximately 31% of the total salmon catch and 17% of the annual harvest, on average, since 2004 (calculated from Table 4). A mix of wild and hatchery stocks return to the PWSMA. Pink salmon begin their annual migration in early July and continue through mid-September, with peak run timing occurring in mid to late August. Both even-year and odd-year broods of pink salmon return to PWSMA, and this is reflected in the similar catches between even and odd years. Run timing and run strength vary across PWSMA geographical regions and between broods (Morella and Scannell 2024). Boat operators typically do not target pink salmon; however, many are caught incidentally while targeting other salmon species such as Chinook and coho salmon. Like chum salmon, anglers often release pink salmon, as exemplified by the 32% average harvest rate from 2004 to 2022 (calculated from Table 11). A popular shore-based pink salmon fishery takes place in Port Valdez near the VFDA Solomon Gulch Hatchery, which produced 64% of the total pink salmon catch in the PWSMA, on average, from 2008–2017.

PINK SALMON STOCKING PROGRAM

ADF&G does not operate a pink salmon stocking program in PWSMA waters; however, PWSAC and the VFDA raise and release pink salmon across several facilities. PWSAC operates at the Wally Noerenberg Hatchery (WNH), Armin F. Koernig Hatchery (AFK), and Cannery Creek Hatchery (CCH), whereas VFDA operates the Solomon Gulch Hatchery (SGH) in Valdez. Egg takes are conducted on site at each hatchery, where the eggs are incubated, and the resulting fry are released into surrounding waters. Each year, PWSAC and VFDA release millions of pink salmon fry at these sites, and in 2023, they collectively released over 730 million fry (Wilson 2024).

PINK SALMON FISHERY 2023 PERFORMANCE

In 2023, the pink salmon catch in the PWSMA totaled 36,157 fish, a notable decrease compared to the previous 5-year average of 48,064 fish, and the prior 10-year average of 48,542 fish (Table 11). This decline from historical averages reflects the continued variability in pink salmon returns, which have fluctuated in recent years, but have generally remained lower than the peak catch period observed in the early 2000s. Only 12,237 pink salmon were harvested from PWSMA in 2023, meaning roughly 66% of the total catch was released (calculated from Table 11). Pink salmon harvest in 2023 was the third lowest recorded by SWHS since 2004, whereas the 2023 pink salmon catch was the second lowest observed.

Regionally, the Valdez area was the leading contributor to the pink salmon catch in 2023, with 20,558 fish, accounting for 57% of the total catch in the PWSMA (calculated from Table 11). In contrast, the Western region contributed 10,386 fish (29%), the Eastern region added 3,904 fish (11%), and the CRD reported just 1,309 fish (4%; Table 11). These distribution patterns underscore the Valdez shore fishery's ongoing importance as a primary pink salmon producer within the PWSMA.

Table 11.—Statewide Harvest Survey (SWHS) estimates of pink salmon catch and harvest in the Prince William Sound Management Area, 2004–2023.

Year	Geographical region								Total	
	Western		Eastern		Valdez		CRD			
	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
2004	31,668	3,312	7,627	2,277	71,355	23,130	3,869	261	114,519	28,980
2005	21,211	4,129	11,591	4,703	86,204	31,003	4,006	100	123,012	39,935
2006	10,633	1,567	3,977	1,209	52,634	16,361	900	43	68,144	19,180
2007	21,618	3,169	18,192	5,356	86,886	26,238	9,524	743	136,220	35,506
2008	19,026	3,897	7,445	1,820	52,596	17,934	3,451	430	82,518	24,081
2009	10,884	2,203	7,524	2,606	45,568	16,374	981	277	64,957	21,460
2010	9,304	1,913	4,149	1,784	34,992	16,170	828	443	49,273	20,310
2011	16,256	2,024	3,798	783	30,307	11,986	1,236	110	51,597	14,903
2012	7,574	2,298	2,779	1,399	26,390	12,079	957	157	37,700	15,933
2013	10,140	2,764	5,587	1,020	22,408	6,405	786	93	38,921	10,282
2014	10,365	2,682	1,255	476	20,718	8,127	702	27	33,040	11,312
2015	15,507	4,094	8,357	2,423	23,764	7,879	3,246	1,986	50,874	16,382
2016	4,376	1,529	1,616	1,237	30,508	12,869	241	0	36,741	15,635
2017	7,842	1,943	5,804	1,634	23,017	7,714	3,135	1,401	39,798	12,692
2018	5,023	2,097	3,904	2,104	39,054	11,244	195	0	48,176	15,445
2019	13,837	4,248	5,621	1,252	40,254	14,713	3,564	219	63,276	20,432
2020	10,275	2,751	2,429	924	23,732	8,008	1,621	155	38,205 ^a	11,882 ^a
2021	19,524	3,699	4,938	1,724	27,186	7,783	2,486	458	54,134	13,664
2022	8,637	2,194	6,344	2,291	20,298	8,095	1,248	26	36,527	12,606
2023	10,386	2,866	3,904	1,237	20,558	8,054	1,309	80	36,157	12,237
Average										
2008–2017	11,127	2,535	4,831	1,518	31,027	11,754	1,556	492	48,542	16,299
2018–2022	11,459	2,998	4,647	1,659	30,105	9,969	1,823	172	48,064	14,806

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

^a There were 148 fish added to the grand total catch and 44 fish added to the grand total harvest from an unknown harvest location.

SOCKEYE SALMON

SOCKEYE SALMON FISHERY DESCRIPTION

Sockeye salmon return to the PWSMA from late May through July and spawn from mid-July through September. The major sockeye salmon fisheries in PWS include freshwater fisheries for wild stocks in the Coghill River and Eshamy Creek, and a saltwater fishery for a hatchery stock at Main Bay. The sockeye salmon fishery on the CRD is focused on wild stocks in the Eyak River and Alaganik Slough. Numerous small streams throughout PWS support relatively small runs of sockeye salmon, and anglers target these runs as fish stage in the estuaries. Other small sockeye salmon runs targeted by sport anglers include Gunboat Creek (Eshamy Bay), Sockeye Creek in the Bay of Isles (Knight Island), Robe River near Valdez, and Billy’s Hole near Glacier Island. The SWHS relies on enough responses for any given site to generate reliable estimates of catch and harvest. As such, estimates are reported by geographical region, and stream-specific catch and harvest estimates are only available for a few of the most popular streams. Sockeye salmon are predominantly harvested by unguided, resident anglers in the PWSMA, which contribute 82% of the total sockeye salmon harvest, on average (2018–2022; calculated from Table 12).

Current bag and possession limits for sockeye salmon were established in 1973 and are 6 per day, 12 in possession. In all freshwater drainages crossed by the Copper River Highway, the bag and possession limits for salmon other than Chinook salmon are 3 fish (established in 1989). In the Eshamy Creek drainage, the limits are 3 sockeye salmon per day, 6 in possession (established in 1989). In the Robe River near Valdez, the bag and possession limit are 1 sockeye salmon (established in 1989).

Table 12.–Statewide Harvest Survey (SWHS) estimates of sockeye salmon harvest by user group and residency in the Prince William Sound Management Area, 2004–2023.

	Sockeye salmon						
	Guided			Unguided			
Year	Nonresident	Resident	Total	Nonresident	Resident	Total	Combined total
2011	225	29	254	1,627	5,647	7,274	7,528
2012	719	97	816	957	2,669	3,626	4,442
2013	294	557	851	440	7,208	7,648	8,499
2014	607	19	626	2,423	7,826	10,249	10,875
2015	622	90	712	1,869	1,967	3,836	4,548
2016	522	0	522	464	3,798	4,262	4,784
2017	20	156	176	563	3,987	4,550	4,726
2018	136	19	155	1,163	4,794	5,957	6,112
2019	79	56	135	828	9,042	9,870	10,005
2020	158	102	260	788	9,264	10,052	10,312
2021	956	28	984	2,106	4,446	6,552	7,536
2022	845	47	892	575	7,878	8,453	9,345
2023	925	39	964	1,984	2,395	4,379	5,343
Average							
2018–2022	435	50	485	1,092	7,085	8,177	8,662

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

SOCKEYE SALMON STOCKING PROGRAM

ADF&G does not have a sockeye salmon stocking program in PWSMA waters; however, PWSAC operates the Main Bay Hatchery in Western PWS. Each year, PWSAC releases approximately 10 million sockeye salmon smolt in Main Bay, which frequently produces total returns between 500,000 and 1.5 million fish annually (Botz et al. 2024). These sockeye salmon returning to Main Bay Hatchery were released to perpetuate the broodstock, as a cost recovery for PWSAC, and for commercial fishery enhancement; however, all hatchery-released salmon are the common property of all fisheries and are thus available to any fishery regardless of the target group.

