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Overview of the Sport Fisheries for Groundfish and Shellfish in Southeast Alaska through 2023: A Report to the Alaska Board of Fisheries

by

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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)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Mathematics, statistics

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

SPECIAL PUBLICATION NO. 24-20

OVERVIEW OF THE SPORT FISHERIES FOR GROUNDFISH AND SHELLFISH IN SOUTHEAST ALASKA THROUGH 2023: A REPORT TO THE ALASKA BOARD OF FISHERIES

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ABSTRACT

This report provides an overview of the sport fisheries for groundfish and shellfish, excluding halibut (*Hippoglossus stenolepis*), in Southeast Alaska. Catch and harvest information, descriptions of fisheries management, and a history of management actions involving these fisheries are provided. In addition, current proposals to the Alaska Board of Fisheries affecting these fisheries are identified.

Keywords: rockfish, *Sebastes*, lingcod, *Ophiodon elongates,* Tanner Crab, *Chionoecetes bairdi*, Dungeness Crab, *Cancer magister*, sablefish, *Anoplopoma fimbria*, shrimp, shellfish, sport fishery, resident, nonresident, guided, unguided, groundfish, Alaska Board of Fisheries, Southeast Alaska

INTRODUCTION

The Alaska Department of Fish and Game (department) has jurisdiction over all groundfish and shellfish fisheries management within the internal waters of the state, in coastal waters out to 3 nautical miles offshore, and for certain groundfish species within the Exclusive Economic Zone (EEZ) that extends out to 200 nautical miles offshore. In Southeast Alaska, yelloweye rockfish *Sebastes ruberrimus*, black rockfish *S. melanops*, lingcod *Ophiodon elongatus*, and sablefish *Anoplopoma fimbria* are the primary state-managed groundfish species harvested by sport fisheries. Shellfish harvested in the sport fisheries include shrimp (*Pandalidae*), Dungeness crab *Cancer magister*, Tanner crab *Chionoecetes bairdi*, and clams (*Pharidae*), as well as other miscellaneous shellfish species.

The objective of this report is to provide an overview of the sport fisheries for groundfish and shellfish in Southeast Alaska historically and through the 2023 season. Specifically, this report will detail the following:

1) fishery monitoring and briefings on the biology and functional groupings of groundfish and shellfish,
2) the history of sport fisheries regulations and current fisheries management for groundfish and shellfish,
3) groundfish and shellfish catch and harvest information, and
4) a description of management issues and current proposals before the board.

FISHERY MONITORING TOOLS

The department monitors the sport harvest of groundfish and shellfish via 3 primary sampling programs: the Statewide Harvest Survey (SWHS), sport charter vessel logbooks, and on-site creel surveys. In 2018, a fourth method was implemented via a permit and reporting requirement for the shrimp sport fishery. Each program's sampling methods has its utilities and limitations. A combination of the 3 primary fishery monitoring methods is used to generate different types of fisheries metrics such as harvest, biomass, and total mortality (harvest and release mortality).

STATEWIDE HARVEST SURVEY

The SWHS is an annual mail-out survey sent to a random sample of sport fishing license holders (Smith et al. 2024) and provides estimates of sport harvest of rockfish, lingcod, Dungeness crab, and shrimp (as well as for other species) by survey area (Figure 1). Statewide Harvest Survey estimates have been available for most groundfish species since 1977. The benefit of the SWHS is that it provides a consistent annual estimate of all sport harvest that can be further divided into harvests by resident and nonresident anglers, as well as guided and nonguided anglers. However, the SWHS is conducted after the fishing season has concluded and therefore estimates are not

available until the following year. Furthermore, rockfish harvest estimates are for all species combined and cannot be apportioned to species or management assemblages (e.g., pelagic vs. nonpelagic rockfish) without using species information obtained from the onsite creel surveys. The SWHS does not collect biological characteristics of the harvest (e.g., age, sex, length, or weight).

The SWHS requires a minimum number of survey responses to produce statistically viable estimates. In some cases, the number of responses received is not sufficient to stratify estimates by residency and thereby distinguish nonresident sport harvest from the estimated minimum resident harvest. In these situations, harvest estimates are presented in this report as "mixed" sport and personal use harvest estimates, and residency type cannot be determined while still maintaining statistically viable estimates.

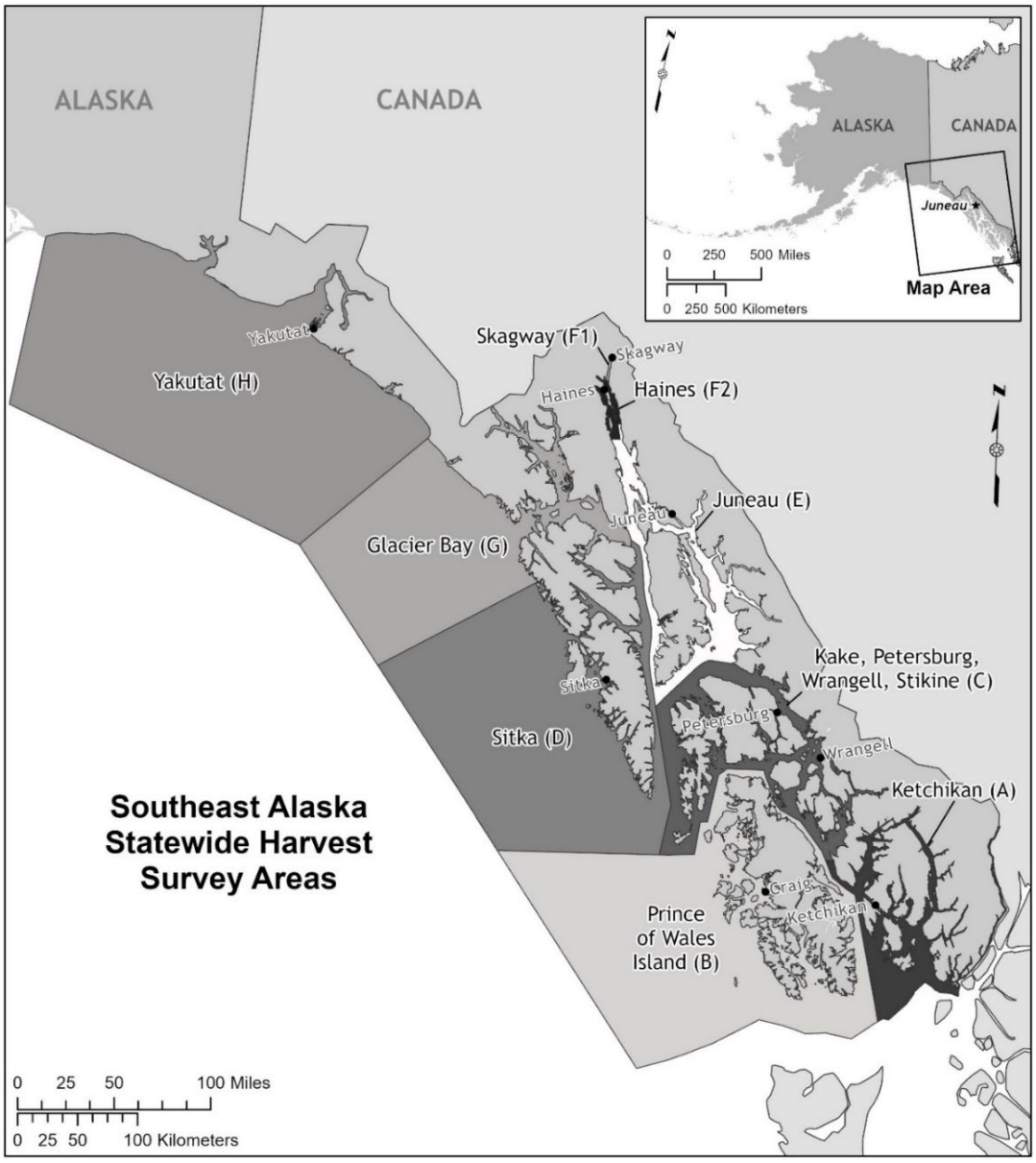

Figure 1.–Map of Southeast Alaska showing boundaries of the SWHS Areas (saltwater).

CHARTER VESSEL LOGBOOKS

Charter vessel logbooks have been required in Southeast Alaska since 1998 (Powers and Sigurdsson 2016). Since 2021, charter operators in Southeast Alaska have been required to submit information from completed chartered trips electronically. All charter operators who take clients fishing (guided anglers) in marine waters are required to report harvest and fishing effort in an electronic logbook that must be filled out on a trip-by-trip basis. Logbook trips for each week (ending on Sunday) are required to be electronically submitted within 8 days. Operators are required to provide the number of anglers fishing along with their residency, license number (permanent identification number, disabled veteran license number, or youth age), and the number of lingcod, sablefish, pelagic rockfish, yelloweye rockfish, and other nonpelagic rockfish harvested and released. Shellfish harvest is not required to be recorded.

ON-SITE CREEL SURVEYS

On-site creel surveys (marine creel) occur during late April through mid-September when more than 90% of the annual sport fishery effort in Southeast Alaska occurs, including over 95% of the guided effort. Creel surveys are designed to collect effort, catch, and harvest data as well as biological characteristics of the harvest such as species, age, size, and sex composition at the conclusion of a sport fishing trip (Jaenicke et al. 2023). On-site creel surveys occur in the major fishing ports of Yakutat, Haines (not operated since 2016), Gustavus, Elfin Cove, Juneau, Sitka, Petersburg, Wrangell, Craig, Klawock, and Ketchikan. Sport anglers are surveyed at the completion of their fishing trip by department personnel. Since inception, the primary focus of the on-site creel survey program has been to collect data on the sport salmon harvest of the region; however, catch and harvest information on groundfish have been consistently obtained since 2006. Biological data collected on rockfish, lingcod, and sablefish include species, length and weight, sex (rockfish, lingcod only), and age (black and yelloweye rockfish only).

SPORT SHRIMP PERMIT AND REPORTING

The shrimp sport fishery in Southeast Alaska has a permit and reporting requirement, that requires users to report the location, effort, and harvest of their sets allowing the department to estimate effort and harvest in the fishery. Through collecting this data over multiple years, trends in effort, harvest, and HPUE can be monitored. Harvest per unit effort is defined as pounds of whole shrimp per pot day. These results, along with commercial and personal use harvest estimates, are used by managers to estimate total removals of the shrimp resource and help ensure that harvest does not exceed the harvestable surplus.

SOUTHEAST ALASKA GROUNDFISH AND SHELLFISH FISHERY ATTRIBUTES

ROCKFISH

Rockfish are found in marine waters throughout Southeast Alaska. Many are slow-growing (late maturation) and long-lived with estimated maximum ages up to 205 years for rougheye rockfish *S. aleutianus* and 118 years for yelloweye rockfish (Love et al. 2002). They are susceptible to overharvest and slow population recovery once overharvest occurs. Rockfish have closed gas-filled swim bladders that expand when fish are brought to the surface from deep water. Expanded gases reabsorb very slowly, so fish are often unable to swim back to depth once released. Released

fish can die from injuries sustained due to the rapid pressure change or from predation when they cannot resubmerge on their own.

These life history characteristics, combined with a lack of stock assessment information and increasing fishing effort and harvest, led to the development of a statewide workgroup dedicated to sustainable management of rockfish throughout the Gulf of Alaska (GOA). In 2017, the ADF&G *Statewide Rockfish Initiative* (SRI) was launched as an interdivisional statewide effort focused on developing long-term collaborative management and assessment strategies for black and yelloweye rockfish fisheries (Howard et al. 2019). Initial phases of this Initiative have included assessing the state of knowledge of black and yelloweye rockfishes in the GOA, developing statewide management priorities, sharing existing data among regions and divisions (sport and commercial), identifying key data gaps, and generating draft management objectives. Later phases of the Initiative include progress in the development of stock assessment models for yelloweye and black rockfish that include harvest control rules to guide management of rockfish fisheries and maintain optimum spawning populations.

Rockfish of the genus *Sebastes* are grouped into multiple assemblages for sport fisheries management: pelagic rockfish include dark *S. ciliatus*, dusky *S. variabilis*, widow *S. entomelas*, yellowtail *S. flavidus*, black, and deacon *S. mystinus* rockfish; and nonpelagic rockfish include all other species in the genus. Nonpelagic rockfish species assemblages are further divided into demersal shelf rockfish (DSR) and slope rockfish. The DSR component contains yelloweye rockfish and 6 other species: canary *S. pinniger*, China *S. nebulosus*, copper *S. caurinus*, quillback *S. maliger*, rosethorn *S. helvomaculatus*, and tiger *S. nigrocinctus* rockfish. The slope rockfish component contains all remaining nonpelagic rockfish species. Slope species common to the sport fishery include silvergray *S. brevispinis*, vermilion *S. miniatus*, shortraker *S. borealis*, and rougheye rockfish.

Stock Assessment

A multi-year stock assessment survey for yelloweye rockfish in Southeast Outside Waters (SEO) is conducted by the Division of Commercial Fisheries using a remotely operated vehicle (Green and Stahl 2017). The stock assessment is habitat based, and the biomass estimate is the product of estimated area of yelloweye rockfish suitable habitat, density of yelloweye rockfish, and average weight of yelloweye rockfish by management area. In 2022, new methods for estimating biomass were adopted that incorporate a new model and changes to the input data. The revised method provides a more statistically sound method of combining management area-level biomass estimates, makes use of a secondary abundance index (IPHC longline survey), and assesses process error so that annual fluctuations in abundance are more biologically plausible (Joy et al. 2022).

Yelloweye biomass estimates have demonstrated a long-term decline in SEO over time (through 2020) but have stabilized in recent years with an increase in abundance since 2021. The stable trend in recent years is associated with no directed commercial fishing for DSR and increasingly restrictive sport fishing regulations (Figure 2; Stern et al. 2024). Yelloweye rockfish are used as an indicator for other DSR species based on similar life history, habitat preference, and the lack of stock assessments for other species. A stock assessment for black rockfish based on catch history is in development for SEAK.

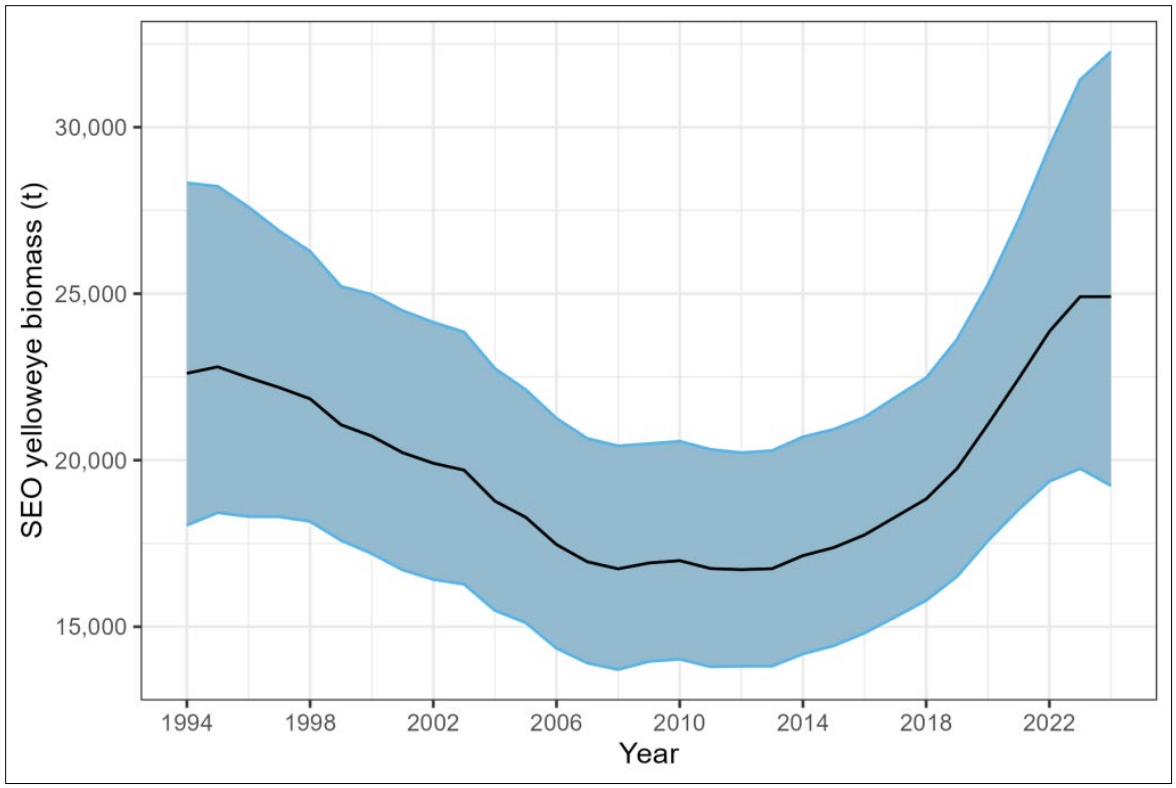

Figure 2.–Estimated biomass of yelloweye rockfish in the Southeast Outside subdistrict of the Gulf of Alaska (SEO) as identified in Stock Assessment and Fishery Evaluation report 2024.

Harvest Estimation

In 2020, the department transitioned to a new method for estimating all harvest, release, and total mortality of rockfish in terms of numbers of fish. Total mortality in biomass using consistent methodology was formalized in 2024 and involved the application of a weight matrix by species or assemblage to number of fish harvested and released—specific to other strata (CFMU, angler type, year). Previously a combination of creel and SWHS data was used to estimate rockfish mortality (historic method). The new method (SRI method) incorporates charter logbook data into the estimation model resulting in more accurate estimates for the sport fishery and was retrospectively applied to the time series of 1998 onward (Howard et al. 2020; Jaenicke et al, 2023). The SRI method estimates followed similar trends and patterns in total mortality compared to the historic method; however, they were consistently greater in magnitude (Howard et al. 2020).

Regulation History

Prior to 1989, there were no sport fishery bag or possession limits established for rockfish in Southeast Alaska. Sport fishing regulations for rockfish in Southeast Alaska south of Cape Fairweather were first established in 1989 and consisted of bag limits of 5 rockfish and 10 in possession, of which only 2 per day and 4 in possession could be yelloweye rockfish (Appendix A1). Special regulations for the Ketchikan and Sitka areas set bag and possession limits at 3 rockfish, of which only 1 could be a yelloweye rockfish.

In 1994, the Southeast Alaska regionwide regulations for rockfish were modified by the board to provide bag limits for pelagic and nonpelagic assemblages, as well as for yelloweye rockfish

specifically. Bag limits for pelagic species were set at 5 fish, 10 in possession. The bag limits for other species were also 5 fish and 10 in possession, of which only 2 per day and 4 in possession could be yelloweye rockfish. These Southeast Alaska regionwide regulations were also extended to include the Yakutat area.

Since 2006, annual emergency orders (EOs) establishing nonpelagic rockfish regulations (Appendix A1) have been used to manage the sport fishery to stay within the allocation of demersal shelf rockfish. The specific exceptions for the Ketchikan and Sitka areas were repealed in 2015 because these regulations were superseded by annual EOs that implemented more restrictive regulations prior to commencement of the fishing season. Regulations for inside waters have been set by emergency order since 2006 and have been similar to outside waters since 2017.

In 2020, the harvest of nonpelagic rockfish was closed in all Southeast waters due to conservation concerns for DSR species. In a subsequent EO the nonpelagic species group (DSR and slope) was decoupled and a limited harvest opportunity was provided for slope rockfish. The bag and possession limit was set at 1 slope rockfish per day. In addition, regulations were enacted to require all anglers statewide to release all rockfish at depth of capture or to a depth of at least 100ft, whichever is shallower. In 2022, the board established regulations to prohibit the retention of yelloweye by all anglers and allow resident harvest opportunity of DSR, excluding yelloweye (Appendix A1).

Pelagic rockfish have been managed as a separate rockfish species assemblage since 1994. Regional regulations for pelagic rockfish have remained unchanged; however, progressive restrictions have been implemented in the Sitka area since 2016. In 2016–2017, the department reduced bag and possession limits in the Sitka area to a bag limit of 3, 6 in possession. In 2018, the board adopted similar regulations restricting nonresidents in CSEO with a 3-fish bag limit, while resident limits reverted back to the regional bag limit of 5 fish. From 2022–2024, harvest continued to increase regionwide and in response the department further restricted limits in the Sitka area by EO, setting the nonresident bag limit at 2 fish and resident bag limit at 4 fish.

Barotrauma and Management Implications

Nonpelagic rockfish, including those in the DSR assemblage, are generally benthic, often found in rocky areas, and generally in deeper water than pelagic species. Nonpelagic rockfish are subject to high mortality rates when released at the surface due to tissue and organ injuries sustained by pressure differences from positive buoyancy, caused by expansion of swim bladder gases when the fish is brought to the surface, otherwise known as barotrauma. Barotrauma injuries include crushed, displaced, or ruptured internal organs, embolisms (air bubbles in blood), exophthalmia (bulging eye), and detached retina. Fish are often unable to return to depth on their own if released at the surface due to increased buoyancy caused by barotrauma injuries. Pelagic species also incur these injuries, but to a lesser extent due to physiological and behavioral differences for buoyancy regulation and preferences for shallower water.

The department reviewed scientific literature on survival of rockfish species released at depth (Appendix A2) and completed its own study in 2011 (Hochhalter and Reed 2011). Studies in California, Oregon, and Alaska indicate that some portion of rockfish released at the surface are able to submerge on their own, but it varies by species and depth of capture. The Alaska study (Hochhalter and Reed 2011) assessed the effectiveness of using deepwater release devices on common nonpelagic rockfish species in a field setting and deployed the devices mimicking techniques most likely to be used by the common angler. This study suggests survival of released

yelloweye rockfish could be increased from about 20% to over 95% by using these simple devices. Survival of other rockfish species released in the Alaska study has not been estimated, but other studies in the scientific literature (Berry 2001; Jarvis and Lowe 2008; Parker et al. 2006; Pribyl et al. 2009) demonstrate substantial increased survival following deepwater release for numerous rockfish species. Collectively, this research has focused on ways to reduce the effects of barotrauma by sending released rockfish back to deep water quickly after capture.

In 2012, the department began an outreach program to encourage public awareness of rockfish biology and management with special focus on the susceptibility of rockfish to barotrauma injuries. The department developed communication plans, educational materials, and a video showing rockfish release mechanisms and their applied uses in the field to improve public understanding of nonpelagic rockfish concerns. In addition, Division of Sport Fish staff opportunistically promote strategies for deepwater release of rockfish at public meetings, informational events, and advisory committee meetings; during dockside creel surveys; and in area offices. Area offices also display and demonstrate deepwater release mechanisms and provide a pamphlet describing the mechanisms and the benefits of their use. These efforts have contributed to public awareness and acceptance of the 2020 statewide regulation requiring mandatory use of deepwater release mechanisms.

In 2013, the board required all guided anglers in Southeast Alaska to release nonpelagic rockfish with a deep-water release mechanism, and in 2020, the board required all anglers statewide to release all rockfish at depth of capture or to a depth of at least 100 ft, whichever is shallower.

Based on the reviewed scientific literature of rockfish release survival, a mortality rate of 20% was applied to DSR released by guided anglers (since 2013) and a varying mortality rate of 50% to 90% was applied to DSR released by unguided anglers 2012 through 2019 for calculating total DSR biomass removal (Green et al. 2014; Jarvis and Lowe 2008; Hochhalter and Reed 2011; Hannah et al. 2014; GMT 2014). Because of the new regulation requiring all anglers to release fish at depth, a 20% mortality rate was applied to all rockfish released beginning in 2020.

Fishery Management

Demersal Shelf Rockfish

The North Pacific Fishery Management Council delegated management of DSR species in the SEO Subdistrict to the State of Alaska under the federal Fishery Management Plan for Groundfish of the Gulf of Alaska. The SEO Subdistrict includes the following: the East Yakutat Section (EYKT), Northern Southeast Outside Section (NSEO), Central Southeast Outside Section (CSEO), and Southern Southeast Outside Section (SSEO) (Figure 3). A total allowable catch (TAC) is set annually for the SEO Subdistrict as part of the North Pacific Fishery Management Council stock assessment process (Joy et al. 2022). The TAC varied 217–960 t during 1988 to 2023 (Table 1). DSR fishery mortality occurs in the directed commercial fishery, sport fishery, subsistence fishery, and as bycatch and unreported mortality in the commercial groundfish and halibut fisheries (Figure 4). After the estimated subsistence harvest of DSR has been subtracted from the TAC, the remainder of the TAC is allocated between sport and commercial fisheries (5 AAC 28.160(c)).

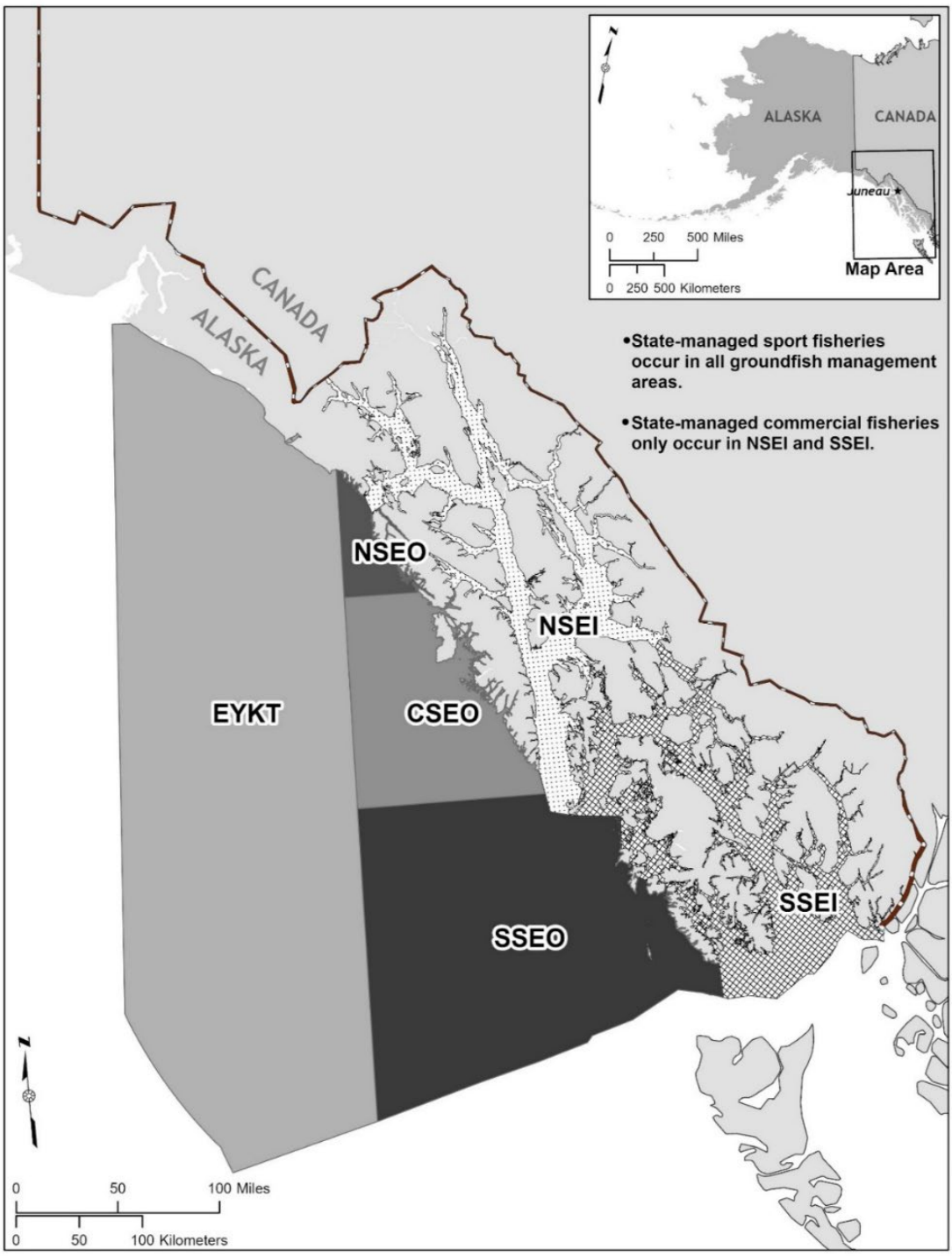

Figure 3.–Map of Southeast Alaska groundfish management areas.

Note: NSEO = Northern Southeast Outside Section, NSEI = Northern Southeast Inside Subdistrict, EYKT = East Yakutat Section, CSEO = Central Southeast Outside Section, SSEO = Southern Southeast Outside Section, and SSEI = Southern Southeast Inside Subdistrict.

Table 1.–Mortality of demersal shelf rockfish (t) from research, directed commercial, sport and subsistence fisheries in the Southeast Outside Subdistrict, 1992–2023 and Total Allowable Catch (TAC) for commercial and sport sectors combined (modified from Joy et al. 2022).

	Commercial[a]											
Year	R	D	I	U	Sport[b]	Subsistence[c]	Total	ABC[d]	OFL[e]	TAC[f]	Sport allocation	% of TAC[g]
1992	0	362	168	191	16	8	745	550	–	550	–	–
1993	15	342	230	267	20	8	882	800	–	800	–	–
1994	4	383	268	283	34	8	980	960	–	960	–	–
1995	14	155	123	72	25	8	397	580	–	580	–	–
1996	12	345	94	135	28	8	622	945	–	945	–	–
1997	16	267	105	217	38	8	651	945	–	945	–	–
1998	2	241	119	175	19	8	564	560	–	560	–	–
1999	2	240	125	175	35	8	585	560	–	560	–	–
2000	8	183	105	150	55	8	509	340	–	340	–	–
2001	7	173	145	113	51	8	497	330	–	330	–	–
2002	2	136	148	128	49	8	471	350	480	350	–	–
2003	6	102	168	95	51	8	430	390	540	390	–	–
2004	2	174	155	170	64	8	573	450	560	450	–	–
2005	4	42	192	157	76	8	479	410	650	410	–	–
2006	2	0	204	49	89	8	352	410	650	410	66	22
2007	3	0	196	48	83	8	338	410	650	410	66	20
2008	1	42	152	36	83	8	322	382	611	382	61	22
2009	2	76	140	34	48	8	308	362	580	362	58	13
2010	7	30	133	31	64	8	273	295	472	287	46	22

-continued-

Table 1.–Page 2 of 2.

	Commercial[a]											
Year	R	D	I	U	Sport[b]	Subsistence[c]	Total	ABC[d]	OFL[e]	TAC[f]	Sport allocation	% of TAC[g]
2011	5	22	88	12	52	6	185	300	479	294	47	18
2012	4	105	77	10	57	7	260	293	467	286	46	20
2013	4	129	84	11	48	7	283	303	487	296	47	16
2014	5	33	64	8	49	7	166	274	438	267	43	18
2015	4	33	70	9	60	8	184	225	361	217	35	28
2016	4	34	79	10	55	7	189	231	364	224	36	24
2017	5	32	94	12	56	7	206	227	357	220	35	26
2018	6	51	80	10	55	7	209	250	394	243	39	23
2019	10	45	89	11	60	7	222	261	411	254	41	24
2020[i]	6	0	99	12	4	7	128	238	375	231	37	2
2021[h,i]	6	0	99	13	6	7	131	257	405	250	40	2
2022	7	0	155	21	7	7	197	365	579	358	57	2
2023	10	0	179	24	8	7	228	283	376	276	43	4

[a] Commercial fisheries include R (Research), D (Directed), I (Incidental), and U (Unreported discards).

[b] Sport mortality 1992−1997 estimated from historic approach that does not employ charter logbook information; sport mortality 1998−2023 derived from the SRI method of estimation. Sport mortality for SEO excludes removals in IBS but includes EYKT.

[c] Projected subsistence catch for the fishery year. These data were not available or deducted from the ABC prior to 2009. Harvest interviews have not been conducted since 2015 but were estimated for all years to account for subsistence harvest that occurred.

[d] Allowable catch (ABC) in 1993 was estimated for CSEO, NSEO, and SSEO only (EYKT and IBS were excluded).

[e] Overfishing level (OFL)

[f] Total allowable catch (TAC)

[g] Sport mortality percentage of the annual TAC.

[h] The directed commercial demersal shelf rockfish fishery was closed to harvest in SEO beginning in 2020.

[i] Landings from ADF&G Southeast Region fish ticket database, updated through October 24, 2022.

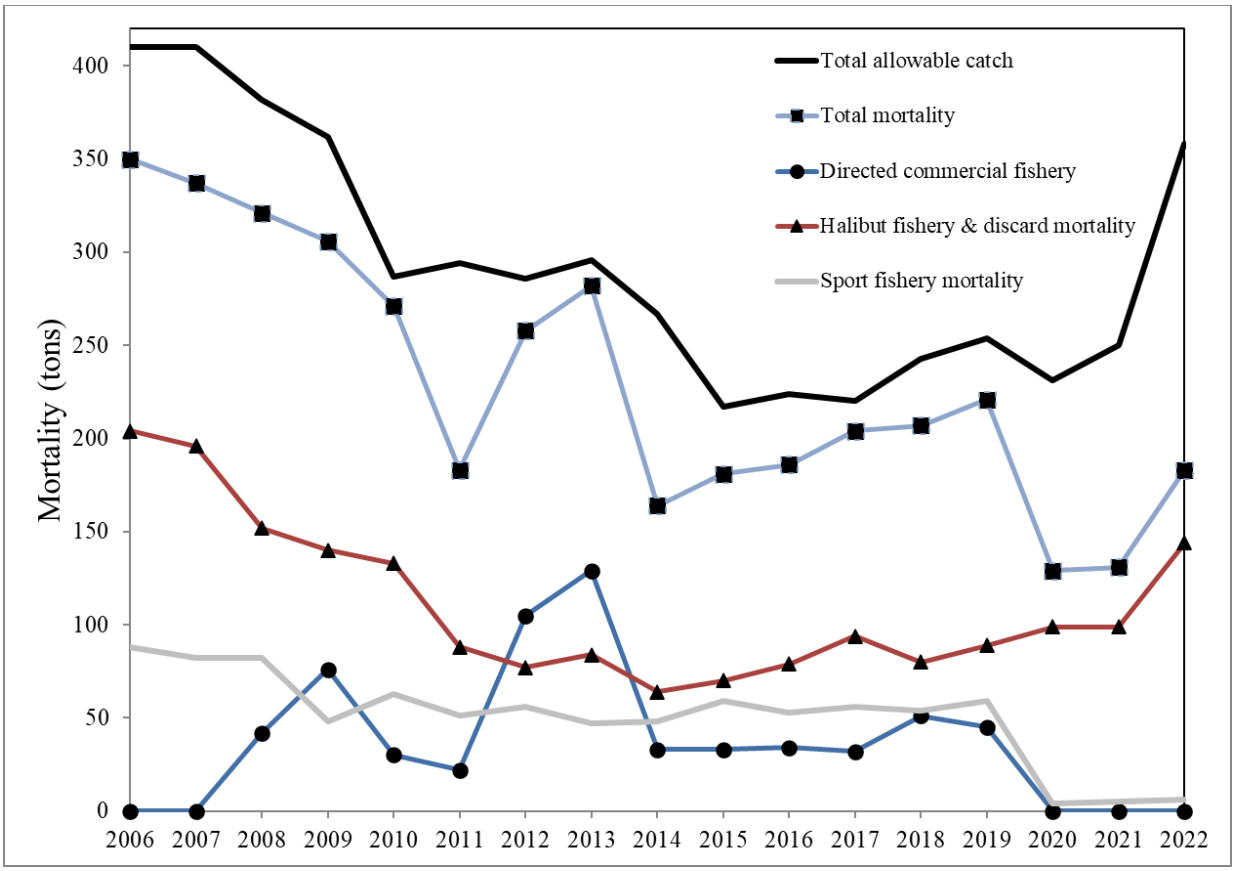

Figure 4.–Total allowable catch (TAC) and mortality by fishery and year of demersal shelf rockfish in the Southeast Outside Subdistrict of Southeast Alaska, 2006–2022.

Note: Sport fishery mortality estimated with SRI method; mortality equals harvest plus release mortality.

In 2006, the board allocated 16% of the TAC of DSR in the SEO to the sport fishery. At this time the board also outlined a series of management measures that the Commissioner may implement by EO to keep the sport fishery within its allocation (5 AAC 47.065). These measures include the following:

1) reduced bag and possession limits for nonresident anglers;
2) retention of all DSR caught by a nonresident angler is required until the nonresident bag limit is reached;
3) charter operators and crewmembers may not retain DSR while clients are on board the vessel;
4) annual limits for DSR for nonresident anglers;
5) reduced bag and possession limits for resident anglers;
6) retention of all DSR caught by a resident angler is required until the resident angler's bag limit is reached;
7) annual limits for DSR for resident anglers; and
8) time and area closures.

To date, the department has implemented all the management measures, except resident annual limits, to keep the sport fishery harvest within its allocation (Appendix A1). Although DSR sport mortality in outside waters remained relatively stable from 2009 through 2019, the TAC, and subsequently the allocation to the sport fishery, has steadily decreased from 66 t in 2006 to a low of 35 t in 2017, followed by increases in the TAC since 2018 (Figure 5).

In response to the decreases in allocation, the department has used increasingly restrictive management measures to maintain the sport harvest within its allocation. After exceeding the allocation in 2015 and 2016, time and area closures were implemented in 2107–2019 (Appendix A1). Despite the more restrictive measures implemented in 2017 through 2019, the sport fishery exceeded its allocation in all 3 years (Figure 5). The 7th provision (annual limits for resident anglers) has also been considered but would not have had an appreciable effect on overall harvest because of the small relative contribution in SEO by resident anglers.

DSR species represents an average of 89% by weight of the nonpelagic mortality in SEO, of which yelloweye represents an average of 44% of the annual sport mortality of DSR in SEO during the period 2010–2019.

Unlike the SEO waters, there is no stock assessment or allocation set for nonpelagic rockfish in Southeast Inside (SEI) waters. Nonpelagic rockfish harvest in SEI increased from approximately 16,000 fish in 2002 to over 30,000 fish in 2005. The increased harvest, coupled with a lack of stock information and susceptibility to overharvest, led to establishment of conservative nonpelagic rockfish regulations for SEI waters in 2006. Despite a conservative management strategy, the total mortality of nonpelagic rockfish in inside waters continued to rise from 2011–2016 and exceeded removals from the SEO through 2019 (Figure 6), due to more restrictive regulations in SEO and a shift in sport effort towards rockfish given restrictions in other SEI fisheries.

In response, emergency orders issued from 2017 through 2019 reduced nonpelagic rockfish bag limits in all Southeast waters (Appendix A1). Due to the continued decline in biomass in outside waters and increasing harvest in inside waters an emergency order was issued in January of 2020

prohibiting the retention of nonpelagic rockfish in all Southeast waters to ensure the sustainability of these stocks. In April 2020, the nonpelagic species group (DSR and slope) was decoupled and limited harvest opportunity was provided for slope species. The daily bag limit for slope species was set at 1 fish for all anglers, with no size and annual limit and the retention of DSR was prohibited.