Sport anglers commonly target Main Bay Hatchery sockeye salmon due to their abundance and concentration in a small area near the Main Bay Hatchery broodstock barrier seine. Assessing this sport fishery is difficult because estimates of sport catch, harvest, and effort specific to Main Bay are not available; therefore, Western PWS reporting code from the SWHS is used as a proxy for trends in sport harvest in Main Bay. A caveat to consider when interpreting trends associated with the effort and harvest data for Western PWS is that other small, yet popular sockeye salmon fisheries may be reported in this geographic region, including Coghill River and Eshamy Creek.

SOCKEYE SALMON FISHERY 2023 PERFORMANCE

The 2023 sockeye salmon harvest for the entire PWSMA waters was 5,343 fish, which was well below the recent 5-year (2018–2022) average of 8,662 fish, and somewhat below the previous 10-year average (2008–2017) of 6,942 fish, and was the lowest since 2017 (Table 13). In 2023, 78% (or 4,146 fish) of the total PWSMA harvest of sockeye salmon was reported from the Western PWS geographic region, which is very close to the long-term average contribution to overall sockeye harvest since 2004 (77%; calculated from Table 12). The sharpest decline in harvest for a PWSMA geographic region was observed in the CRD, with only 320 sockeye salmon harvested in 2023, which is only 24% of the recent 5-year (2018–2022) average of 1,347 fish. Below-average harvest in PWSMA, as well as in Western PWS and CRD geographical regions, are likely not tied to poor returns because the CRD sockeye escapement goal (55,000–130,000 fish) and Coghill River escapement goal (20,000–75,000 fish) were achieved (Botz et al. 2024, page 40). Additionally, egg-take goals were met at the Main Bay Hatchery (Botz et al. 2024). Because sockeye salmon fisheries in Western PWS (including Main Bay) are primarily accessed via boat or plane, the poor marine weather that was observed in 2023 may have impacted effort and, therefore, the PWSMA sockeye salmon harvest overall. Similarly, Eyak River in CRD is prone to high-water events, and with the heavy rains in 2023, angler success was reduced, especially in the fly-fishing only section of the river.

Table 13.—Statewide Harvest Survey (SWHS) estimates of sockeye salmon catch and harvest in the Prince William Sound Management Area, 2004–2023.

Year	Geographical region								Total	
	Western		Eastern		Valdez		CRD			
	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
2004	9,004	7,150	780	409	1,690	1,493	1,633	919	13,107	9,971
2005	4,941	4,029	404	292	2,641	1,155	974	668	8,960	6,144
2006	4,507	3,923	387	246	1,741	651	385	158	7,020	4,978
2007	11,398	9,500	800	660	2,695	764	3,073	1,748	17,966	12,672
2008	5,987	4,852	1,556	995	1,795	554	2,162	1,251	11,500	7,652
2009	8,900	7,473	1,005	465	1,063	470	1,961	993	12,929	9,401
2010	4,464	3,973	781	745	1,310	900	2,354	1,342	8,909	6,960
2011	5,692	4,645	1,281	940	1,690	1,105	1,206	838	9,869	7,528
2012	4,480	3,171	394	345	173	162	1,802	764	6,849	4,442
2013	9,091	7,599	336	274	1,178	240	424	386	11,029	8,499
2014	11,390	9,791	202	184	2,973	726	428	174	14,993	10,875
2015	5,639	4,046	278	278	136	94	929	130	6,982	4,548
2016	4,149	4,015	106	61	706	462	306	246	5,267	4,784
2017	6,856	4,291	77	77	356	158	325	200	7,614	4,726
2018	5,889	5,426	76	19	1,162	645	87	22	7,214	6,112
2019	8,488	7,628	182	74	996	270	2,777	2,033	12,443	10,005
2020	10,320	9,155	493	380	1,418	364	1,582	413	13,813	10,312
2021	7,018	5,394	192	78	165	165	3,237	1,899	10,612	7,536
2022	7,927	6,402	549	549	352	24	2,837	2,370	11,665	9,345
2023	5,718	4,146	929	568	329	309	351	320	7,327	5,343
Average										
2008–2017	6,665	5,386	602	436	1,138	487	1,190	632	9,594	6,942
2018–2022	7,928	6,801	298	220	819	294	2,104	1,347	11,149	8,662

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: CRD = Copper River delta.

CHUM SALMON

CHUM SALMON FISHERY DESCRIPTION

Sport fisheries for chum salmon occur in salt water; however, chum salmon may be targeted in estuaries and rivers where these fish return from June to early September. Chum salmon are primarily caught by anglers while targeting other salmon species. This is evident by the high release rate (79%, on average, 2004–2022), and catch that is the lowest among any other salmon species in the PWSMA (calculated from Table 4). According to the Anadromous Waters Catalog (AWC), 422 PWS streams have been nominated for chum salmon,³ and the Division of Commercial Fisheries indexes chum salmon escapement by conducting aerial surveys on over 130 of these streams (Morella and Scannell 2024). Although chum salmon are ubiquitous in streams throughout PWS, the catches of chum salmon in the sport fishery are primarily incidental or as a novelty catch for anglers, like those completing the ADF&G's *Five Salmon Family Challenge*.

CHUM SALMON STOCKING PROGRAM

ADF&G does not have a chum salmon stocking program in PWSMA waters; however, PWASC raises and releases chum salmon at the Wally Noerenberg Hatchery (WNH) and Armin F. Koernig Hatchery (AFK). Egg takes are conducted at WNH and eyed eggs are transported to AFK for incubation and eventual release. Additionally, PWSAC conducts remote releases in Port Chalmers near Montague Island. Each year, PWSAC releases over 100 million chum salmon fry across each of the release sites, and in 2023, PWSAC released 132,194,513 chum salmon fry (Wilson 2024).

CHUM SALMON FISHERY 2023 PERFORMANCE

The 2023 chum salmon catch (2,972 fish) in the PWSMA was slightly more than previous 5-year (2018–2022) average of 2,516 fish, but much less the previous 10-year average (2018–2022) of 5,469 fish (Table 14). The chum salmon catch has been in decline since about 2011, when productivity was higher. The similarity in catch between 2023 and the recent 5-year average may indicate a stabilization in chum salmon catch since the decline began. Of the chum salmon caught in 2023, only 403 fish were harvested, which is an 86% release rate (calculated from Table 14). The Valdez region of the PWSMA was the largest producer of chum salmon catch (1,649 fish) in 2023, contributing 56% to the total chum salmon catch.

³ ADF&G Anadromous Waters Catalog. <https://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=main.home>. Accessed October 2024.

Table 14.—Statewide Harvest Survey (SWHS) estimates of chum salmon catch and harvest in the Prince William Sound Management Area, 2004–2023.

Year	Geographical region								Total	
	Western		Eastern		Valdez		CRD			
	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
2004	9,779	1,769	409	30	2,209	75	423	98	12,820	1,972
2005	3,472	470	234	34	1,051	200	113	16	4,870	720
2006	3,905	839	548	180	3,481	918	34	0	7,968	1,937
2007	3,129	209	2,560	632	1,308	236	435	0	7,432	1,077
2008	4,033	572	895	87	2,796	383	1,768	107	9,492	1,149
2009	2,268	412	3,086	306	739	158	78	56	6,171	932
2010	2,134	936	876	397	2,074	966	0	0	5,084	2,299
2011	10,537	292	1,075	101	1,750	308	44	0	13,406	701
2012	1,622	213	488	0	1,006	724	232	0	3,348	937
2013	2,033	820	954	374	2,675	178	125	0	5,787	1,372
2014	2,345	433	387	67	1,095	358	161	0	3,988	858
2015	1,960	317	883	177	337	90	0	0	3,180	584
2016	373	107	84	49	387	97	0	0	844	253
2017	714	55	1,283	338	1,041	171	351	114	3,389	678
2018	803	349	281	10	569	109	0	0	1,653	468
2019	1,363	693	842	464	2,507	311	238	0	4,950	1,468
2020	1,002	179	88	34	1,099	26	11	0	2,200	239
2021	393	76	61	0	1,487	451	151	17	2,092	544
2022	351	109	887	151	448	196	0	0	1,686	456
2023	1,074	69	242	169	1,649	165	7	0	2,972	403
Average										
2008–2017	2,802	416	1,001	190	1,390	343	276	28	5,469	976
2018–2022	782	281	432	132	1,222	219	80	3	2,516	635

Source: Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Note: CRD = Copper River delta.

ROCKFISH

GROUNDFISH FISHERIES

The PWSMA supports a diversity of sport groundfish fisheries, but groundfish effort historically has been focused primarily on Pacific halibut. The Pacific halibut sport fishery is a federally managed sport fishery, and changes to its regulations influence effort and harvest trends for all other groundfish sport fisheries in PWSMA. With the adoption of the *Pacific Halibut Catch Sharing Plan* by the North Pacific Fisheries Management Council (NPFMC) in 2014, annual harvests of Pacific halibut have generally declined. Pelagic and nonpelagic rockfish species and lingcod are also frequently harvested in PWSMA, but most anglers typically do not target them exclusively. Rockfish and lingcod are state-managed groundfish stocks for sport and commercial fisheries. Fishing effort is highest during the months of May–September when large charter (guided) and private (nonguided) fleets target Pacific halibut throughout the management area. Most anglers access these boat-based fisheries through the Whittier, Valdez, and Seward harbors, with less sport effort expended from the Cordova area.

Data from the SWHS are primarily used to assess all guided and unguided sport groundfish harvests in PWSMA. Charter Logbook data also provide comparisons of harvest and effort estimates for guided anglers. These data provide both spatial and temporal distribution of the guided sport fishing effort because guides are required to record a daily trip log, including a statistical area code for the primary area fished. Data in this section will be presented for rockfish species that have relevant proposals at the 2024 PWS BOF meeting.

The PWSMA groundfish fishery is sampled at the ports of Seward, Whittier, and Valdez. Groundfish landed in Seward are harvested in both the North Gulf Coast (NGC) and PWSMA. Groundfish catch and harvest in PWS are estimated for Western PWS and for Eastern PWS, which are divided at 147°W long. Anglers landing fish in Seward and Whittier generally fished in Western PWS, whereas anglers landing fish in Valdez generally fished in Eastern PWS (C. McKean, Fishery Biologist, ADF&G, Anchorage, unpublished port sampling interview data.). Rockfish harvests landed in Seward in the SWHS are apportioned between the NGC and PWSMA using port sampling data.

ROCKFISH FISHERY DESCRIPTION

Over 30 species of rockfish (genus *Sebastes*) inhabit the Gulf of Alaska. In PWSMA, rockfish are harvested in the sport fishery and as bycatch in state and federally managed sport and commercial groundfish fisheries. Since 1991, 23 species have been identified in the sport harvest from the PWSMA, but black (*S. melanops*), yelloweye (*S. ruberrimus*), quillback (*S. maliger*), dark (*S. ciliatus*), copper (*S. caurinus*), and dusky (*S. variabilis*) rockfish typically make up most of the harvest, with black (47%) and yelloweye (26%) together making up the majority (C. McKean, Fishery Biologist, ADF&G, Anchorage, unpublished port sampling interview data). The sport fishery is managed using 2 species assemblages based on habitat preference, and these are defined in statewide sport regulations (5 AAC 75.995) as pelagic and nonpelagic. The pelagic assemblage includes black, dusky, dark, widow (*S. entomelas*), yellowtail (*S. flavidus*), and deacon (*S. diaconus*) rockfish; and the nonpelagic assemblage includes all other species. The State of Alaska has management authority for all sport rockfish fisheries in state waters (within 3 nautical miles of shore), as well as federal waters of the Exclusive Economic Zone (EEZ). Historically, it

has been assumed that most rockfish are taken incidentally while fishing for other species or while targeting rockfish only after fishing for other species.

There is no documented management harvest strategy for sport rockfish fisheries, and no harvest targets for the fishery. Despite the lack of structured management, ADF&G and the BOF have attempted to take a conservative approach to management of rockfish fisheries in PWS and the rest of Alaska. Sport fishery bag limits have been reduced periodically during the last 2 decades in recognition of the collapse of several Pacific rockfish fisheries in California, Oregon, Washington, and British Columbia. Their life history makes rockfish susceptible to overharvest. More restrictive bag limits have been set for the longer-lived and less productive nonpelagic species to discourage targeted harvest, while still allowing for retention of incidental catch. Seasons or size limits for rockfish have not been implemented in regulation because of concerns regarding high discard mortality attributed to barotrauma (decompression trauma).

Along with regulation changes, efforts have been made to educate anglers regarding the risks and consequences of rockfish overharvest, and to foster fishing practices that avoid bycatch and waste in the sport fishery. In 2017, ADF&G began the Statewide Rockfish Initiative (SRI) to develop both short and long-term management strategies for black and yelloweye rockfishes in the Gulf of Alaska. SRI efforts are focused on creating statewide standards for black and yelloweye rockfish management, and developing strategies, infrastructure, and knowledge that will support long-term adaptive management (Howard et al. 2019). ADF&G has developed a web page⁴ that addresses the management challenges inherent in rockfish fisheries, and provides sport anglers with a list of best practices that can be employed to minimize unintentional catch of rockfish and methods to reduce release mortality.

In 2018, an outreach program was launched by the ADF&G Division of Sport Fish to educate sport anglers and guides on the proper use of deepwater release techniques. Port samplers and area offices throughout Southcentral Alaska provided deepwater release devices and best practices information to anglers and charter operators free of charge. At the end of the 2018 field season, a survey was sent to over 1,100 participants in the deepwater release program to assess the efficacy of the outreach program. This program was initiated after a 3-year study examined the efficacy of deepwater release in improving the release survival of yelloweye rockfish (Hochhalter and Reed 2011), a study assessing the ability of demersal rockfish to submerge unassisted (Hochhalter 2012), and a study assessing reproductive viability following recompression events (Blain and Sutton 2016). Each of these and other studies indicate that discard mortality can be reduced dramatically and future reproduction unaffected if rockfish are quickly released using deepwater release techniques.

ROCKFISH FISHERY MANAGEMENT AND REGULATIONS

Rockfish management can be challenging because rockfish grow slowly, mature late, and exhibit low rates of natural mortality (Love et al. 2002). Beginning in September 2017, the SRI was formed within ADF&G to focus on rockfish stocks—black and yelloweye rockfish stocks, in particular. Data and information were shared across divisions and regions, and work continues to be done to address the lack of stock assessments in many of the management areas. The Division of Sport Fish groundfish harvest monitoring program provides estimates of species, age, length,

⁴ Rockfish Conservation Statewide Rockfish Initiative. Juneau, AK: Alaska Department of Fish and Game. (Accessed October 22, 2021). <http://www.adfg.alaska.gov/index.cfm?adfg=fishingSportFishingInfo.rockfishconservation>.

and sex composition, as well as the spatial distribution of the rockfish sport harvest. This program is effective at describing harvest, but these data alone cannot be used to evaluate stock status or develop management objectives. Generating a meaningful index of abundance and conducting further analyses are ongoing projects within the SRI to better estimate rockfish stock status.

Although there is no management plan for the PWSMA sport rockfish fishery, ADF&G and the BOF have attempted to take a conservative approach to manage rockfish fisheries in the PWSMA and the rest of Alaska. Sport bag limits have been reduced regionwide in recognition of the failure of other Pacific rockfish fisheries and the life history characteristics that make rockfish susceptible to overharvest. More restrictive bag limits have been set for the longer-lived and less productive nonpelagic species to discourage targeted harvest, while still allowing for retention of incidental catch. Seasons or size limits for rockfish have not been implemented to date in the PWSMA. Along with regulation changes, efforts have been made to educate anglers regarding the risks and consequences of rockfish overharvest and to foster best fishing practices, such as the use of deepwater release mechanisms, to increase the survival of released rockfish. Even though increasingly conservative steps have been taken to restrict harvest, it is unknown whether these efforts are providing optimal yield or adequately protecting rockfish populations.