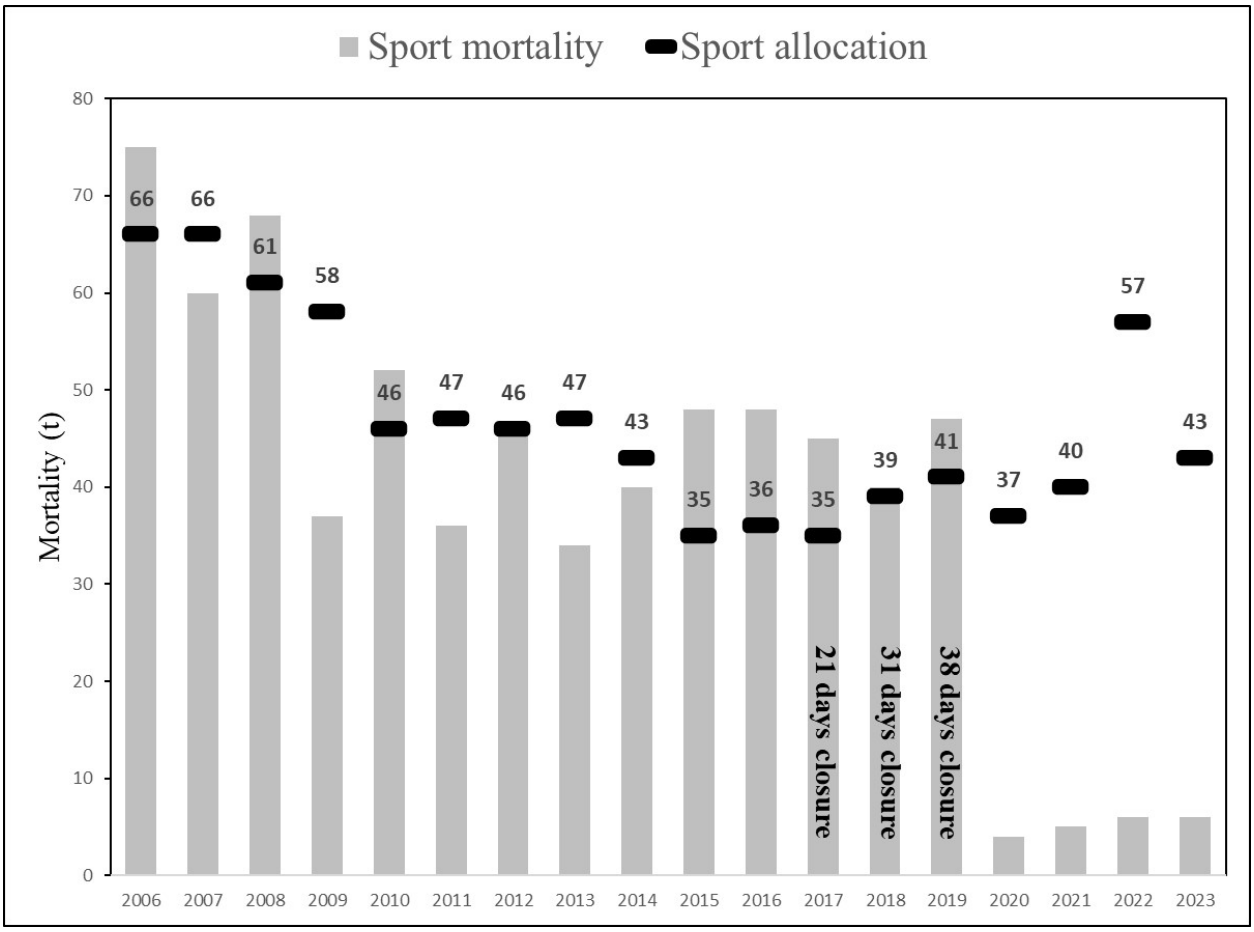

Figure 5.–Demersal shelf rockfish (DSR) allocation and mortality (harvest plus release mortality) in the sport fishery from the Southeast Outside subdistrict of Southeast Alaska, 2006–2023 estimated by the historic method (2006−2019) and the SRI method (2020−2023).

Note: In 2020, the department transitioned to a new method (SRI method) for estimating mortality.

Harvest Trends

Over the recent 10-year period (2014–2023) there has been an increase in rockfish harvest in SEAK in both SEO and SEI, although the increase varies by assemblage and by management area. Total mortality of all rockfish in the SEAK sport fishery ranged from 103,501–303,434 fish, of which nonresident harvest accounted for 90% of the total annually (Table 2).

Table 2.–Total sport mortality (harvest plus release mortality) of rockfish by assemblage in Southeast Alaska, 1998–2023 estimated by the SRI method.

	Rockfish total mortality (numbers of fish)			
Year	DSR	Slope	Pelagic	All Southeast
1998	19,956	3,308	17,923	41,187
1999	22,775	3,702	20,359	46,836
2000	39,732	6,424	31,448	77,604
2001	33,577	5,272	24,924	63,773
2002	28,144	4,186	24,949	57,279
2003	33,538	5,136	30,442	69,116
2004	43,010	6,447	35,669	85,126
2005	50,649	7,657	44,350	102,656
2006	57,548	6,285	50,056	113,889
2007	60,769	7,507	60,087	128,363
2008	62,377	6,356	88,335	157,068
2009	44,070	4,259	57,558	105,887
2010	60,102	6,117	75,789	142,008
2011	56,892	9,128	100,093	166,113
2012	67,673	11,274	104,467	183,414
2013	63,780	12,491	113,883	190,154
2014	68,747	17,014	140,658	226,419
2015	81,287	13,864	141,686	236,837
2016	74,544	18,764	121,620	214,928
2017	65,408	14,061	148,532	228,001
2018	68,000	13,659	177,327	258,986
2019	87,060	15,878	200,496	303,434
2020	954	3,771	98,776	103,501
2021	1,577	10,236	188,641	200,454
2022	9,234	18,722	237,877	265,833
2023	6,446	15,135	254,953	276,534
Avg 2014–2023	46,326	14,110	171,057	231,493
Percent of SEAK	20	6	74	100

Demersal Shelf Rockfish

Demersal shelf rockfish account for 20% of the rockfish harvest in SEAK (Table 3). The recent 10-year average (2014–2023) total sport mortality of DSR in SEAK is 46,326 fish, with the majority (53%) taken in SSEI followed by 18% in CSEO and 14% in NSEI (Table 3; Figure 6). Despite a conservative management strategy, the total mortality of DSR in SSEI has steadily increased since 2011 and spiked in 2019 to 54,497 fish, double the 10-year average (24,709 fish). This increase was attributed to a shift in sport effort towards rockfish given restrictions in other SEI fisheries. In 2020 and 2021 during the conservation closure, release mortality of DSR in SEAK was estimated at 954 and 1,577 fish respectively. In 2022–2023, after the board adopted regulations to allow for limited harvest of DSR by residents, the total sport mortality increased to an average of 7,840 fish (Table 3).

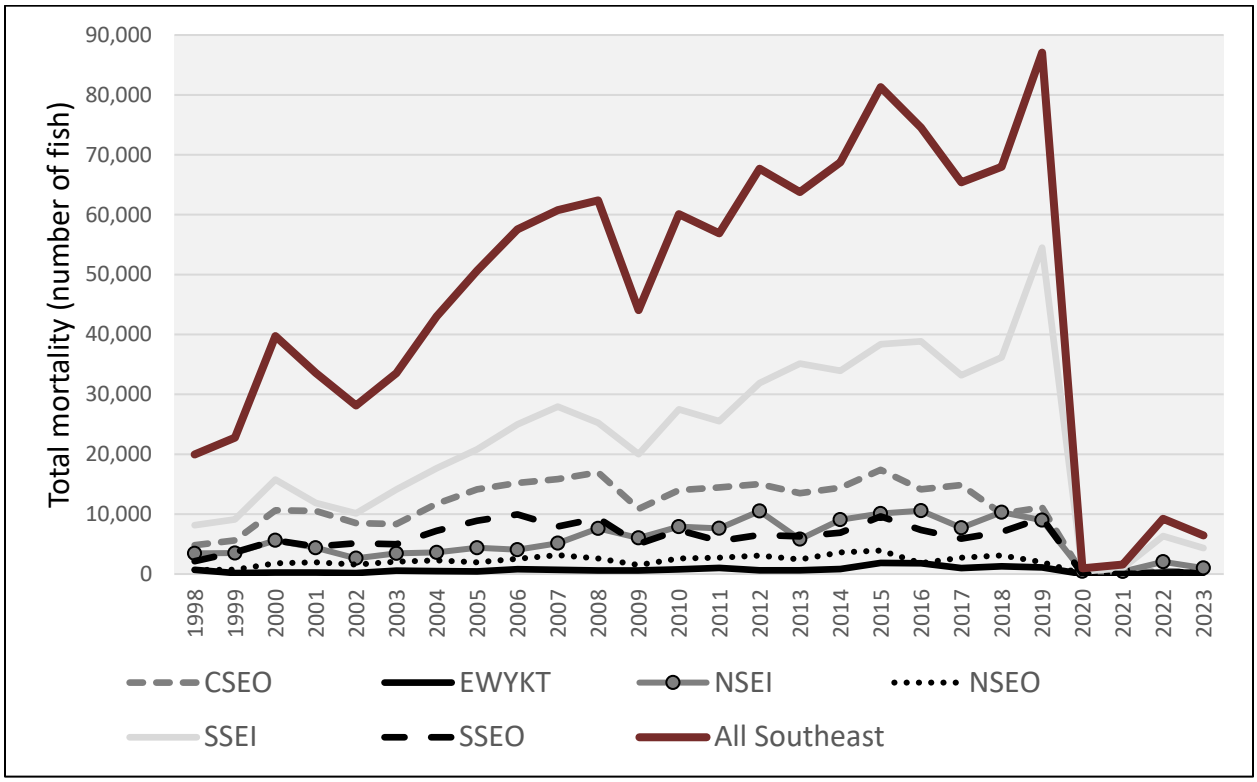

Figure 6.–Total sport mortality (harvest plus release mortality) of DSR by groundfish management area in Southeast Alaska, 1998–2023, estimated by the SRI method.

Table 3.–Total sport mortality (harvest plus release mortality) of DSR rockfish by groundfish management area in Southeast Alaska, 1998−2023, estimated by the SRI method.

	DSR rockfish mortality (numbers of fish)						
Year	CSEO	EWYKT[a]	NSEI	NSEO	SSEI	SSEO	All Southeast
1998	4,816	710	3,453	673	8,157	2,147	19,956
1999	5,620	171	3,500	724	9,128	3,632	22,775
2000	10,651	243	5,630	1,807	15,777	5,623	39,732
2001	10,527	239	4,381	1,963	11,865	4,601	33,577
2002	8,492	177	2,633	1,582	10,121	5,139	28,144
2003	8,352	577	3,444	2,056	14,122	4,988	33,538
2004	11,734	502	3,611	2,270	17,662	7,231	43,010
2005	14,151	424	4,380	1,959	20,827	8,908	50,649
2006	15,207	809	4,060	2,541	24,976	9,955	57,548
2007	15,846	715	5,145	3,172	27,939	7,952	60,769
2008	16,971	607	7,620	2,594	25,256	9,329	62,377
2009	10,890	593	6,029	1,510	20,030	5,018	44,070
2010	14,007	773	7,916	2,597	27,485	7,324	60,102
2011	14,469	1,014	7,635	2,746	25,526	5,502	56,892
2012	15,023	630	10,510	3,090	31,882	6,538	67,673
2013	13,505	616	5,811	2,444	35,125	6,279	63,780
2014	14,401	846	9,072	3,606	33,928	6,894	68,747
2015	17,399	1,857	10,101	3,922	38,374	9,635	81,287
2016	14,149	1,808	10,575	1,818	38,839	7,354	74,544
2017	14,853	1,001	7,717	2,740	33,180	5,916	65,408
2018	10,073	1,300	10,320	3,099	36,181	7,027	68,000
2019	11,111	1,112	8,989	1,986	54,497	9,365	87,060
2020	51	11	456	10	424	1	954
2021	98	7	410	63	985	15	1,577
2022	485	238	2,039	0	6,353	119	9,234
2023	320	230	1,010	36	4,326	524	6,446
Avg 2014−2023	8,294	841	6,069	1,728	24,709	4,685	46,326

[a] EWYKT = Aggregation of Icy Bay Subdistrict (IBS) + East Yakutat Section (EYKT).

Slope Rockfish

Slope rockfish account for a small percentage (6%) of the rockfish harvest in SEAK (Table 4). The recent 10-year average (2014–2023) total sport mortality of slope rockfish in SEAK is 14,110 fish, of which a majority (46%) is taken in SSEI followed by (27%) in NSEI and 19% in CSEO (Table 4). In 2020, when harvest of DSR was prohibited, the total sport mortality of slope rockfish was approximately 3,771 fish; however, marine sport effort in SEAK was down 48% due to impacts of the beginning of the COVID-19 pandemic. Effort increased in 2021–2023 and slope rockfish sport mortality quickly rose to an average of 14,698 fish (Figure 7; Table 4).

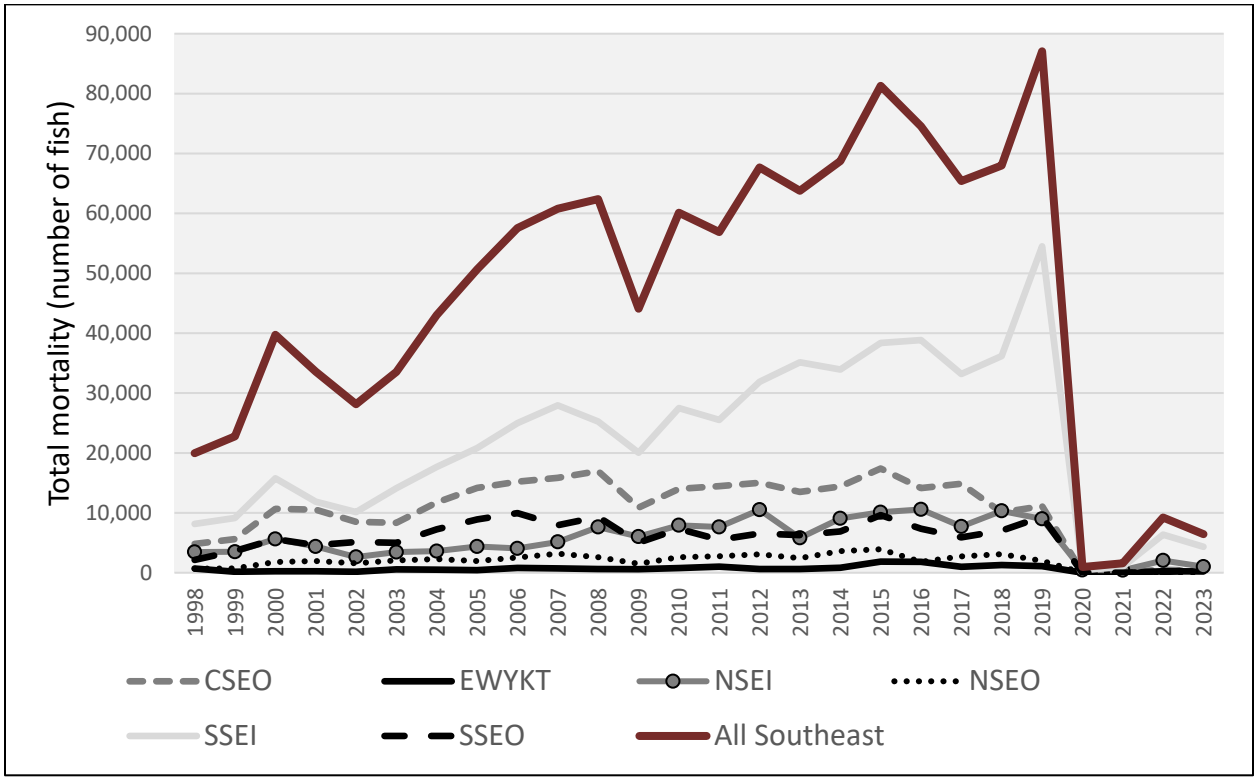

Figure 7.–Total sport mortality (harvest plus release mortality) of slope rockfish by groundfish management area in Southeast Alaska, 1998–2023 estimated by the SRI method.

Table 4.–Total sport mortality (harvest plus release mortality) of slope rockfish by groundfish management area in Southeast Alaska, 1998−2023 estimated by the SRI method.

	Slope rockfish mortality (numbers of fish)						
Year	CSEO	EWYKT[a]	NSEI	NSEO	SSEI	SSEO	All Southeast
1998	647	16	1,016	60	1,433	136	3,308
1999	757	6	1,059	64	1,588	227	3,702
2000	1,436	10	1,690	161	2,777	351	6,424
2001	1,422	9	1,305	175	2,074	287	5,272
2002	1,145	7	802	142	1,767	324	4,186
2003	1,124	16	1,037	183	2,463	313	5,136
2004	1,579	15	1,078	203	3,118	455	6,447
2005	1,902	15	1,317	175	3,687	561	7,657
2006	643	40	594	118	4,489	401	6,285
2007	702	10	1,029	60	5,476	230	7,507
2008	1,354	59	858	316	3,315	454	6,356
2009	435	33	1,168	102	2,296	225	4,259
2010	1,315	0	1,174	87	3,243	297	6,117
2011	2,014	63	2,105	241	4,303	401	9,128
2012	1,663	46	2,713	274	6,099	479	11,274
2013	2,429	8	2,652	268	6,782	353	12,491
2014	4,000	14	3,451	420	8,748	380	17,014
2015	2,661	31	2,924	307	7,261	681	13,864
2016	2,295	21	7,102	120	8,902	323	18,764
2017	3,276	21	2,728	208	6,947	880	14,061
2018	2,722	83	3,881	350	5,681	942	13,659
2019	1,128	107	5,452	547	7,771	874	15,878
2020	1,104	75	1,293	226	861	211	3,771
2021	2,978	116	3,360	828	2,539	414	10,236
2022	3,733	131	4,215	1,014	8,263	1,366	18,722
2023	2,927	1	3,136	683	7,369	1,019	15,135
Avg 2014−2023	2,682	60	3,754	470	6,434	709	14,110

[a] EWYKT = Aggregation of Icy Bay Subdistrict (IBS) + East Yakutat Section (EYKT).

Pelagic Rockfish

Pelagic rockfish account for the majority (74%) of the rockfish harvest in SEAK (Table 5). The recent 10-year average (2014–2023) total sport mortality of pelagic rockfish in SEAK is 171,057 fish, of which a majority (33%) is taken in CSEO followed by equal proportions (19%) in NSEI and SSEI and 17% in SSEO (Table 5).

Table 5.–Total sport mortality (harvest plus release mortality) of pelagic rockfish by groundfish management area in Southeast Alaska, 1998−2023 estimated by the SRI method.

	Pelagic rockfish mortality (numbers of fish)						
Year	CSEO	EWYKT[a]	NSEI	NSEO	SSEI	SSEO	All Southeast
1998	5,325	992	4,059	988	4,113	2,445	17,923
1999	4,721	696	5,681	853	5,414	2,992	20,359
2000	7,326	1,327	8,376	2,451	7,686	4,282	31,448
2001	5,423	1,126	5,985	2,214	6,521	3,655	24,924
2002	6,493	992	4,542	1,386	5,694	5,842	24,949
2003	8,114	1,550	5,291	2,487	8,066	4,934	30,442
2004	11,792	1,461	5,063	2,007	8,099	7,248	35,669
2005	15,395	1,769	6,666	2,152	9,036	9,331	44,350
2006	23,012	2,690	5,613	2,021	9,250	7,469	50,056
2007	27,721	2,522	5,786	3,297	11,100	9,660	60,087
2008	42,594	3,045	8,944	4,757	12,420	16,574	88,335
2009	25,199	2,806	7,676	2,701	10,100	9,076	57,558
2010	35,132	2,500	9,957	4,376	13,014	10,810	75,789
2011	51,998	3,550	11,394	8,072	13,557	11,523	100,093
2012	47,141	3,171	17,109	9,292	13,269	14,484	104,467
2013	54,430	3,942	14,496	7,822	17,140	16,052	113,883
2014	68,307	4,903	19,753	14,385	16,163	17,148	140,658
2015	68,200	7,069	18,739	9,457	15,321	22,900	141,686
2016	46,904	8,029	22,902	5,561	18,664	19,561	121,620
2017	53,811	6,667	30,756	13,131	22,782	21,384	148,532
2018	48,904	9,288	36,962	15,412	34,913	31,848	177,327
2019	57,438	9,780	45,035	15,661	43,549	29,033	200,496
2020	29,152	4,887	20,694	3,847	25,019	15,177	98,776
2021	59,746	8,734	37,307	13,164	39,051	30,640	188,641
2022	74,737	9,182	51,874	14,528	44,526	43,030	237,877
2023	57,192	10,991	42,743	32,388	59,668	51,971	254,953
Avg 2014−2023	56,439	7,953	32,677	13,753	31,966	28,269	171,057

[a] EWYKT = Aggregation of Icy Bay Subdistrict (IBS) + East Yakutat Section (EYKT).

The regional harvest of pelagic rockfish, predominantly black rockfish, has been on an increasing trend since the early 2000s (Figure 8). Black rockfish account for 80% of the pelagic rockfish harvest in the region of which the majority (39%) is taken in CSEO, followed by SSEO (20%) and SSEI (15%). Higher proportions of black rockfish are observed in outside waters (97%) in CSEO, SSEO, and EWYKT compared to inside waters (54% for NSEI and SSEI).