Historically, the sport rockfish fishery in PWS had no bag limit until 1989, when limits of 20 fish per day and in possession, only 5 of which could be “red rockfish,” were implemented. Effective 1991, the bag limit was lowered to 5 rockfish per day, 10 in possession from 1 May to 15 September, and 10 per day and in possession for the remainder of the year. Effective in 1997, the daily bag and possession limits were 2 nonpelagic rockfish species during both seasonal periods. Effective in 1998, the BOF revised the limits such that the total bag limit was unchanged, but anglers were restricted to 1 nonpelagic rockfish per day and 2 in possession during the period 1 May–15 September, and 2 per day and in possession during the period 15 September–30 April. Anglers were required to retain the first nonpelagic rockfish caught during the summer period and the first 2 caught during the winter period, regardless of size. Effective in 2000, BOF revised the nonpelagic species limit to 2 per day and 2 in possession year-round. This modification was made to reduce waste of nonpelagic rockfish caught after the bag limit of 1 fish had been reached. Even though increasingly conservative steps have been taken to curtail harvest and manage bycatch and waste, it was unknown whether these efforts were providing for sustained yield. In 2009, seasons and the nonpelagic bag limit remained unchanged, but the bag limit for pelagic rockfish was reduced to 4 per day and 8 in possession from 1 May through 15 September, and 8 fish per day and 8 in possession from 16 September through 30 April. In 2018, BOF revised the bag limits for pelagic and nonpelagic rockfish to 4 per day, 8 in possession, of which only 1 per day and 1 in possession could be a nonpelagic rockfish, year-round. Anglers were no longer required to retain the first nonpelagic rockfish caught. In addition, BOF passed a proposal requiring deepwater release mechanisms onboard vessels statewide, and required using them to release rockfish at depth of capture or at least 100 feet. This regulation went into effect in January 2020.

The current regulations in the PWSMA, effective since 2009, include a year-round season, a daily bag limit of 4 rockfish per day, and a possession limit of 8 rockfish, of which no more than 1 daily and in possession may be a nonpelagic species. Bag and possession limits, special restrictions, and state authority in the EEZ are found in area regulations in 5 AAC 58. The terms “rockfish,” “nonpelagic rockfish,” and “pelagic rockfish” are defined in statewide regulations 5 AAC 75.995. Guides are required to report the numbers of pelagic, yelloweye, and other rockfish kept and

released daily by each angler in Charter Logbooks. Logbook requirements are outlined in AS 16.40.280 and 5 AAC 75.076.

Overfishing is by far the primary management concern for rockfish. This concern is largely based on rockfish life history characteristics such as extreme longevity, high site fidelity, relatively late age at maturity, high recruitment variability, and susceptibility to mortality from decompression trauma (Leaman and Beamish 1984; Parker et al. 2000; Munk 2001). Many species recruit to the fishery before reaching sexual maturity, and fisheries develop on the standing stock rather than on the surplus production. Removal of the older spawning stock reduces spawning biomass, potentially further inhibiting population recovery.

HISTORICAL ROCKFISH HARVEST AND ABUNDANCE

The PWSMA harvest makes up the largest proportion of the Southcentral Region sport rockfish harvest.⁵ Harvest in the PWSMA has been on a continual increase over the last 20 years, while overall effort in the area has been declining. Between 1996 and 2006, harvest of rockfish was estimated by the SWHS to be between 15,000 and 42,000 fish (Blain-Roth et al. 2021). Even with higher bag and possession limits then, these numbers are far smaller than the average harvest estimated using SWHS, Charter Logbook, and port sampling data for 2008 to 2017 (72,877 fish), and 2018 to 2022 (97,281; Table 15). Historically, nonguided anglers generally harvested more rockfish than guided anglers in the PWSMA, accounting for just over 50% of the rockfish harvest in the PWSMA, on average, from 2008 to 2013 (calculated from Table 16); however, this trend varies, and more often, since the implementation of the halibut Catch Sharing Plan in 2014, guided anglers have increased their percentage (Table 16). Up until 2020, resident (guided and nonguided) anglers almost always harvested over 50% of the rockfish the PWSMA, but there has been a recent shift toward a greater percentage by nonresidents (guided and nonguided; calculated from Table 16).

The status of rockfish stocks in PWS is, for the most part, unknown. No surveys have been conducted in PWS to obtain a fishery-independent estimate of abundance for any species. Information on locations and quantity of rockfish habitat, and spatial or depth distribution by species are also lacking. Trends in the harvest and effort data are the main tool for monitoring rockfish stocks in the PWSMA. In addition, managing the fishery to maintain a diversity of age classes of mature fish can serve to buffer the natural variability in production, and there are some indicators of the condition of the rockfish stock(s) from port sampling data.

Biological data from the sport rockfish harvest is collected annually from port sampling in the Ports of Whittier, Valdez, and Seward. The biological data include species composition, which can be used in combination with SWHS estimates to produce harvest estimates by species for both charter and unguided anglers (Table 15). Black rockfish have composed approximately 50% of the rockfish harvest in PWSMA salt waters, on average, during both the recent 5-year average (2018–2022) and the previous 10-year average (2008–2017), while yelloweye rockfish have composed around 20% (calculated from Table 15). The remaining 30% of the rockfish come from “other” nonpelagic and pelagic rockfish, with nonpelagic accounting for slightly more than 50% of their combined harvest, on average.

⁵ (ADF&G) Alaska Department of Fish and Game. 2018. Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish <http://www.adfg.alaska.gov/sf/sportfishingsurvey/> (cited September 22, 2018).

Table 15.—Estimates of rockfish harvest by management groups from Charter Logbook data expanded to include nonguided (Non-) and guided harvest proportions from Statewide Harvest Survey (SWHS) data and species proportions from the port sampling data for Prince William Sound Management Area salt waters, 2006–2023.

Year	Black rockfish			Other pelagic rockfish			Yelloweye rockfish			Other nonpelagic rockfish			Total rockfish		
	Non-	Guided	Total	Non-	Guided	Total	Non-	Guided	Total	Non-	Guided	Total	Non-	Guided	Total
2006	3,801	9,889	13,690	1,283	869	2,152	7,799	4,336	12,135	5,726	1,566	7,292	18,608	16,660	35,268
2007	8,352	16,603	24,955	3,193	924	4,117	10,481	5,226	15,707	6,387	1,740	8,127	28,413	24,493	52,906
2008	4,862	15,059	19,921	3,962	1,573	5,535	7,564	4,394	11,958	8,509	1,785	10,294	24,897	22,811	47,708
2009	7,361	13,664	21,025	2,103	2,626	4,729	8,763	4,204	12,967	11,167	1,402	12,569	29,394	21,896	51,290
2010	7,558	14,761	22,319	1,680	1,797	3,477	5,075	5,408	10,483	6,974	2,926	9,900	21,287	24,892	46,179
2011	16,023	17,221	33,245	3,868	2,293	6,161	10,498	4,629	15,127	13,606	2,801	16,407	43,995	26,944	70,939
2012	9,204	17,584	26,788	3,571	3,060	6,631	7,584	5,183	12,767	6,848	4,206	11,054	27,208	30,033	57,241
2013	15,315	20,755	36,070	6,577	4,301	10,878	8,558	4,788	13,346	14,189	4,131	18,320	44,639	33,975	78,614
2014	15,111	21,210	36,321	5,250	5,263	10,513	14,726	4,943	19,669	13,766	4,798	18,564	48,853	36,214	85,067
2015	15,041	29,525	44,566	5,470	3,714	9,183	12,512	5,826	18,338	14,563	5,524	20,087	47,585	44,589	92,174
2016	23,063	34,713	57,776	4,892	9,093	13,985	11,881	7,710	19,591	9,645	6,657	16,302	49,481	58,173	107,654
2017	22,892	27,346	50,239	2,792	5,023	7,815	12,842	7,064	19,906	8,561	5,387	13,948	47,088	44,820	91,908
2018	16,100	27,249	43,349	2,359	3,284	5,643	9,024	4,616	13,640	9,127	4,081	13,208	36,610	39,230	75,840
2019	27,469	29,964	57,434	7,816	7,515	15,330	15,746	6,725	22,471	13,907	4,561	18,468	64,938	48,765	113,703
2020	20,839	25,155	45,994	3,999	5,376	9,375	11,788	4,184	15,972	9,788	3,553	13,341	46,413	38,268	84,681
2021	21,343	38,081	59,423	4,995	7,767	12,762	12,109	5,132	17,241	13,017	4,476	17,493	51,464	55,456	106,920
2022	7,400	35,532	42,931	7,717	14,059	21,776	15,539	4,294	19,833	16,279	4,443	20,722	46,935	58,328	105,263
2023	15,014	31,982	46,995	4,685	3,574	8,260	4,898	3,000	7,898	9,903	4,095	13,998	34,500	42,651	77,151
Average															
2008–2017	13,643	21,184	34,827	4,016	3,874	7,891	10,000	5,415	15,415	10,783	3,962	14,744	38,443	34,435	72,877
2018–2022	18,630	31,196	49,826	5,377	7,600	12,977	12,841	4,990	17,831	12,424	4,223	16,646	49,272	48,009	97,281

Source: Charter Logbook database [Internet]. 2006–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests. Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>. Clayton McKean, Fishery Biologist, ADF&G, Anchorage, unpublished data.

Table 16.—Estimates of rockfish harvest by angler type from Charter Logbook data expanded to include unguided harvest proportions from Statewide Harvest Survey (SWHS) data and species proportions from the port sampling data for Prince William Sound Management Area salt waters, 2006–2023.

Year	All rockfish				Total
	Guided		Nonguided		
	Nonresident	Resident	Nonresident	Resident	
2006	10,297	6,363	4,945	13,663	35,268
2007	16,179	8,314	7,551	20,862	52,906
2008	15,076	7,735	6,617	18,280	47,708
2009	13,345	8,551	7,812	21,582	51,290
2010	15,582	9,310	5,657	15,629	46,179
2011	17,680	9,264	8,509	35,487	70,939
2012	19,946	10,087	9,326	17,882	57,241
2013	22,198	11,777	9,683	34,956	78,614
2014	24,425	11,789	11,047	37,807	85,067
2015	31,069	13,520	16,637	30,948	92,174
2016	39,840	18,333	10,698	38,783	107,654
2017	31,547	13,273	13,132	33,955	91,908
2018	28,578	10,652	7,384	29,225	75,840
2019	34,620	14,145	14,253	50,685	113,703
2020	18,694	19,574	8,171	38,242	84,681
2021	39,339	16,117	14,820	36,644	106,920
2022	41,678	16,239	13,372	33,232	104,521
2023	31,219	11,432	12,807	21,692	77,151
Average					
2008–2017	23,071	11,364	9,912	28,531	72,877
2018–2022	32,582	15,345	11,600	37,606	97,133

Source: Charter Logbook database [Internet]. 2006–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). URL not publicly available as some information is confidential. Contact Research and Technical Services for data requests. Alaska Sport Fishing Survey database [Internet]. 1996–present. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish (cited October 2024). Available from: <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>.

Biological data collected during port sampling suggests a declining trend in average length and weight of black rockfish, and no obvious trend in the average length or average weight of yelloweye rockfish harvested in the sport fishery when looking at the entire PWSMA (Figures 3 and 4). There is broad representation of ages in the black and yelloweye rockfish harvest; there appears to be a declining trend in ages over time for black rockfish, and no clear change in age trends in yelloweye rockfish. Notably, recruitment to the yelloweye rockfish fishery occurs around the age of full maturity (age when nearly all yelloweye are sexually mature), which is approximately 31 years (Arthur 2020). If the average age of harvested fish were below the age at full maturity, then a greater proportion of the harvest may include yelloweye rockfish that have not yet had a reproductive event.

Age composition data show that relatively large year classes are at least 5 years apart, as illustrated by the 1991, 2007, and 2014 black rockfish year classes, and the 1968, 1969, and 1986 yelloweye rockfish year classes, which are all strongly represented in the PWSMA sport harvest (Figures 5 and 6). Recruitment variability is common in rockfish and reinforces the principle that allowable levels of harvest must take natural variability into account.

Age, sex, and length data are also collected from port sampling and have provided useful indices of the state of the fishery. Yearly mean age and length of black rockfish have remained fairly stable through 2014, followed by a decreasing trend in 2015 and again in 2020 (Figure 3), when annual mean age and length were below the 1996–2013 historical average (Figure 4). Port sampling data cleanly maps the most common age class as the cohort ages, and transitions in the most common year class are easily detected (Figures 5 and 6). The 1991 year class was the most commonly observed from 1998 through 2014, switching to the 2007 year class in 2015, and then to the 2014 year class in 2020. For yelloweye rockfish, average age, length, and weight have remained relatively stable in the PWSMA.

Rockfish Fishery 2023 Performance

Rockfish harvest reconstruction estimates derived from expanding Charter Logbook rockfish harvest by the SWHS proportions of charter and nonguided harvest and apportioned to species or assemblage with port sampling data, probably provide much more accurate and precise harvest estimates than what can be obtained from just the SWHS (Howard et al. 2020). The harvest reconstruction estimate for PWSMA rockfish of 77,151 in 2023 is a dramatic decrease in harvest from those of 2021 and 2022 (just over 100,000 fish each), but it is close to the historical reporting period (2008–2017) average (Table 15). In 2023, emergency action (Appendix C2) was taken to reduce rockfish harvest due to the increased harvest in the prior 5 years and from preliminary stock assessment data indicating that current harvest levels may not be sustainable. The sport fishery bag and possession limit reductions for all rockfish and the seasonal restriction for yelloweye rockfish seems to have had the intended effect—reduced harvest—however; the harvest of black rockfish, in particular, did not appear to have been reduced (46,995, up from the previous year), although it was below the recent 5-year average and above the previous 10-year average (Table 15). Conversely, for yelloweye rockfish, “other” pelagic rockfish, and nonpelagic rockfish, harvest levels were reduced (quite strongly) to below the previous 5-year averages (Table 15).

Based on SWHS rockfish harvest proportions by users, an increase was observed in 2023 for nonresident anglers, who made up 57% of the total rockfish harvest in 2023 (40% of the harvest was from guided nonresidents and 17% was from nonguided nonresidents; calculated from Table 16). Using the 2023 harvest reconstruction, 72% of the total rockfish harvest was pelagic rockfish (calculated from Table 15). With species apportionment from port sampling data, black rockfish composed 61% of the 2023 harvest and 68% of the black rockfish harvest was by guided anglers, which was approximately 5% higher than the averages for 2008–2017 and 2018–2022 (calculated from Table 15). The 2023 yelloweye rockfish harvest (7,898) was the lowest estimated over the past 20 years, and due to a 2-month seasonal closure. The reduced harvest was over 50% less than the previous 5-year average harvest (17,831). The proportion of yelloweye harvest by nonguided anglers (38%) was higher by approximately 10% when compared to the recent 5-year average (2018–2022). The “other pelagic” harvest (8,260) and “other nonpelagic” harvest (13,998) in 2023 were both below the recent 5-year average harvest (2018–2022), but above the previous 10-year average harvest (2008–2017; Table 15).

The age and length compositions of PWSMA harvests of black and yelloweye rockfish in 2023 increased to near average levels after a drop from 2020 to 2022 (Figures 3 and 4). The 2023 mean length for black rockfish was 48.9 cm, a decline from the 1996–2013 historical average of 51.4 cm. Mean black rockfish age was 12.98 years in 2023, compared to the historical average (1996–2013) mean age of 15.56 (Figure 3). The mean length for yelloweye rockfish was 57.4 cm, a slight increase from the 1996–2013 historical average of 56.1 cm. Mean yelloweye rockfish age

was 30.44 years in 2023, compared to the historical average (1996–2013) mean age of 30.99 (Figure 4).

These trends may suggest that the increased rockfish harvest in recent years was supported by a young, strong cohort of black rockfish that was first harvested in 2017. Harvest of a singular, strong, and young cohort may represent a substantial increase in recruitment from this cohort, and (or) that fewer black rockfish from older cohorts still exist in PWSMA. Given that harvest has increased, and anglers are still catching good numbers of pelagic rockfish without any additional increase in the number of trips or more time spent fishing per trip, it is likely that this cohort's recruitment is larger than most others historically. Determining if older individuals are still surviving will likely require fishery independent assessment.

Although effort towards rockfish by charter and nonguided anglers cannot be directly estimated by SWHS or Charter Logbook harvest reports, it is likely that effort towards rockfish in the previous reporting period continued in 2023, and reductions in harvest and biological data can be attributed to restrictions on the sport fishery.