Estimated harvest of pelagic rockfish in CSEO grew from 20,000 fish in 2009 to over 60,000 fish in 2014 and 2015 (SWHS estimates). Given the increase in harvest and lack of stock status information, the department reduced the pelagic bag and possession limit in the Sitka Area from the regionwide bag limit of 5 fish, 10 in possession to 3 fish, 6 in possession by EO in 2016 and 2017. This action resulted in a 23% decrease in pelagic rockfish mortality in CSEO during 2017 compared to 2015 (Figure 8). In 2018, the board implemented a 3 fish bag limit in CSEO for nonresidents only and the resident limit reverted back to the 5 fish regional bag limit. These management measures attempted to stabilize the harvest of pelagic rockfish in CSEO from 2017 through 2019 (Figure 9). Reduced effort during 2020, due to the pandemic, further reduced harvest in NSEO, CSEO, SSEO and NSEI (Figure 8). Due to continued increases in harvest in 2023 and 2024, the department issued an EO further restricting pelagic rockfish limits in the CSEO area to a bag and possession limit of 4 and 8 respectively for residents, and 2 and 4 respectively for nonresidents.

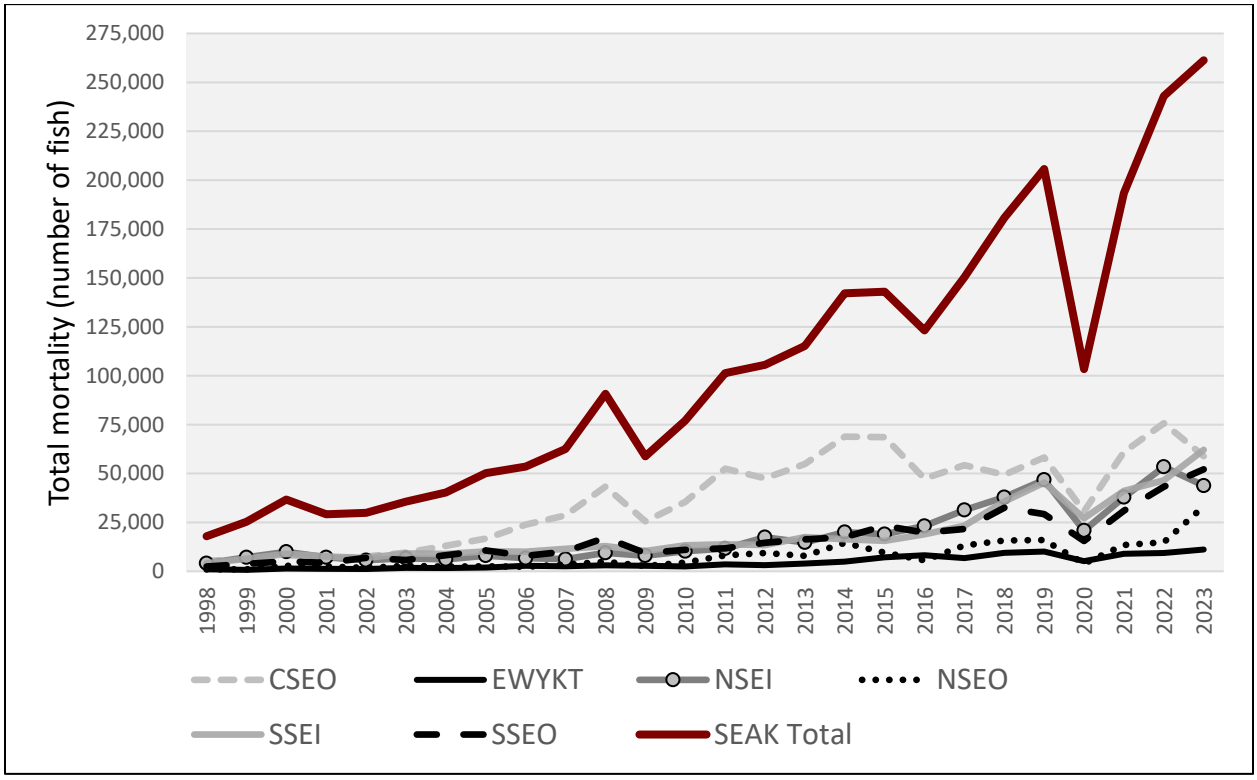

Figure 8.–Total sport mortality (harvest plus release mortality) of pelagic rockfish by groundfish management area in Southeast Alaska, 1998−2023 estimated by the SRI method.

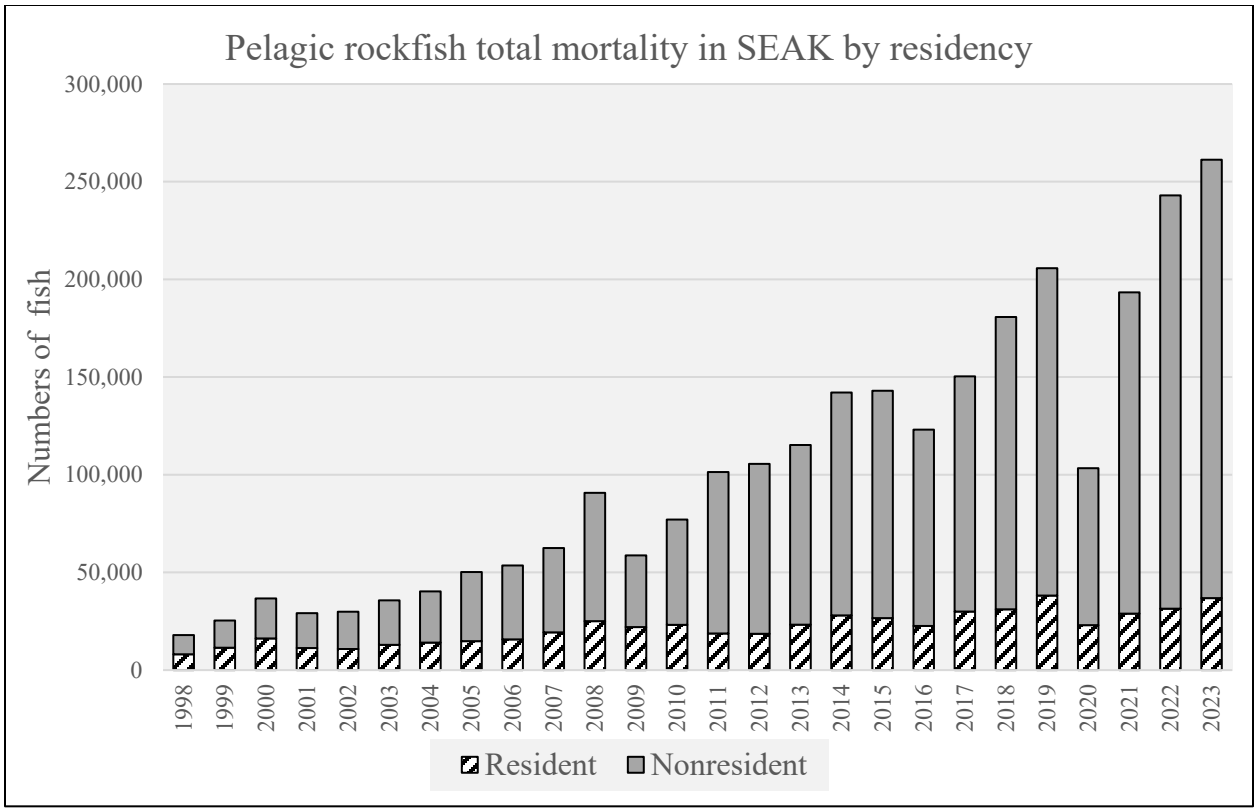

Figure 9.–Pelagic rockfish total mortality by residency in Southeast Alaska, 1998−2023 estimated by SRI method.

The sport harvest of pelagic rockfish has been on an increasing trend in the Southeast Alaska region and is assumed to be associated with shifting patterns of effort by charter (guided) anglers as restrictions on lingcod, Pacific halibut, and Chinook (king) salmon have been in effect. Resident harvest has remained stable over the last 10 years (2014−2023) with an average harvest of 29,600 fish (Figure 9). This accounts for an average of 18% of the harvest in this time frame, whereas for the decade prior (2004−2013) residents accounted for an average 28% of the harvest. This reduction in harvest percentage between these 2 time periods isn't due to a decrease in resident harvest, but rather from an increase in nonresident harvest leading to an overall increase in total harvest.

Although harvest has increased throughout the region, the Sitka Area (CSEO) has seen the greatest increase in pelagic harvest. Pelagic rockfish harvest in the vicinity of Prince of Wales Island, Juneau and Ketchikan have continued to increase and are now nearing the levels of pelagic rockfish harvest observed in the Sitka Area before management action was taken. The anticipated continued increase in harvest and the potential for overexploitation warrants a precautionary approach to management. In 2024, the department submitted a proposal to reduce the regional pelagic rockfish limits to help stabilize growing harvest of pelagic rockfish in SEAK.

The department is continuing to advance research efforts that will aid the department in developing sustainable rockfish management. This includes efforts to develop a stock assessment for pelagic rockfish in SEAK and for yelloweye rockfish in the inside waters of SEAK.

2025 ROCKFISH PROPOSALS

Five proposals addressing rockfish management have been submitted to the board for consideration in the 2025 regulatory meeting.

- **Proposal 206** would establish bag and possession limits for yelloweye for resident anglers.
- **Proposal 207 and 208** would establish bag, possession, and annual limits for demersal shelf rockfish excluding yelloweye, for nonresidents.
- **Proposal 209** would establish a resident priority within EO authority for pelagic rockfish**.**
- **Proposal 210** would reduce the regional bag and possession limit for pelagic rockfish.

LINGCOD

Lingcod are the largest member of the greenling family, unique to the west coast of North America, and found throughout the marine waters of Southeast Alaska. Lingcod are predatory, can grow to over 50lb in weight, and are targeted by sport anglers. As with rockfish, lingcod are relatively sedentary and easy to locate and catch, and therefore are vulnerable to overharvest. Lingcod have no air bladder and therefore are not susceptible to barotrauma. They are also not as long-lived as most rockfish species.

The department does not have a stock assessment for lingcod and is not currently able to reliably estimate lingcod biomass or abundance in Southeast Alaska. Lacking abundance estimates and given the complex life history and behavior of lingcod, impacts to their population numbers due to fishing are difficult to assess.

Regulation History

Prior to 1994 there were no bag or possession limits, size limits, or closed seasons for lingcod in the Southeast Alaska sport fishery. In 1994, lingcod regulations were adopted with a bag limit of 2 and a possession limit of 4, no size limits, and an open season May 1–November 30. Season dates were established to protect lingcod during spawning and nest guarding. Since the adoption of the *Lingcod allocation guidelines for Eastern Gulf of Alaska Area* (5 AAC 28.165) in 2000, an EO has been issued annually to manage the sport lingcod fishery within its allocation (Appendix B1).

Fishery Management

The board adopted the Allocation Guidelines for lingcod in response to declining CPUE in the directed commercial fishery. In this plan, the board established a guideline harvest level (GHL) management approach for sport and commercial fisheries in Southeast Alaska (5 AAC 28.160(e)). A GHL was established for each of the 7 management areas and the GHLs for each area were allocated between sport and commercial fisheries (5 AAC 28.165). The 7 areas (Figure 10) are as follows: Icy Bay Subdistrict (IBS), East Yakutat Section (EYKT), Northern Southeast Outside Section (NSEO), Northern Southeast Inside Subdistrict (NSEI), Central Southeast Outside Section (CSEO), Southern Southeast Outer Coast Sector (SSEOC), and Southern Southeast Internal Sector (SSEIW). The SSEIW and SSEOC lingcod areas have slightly different boundaries than the SSEI and SSEO areas used in delineation of demersal shelf rockfish management areas.

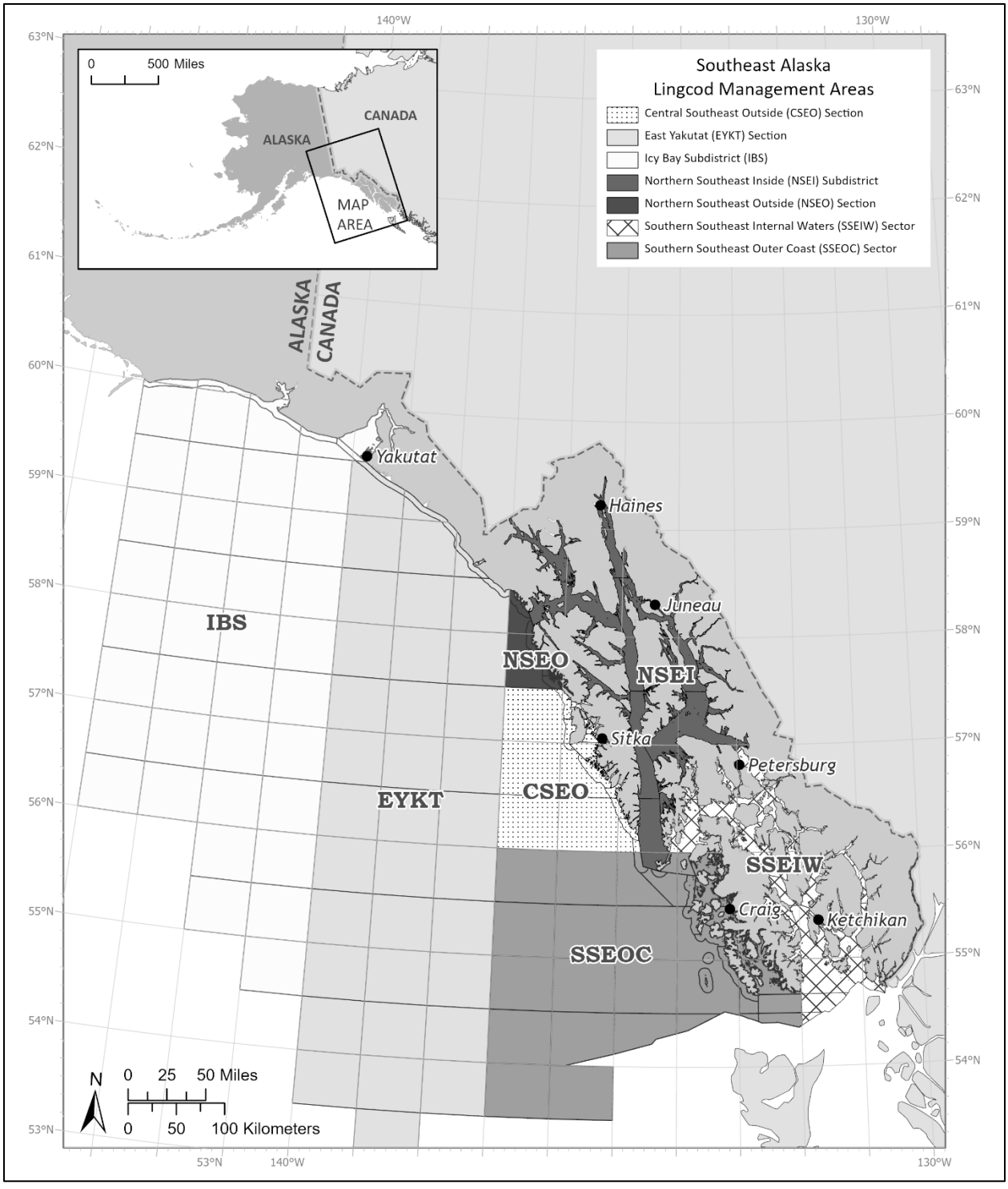

Figure 10.–Map of Southeast Alaska lingcod management areas.

Under this approach, the sport fishery is managed to maintain lingcod harvest within its allocation. In addition to existing EO authority, the board granted authority for the department to implement size limits and annual limits for guided and nonresident anglers to achieve lingcod GHLs (5 AAC 47.060). In 2009, the board changed the authority to manage anglers based on whether or not they were guided to management based on residency.

The department has used this authority to achieve the desired GHL for each area by establishing sport fishing regulations through an annual EO. Before each fishing season the department examines current and historic harvest data, trends, and other fisheries information collected through the on-site creel surveys, SWHS, and charter logbooks to determine management actions that provide sport fishing opportunity while remaining within the allocation.

The department manages the sport lingcod harvest for each area but often uses CSEO and NSEO for a combined allocation due to the interconnected nature of the sport fisheries in this area. Whenever possible, lingcod sport fishing regulations are kept uniform across areas or groupings of areas to provide consistency for anglers and simplify regulatory complexity. In recent years, distinct sport fishing regulations have been established for 3 areas within Southeast Alaska: Yakutat (YAK) which combines IBS and EYKT, Northern Southeast (NSEO, CSEO, and NSEI), and Southern Southeast (SSEOC and SSEIW; Appendix B1).

Harvest Trends

The GHL approach requires harvest estimates, in round lb, for each management area. At the 8 ports in Southeast Alaska with on-site sport fish creel sampling, the length of harvested lingcod is measured to the nearest centimeter (cm), sex is identified, and the angler type (resident or nonresident) is recorded. The length data is then converted into round weights based upon the length-weight relationship employed by the department. The average round weight is then calculated by angler type for each port where on-site sampling occurs. The estimated average round weights of harvested lingcod are multiplied by the SWHS harvest estimates for each angler type to obtain estimated harvest in lbs. The estimated harvest (lb) from each angler type is then added together to come up with the overall harvest estimates for each lingcod management area.

Harvest guidelines for Southeast Alaska were established for each management area in 2000 as a range from 0 to an upper limit. The allocation of the GHL's were 39% less than the 1997–1998 sport harvest estimates in CSEO/NSEO and NSEI, but similar (−1% to +14%) in other areas. A series of bag limit reductions and minimum length limit regulations were implemented by EO in 2000 to reduce harvest by 39% (Appendix B1). These regulations were generally effective in constraining the sport fishery harvest within the GHLs during the years 2001–2003. However, in 2004 and 2005, the GHL was exceeded in the CSEO/NSEO, SSEOC, SSEIW, and NSEI areas (Figures 11 and 12). The increase may have been due to increased effort and efficiency as well as a tendency for residents to retain larger lingcod.

In response to exceeding the GHL in 2004 and 2005, the department implemented additional regulations by EO including annual limits for nonresidents and guided anglers, and prohibitions on charter operators and crew from retaining lingcod while clients were on board from 2006−2008 (Appendix B1). In addition, some slot limits were added or made more restrictive. These regulations were generally effective in restricting the sport fishery harvest to be near the GHLs in most management areas in 2007 and 2008 (Figures 11 and 12). From 2009 through 2012, small measures were taken to liberalize the sport fisheries (size limit liberalizations and season extensions) in some areas. Lingcod regulations were mostly consistent, except for some

liberalization of nonresident length limits for the YAK in 2018−2019, for the ensuing nine years (2012–2020).

From 2021 through 2023 the GHL was exceeded for all areas except YAK despite more restrictive size limits for nonresident anglers in successive years during 2021−2023 (Figures 11 and 12, Appendix B1). The GHL was also exceeded in 2023, prompting additional reductions in nonresident size limits for all areas except YAK (Figures 11 and 12, Appendix B1). In addition, a nonretention period for nonresident anglers was implemented in CSEO, NSEO, and NSEI from June 15 through July 31. Increased lingcod harvest corresponds with increased nonresident harvest, while resident harvest has remained stable (Figure 13).

2025 LINGCOD PROPOSALS

One proposal addressing lingcod management has been submitted to the board for consideration in 2025.

- **Proposal 203** would establish unguided nonresident lingcod regulations.