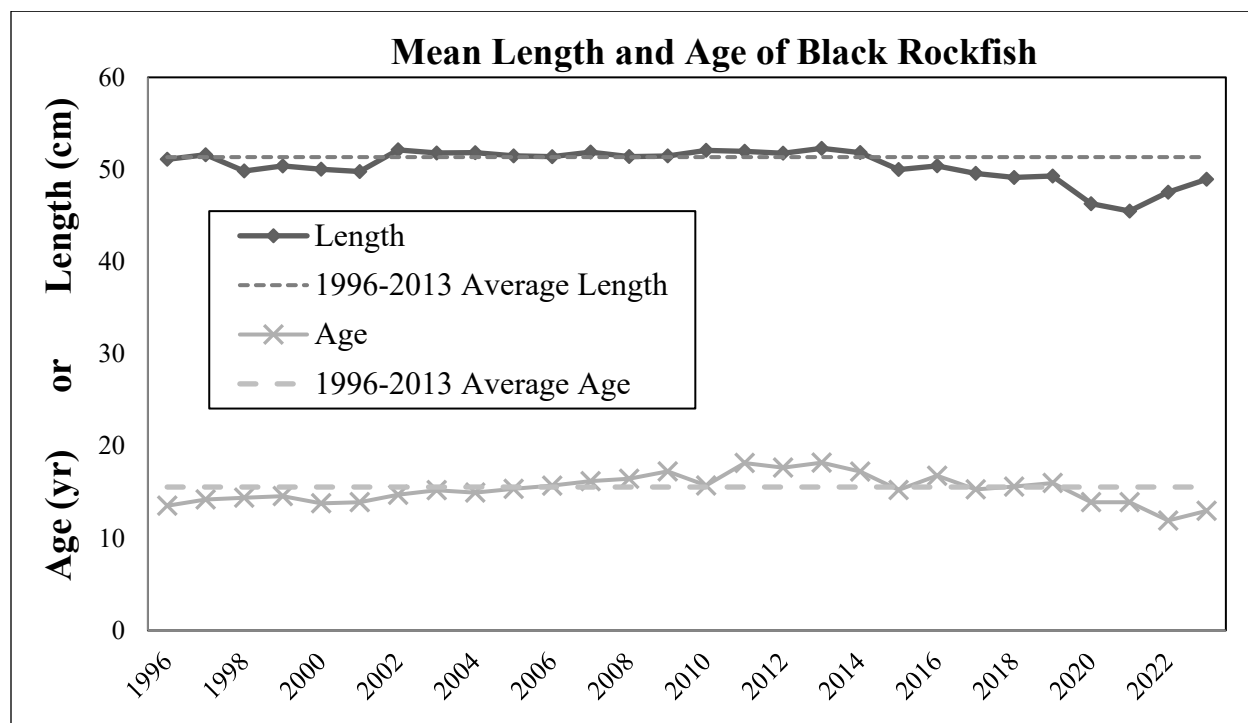


Figure 3.—Estimates of annual mean total length (TL) and mean age compared to historical averages (1996–2013) of sport harvested black rockfish in the Prince William Sound Management Area, 1996–2023.

Source: Mckean, C., ADF&G, Division of Sport Fish, unpublished data, which were first collected in 1996.

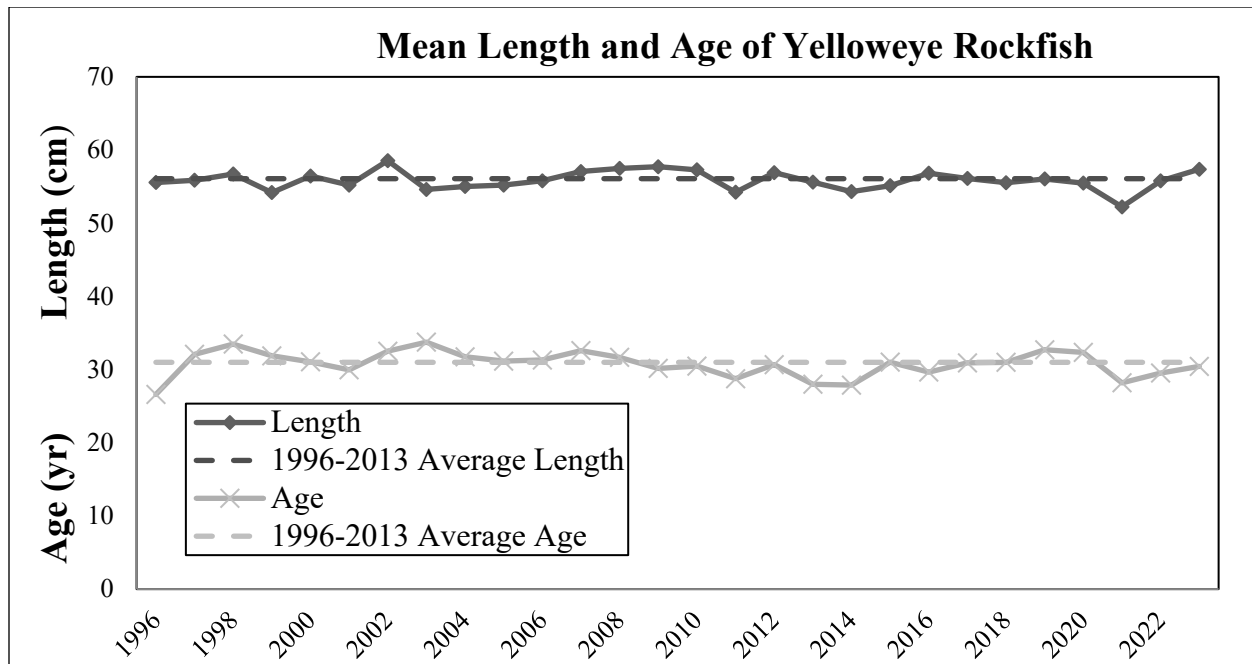


Figure 4.—Estimates of annual mean total length (TL) and mean age compared to historical averages (1996–2013) of sport harvested yelloweye rockfish in the Prince William Sound Management Area, 1996–2023.

Source: Mckean, C., ADF&G, Division of Sport Fish, unpublished data, which were first collected in 1996.

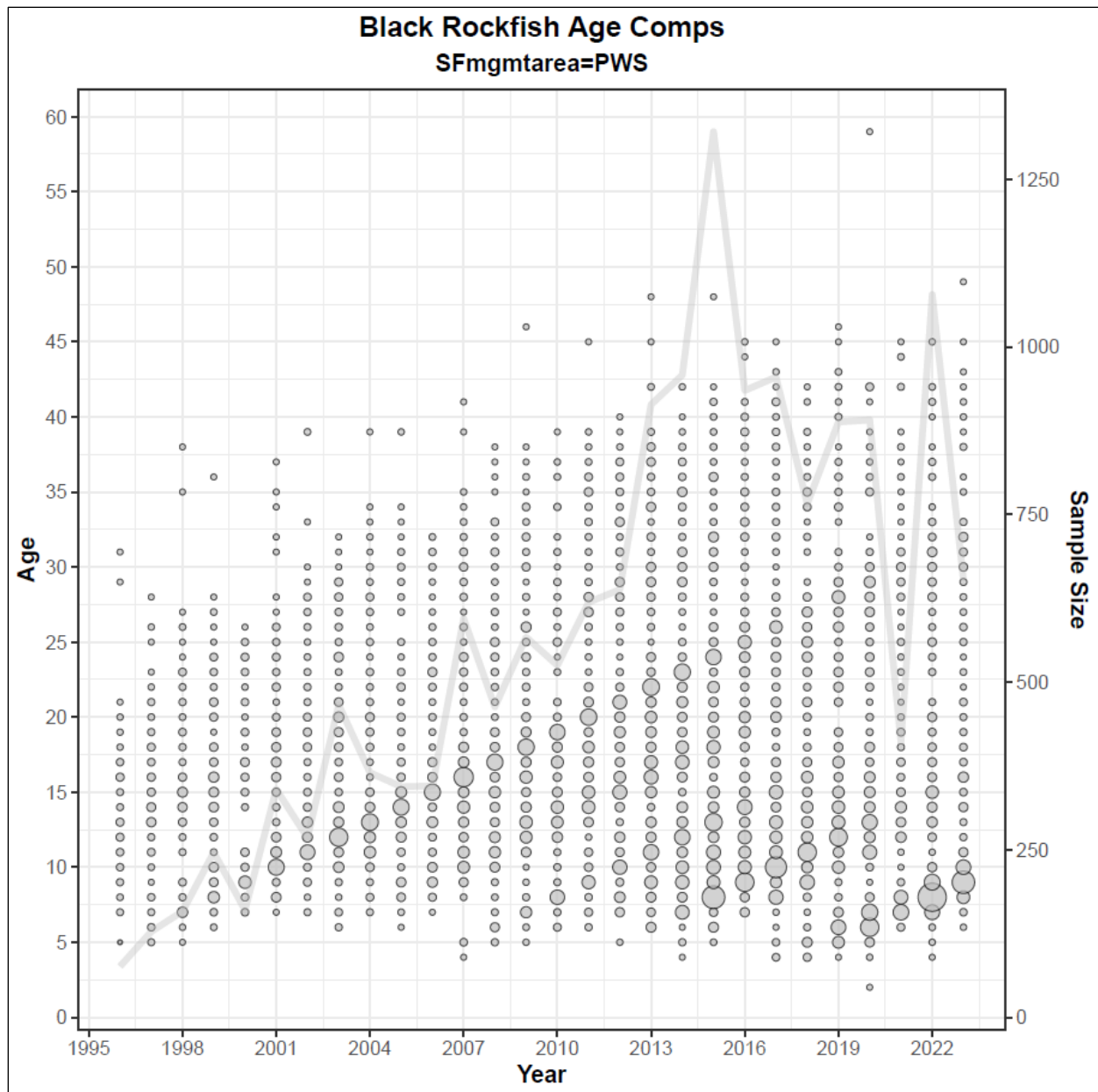


Figure 5.—Age composition of sport harvested black rockfish in the Prince William Sound Management Area, 1996–2023.