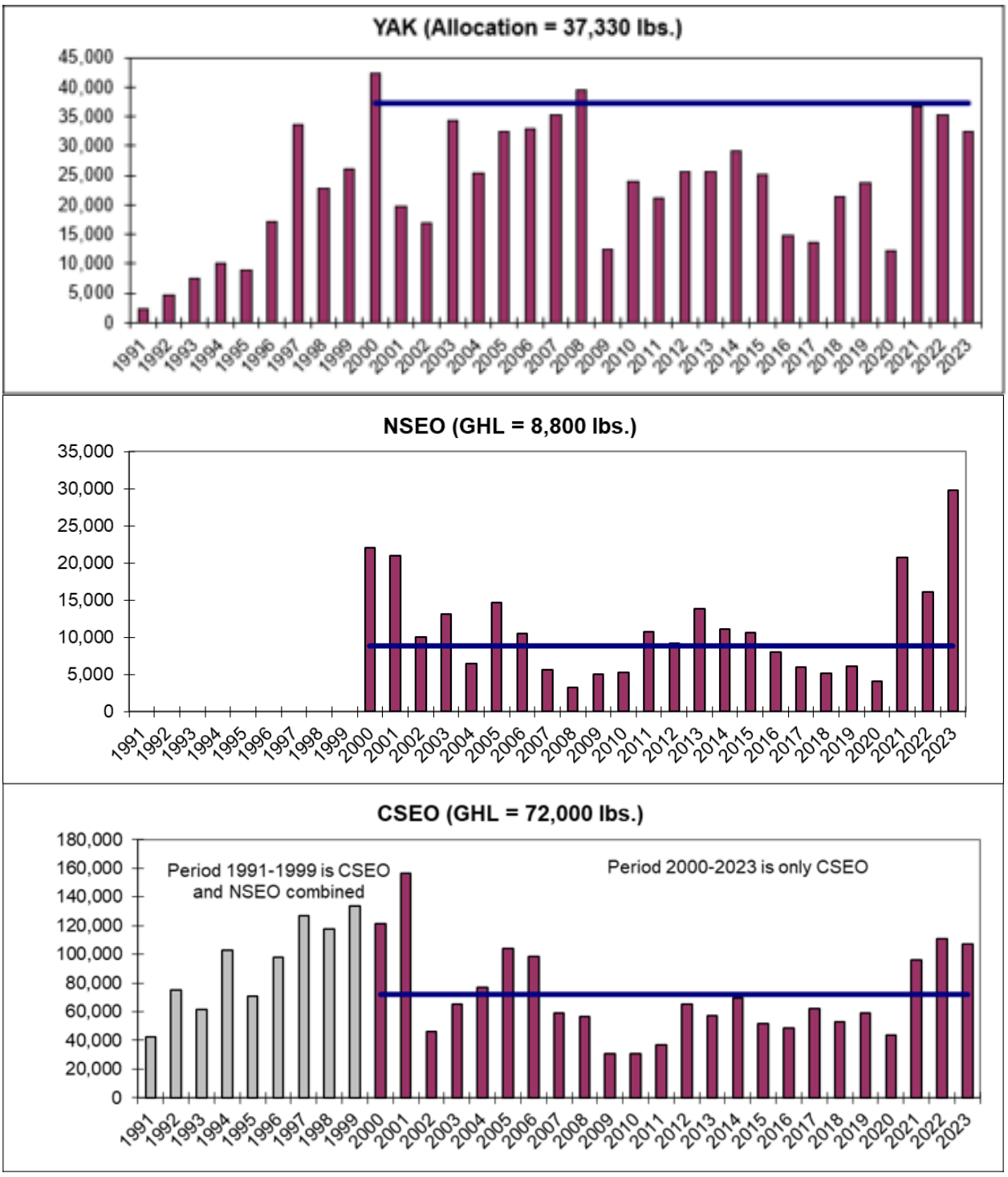

Figure 11.–Lingcod harvests in the Central Southeast Outside (CSEO; top), Northern Southeast Outside (NSEO; middle), and Icy Bay-East Yakutat (YAK) areas, relative to Guideline Harvest Level (GHL: blue horizontal line) during 1991−2023 as determined from integration of Southeast marine creel and charter logbook sources.

Note: Estimates for 2023 are preliminary.

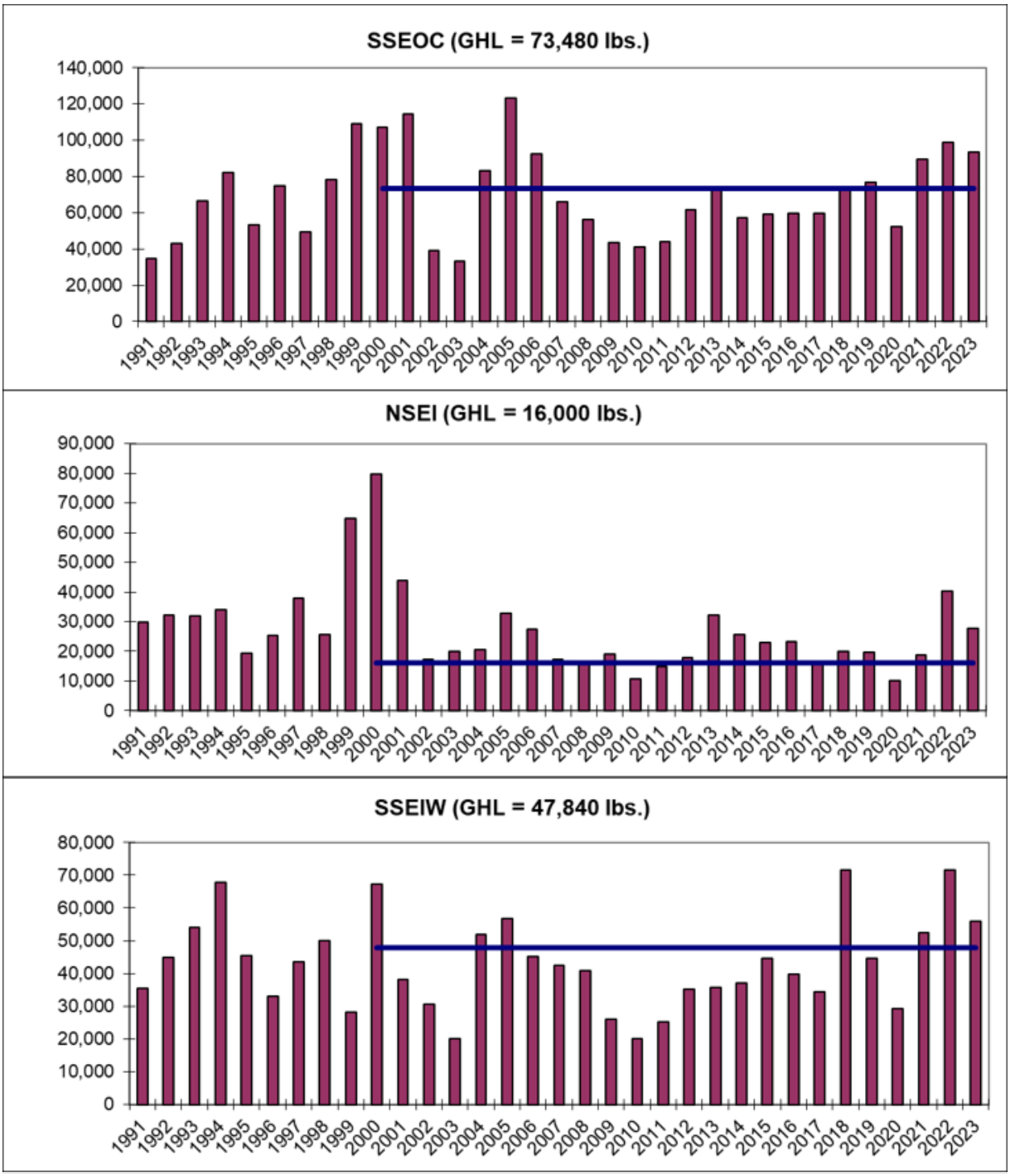

Figure 12.–Lingcod harvests from SWHS and marine creel in the Southern Southeast Outside (SSEOC; top), Northern Southeast Inside (NSEI; middle), and Southern Southeast Inside (SSEIW; bottom) areas, relative to Guideline Harvest Level (GHL: blue horizontal line) during 1991−2023 as determined from integration of Southeast marine creel and charter logbook sources.

Note: Estimates for 2023 are preliminary.

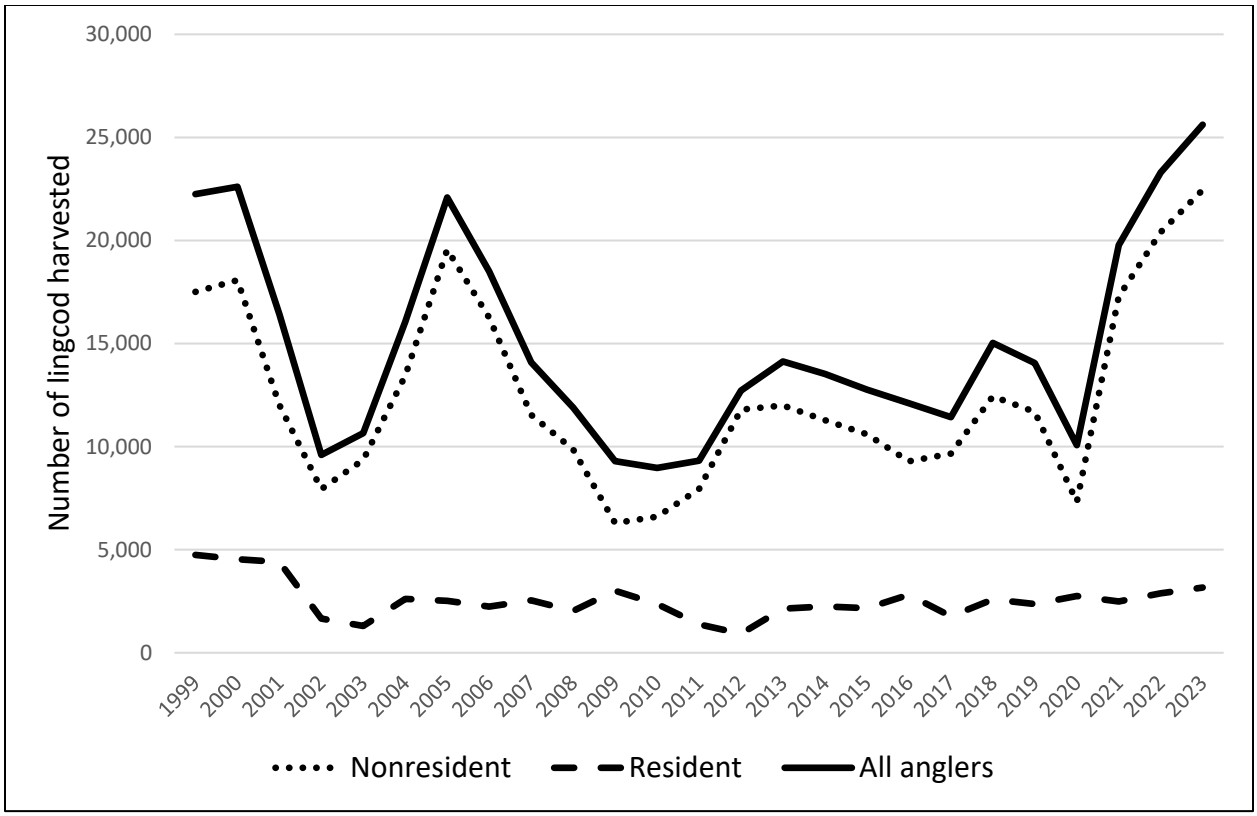

Figure 13.–Lingcod harvest from SWHS partitioned into residency, 1999–2023 in Southeast Alaska.

SABLEFISH

Sablefish are a long-lived, deepwater species that can be found from Baja California to the Aleutian Islands and Bering Sea. These fish are popular with nonresident anglers, often requiring the use of an electric reel to access the deep waters where the sablefish are found. Resident anglers often choose to harvest sablefish under more liberal personal use and subsistence regulations. State managed sablefish fisheries occur in offshore federal waters (SEO) for the sport fishery and in SEI for the sport, commercial, personal use and subsistence fisheries. The federal government sets a TAC for SEO federal waters and in 2023 the sport fishery harvested approximately 0.68% of the federal TAC.

Stock Assessment

In Southeast Alaska, sablefish populations are assessed by the Division of Commercial Fisheries in 2 management areas, NSEI and SSEI (Sullivan et al. 2020; Sullivan et al. 2019). Annual longline surveys have been conducted in NSEI and SSEI since 1988. Biological data collected during these surveys (length, weight, sex, stage of maturity, and otoliths) are used to describe the age/size structure of the populations and recruitment events. In addition to the annual longline surveys, the department has conducted an annual or biannual mark-recapture survey in NSEI since 1997 (Beder and Stahl 2017). Marking surveys are used to estimate absolute abundance of sablefish and provide release and recapture locations for tagged fish, that are important in estimating migration rates and understanding movement patterns among internal waters and the Gulf of Alaska, Bering Sea, Aleutian Islands, and British Columbia. Beginning in 2020 a new statistical catch-at-age model replaced past methodology using a mark–recapture abundance estimate in NSEI.

Unlike NSEI, the department does not currently estimate the absolute abundance of the SSEI sablefish stock. There appears to be substantial movement of sablefish in and out of the SSEI area (Hanselman et al. 2015), so mark–recapture estimates of abundance or exploitation rates are not possible for this stock. Instead, relative abundance trends are assessed in SSEI by annual longline surveys that provide CPUE and biological data (Ehresmann et al. 2020; Olson and Carroll 2017). Data collected from these surveys are used to set the commercial annual harvest objective (AHO) for the following year in each management area. NSEI is the only management area that establishes a recommended allowable biological catch (ABC) and decrements other sources of known sablefish mortality including sport harvest from the ABC prior to setting the commercial AHO.

Regulation History

There were no bag or possession limits for sablefish in the Southeast Alaska sport fishery prior to 2009. In 2009, the board established a sablefish sport fish limit of 2 per day, 4 in possession and an annual limit of 8 fish for all anglers (Appendix C1). During the same year, the board acted on a board-generated proposal and increased the bag limit from 2 fish to 4 fish and rescinded the resident annual limit. In 2012, the board rescinded the Southeast Alaska Area nonresident annual limit of 8 fish except in the waters of Lower Lynn Canal and Chatham Strait (District 12). In 2018, the board established a sablefish nonresident annual limit of 8 fish throughout the Southeast Alaska Area.

Harvest Trends

SWHS estimates of sablefish harvest in the Southeast Alaska sport fishery ranged 6,414–23,992 fish from 2013 to 2023, of which nonresident harvest accounted for 95% of the total annually (Figure 14). Most of the sablefish harvest in Southeast Alaska occurs in Juneau, Sitka, Ketchikan, and near Prince of Wales Island; however, most of the recent increase in sablefish harvest has primarily come from 3 sport fish harvest areas: Sitka (Area D), Prince of Wales Island (Area B), and Ketchikan (Area A; Table 6). These 3 areas accounted for 70% of the average regional sablefish harvest from 2018 to 2023. These areas correspond roughly to the 3 groundfish management areas: CSEO, SSEO, and SSEI respectively (Figure 3). Within the guided fishery, the majority of the sablefish harvest occurs in NSEI and CSEO, followed by SSEI, with very little guided harvest occurring in the remaining groundfish management areas of Southeast Alaska (Table 7). Overall, the guided fishery accounts for about 70% (average 2014–2023) of the total sport harvest of sablefish in the region.

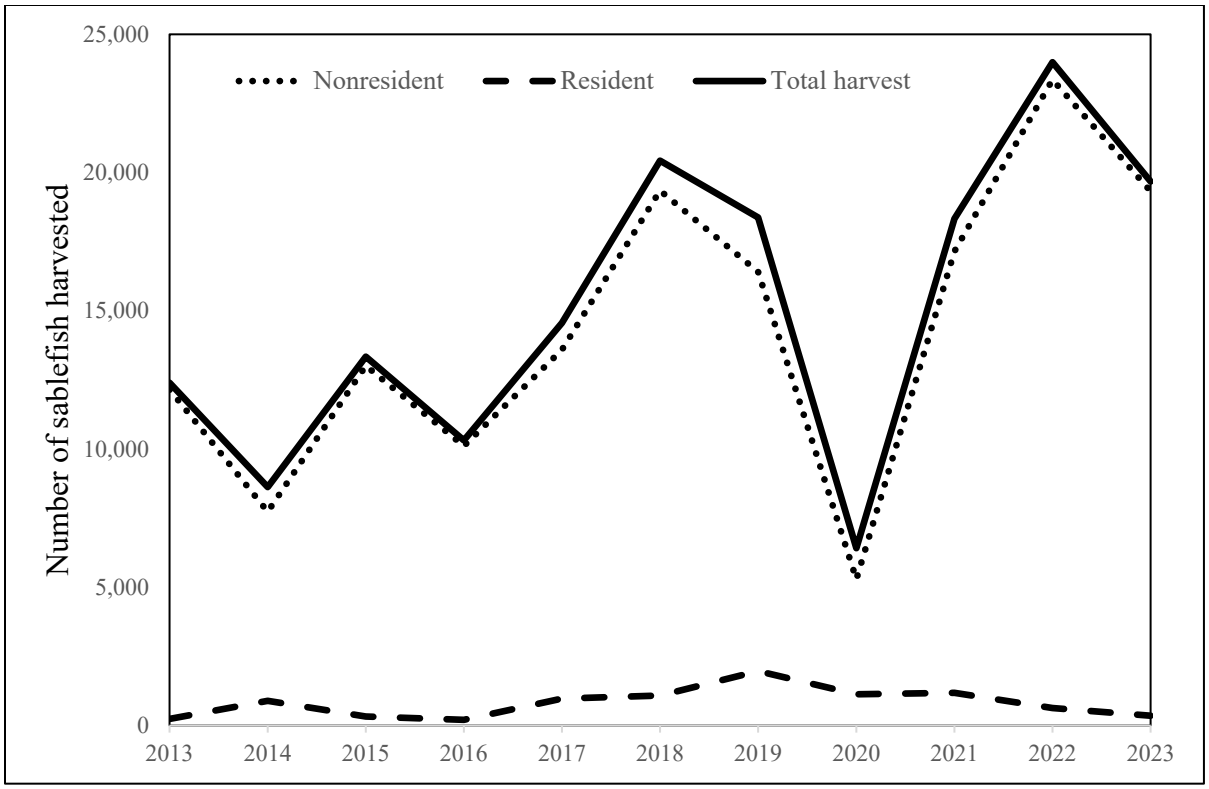

Figure 14.–Statewide Harvest Survey estimates (numbers of fish) of sablefish in the Southeast Alaska sport fishery 2013–2023.

Table 6.–Statewide Harvest Survey estimates of the number of sablefish harvested in Southeast Alaska sport fishery, by management area, 2014−2023.

Year	Ketchikan	PWI[a]	PSG-WRG[b]	Sitka	Juneau	H-S[c]	Glacier Bay	Yakutat	Total Harvest
2014	406	2,057	120	2,393	3,049	9	533	55	8,622
2015	864	2,280	118	4,605	4,602	0	601	268	13,338
2016	213	1,815	172	3,232	4,210	0	404	270	10,316
2017	977	4,593	185	3,531	3,819	82	920	457	14,564
2018	2,429	4,633	483	7,285	4,919	20	625	37	20,431
2019	1,311	3,964	119	8,804	3,143	0	562	473	18,376
2020	697	1,320	325	2,459	924	0	502	187	6,414
2021	1,929	3,681	246	6,238	4,576	0	1,504	157	18,331
2022	1,839	6,013	929	9,988	2,912	0	2,062	249	23,992
2023	2,385	2,930	946	7,238	4,678	0	1,476	26	19,679
2014−2023 Avg[d]	1,305	3,329	364	5,577	3,683	11	919	218	15,406
2021−2023 Avg[d]	2,051	4,208	707	7,821	4055	0	1,681	144	20,667

[a] PWI = Prince of Wales Island

[b] PSG-WRG = Petersburg and Wrangell

[c] H-S = Haines and Skagway

[d] 2020 was excluded from the average because it was not representative of normal harvest patterns due to reduction in effort as a result of the beginning of the COVID-19 pandemic.

Table 7.–Charter logbook sablefish harvest in Southeast Alaska sport fishery, by groundfish management area, 2014−2023.

Year	CSEO	NSEI	NSEO	SSEI	SSEO	Other harvest[a]	Total harvest
2014	1,421	5,404	–[b]	78	14	66	6,983
2015	1,131	4,867	–[b]	85	–[b]	70	6,153
2016	1,338	4,754	98	232	–[b]	8	6,430
2017	1,644	5,005	173	1,580	45	7	8,454
2018	3,391	4,996	125	3,246	–[b]	20	11,778
2019	7,858	5,564	159	2,003	–[b]	28	15,612
2020	2,911	122	181	838	24	8	4,084
2021	7,978	5,609	700	2,142	–[b]	7	16,436
2022	8,334	5,822	1,032	1,679	–[b]	102	16,969
2023	7,994	6,370	1,383	1,129	–[b]	1	16,877

[a] Other Harvest includes responses with less than 4 businesses, undesignated areas, and EYKT and IBS. Responses with fewer than 4 businesses are not reported separately, to protect confidentiality of respondents; this harvest is accumulated into Other Harvest.