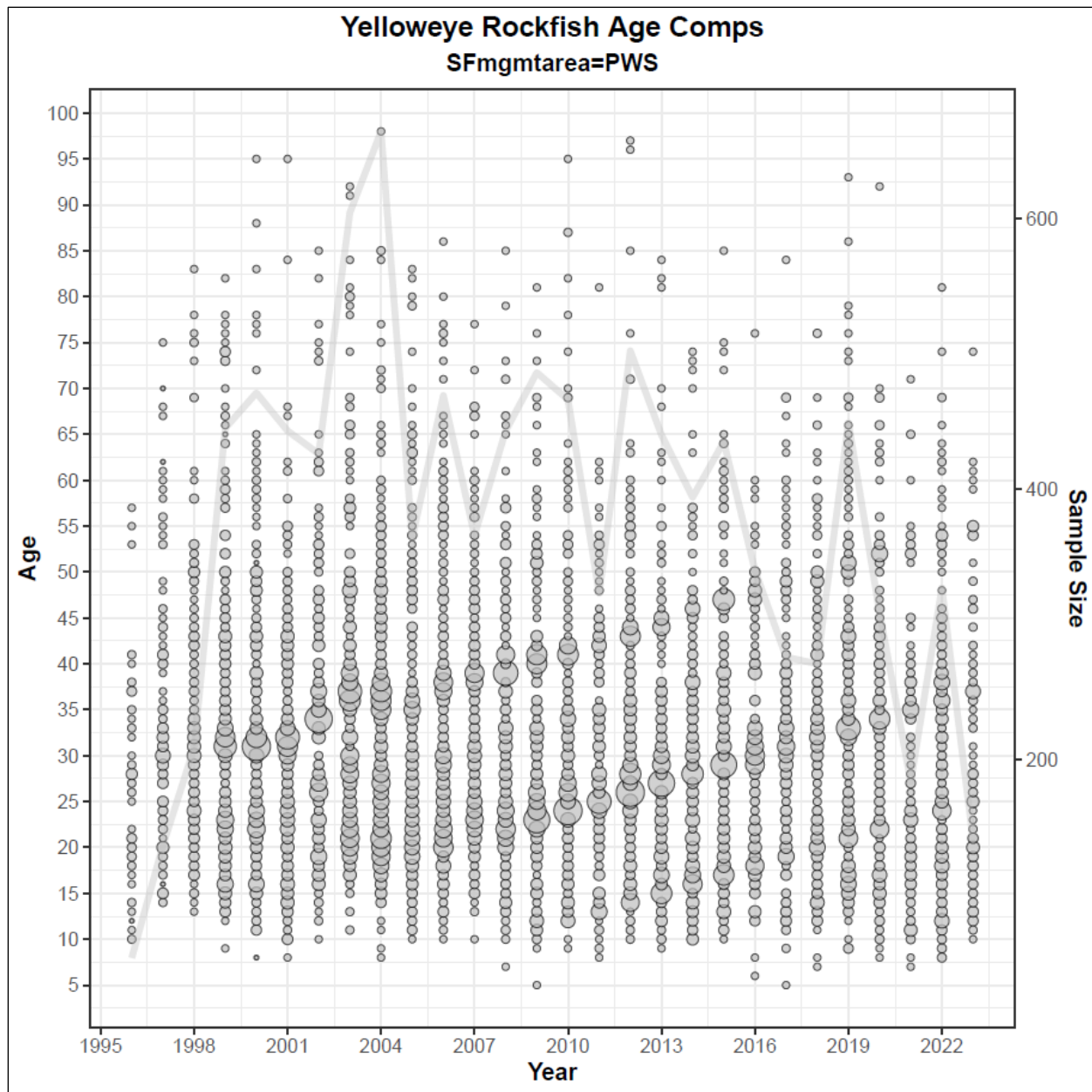


Figure 6.—Age composition of sport harvested yelloweye rockfish in the Prince William Sound Management Area, 1996–2023.

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APPENDIX A: CROSS REFERENCED BOARD OF FISHERIES INFORMATION

Appendix A1.—Cross reference of tables and figures specific to the 2024 Prince William Sound Finfish Alaska Board of Fisheries meeting proposals.

Proposal number	Stock or species	Background and recent performance	Table	Figure
27	Rockfish	Pages 29–39	15 (p. 33); 16 (p. 34)	3–6 (pages 36–39)
28	Rockfish	Pages 29–39	15 (p. 33); 16 (p. 34)	3–6 (pages 36–39)
29	Yelloweye rockfish	Pages 29–39	15 (p. 33); 16 (p. 34)	4 (p. 37); 6 (p. 39)
80	Sockeye salmon	Pages 24–26	12 (p. 24); 13 (p. 26)	—
81	Sockeye salmon	Pages 24–26	12 (p. 24); 13 (p. 26)	—
82	Area	Pages 2–12	1 (p. 7)	1 (p. 2)
83	Salmon	Pages 12–28	4 (p. 10)	—
84	Chinook salmon; rockfish	Pages 18–21; pages 29–39	10 (p. 21); 16 (p. 34)	—
85	Coho salmon	Pages 12–17	6 (p. 15)	—
86	CRD Coho salmon	Pages 16–17	8 (p. 17)	—
87	CRD Coho salmon	Pages 16–17	8 (p. 17)	—
88	CRD Coho salmon	Pages 16–17	8 (p. 17)	—

Note: CRD = Copper River delta.

APPENDIX B: SALTWATER FISH STOCKING HISTORY IN PRINCE WILLIAM SOUND

Appendix B1.—Stocking of Chinook salmon by location and hatchery in the Prince William Sound Management Area (PWSMA), 1985–2023.

Year	PWSAC-Wally Noerenberg Hatchery						ADF&G				
	Chenega Bay	Fleming Spit	Lake Bay	Whittier and Lake Bay	Whittier and Cordova	Whittier	Fleming Spit	Whittier	Valdez Glacier Stream	Valdez Harbor	Valdez old town site
1985	—	—	—	—	—	—	—	—	—	—	—
1986	—	—	57,544	—	—	—	—	—	—	—	—
1987	—	—	—	—	—	—	—	50,143	—	—	—
1988	—	—	44,787	—	—	—	—	—	—	—	—
1989	—	—	144,934	—	—	—	—	—	—	—	—
1990	—	20,282	121,657	—	—	—	—	—	—	—	—
1991	—	—	241,348	—	169,549	—	—	—	—	—	—
1992	—	102,116	274,754	102,024	—	—	—	—	—	—	—
1993	—	—	273,429	—	199,002	—	—	—	—	—	—
1994	50,318	99,334	539,195	—	—	98,302	—	—	—	—	—
1995	49,990	89,197	395,850	—	—	102,095	—	—	—	—	—
1996	49,900	—	36,515	—	—	—	—	—	—	—	—
1997	49,733	46,111	—	—	—	—	—	—	—	—	—
1998	43,411	35,627	—	—	—	—	—	—	—	—	—
1999	—	—	—	—	—	—	49,773	—	49,853	—	—
2000	—	—	—	—	—	—	45,000	—	115,582	—	—
2001	—	—	—	—	—	—	94,812	95,823	—	94,701	—
2002	—	—	—	—	—	—	109,656	109,763	—	107,861	—
2003	—	—	—	—	—	—	109,757	109,700	—	109,661	—
2004	—	—	—	—	—	—	58,000	128,611	—	—	99,464
2005	—	—	—	—	—	—	87,591	118,059	—	—	143,209
2006	—	—	—	—	—	—	113,576	—	—	—	112,221
2007	—	—	—	—	—	—	119,860	—	—	—	126,241
2008	—	—	—	—	—	—	114,627	—	—	—	126,703
2009	—	—	—	—	—	—	68,173	—	—	—	107,883
2010	—	—	—	—	—	—	111,383	—	—	—	113,801
2011	—	—	—	—	—	—	86,428	100,094	—	—	113,782
2012	49,700	—	—	—	—	—	103,515	—	—	—	102,215
2013	48,000	—	—	—	—	—	69,416	69,567	—	—	70,656

-continued-

Appendix B1.–Page 2 of 2.

Year	PWSAC-Wally Noerenberg Hatchery						ADF&G				
	Chenega Bay	Fleming Spit	Lake Bay	Whittier and Lake Bay	Whittier and Cordova	Whittier	Fleming Spit	Whittier	Valdez Glacier Stream	Valdez Harbor	Valdez old town site
2014	25,800	–	–	–	–	–	87,145	–	–	–	–
2015	44,200	–	–	–	–	–	111,151	101,079	–	–	–
2016	49,600	–	–	–	–	–	104,210	92,954	–	–	–
2017	32,100	–	–	–	–	–	102,633	100,355	–	–	–
2018	49,400	–	–	–	–	–	107,306	–	–	–	–
2019	49,134	–	–	–	–	–	110,874	118,535	–	–	–
2020	–	–	–	–	–	–	111,254	108,503	–	–	–
2021	46,900	–	–	–	–	–	133,477	128,644	–	–	–
2022	45,940	–	–	–	–	–	104,800	100,462	–	–	–
2023	6,153	–	–	–	–	–	109,739	107,444	–	–	–
Average ^a											
2008–2017	41,567	–	–	–	–	–	95,868	92,810	–	–	–
2018–2022	47,844	–	–	–	–	–	113,542	114,036	–	–	–

Source: ADF&G Hatchery Release Report data from the Mark, Tag, Age Lab accessed on 11/1/2024.

Note: En dashes = no stockings occurred.

^a Averages do not include years when stocking did not occur.

Appendix B2.—Stocking of coho salmon by location and hatchery in the Prince William Sound Management Area (PWSMA), 1985–2023.

Year	PWSAC					VFDA		ADF&G	
	Chenega Bay	Fleming Spit	Lake Bay	Whittier, Fleming Spit, and Lake Bay	Whittier	Solomon Gulch	Boulder Bay	Fleming Spit	Whittier
1985	—	—	—	—	—	94,700	—	—	108,500
1986	—	—	98,778	—	—	231,538	—	44,470	104,696
1987	—	—	376,385	—	—	88,395	—	58,213	55,546
1988	—	—	871,469	—	—	822,000	—	—	107,428
1989	—	—	5,099,043	—	—	986,792	—	75,113	82,379
1990	—	—	2,460,620	—	—	787,153	20,000	54,815	88,194
1991	—	40,080	2,083,292	—	100,254	962,872	30,761	—	—
1992	—	123,658	1,563,711	—	143,829	1,206,479	19,568	—	—
1993	—	—	—	1,303,077	—	461,388	—	—	—
1994	—	—	—	1,484,936	—	901,303	13,784	—	—
1995	—	100,260	1,861,922	—	101,774	1,305,316	20,000	—	—
1996	—	49,845	176,913	—	48,648	1,855,823	20,000	—	—
1997	—	49,583	104,944	—	49,124	1,293,145	21,768	—	—
1998	—	102,955	205,518	—	99,242	1,732,098	16,388	—	—
1999	56,467	99,943	830,243	—	81,685	1,843,718	19,810	—	—
2000	47,395	93,000	187,775	—	47,500	1,605,599	19,969	—	—
2001	50,341	73,949	47,861	—	49,816	1,519,328	16,000	—	—
2002	48,935	100,435	241,545	—	94,919	1,821,889	20,000	—	—
2003	53,594	100,781	666,541	—	99,942	1,275,145	15,000	—	—
2004	50,000	89,893	749,598	—	99,892	1,442,274	—	—	—
2005	50,000	105,892	796,153	—	105,877	1,968,366	—	—	—
2006	50,000	36,748	866,319	—	99,830	1,511,592	—	—	—
2007	50,000	100,000	1,600,000	—	100,000	1,973,604	—	—	—
2008	50,000	100,000	1,680,000	—	100,000	1,828,100	—	—	—
2009	20,000	80,000	106,000	—	20,000	1,525,927	—	—	—
2010	50,000	100,000	3,240,000	—	100,000	1,895,034	20,024	—	—
2011	50,000	100,000	3,230,000	—	100,000	2,091,562	19,827	—	—
2012	25,000	75,000	868,000	—	50,000	1,859,916	19,852	—	—
2013	50,000	100,000	2,960,000	—	100,000	1,657,016	18,858	—	—

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Year	PWSAC					VFDA		ADF&G	
	Chenega Bay	Fleming Spit	Lake Bay	Whittier, Fleming Spit, and Lake Bay	Whittier	Solomon Gulch	Boulder Bay	Fleming Spit	Whittier
2014	50,000	50,000	757,000	–	50,000	1,770,340	20,000	–	–
2015	25,000	25,000	295,000	–	25,000	1,849,715	19,639	–	–
2016	50,000	100,000	3,090,000	–	100,000	1,903,414	19,606	–	–
2017	50,000	75,000	1,190,000	–	75,000	1,891,364	19,398	–	–
2018	50,000	–	2,091,000	–	100,000	1,929,471	–	–	–
2019	48,454	102,456	1,643,371	–	92,541	1,788,449	19,804	–	–
2020	49,750	99,804	1,778,793	–	99,916	1,858,567	19,903	–	–
2021	50,000	–	3,037,000	–	80,000	1,677,346	19,867	–	–
2022	50,000	100,000	2,689,900	–	100,000	1,967,802	19,983	–	–
2023	50,000	100,000	1,636,330	–	100,000	1,835,937	19,898	–	–
Average									
2008–2017	44,845	80,828	2,118,819	–	79,254	1,863,628	17,701	–	–
2018–2022	49,917	99,902	2,501,898	–	93,305	1,834,572	19,918	–	–

Source: ADF&G Hatchery Release Report data from the Mark, Tag, Age Lab accessed on 11/1/2024.

Note: En dashes = no stockings occurred.

^a Averages do not include years when stocking did not occur.

APPENDIX C: EMERGENCY ORDERS

Appendix C1.–Emergency orders in the Copper River Delta Area in 2019 and 2022.

- 1) EO 2-SS-6-53-19 prohibited the use of bait on the Copper River Highway streams effective 12:01 AM Wednesday, September 18 through 11:59 PM Tuesday, December 31, 2019.
- 2) EO 2-SS-6-54-19 reduced the bag and possession limits for coho salmon to 1 per day and 2 in possession in the Copper River Highway streams, effective 12:01 AM Wednesday, September 25 through 11:59 PM Tuesday, December 31, 2019.
- 3) EO 2-SS-6-66-22 prohibited the use of bait and reduced the coho salmon bag and possession limit to 2 fish on the Copper River Highway streams, effective 12:01 AM. Friday, September 9 through 11:59 PM Saturday, December 31, 2022.

Appendix C2.—Emergency orders issued in 2023 for the Prince William Sound Management Area (PWSMA).

- 1) EO 2-SHR-6-16-23 decreased the number of pots allowed to harvest shrimp in the noncommercial fishery from 5 pots to 3 pots, and of those 3 pots only 2 may be used near the Port of Valdez, near the Port of Whittier, and in portions of Port Wells and Culross Passage, effective 12:01 AM Saturday, April 15 through 11:59 PM Friday, September 15, 2023.
- 2) EO 2-RF-6-21-23 reduced the bag limit of rockfish in Prince William Sound from 4 per day and 8 in possession, to 3 per day and 6 in possession of which only 1 per day, 1 in possession can be a nonpelagic rockfish. Additionally, from May 1 through June 30, yelloweye rockfish may not be retained, effective 12:01 AM Monday, May 1 through 11:59 PM Sunday, December 31, 2023.