2025 SABLEFISH PROPOSALS

There is 1 proposal in 2025 that would directly affect sablefish management.

- **Proposal 198** would increase the resident sport fish daily bag limit to 6 fish per day with no annual limit.

SHELLFISH

The Southeast Alaska sport shellfish fishery includes all waters of Alaska east of the longitude of Cape Suckling and north of the International Boundary at Dixon Entrance. The sport shellfish fishery includes provisions for all species of shellfish and marine invertebrates except abalone *Haliotis kamtschatkana*, geoducks *Panopea abrupta*, and king crab *Paralithodes camtschaticus*, which are closed to sport fishing. The primary species harvested in the sport fishery are Dungeness crab, shrimp, and clams.

In Southeast Alaska, noncommercial harvest of shellfish may occur under sport, personal use, and, for most locations and species, subsistence fisheries. For all commonly harvested shellfish species, personal use and subsistence shellfish regulations either duplicate sport fishing regulations or provide additional opportunity through increased bag and possession limits and/or more liberal methods and means. This overlap among sport, personal use, and subsistence fisheries has resulted in a regulatory environment where Alaska residents harvest shellfish under personal use or subsistence regulations while generally nonresidents participate in the sport shellfish fishery. To reduce confusion for the average angler, Southeast Alaska shellfish regulations are presented in department literature, including the "Southeast Alaska Sport Fish Regulation Summary," as resident regulations (personal use) and nonresident regulations (sport fish). In Southeast Alaska, sport shellfish fisheries are managed by the Division of Sport Fish, whereas personal use and subsistence shellfish fisheries are managed by the Division of Commercial Fisheries.

In general, the majority of noncommercial shellfish harvest in Southeast Alaska occurs from Alaska residents fishing under personal use or subsistence regulations, rather than under sport regulations. Only a small proportion of nonresident anglers fishing in Southeast Alaska participate in a shellfish fishery (Table 8).

Table 8.–Statewide Harvest Survey estimates of the number of nonresident anglers participating in a shellfish fishery within Southeast Alaska.

Year	Nonresident shellfish anglers	Nonresident anglers	Percentage of nonresident anglers participating in a shellfish fishery
2010	3,220	78,733	4.1%
2011[a]	5,532	78,614	7.0%
2012	6,033	80,396	7.5%
2013	6,694	84,467	7.9%
2014	6,378	90,236	7.1%
2015	6,658	97,662	6.8%
2016	5,824	90,599	6.4%
2017	6,014	92,076	6.5%
2018	6,351	101,169	6.3%
2019	7,259	95,966	7.6%
2020	3,611	34,735	10.4%
2021	7,389	83,552	8.8%
2022	7,723	110,246	7.0%
2023	7,843	127,152	6.2%
Average	6,181	88,972	7.1%

[a] In 2011, a layout change was made in the SWHS mailing that added a specific page to report shellfish harvest; the number of anglers reporting shellfish harvest increased after this time.

Harvest Monitoring

The primary tool to estimate sport shellfish harvest and effort data is collected through the SWHS, which collects catch and harvest information specific to the following: number of Dungeness crab, Tanner crab, razor clams *Siliqua patula*, shrimp, hardshell clams, and "other shellfish" (Restrepo et al. 2024). Recipients of the SWHS are selected from all anglers who have purchased sport fishing licenses, which are required to participate in both sport and personal use fisheries. The SWHS has been designed as a tool to estimate activity in the sport fishery only; however, in the case of Southeast Alaska shellfish fisheries, the SWHS may also collect information from resident anglers who could also be participating in personal use, subsistence, and/or sport shellfish fisheries. Although SWHS instructions ask anglers to only report activity occurring under sport fishing regulations and specifically instruct anglers not to report personal use and subsistence harvest, many resident anglers in Southeast Alaska may not understand this regulatory distinction for shellfish fisheries.

Although the SWHS was not designed to produce estimates of personal use harvest in Southeast Alaska shellfish fisheries, the regulatory structure has created an environment wherein residents have more liberal bag and possession limits under personal use and subsistence regulations, and therefore resident harvest reported in the SWHS should be viewed as a combination of sport and non-sport harvest for resident anglers. This combination of harvest reporting results in SWHS estimates for residents that should be considered a minimum estimate of resident harvest. Nonresident shellfish harvest estimates produced by the SWHS for Southeast Alaska can be used to directly represent nonresident sport harvest.

On-site creel surveys do not currently collect shellfish harvest information but have been used to collect shellfish effort and harvest data for selected species in the Juneau and Ketchikan management areas from 1988–2007. A permit and reporting system had been established for area 11-A, near Juneau, but this area has remained closed to sport fishing since this system was established in 2013. Required permits for noncommercial shrimp harvest in Southeast Alaska was implemented in 2018, with the first full year of reporting in 2019. Shellfish harvest data is not mandatory to report in sport fish charter logbooks.

SHRIMP

Life history

The 5 species of pandalid shrimp commonly harvested in Southeast Alaska are northern (*Pandalus borealis*), humpy (*P. goniurus*), sidestripe (*P. dispar*), coonstripe (*P. hypsinotis*), and spot shrimp (*P. platyceros*). Spot shrimp are the largest species, followed by coonstripe shrimp. Spot and coonstripe shrimp are generally found in rock piles, coral gardens, and debris-covered bottoms; northern, sidestripe, and humpy shrimp are typically associated with muddy bottoms.

Each of these species are protandric hermaphrodites, with most individuals beginning life as males then transitioning to females for the remainder of their lives. After hatching and progressing through multiple planktonic stages, juvenile shrimp settle to the bottom before migrating to preferred adult benthic habitat. Mating occurs in the fall after female molting and eggs hatch in the spring. Pandalid shrimp are opportunistic bottom feeders that eat a wide variety of items such as worms, diatoms, detritus, algae, and other invertebrates.

Spot shrimp in British Columbia have been found to reach sexual maturity at 1.5 years of age and measure 28 mm in carapace length (Butler 1970); however, growth and maturity rates are likely different in Southeast Alaska. The age and size at which the sex transition to female occurs is variable and related to growth rate but is thought to occur from 2.5 and 3.5 years of age and has been observed to occur at a size of 37–42 mm carapace length in Southeast Alaska (Love and Bishop 2005).

Regulatory History

Sport fishing regulations for shrimp in Southeast Alaska were first established in 1989 with a bag and possession limit of 10 lb or 10 quarts. Prior to 1989, there were no sport bag or possession limits established for shrimp in Southeast Alaska. Allowable gear for shrimp was limited to pots or ring nets and no more than 4 pots per person or 10 per vessel could be used to take shellfish, including shrimp, at any time. A biodegradable escape mechanism has been required on all sport shellfish pots since 1989.

In 1994, the number of shrimp pots that could be used in the sport fishery increased when a separate pot limit was established for shrimp pots in addition to other shellfish gear. The new pot limits allowed up to 10 shrimp pots per person and 20 per vessel in addition to other shellfish pots.

In 2000, in order to limit oversized commercial shrimp gear from entering the sport fishery, pot size restrictions were adopted in Southeast Alaska that limited sport shrimp pots to a bottom perimeter of no more than 153 in and a volume of 25 cubic ft. In addition, the number of shrimp pot tunnel eye openings was restricted to no more than 4, each of which may not exceed 15 inches in perimeter.

In 2006, in response to hearing testimony that a growing sport fishery could displace opportunity for personal use harvesters in waters where the commercial pot shrimp fishery was closed, the board closed the following areas to sport shrimp harvest: Sitka Sound Special Use Area, Twelve Mile Arm near Hollis, and a small portion of west Behm Canal near Ketchikan.

The bag and possession limit for the sport shrimp fishery was reduced in 2009 from 10 lb or quarts to 3 lb or quarts. This was followed in 2012 by a reduction in the quantity of pots allowed in the sport fishery from 10 pots per person and 20 per vessel to 5 pots per person and 10 per vessel.

In 2018, in an effort to have better accounting of shrimp harvest, permit and reporting regulations were adopted by the board for all noncommercial harvest (subsistence, personal use, and sport). Due to differing regulations of bag limits and methods and means, 2 separate permits were developed: 1 for the sport fishery and 1 for the personal use and subsistence fishery. The sport, personal use, and subsistence shrimp fisheries are open year-round, and the permits are good for the calendar year with reporting of effort and harvest due after the new year even if the permit was not fished.

Resident anglers commonly target shrimp by setting a string of pots on a single line (longlining) with only 1 labeled buoy attached. This practice is explicitly allowed in the personal use regulations but is not allowed for nonresidents participating in the sport fishery; for nonresidents, each single pot is required to have a labelled buoy attached to it.

Management

Spot shrimp are the primary species harvested by sport anglers, whereas relatively fewer coonstripe, sidestripe, and northern shrimp are also harvested. Shrimp may only be taken with the use of pots in the sport fishery; gear must meet size requirements and biodegradable escape mechanism requirements; and buoy markings must include the angler's first initial, last name, address, and vessel name or AK numbers used to operate the pot.

The Southeast Alaska sport shrimp fishery is managed as a species assemblage with regional bag and possession limits, gear limits, and specific area closures when necessary. The current bag and possession limit is 3 lb or quarts of shrimp and gear used in the sport fishery is limited to 5 shrimp pots per person and 10 per vessel.

Currently, the best indicator of shrimp stock health in Southeast Alaska comes from fishery-independent shrimp surveys conducted by the department along with fishery-dependent harvest data and biological samples collected from commercial fisheries (Smith 2020). Although the sport harvest of shrimp is a small component of the regional total harvested by sport, personal use, and subsistence users, much of the sport harvest is likely focused in areas near population centers, where local area depletions can occur. In areas where the department has noted concern for shrimp stocks and sport harvest is expected to be considerable, the sport fishery has been closed by EO; notably, Tenakee Inlet (2012–2018, and 2023−present) and Section 11-A near Juneau (2013–present).

During the 2018 board meeting in Sitka, the board passed RC 45, based on petition from the Sitka Fish and Game Advisory Committee, as a board generated proposal setting the District 13 spot shrimp bag and possession household limit at 10 gallons for resident permittees fishing subsistence or personal use fisheries A free noncommercial annual permit is now also required to fish for shrimp in the remainder of Southeast Alaska either under sport, personal use, or subsistence regulations and the household personal use bag and possession limit in Section 11-A is limited to

1 gallon of spot shrimp, whether whole or de-headed. Permitted sport anglers in Southeast Alaska have a bag and possession limit of 3 pounds or 3 quarts of shrimp with a harvest recording form. Bag and possession limits cannot be accumulated no matter which fishery was fished (e.g., sport could not be combined with personal use and/or subsistence).

Harvest

The SWHS collects shrimp harvest data by requesting anglers to report their shrimp harvest (all species combined) in gallons of shrimp. Although anglers are asked to report in gallons of shrimp, anglers may be reporting gallons of shrimp with head-on or head-off. This variable can dramatically impact a conversion from gallons of shrimp to pounds. Department research in Prince William Sound calculated a conversion factor of 3.89 lb to the gallon of head-on shrimp harvested using pots with a minimum mesh size of 7/8 in (Wessel et al. 2015). At a minimum, the Southeast Alaska average nonresident sport harvest estimate for 2019−2023 of 2,533 gallons could be converted to 9,853 lb, but this should be viewed as a conservative estimate because this conversion will underestimate the poundage if anglers reported gallons of head-off shrimp. Nonresident and resident harvest in gallons for 1996−2023 appears to be decreasing on average compared to the most recent 5 years (Table 9). The average estimated nonresident sport shrimp harvest during 2019–2023 made up about 29% of the total harvest reported based on SWHS as compared to the minimum estimate of harvest by residents (Figure 15).

Table 9.–Statewide harvest survey estimates of shrimp harvest by nonresident sport anglers and the minimum estimate of sport, personal use, and subsistence harvest by resident anglers for Southeast Alaska, 1996−2023.

	Harvest[b] in gallons	
Year[a]	Nonresident	Resident
1996	1,123	4,134
1997	1,678	9,355
1998	1,657	12,244
1999	1,763	20,790
2000	3,629	10,771
2001	4,674	9,929
2002	2,846	5,210
2003	6,686	19,107
2004	5,508	12,175
2005	10,947	30,228
2006	3,625	10,747
2007	1,809	7,597
2008	7,217	8,695
2009	2,436	9,272
2010	5,260	12,898
2011	3,774	11,317
2012	3,577	8,661
2013	3,603	7,985
2014	3,439	6,014
2015	3,132	10,619
2016	1,866	18,328
2017	3,718	6,264
2018	2,551	4,636
2019	4,497	6,509
2020	1,272	9,233
2021	2,372	8,077
2022	2,517	2,518
2023	1,986	7,144
Average (1996−2023)	3,542	10,373
Recent 5 yr Average (2019−2023)	2,533	6,353

[a] Sport and personal use estimates are based on the calendar year.

[b] Estimates are derived from the SWHS for Southeast Alaska; estimated harvest is recorded in gallons.

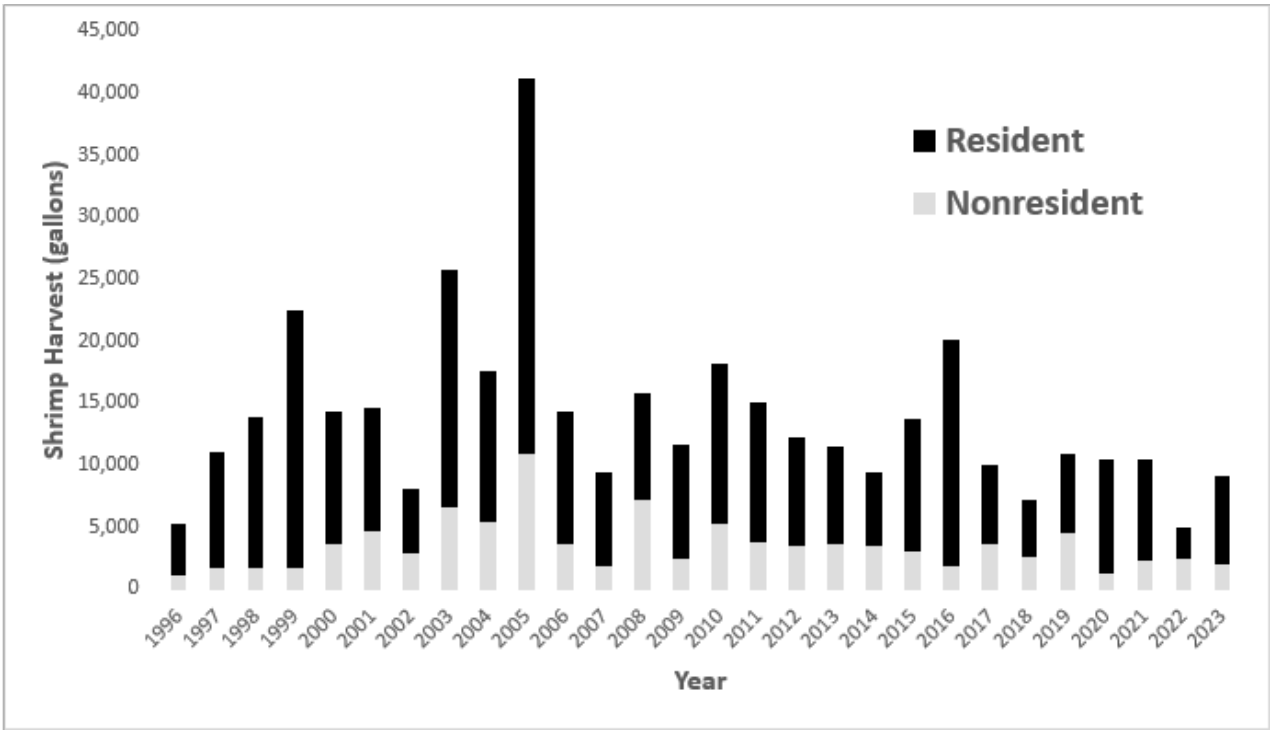

Figure 15.–Statewide Harvest Survey estimates of shrimp harvest in Southeast Alaska by residency, 1996–2023.

The permit and reporting requirement for sport shrimp harvest in Southeast Alaska was implemented in the middle of 2018 and therefore the 2018 partial data is not reported here. Disregarding the estimates from 2018, the nonresident estimates displayed in Table 9 follow a similar trend year to year as shown in Table 10. From 2019 to 2020, all nonresident estimates decreased: percentage of permits fished (71% to 38%), effort in pots fished (9,326 to 3,883), harvest in pounds of whole shrimp (19,047 to 6,753), and HPUE (2.04 to 1.74; Table 10). Once again, similar to Table 10, from 2020 to 2021 all nonresident estimates increased: percentage of permits fished (38% to 44%), effort (3,883 to 6,167), harvest (6,753 to 13,147), and HPUE (1.74 to 2.13; Table 10). A possible explanation for the drop in nonresident estimates in 2020 and subsequent increase in 2021 are the same reasons alluded to earlier—i.e., the COVID-19 pandemic interstate travel restrictions in 2020 and lessening of COVID-19 pandemic travel restrictions in 2021. From 2021 to 2022, the estimates stayed relatively the same: percentage of permits fished (44% to 38%), effort (6,167 to 5,573), harvest (13,147 to 12,868), and HPUE (2.13 to 2.31). From 2022 to 2023, the estimates increased slightly: percent of permits fished (28% to 50%), effort (5,573 to 6,716), and harvest (12,868 to 15,256) with HPUE slight decreasing (2.31 to 2.27; Table 10). Total effort and harvest is also expanded out by district (Table 11).

The low response rate (number of permits returned) is likely due to the nature and makeup of the fishery. The nonresident sport angler typically comes to Alaska for 1 week, may never return to Alaska, and may not have a vested interest in reporting. In addition, because the permit is free, it is likely that nonresident anglers get a permit just in case, thinking they may need it, but never end up fishing for shrimp or filing a report. An increased effort to contact anglers who have failed to report has been implemented (via direct emails and phone calls twice a month January through March) and with the goal of increasing response rates.

Table 10.–Estimated percent of permits that fished, effort (number of pots), harvest (lb), and harvest per unit effort (HPUE) of whole shrimp harvested in the Southeast Alaska sport shrimp fishery by residency, 2019–2023.

		Percent fished		Effort[b]		Harvest[b,c]		HPUE	
Year[a]	Residency	Est	SE	Est	SE	Est	SE	Est	SE
2019	Resident	47%	3%	3,359	516	7,420	1,460	2.21	0.55
	Nonresident	71%	1%	9,326	460	19,047	1,016	2.04	0.15
2020	Resident	37%	3%	341	40	1,065	132	3.13	0.53
	Nonresident	38%	1%	3,883	148	6,753	252	1.74	0.09
2021	Resident	21%	3%	81	22	170	41	2.11	0.76
	Nonresident	44%	1%	6,167	203	13,147	512	2.13	0.11
2022	Resident	25%	3%	124	18	536	114	4.32	1.11
	Nonresident	38%	0%	5,573	144	12,868	699	2.31	0.14
2023	Resident	27%	2%	127	14	317	41	2.51	0.42
	Nonresident	50%	0%	6,716	167	15,256	536	2.27	0.10

Source: Teske and Peterson (2024).

[a] Estimates from 2018 are not shown because they were generated from a small sample and likely unreliable.

[b] Harvest and effort are expanded to account for nonrespondents.

[c] Conversion factors of 1.44 lb/qt (tails), 1.11 lb/qt (whole), and 2.02 tail/whole were used to convert reported harvest estimates in varying units to a common unit of lb/qt of whole shrimp. The lb/qt conversion factors were based on an ADF&G study (Max Schoenfeld, Fishery Biologist 2, ADF&G, Division of Commercial Fisheries, personal communication) and the tail/whole conversion factor was based on a separate ADF&G study (David Harris, Retired Fishery Biologist, ADF&G Division of Commercial Fisheries, personal communication).

Table 11.–Estimated effort (number of pots), harvest (lb), and harvest per unit effort (HPUE) of whole shrimp harvested in the Southeast Alaska sport shrimp fishery by residency and ADF&G Commercial Fishing District, 2018–2023.

		Resident						Nonresident					
		Effort[c]		Harvest[c,d]		HPUE		Effort[c]		Harvest[c,d]		HPUE	
Year[a]	District[b]	Est	SE	Est	SE	Est[e]	SE[f]	Est	SE	Est	SE	Est[e]	SE[f]
2019	1	1,304	435	3,745	1,354	2.87	1.41	1,477	213	2,695	457	1.82	0.41
	2	420	175	720	291	1.71	0.99	1,462	278	3,292	613	2.25	0.60
	3	108	48	156	79	1.45	0.98	242	58	673	180	2.78	1.00
	5	23	17	0	0	0.00	–	248	60	527	154	2.13	0.81
	6	105	76	101	69	0.96	0.95	166	65	246	108	1.48	0.87
	7	218	105	723	438	3.32	2.57	690	148	1,735	279	2.51	0.68
	8	173	92	306	169	1.77	1.36	551	85	1,227	199	2.23	0.50
	9	233	159	269	146	1.15	1.01	336	46	635	114	1.89	0.43
	10	265	85	386	140	1.45	0.70	669	78	1,317	195	1.97	0.37
	11	58	45	175	136	3.04	3.34	121	38	178	67	1.47	0.72
	12	288	87	472	162	1.64	0.75	1,219	131	2,547	340	2.09	0.36
	13	33	13	53	23	1.62	0.96	799	84	2,027	249	2.54	0.41
	14	43	31	182	100	4.28	3.90	336	105	571	173	1.70	0.74
	15	90	44	133	96	1.48	1.29	735	135	902	174	1.23	0.33
	152	0	0	0	0	–	–	61	50	212	173	3.50	4.05
	154	0	0	0	0	–	–	179	73	189	73	1.06	0.60
	183	0	0	0	0	–	–	33	25	70	58	2.12	2.34
	189	0	0	0	0	–	–	3	2	3	3	1.11	1.28
	Total	3,359	516	7,420	1,460	2.21	0.55	9,326	460	19,047	1,016	2.04	0.15

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		Resident						Nonresident					
		Effort[c]		Harvest[c,d]		HPUE		Effort[c]		Harvest[c,d]		HPUE	
Year[a]	District[b]	Est	SE	Est	SE	Est[e]	SE[f]	Est	SE	Est	SE	Est[e]	SE[f]
2020	1	89	23	249	72	2.80	1.09	747	47	1,869	131	2.50	0.24
	2	29	9	91	27	3.12	1.34	576	69	894	112	1.55	0.27
	3	73	28	205	81	2.81	1.54	158	25	304	14	1.93	0.32
	5	12	5	50	21	4.07	2.43	120	39	95	28	0.79	0.35
	6	0	0	0	0	–	–	374	66	348	55	0.93	0.22
	7	24	10	106	45	4.36	2.60	180	34	361	44	2.01	0.45
	8	18	8	53	22	2.91	1.74	567	73	771	78	1.36	0.22
	9	0	0	0	0	–	–	188	26	492	145	2.62	0.86
	10	0	0	0	0	–	–	139	25	258	16	1.86	0.35
	11	6	3	28	12	4.65	2.78	39	7	75	10	1.94	0.45
	12	55	16	223	66	4.07	1.68	234	30	521	51	2.23	0.36
	13	28	7	51	18	1.82	0.79	153	40	179	30	1.17	0.36
	14	1	1	2	1	1.45	0.87	213	22	333	11	1.56	0.17
	15	5	2	7	3	1.52	0.90	73	0	114	0	1.56	0.00
	16	0	0	0	0	–	–	3	0	5	0	1.64	0.00
	152	0	0	0	0	–	–	5	0	31	0	6.27	0.00
	154	0	0	0	0	–	–	1	0	5	0	5.00	0.00
	181	0	0	0	0	–	–	3	0	6	0	1.85	0.00
	183	0	0	0	0	–	–	109	16	93	10	0.85	0.15
	185	0	0	0	0	–	–	1	0	0	0	0.00	–
	189	0	0	0	0	–	–	1	0	0	0	0.00	–
	Total	341	40	1,065	132	3.13	0.53	3,883	148	6,753	252	1.74	0.09

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		Resident						Nonresident					
		Effort[c]		Harvest[c,d]		HPUE		Effort[c]		Harvest[c,d]		HPUE	
Year[a]	District[b]	Est	SE	Est	SE	Est[e]	SE[f]	Est	SE	Est	SE	Est[e]	SE[f]
	1	39	12	123	39	3.15	1.41	955	70	1,869	178	1.96	0.23
	2	0	0	0	0	–	–	556	51	1,149	125	2.07	0.29
	3	0	0	0	0	–	–	201	28	477	72	2.37	0.49
	5	0	0	0	0	–	–	291	52	1,218	247	4.18	1.13
	6	13	6	5	3	0.40	0.28	431	62	796	123	1.85	0.39
	7	0	0	0	0	–	–	499	55	1,734	156	3.48	0.49
	8	26	13	21	10	0.81	0.55	581	52	1,370	127	2.36	0.30
	9	0	0	0	0	–	–	375	43	949	115	2.53	0.42
	10	0	0	0	0	–	–	536	54	803	111	1.50	0.25
	11	3	1	21	7	8.00	3.81	144	31	461	121	3.20	1.09
2021	12	0	0	0	0	–	–	563	69	765	108	1.36	0.25
	13	0	0	0	0	–	–	342	28	623	60	1.82	0.23
	14	0	0	0	0	–	–	336	43	460	63	1.37	0.26
	15	0	0	0	0	–	–	242	68	286	87	1.18	0.49
	16	0	0	0	0	–	–	20	8	59	24	3.04	1.72
	152	0	0	0	0	–	–	45	15	66	25	1.45	0.74
	156	0	0	0	0	–	–	3	2	5	3	1.67	1.36
	181	0	0	0	0	–	–	9	5	31	18	3.39	2.77
	183	0	0	0	0	–	–	35	11	27	9	0.80	0.35
	191	0	0	0	0	–	–	2	1	0	0	0.00	–
	Total	81	22	170	41	2.11	0.76	6,167	203	13,147	512	2.13	0.11

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		Resident						Nonresident					
		Effort[c]		Harvest[c,d]		HPUE		Effort[c]		Harvest[c,d]		HPUE	
Year[a]	District[b]	Est	SE	Est	SE	Est[e]	SE[f]	Est	SE	Est	SE	Est[e]	SE[f]
	1	9	2	31	13	3.62	1.80	921	60	2,125	167	2.31	0.24
	2	15	6	236	102	16.00	9.77	826	66	1,429	116	1.73	0.20
	3	0	0	0	0	–	–	221	27	435	56	1.97	0.35
	5	0	0	0	0	–	–	272	34	854	117	3.15	0.58
	6	0	0	0	0	–	–	493	67	807	118	1.64	0.33
	7	15	5	119	48	8.06	4.16	387	33	1,434	160	3.70	0.52
	8	12	5	31	14	2.55	1.56	497	48	969	79	1.95	0.25
	9	0	0	0	0	–	–	268	18	673	48	2.51	0.25
	10	7	3	11	5	1.48	0.90	273	24	1,848	615	6.77	2.33
2022	11	0	0	0	0	–	–	54	7	219	54	4.06	1.13
	12	0	0	0	0	–	–	322	17	652	47	2.03	0.18
	13	43	14	70	25	1.62	0.79	341	22	469	28	1.37	0.12
	14	12	5	6	3	0.50	0.31	232	29	329	54	1.42	0.29
	15	11	5	32	14	2.91	1.78	377	41	493	52	1.31	0.20
	16	0	0	0	0	–	–	24	5	22	5	0.90	0.28
	152	0	0	0	0	–	–	13	4	31	10	2.38	1.03
	154	0	0	0	0	–	–	23	8	32	11	1.39	0.65
	183	0	0	0	0	–	–	28	9	48	16	1.68	0.81
	Total	124	18	536	114	4.32	1.11	5,573	144	12,868	699	2.31	0.14

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		Resident						Nonresident					
		Effort[c]		Harvest[c,d]		HPUE		Effort[c]		Harvest[c,d]		HPUE	
Year[a]	District[b]	Est	SE	Est	SE	Est[e]	SE[f]	Est	SE	Est	SE	Est[e]	SE[f]
2023	1	43	8	55	10	1.28	0.34	779	47	1,488	106	1.91	0.18
	2	6	2	30	12	4.99	2.84	919	56	1,943	124	2.12	0.19
	3	5	2	28	11	5.82	3.31	455	32	911	75	2.00	0.22
	5	0	0	0	0	–	–	232	32	882	199	3.80	1.00
	6	0	0	0	0	–	–	616	69	1,691	239	2.74	0.50
	7	0	0	0	0	–	–	575	50	1,662	116	2.89	0.32
	8	0	0	0	0	–	–	554	44	924	74	1.67	0.19
	9	0	0	0	0	–	–	327	23	935	84	2.86	0.33
	10	0	0	0	0	–	–	400	29	1,103	212	2.76	0.57
	11	1	0	0	0	0.00	–	73	9	256	60	3.50	0.93
	12	8	3	58	22	6.98	3.62	454	27	856	55	1.89	0.16
	13	32	8	56	14	1.73	0.61	400	29	690	46	1.73	0.17
	14	24	8	76	29	3.20	1.58	210	19	1,002	274	4.78	1.38
	15	5	2	3	1	0.56	0.32	617	94	701	92	1.14	0.23
	16	2	1	12	5	5.00	2.85	16	5	70	22	4.36	1.86
	152	0	0	0	0	–	–	41	8	85	18	2.07	0.62
	154	0	0	0	0	–	–	28	11	28	12	1.02	0.58
	156	0	0	0	0	–	–	1	1	1	1	1.11	0.78
	157	0	0	0	0	–	–	4	2	3	1	0.67	0.47
	183	0	0	0	0	–	–	15	4	26	6	1.78	0.62
	185	0	0	0	0	–	–	1	1	0	0	0.00	–
	Total	127	14	317	41	2.51	0.42	6,716	167	15,256	536	2.27	0.10

Source: Teske and Peterson (2024).

[a] Estimates from 2018 are not shown because they were generated from a small sample and likely unreliable.

[b] Districts not included within a year have an estimated harvest of 0.

[c] Harvest and effort are expanded to account for nonrespondents.

[d] Conversion factors of 1.44 lb/qt (tails), 1.11 lb/qt (whole), and 2.02 tail/whole were used to convert reported harvest estimates in varying units to a common unit of lb/qt of whole shrimp. The lb/qt conversion factors were based on an ADF&G study (Max Schoenfeld, Fishery Biologist 2, ADF&G, Division of Commercial Fisheries, personal communication) and the tail/whole conversion factor was based on a separate ADF&G study (David Harris, Retired Fishery Biologist, ADF&G Division of Commercial Fisheries, personal communication).

[e] Areas without adequate effort (i.e., = 0), HPUE is undefined and denoted by an en dash.

[f] Areas without adequate effort or harvest (i.e., effort, = 0 or harvest = 0), SE(HPUE) is undefined and denoted by an en dash.

2025 SHRIMP PROPOSALS

There are 2 proposals in 2025 that would directly affect sport shrimp management.

- **Proposal 222** seeks to adopt seasonal closures for subsistence, sport, and personal use shrimp fisheries
- **Proposal 223** seeks to increase the tunnel size for sport, personal use, and subsistence shrimp pots.

DUNGENESS CRAB

Life history

Dungeness crab (*Metacarcinus magister*) are found throughout Southeast Alaska in areas with mud and sand substrate typically at depths less than 50 fathoms. Peak mating in Southeast Alaska occurs in late summer through early fall between hard-shelled males and soft-shell females (Shirley and Sturdevant 1988; Stone and O Clair 2001; Swiney et al. 2003). Egg fertilization occurs when oviparous females extrude eggs shortly after their shells harden, approximately 1 month after molting. There is evidence that female Dungeness crab in Southeast Alaska may not reproduce every year (Swiney et al. 2003), nor are female crab required to mate every year because they can store and utilize sperm for at least 2.5 years (Hankin et al. 1989). Eggs are held by the female until hatching in the spring or early summer. Upon hatching, crab larvae transition through 6 stages before reaching the first juvenile stage. A male Dungeness crab may reach 6½ inches in shell width after 4 to 5 years (Bishop et al. 2007).

Management

The Southeast Alaska Dungeness crab fishery is managed with regional bag and possession limits, size and sex requirements, and gear restrictions. Emergency orders have been issued to close areas when a conservation concern is identified. The current bag and possession limit is 3 male Dungeness/Tanner crab in combination. Dungeness crab must be a minimum of 6½ in across the carapace, not including spines. Up to 4 pots or 10 ring nets may be used to take Dungeness crab with a maximum of 10 crab pots or 20 ring nets per vessel. There is no closed season for Dungeness crab in the Southeast Alaska sport fishery. The Yakutat area is closed to fishing for Dungeness crab and there are 3 locations on Prince of Wales Island that are closed to sport fishing for Dungeness crab (Coffman Cove, Whale Pass, and Klawock/Shinaku Inlet).

Pots used to take Dungeness crab must meet requirements for a biodegradable escape mechanism defined in 5 AAC 39.145. Two escape rings with an inside diameter of 4⅜ in or larger must be installed on opposing sides and within the upper half of the vertical plane of the pot. Buoy markings must include the angler's first initial, last name, address, and vessel name or AK numbers used to operate the pot. Dungeness crab may be taken by pots, ring nets, diving gear, dip nets, hooked or hookless hand lines, and by hand. The use of pots is the primary harvest method of Dungeness crab in the sport fishery.

In 2008, the board established an ecotourism fishery by establishing statewide guided sport ecotourism regulations and the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery near Ketchikan. A similar fishery was established in Sitka Sound in 2018 (Appendix D1). In this superexclusive fishery, registered operators and vessels may not participate in any other Dungeness crab fishery or any other guided sport fishery during the calendar year of operation.

Regulatory history

Sport fishing regulations for Dungeness crab in Southeast Alaska were first established in 1989 with a bag and possession limit of 5 male Dungeness/Tanner crab in combination and a minimum size limit of 6½ inches for Dungeness. In 2009, the bag and possession limit was lowered to 3 male Dungeness/Tanner crab in combination.

In 2012, the number of ring nets that could be fished in the sport Dungeness crab fishery was limited to 10 per person and 20 per vessel. Prior to 2012 there was no limit on the number of ring nets that could be fished.

In 2018, the board passed a department-submitted proposal closing the Dungeness crab sport fishery in the Yakutat area. Low Dungeness crab numbers in pot surveys despite closures since 2005 indicated a depleted stock. The proposal was amended to include the personal use fishery as well. Although the subsistence fishery remains open, the department will not reopen the sport fishery until Dungeness crab stocks in the area have recovered.

In 2022, the board passed proposals closing sport fishing for Dungeness crab in areas of Prince of Wales Island, including Whale Pass, Klawock/Shinaku Inlet, and Coffman Cove.

Harvest

The nonresident (sport) harvest of Dungeness crab in Southeast Alaska has averaged roughly 1% of the combined regional harvest of sport, personal use, and commercial fisheries. The cumulative sport and personal use harvest of Dungeness crab (excluding commercial harvest) in Southeast Alaska by residency is summarized in Table 12. Harvest occurs in every management area except Yakutat where the Dungeness crab sport fishery has been closed (Table 13). The sport fishery contributes an average of 30% of the mixed sport and personal use Dungeness crab harvest in Southeast Alaska estimated by the SWHS (2019–2023). Resident anglers harvesting Dungeness crab under personal use or subsistence regulations are the largest source of noncommercial harvest in Southeast Alaska.

2025 DUNGENESS CRAB PROPOSALS

There are 2 proposals in 2025 that would directly affect sport Dungeness crab management.

- **Proposal 261** seeks to close all sport and commercial shellfish harvest, including Dungeness crab, in Traitors Cove near Ketchikan
- **Proposal 262** would close the sport Dungeness crab fishery in Thorne Bay.

Table 12.–Estimates of Dungeness crab harvest from the SWHS in the mixed sport and personal use fisheries of Southeast Alaska (numbers of crab), 1996−2023.

	SWHS harvest estimates		
Year[a]	Nonresident	Resident	Total
1996	16,120	71,433	87,553
1997	11,685	29,431	41,116
1998	5,289	26,248	31,537
1999	22,382	38,274	60,656
2000	16,410	46,355	62,765
2001	18,770	35,435	54,205
2002	12,103	21,717	33,820
2003	19,484	38,191	57,675
2004	48,426	40,199	88,625
2005	27,561	45,757	73,318
2006	31,571	48,135	79,706
2007	26,545	65,030	91,575
2008	25,578	54,192	79,770
2009	17,589	42,178	59,767
2010	18,311	37,952	56,263
2011	15,557	33,709	49,266
2012	25,059	36,563	61,622
2013	16,059	31,361	47,420
2014	21,217	51,448	72,665
2015	19,731	47,828	67,559
2016	17,379	29,937	47,316
2017	16,598	52,944	69,542
2018	11,135	27,483	38,618
2019	27,288	61,366	88,654
2020	11,427	34,434	45,861
2021	17,446	34,829	52,275
2022	9,750	29,941	39,691
2023	9,773	13,846	23,619
10-yr average (2014−2023)	16,174	38,406	54,580
5-yr average (2019−2023)	15,137	34,883	50,020

[a] Sport and personal use harvest estimates are based on the calendar year.

Table 13.–Statewide Harvest Survey estimates of nonresident Dungeness crab harvest by survey area in Southeast Alaska, 2019−2023.

Year	Ketchikan	Prince of Wales Island	Petersburg/ Wrangell	Sitka	Juneau	Southeast region nonresident total[a]
2019	4,896	7,437	5,325	2,635	5,128	27,288
2020	1,617	3,241	2,966	1,421	1,249	11,427
2021	2,337	4,927	3,776	2,081	3,226	17,446
2022	1,786	1,964	2,281	1,628	1,525	9,750
2023	2,048	1,184	2,880	1,280	1,527	9,773
5-yr Average	2,537	3,751	3,446	1,809	2,531	15,137

Note: SWHS survey area boundaries do not correspond exactly with management area boundaries, although these are generally minor discrepancies.

[a] Includes harvest from the remainder of Southeast Alaska in the Haines, Skagway, and Glacier Bay areas not otherwise presented in this table; low response rates prohibit survey area harvest estimates for these locations.

OTHER SHELLFISH SPECIES

Introduction

In addition to Dungeness crab and shrimp discussed above, the Southeast Alaska sport shellfish fishery provides opportunity to harvest a wide variety of shellfish species, although angler interest in these species is very low. Specific provisions for shrimp, Dungeness crab, Tanner crab, razor clams, and scallops have been adopted, while the sport fishery is closed to the taking of king crab, geoducks, and abalone. All other shellfish species, including squid may be harvested with no bag or possession limits, although gear restrictions apply. Clams, other than razor clams, are the most commonly harvested shellfish species with no bag or possession limit, whereas species such as octopus and squid are harvested in small numbers. In recent years there has been increased interest and effort in sport fishing for squid although harvest numbers are unknown.

Regulatory History

When sport fishing regulations for shellfish were adopted in Southeast Alaska in 1989, bag and possession limits were established for razor clams, Dungeness and Tanner crab, shrimp, and abalone. The taking of king crab and geoducks was prohibited and for all other shellfish there was no bag or possession limit. Since 1989 specific provisions have been added for the following species, omitting Dungeness crab and shrimp discussed earlier in this report:

Scallops: In 1994 a bag and possession limit for scallops was established with a bag and possession limit of 10 weathervane scallops and 5 rock scallops.

Razor clams: The taking of razor clams was prohibited in waters near Sitka in 1994. A bag and possession limit of 10 clams continues in the remainder of Southeast Alaska.

Tanner crab: In 2009, the bag and possession limit was lowered from 5 to 3 Dungeness and Tanner crab in combination and a requirement for escape rings in Tanner crab pots was established. Also in 2009, a 2-week closed season (June 16–June 30) was established by the board for sport and

personal use Tanner crab fisheries to discourage prospecting and illegal harvest in the personal use red king crab fishery. In 2012, ring net limits were established at 10 per vessel for Tanner crab.

Abalone: In 2012 the board took action to close the Southeast Alaska sport abalone fishery after hearing concern that abalone stocks were in low abundance. Bag and possession limits were also reduced in the personal use and subsistence fishery at this time.

Squid: In 2022, the board took action at the statewide meeting to define the allowable gear that could be used to take squid via sport fishing. Currently sport anglers are allowed the use of a single line with up to 2 squid jigs. A squid jig is defined as an artificial lure that may not exceed 24 inches in total length, used to target squid, that consists of barbless hook clusters and may not contain any barbed hooks.

Management

The SWHS collects sport fish effort, catch, and harvest information for razor clams, 'other' hardshell clams, Tanner crab, and "other shellfish" in addition to Dungeness crab and shrimp discussed above. With the exception of clams, angler interest in these species is extremely low. The number of responses to the SWHS that report harvest of these species is below thresholds to derive reliable harvest estimates, with the exception of the regional harvest of clams and Tanner crab, and these estimates includes a mix of sport and personal use harvest (Table 14). Although harvest estimates may not be available or robust given low response rate, the SWHS response rates can be useful to monitor trends in the fishery and identify if effort is growing across the region.

Table 14.–Statewide Harvest Survey estimated harvest of hardshell clams and tanner crab in the mixed personal use and sport fisheries in Southeast Alaska, 2019−2023.

Year	Hardshell clams (other than razor clams)	Tanner crab
2019	17,416	880
2020	12,754	567
2021	11,625	1,849
2022	2,752	859
2023	2,856	682
Average	9,481	967

2025 General Shellfish Proposals

There is 1 general sport shellfish proposal related to closing all harvest of shellfish.

- **Proposal 261** seeks to close all sport and commercial shellfish harvest in Traitors Cove near Ketchikan

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APPENDIX A: REGULATIONS AND BAROTRAUMA STUDIES FOR ROCKFISH

Appendix A1.–Summary of sport fish regulations for nonpelagic rockfish in Southeast Alaska, 1989–2023.

Year	Bag, possession, and annual limits
1989–1993	Daily bag limit of 5 fish (all rockfish), of which only 2 may be a yelloweye rockfish; possession limit of 10, of which only 4 may be a yelloweye rockfish. Sitka and Ketchikan areas bag and possession limit of 3 rockfish, of which only 1 could be a yelloweye rockfish.
1994–2005	Daily bag limit of 5 fish, of which only 2 may be a yelloweye rockfish; possession limit of 10 fish, of which only 4 may be a yelloweye rockfish. Sitka and Ketchikan areas bag and possession limit of 3 rockfish, of which only 1 could be a yelloweye rockfish.
2006 [a,b]	Daily bag limit of 3 fish, of which only 1 may be a yelloweye rockfish; possession limit of 6 fish, of which only 2 may be a yelloweye rockfish. Sitka and Ketchikan areas bag and possession limit of 3 rockfish, of which only 1 could be a yelloweye rockfish.

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Year	Bag, possession, and annual limits	
	Resident	Nonresident
2007–2010 [a,b]	Bag limit of 3 fish, only 1 of which may be a yelloweye rockfish; possession limit of 6.	Bag limit of 2 fish, only 1 of which can be a yelloweye rockfish; possession limit of 4, of which only 2 may be a yelloweye rockfish; annual limit of 3 yelloweye rockfish.
	Resident	Nonresident
2011–2012 [a,b]	Southeast Outside Waters: bag limit of 2 fish, only 1 of which may be a yelloweye rockfish; possession limit of 4 fish, of which only 2 may be a yelloweye rockfish. Southeast Inside Waters: bag limit of 3 fish, only 1 of which may be a yelloweye rockfish; possession limit of 6 fish, of which only 2 may be a yelloweye rockfish.	Southeast Outside Waters: bag limit of 2 fish, only 1 of which can be a yelloweye rockfish, possession limit of 4 fish, of which only 1 may be a yelloweye rockfish; annual limit of 1 yelloweye rockfish. Southeast Inside Waters: bag limit of 2 fish, only 1 of which can be a yelloweye rockfish; possession limit of 4 fish, of which only 2 may be a yelloweye rockfish; annual limit of 2 yelloweye rockfish.
	Resident	Nonresident
2013–2015 [a,b,c]	Southeast Outside Waters: bag limit of 2 fish, only 1 of which may be a yelloweye rockfish; possession limit of 4 fish, of which only 2 may be a yelloweye rockfish. Southeast Inside Waters: bag limit of 3 fish, only 1 of which may be a yelloweye rockfish; possession limit of 6 fish, of which only 2 may be a yelloweye rockfish.	Southeast Outside Waters: bag limit of 2 fish, only 1 of which can be a yelloweye rockfish; possession limit of 4 fish, of which only 1 may be a yelloweye rockfish; annual limit of 1 yelloweye rockfish. Southeast Inside Waters: bag limit of 2 fish, only 1 of which can be a yelloweye rockfish; possession limit of 4 fish, of which only 2 may be a yelloweye rockfish; annual limit of 2 yelloweye rockfish.
	Resident	Nonresident
2016 [a,b,c]	Southeast Outside Waters: bag limit of 2 fish, only 1 of which may be a yelloweye rockfish; possession limit of 4 fish, of which only 2 may be a yelloweye rockfish. Southeast Inside Waters: bag limit of 3 fish, only 1 of which may be a yelloweye rockfish; possession limit of 6 fish, of which only 2 may be a yelloweye rockfish.	Southeast Outside Waters: bag limit of 1 fish, only 1 of which can be a yelloweye rockfish; possession limit of 2 fish, of which only 1 may be a yelloweye rockfish; annual limit of 1 yelloweye rockfish. Southeast Inside Waters: bag limit of 2 fish, only 1 of which can be a yelloweye rockfish; possession limit of 4 fish, of which only 2 may be a yelloweye rockfish; annual limit of 2 yelloweye rockfish.

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Year	Bag, possession, and annual limits
2017 [a,b,c]	All Anglers Bag and possession limit of 1 fish. Nonresident annual limit of 1 yelloweye rockfish. Southeast Outside Waters - No retention from August 1 through August 21. All anglers must have release device (regardless of target species) and all nonpelagic rockfish must be released at depth.
2018 [a,b,c]	All Anglers Bag and possession limit of 1 fish. Nonresident annual limit of 1 yelloweye rockfish. Southeast Outside Waters - No retention from August 1 through August 31. All anglers must have release device (regardless of target species) and all nonpelagic rockfish must be released at depth.
2019 [a,b,c]	All Anglers Bag and possession limit of 1 fish. Nonresident annual limit of 1 yelloweye rockfish. Southeast Outside Waters - No retention from July 25 through August 21. All anglers must have release device (regardless of target species) and all nonpelagic rockfish must be released at depth.
2020 [a,b,c]	All Anglers All Southeast Waters - No retention of DSR. Slope rockfish bag and possession limit of 1 fish. No annual limit. All anglers must have release device (regardless of target species) and all nonpelagic rockfish must be released at depth.

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Year	Bag, possession, and annual limits
2021 [a,b,c]	All Southeast Waters - No retention of DSR. Slope rockfish bag and possession limit of 1 fish. No annual limit. All anglers must have release device (regardless of target species) and all nonpelagic rockfish must be released at depth.
2022 [a,b,c]	All Southeast Waters - Resident anglers - bag and possession limit of 1 DSR, no annual limit. Nonresident anglers - no retention of DSR. Slope rockfish bag and possession limit of 1 fish. No annual limit. All anglers must have release device (regardless of target species) and all nonpelagic rockfish must be released at depth.
2023 [a,b,c]	All Southeast Waters - Resident anglers - bag and possession limit of 1 DSR, no annual limit. Nonresident anglers - no retention of DSR. Slope rockfish bag and possession limit of 1 fish. No annual limit. All anglers must have release device (regardless of target species) and all nonpelagic rockfish must be released at depth.

[a] Charter operators and crew are not allowed to retain nonpelagic rockfish.

[b] All nonpelagic rockfish caught must be retained until the bag limit is reached.

[c] Persons sport fishing from a charter vessel when releasing nonpelagic rockfish (e.g., after an angler reaches their bag limit) must be in possession of and utilize a deepwater release mechanism to return the fish to the depth it was hooked or to a depth of at least 100 feet.

Appendix A2.–List of references for barotrauma studies on rockfish species that look at survival when returned to depth.

Author and citation	Species of rockfish studied	Depth of study	Location	Method summary	Survival rate examined	Survival rate reported	Species examined exists in Alaska sport fishery
Hochhalter and Reed 2011, NAJFM 31:852–860	Yelloweye	18 to 72 meters	Alaska	Released fish in environment directly as anglers would likely use recompression devices.	Yes	17-day survival of 98.8%	Yes
Jarvis and Lowe 2008, CJFAS 65:1286–1296	Vermillion, bocaccio, flag, squarespot, and honeycomb	55 to 89 meters	California	Released fish into cages first.	Yes	2-day survival of 62–73%; 690-day survival detected	Yes but small sample sizes (17–73 per species)
Pribyl. 2010, PhD Dissertation, OSU.	Black rockfish	35 meters	Oregon	Compression chamber in laboratory.	Yes	31-day survival of 100%	Yes
Parker et al. 2006, TAFS 135:1213–1223	Black rockfish	up to 30 meters	Oregon	Used compression chamber in laboratory only. Used pressures up to 4 atmospheres equivalent to 30 meters depth.	Yes	9-day survival of 97%	Yes
Hannah and Rankin 2011, NAJFM 31:483–494	Canary, yelloweye, quillback, China, copper	20 to 69 meters	Oregon	Surgically implanted acoustic tags in fish and released at depth.	Yes, inferred from those individuals that displayed movement throughout duration of the study	30+ day survival of 70–100%	Yes but very small sample sizes (1–23 per species).
GMT 2014 report to Pacific Fishery Management Council. March 2014	Cowcod, canary, yelloweye	0–75 fathoms		Examined use of Release Devices.	Yes	Yes	Yes
Hannah et al. 2014, Fisheries Research 157:106–112	Canary, yelloweye			Post recompression of rockfish 2-days.	Yes	90–100%	Yes
Berry 2001, Report for Fisheries Renewal BC and Science Council of BC	Quillback	Unknown	British Columbia	Released fish with cages at 15 meters no information on depth of capture given.	Yes	35-day survival of 86%	Yes

APPENDIX B: LINGCOD SPORT FISHERY REGULATIONS

Appendix B1.–Summary of sport fishery lingcod regulations in Southeast Alaska, 1994–2024.

Year	SSEI	SSEO	CSEO/NSEO/NSEI	YAK
1994–1999	season: May 1–Nov 30 2 fish per day, 4 in possession	season: May 1–Nov 30 2 fish per day, 4 in possession	season: May 1–Nov 30 2 fish per day, 4 in possession	season: May 1–Nov 30 2 fish per day, 4 in possession
2000	season: May 16–Nov 30 2 fish per day, 4 in possession no size limit	season: May 16–Nov 30 2 fish per day, 4 in possession no size limit	season: May 16–June 15, Aug 16–Nov 30 2 per day, 4 in possession prior to June 6, 2000 After June 6: 1 per day, 2 in possession and: non-guided residents: no size limit guided and nonresidents: 38 in minimum size	season: May 16–Nov 30 2 fish per day, 4 in possession no size limit
2001	season: May 16–Nov 30 1 per day, 2 in possession no size limit	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 34 in minimum size	season: May 16–June 15, Aug 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 39 in minimum size	season: May 16–June 15, Aug 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 39 in minimum size
2002	season: May 16–Nov 30 1 per day, 2 in possession no size limit	season: May 16–June 15, Aug 16 - Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–June 15, Aug 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 32 in-42 in slot limit
2003	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–June 15, August 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–June 15, August 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 32 in-42 in slot limit
2004	season: May 16–Nov 30 1 per day, 2 in possession no size limit	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–June 15, August 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 32 in-42 in slot limit

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Year	SSEI	SSEO	CSEO/NSEO/NSEI	YAK
2005	season: May 16–Nov 30 1 per day, 2 in possession no size limit	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–June 15, August 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 32 in-42 in slot limit
2006	season: May 16–Nov 30 1 per day, 2 in possession no size limit guided and nonresidents: annual limit of 2 no retention by charter operators/crew	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit guided and nonresidents: annual limit of 2 no retention by charter operators/crew	season: May 16–June 15, August 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit guided and nonresidents: annual limit of 2 no retention by charter operators/crew	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 32 in-42 in slot limit no retention by charter operators/crew
2007–2008	season: May 16–Nov 30 non-guided resident: 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-40 in slot limit guided and nonresidents: annual limit of 1 no retention by charter operators/crew	season: May 16–June 15, August 16–Nov 30 non-guided resident: 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-35 in slot limit guided and nonresidents: annual limit of 1 no retention by charter operators/crew	season: May 16–June 15, August 16–Nov 30 non-guided resident: 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 30 in-35 in slot limit guided and nonresidents: annual limit of 1 no retention by charter operators/crew	season: May 16–Nov 30 1 per day, 2 in possession non-guided residents: no size limit guided and nonresidents: 32 in-42 in slot limit no retention by charter operators/crew

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Year	SSEI/SSEO	SSEO	CSEO/NSEO/NSEI	YAK
2009	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–June 15, August 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel
Year	SSEI	SSEO	CSEO/NSEO/NSEI	YAK
2010	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–June 15, August 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-40 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-40 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel

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Year	SSEI	SSEO	CSEO/NSEO/NSEI	YAK
2011	season: May 16—Nov 30	season: May 16—Nov 30	season: May 16—June 30, August 16—Nov 30	season: May 16—Nov 30
	resident: 1 per day, 2 in possession, no size limit	resident: 1 per day, 2 in possession, no size limit	resident: 1 per day, 2 in possession, no size limit	resident: 1 per day, 2 in possession, no size limit
	nonresidents: 1 per day, 1 in possession, 30-40 in slot limit OR 55 inches or greater.	nonresidents: 1 per day, 1 in possession, 30-40 in slot limit OR 55 inches or greater.	nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater.	nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater.
	must land lingcod by hand or with a landing net	must land lingcod by hand or with a landing net	must land lingcod by hand or with a landing net	must land lingcod by hand or with a landing net
	nonresident angler annual limit of 2 lingcod, 1 of which is 30-40 inches in length and 1 that is 55 inches or greater in length	nonresident angler annual limit of 2 lingcod, 1 of which is 30-40 inches in length and 1 that is 55 inches or greater in length	nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length	nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length
	no captain/crew lingcod retention while clients are on board the vessel	no captain/crew lingcod retention while clients are on board the vessel	no captain/crew lingcod retention while clients are on board the vessel	no captain/crew lingcod retention while clients are on board the vessel
Year	SSEI	SSEO	CSEO/NSEO/NSEI	YAK
2012–2017	season: May 16—Nov 30	season: May 16—Nov 30	season: May 16—Nov 30	season: May 16—Nov 30
	resident: 1 per day, 2 in possession, no size limit	resident: 1 per day, 2 in possession, no size limit	resident: 1 per day, 2 in possession, no size limit	resident: 1 per day, 2 in possession, no size limit
	nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater.	nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater.	nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater.	nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater.
	must land lingcod by hand or with a landing net	must land lingcod by hand or with a landing net	must land lingcod by hand or with a landing net	must land lingcod by hand or with a landing net
	nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length	nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length	nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length	nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length
	no captain/crew lingcod retention while clients are on board the vessel	no captain/crew lingcod retention while clients are on board the vessel	no captain/crew lingcod retention while clients are on board the vessel	no captain/crew lingcod retention while clients are on board the vessel

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Appendix B1.–Page 5 of 7.

Year	SSEI	SSEO	CSEO/NSEO/NSEI	YAK
2018	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 35-50 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 35-50 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel
Year	SSEI	SSEO	CSEO/NSEO/NSEI	YAK
2019–2020	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16–Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-50 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-50 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel

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Year	SSEI/SSEO	NSEI	CSEO/NSEO	YAK
2021−2022	season: May 16─Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-45 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-45 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16─Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16─Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-40 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-40 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16─Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, no size limit. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, no size limit. no captain/crew lingcod retention while clients are on board the vessel

Year	SSEI/SSEO	CSEO/NSEO/NSEI	YAK
2023	season: May 16─Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-40 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-40 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16─Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length no captain/crew lingcod retention while clients are on board the vessel	season: May 16─Nov 30 resident: 1 per day, 2 in possession, no size limit nonresidents: 1 per day, 1 in possession, no size limit. must land lingcod by hand or with a landing net nonresident angler annual limit of 2 lingcod, no size limit. no captain/crew lingcod retention while clients are on board the vessel

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Year	SSEI/SSEO	CSEO/NSEO/NSEI	YAK
2024	season: May 16─Nov 30	resident season: May 16─Nov 30 nonresident season: May 16-June 14 and August 1-Nov 30	season: May 16─Nov 30
	resident: 1 per day, 2 in possession, no size limit	resident: 1 per day, 2 in possession, no size limit	resident: 1 per day, 2 in possession, no size limit
	nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater.	nonresidents: 1 per day, 1 in possession, 30-35 in slot limit OR 55 inches or greater.	nonresidents: 1 per day, 1 in possession, no size limit.
	must land lingcod by hand or with a landing net	must land lingcod by hand or with a landing net	must land lingcod by hand or with a landing net
	nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length	nonresident angler annual limit of 2 lingcod, 1 of which is 30-35 inches in length and 1 that is 55 inches or greater in length	nonresident angler annual limit of 2 lingcod, no size limit.
	no captain/crew lingcod retention while clients are on board the vessel	no captain/crew lingcod retention while clients are on board the vessel	no captain/crew lingcod retention while clients are on board the vessel

APPENDIX C: SABLEFISH SPORT FISHERY REGULATIONS

Appendix C1.–Summary of sablefish sport fishery regulations in Southeast Alaska, 2009–2023.

Year	Bag and Possession Limits
2009	Daily bag limit of 2 fish, 4 in possession, annual limit of 8 fish for all anglers.
2009−2011	Daily bag limit of 4 fish, 4 in possession, annual limit of 8 for nonresidents.
2012−2017	Daily bag limit of 4 fish, 4 in possession, no annual limit *except* in District 12, where there was an annual limit of 8 fish for nonresidents.
2018−2023	Daily bag limit of 4 fish, 4 in possession, annual limit of 8 for nonresidents.

APPENDIX D: REGULATORY HISTORY OF GUIDED SPORT ECOTOURISM DUNGENESS CRAB FISHERY

Appendix D1.–Regulatory history of the George Inlet and Nakwasina Sound superexclusive guided sport ecotourism Dungeness crab fishery in Southeast Alaska, 2003–2023.

Year	Description
2003–2007	Experience Alaska Tours/George Inlet Lodge in Ketchikan conducted Dungeness Crab ecotourism tours under the Commissioner's authority to issue permits for scientific and educational purposes.
2007	After additional operators expressed interest in the George Inlet fishery, department review determined that scientific and educational permits to conduct ecotourism were erroneously issued and there was a need to establish regulatory framework.
2008	Statewide sport ecotourism regulations in 5 AAC 75.085 were adopted and specific provisions for the George Inlet superexclusive guided sport ecotourism Dungeness crab fishery was established in 5 AAC 47.090.
2009	Regulations were modified by the Board allowing greater flexibility for the department to limit the number of pots and pot lifts when more than 3 vessels registered for the George Inlet fishery.
2012	Registration requirements were amended by allowing a guide to register for the George Inlet fishery at any time prior to participating. Prior to this amendment, guides were required to register between December 1 and January 3 in order to participate in this fishery.
2015	Further clarification was needed in regulation for the George Inlet Fishery. Pot limits were modified from 2 per vessel to 6 per operator, buoy marking requirements were modified, a definition of "operator" was established, management provisions were modified to allow the department to reduce pot limits and/or number of lifts if more than 1 operator registered, and language was added to identify the responsible party in the event a fishery violation occurred in this fishery. Guide registration requirements were modified to allow guides to deregister from this fishery in order to allow participation in other guided sport or Dungeness crab fisheries. Prior to this time sport fishing guides registered in this fishery were prohibited from participating in any other guided sport fishery or Dungeness crab fishery during the same year.
2018	Regulations were established for a Nakwasina Sound fishery in Sitka, 5 AAC 47.091. The regulations were modelled after the George Inlet fishery in Ketchikan.