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Data Report: 2025 Gulf of Alaska Bottom Trawl Survey

M. C. Siple, Z. S. Oyafuso, B. C. Riggle, and A. N. Dowlin

July 2026

U.S. DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration
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Abstract

The Gulf of Alaska biennial groundfish bottom trawl survey was conducted during the summer of 2025 by the Alaska Fisheries Science Center Resource Assessment and Conservation Engineering Division's Groundfish Assessment Program. This effort constitutes the 17th standardized Gulf of Alaska survey in a series that began in 1990. It is a stratified random survey and was redesigned in 2025 to be more flexible to changes in survey effort and species distributions. The surveyed area comprises the continental shelf and upper continental slope to a depth of 700 m, from Islands of Four Mountains (170° W longitude) across approximately 2,800 km of the Gulf of Alaska to Dixon Entrance (133°25'W longitude). The survey was conducted aboard two chartered trawlers, the FV *Ocean Explorer* and the FV *Alaska Provider*. Samples were successfully collected at 431 survey stations using standard RACE-GAP Poly Nor'Eastern high-opening bottom trawl nets with rubber bobbin roller gear.

The two primary objectives of the survey were to 1) describe the distribution and relative abundance of ecologically and economically important groundfish and invertebrate species in the Gulf of Alaska and 2) collect data to estimate biological parameters used by fisheries researchers and managers such as growth rates, length-weight relationships, feeding habits, and age, sex, and length compositions. In this report, we present data for federally managed species and species complexes. Arrowtooth flounder (*Atheresthes stomias*) had the highest estimated biomass of 1,442,691 metric tons (t), followed by walleye pollock (*Gadus chalcogrammus*; 1,213,755 t), Pacific ocean perch (*Sebastes alutus*; 824,335 t), and Pacific cod (*Gadus macrocephalus*; 309,761 t). Arrowtooth flounder and shallow-water flatfish were the flatfish groups with the highest estimated biomass. The two chondrichthyans with the highest estimated biomass were sharks (*several species*) and skates (s*everal species*). The highest species richness of fishes was found in the Kodiak statistical area (86 species) and the highest invertebrate species richness was found in the Shumagin statistical area (146 species).

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Preface

This report presents data from the 2025 Gulf of Alaska groundfish bottom trawl survey conducted by the Groundfish Assessment Program at the Alaska Fisheries Science Center. It contains descriptions of survey planning and operations; survey strata specifications; plots of species distribution, abundance, and length frequency; tables of catch per unit effort and estimated biomass; length-weight regression parameters; and lists of identified species.

Introduction

The 2025 Gulf of Alaska (GOA) biennial bottom trawl survey was conducted from the 20th of May through the 3rd of August by the Resource Assessment and Conservation Engineering Division's Groundfish Assessment Program (RACE-GAP). RACE-GAP is part of the Alaska Fisheries Science Center under the National Marine Fisheries Service. This survey marked the 19th standardized RACE-GAP bottom trawl survey of this area since 1990. From 1990 to 1999, the surveys were planned and conducted every three years; these surveys have been biennial since 1999. Surveys conducted prior to 1990 were cooperative efforts involving U.S. and Japanese scientists and vessels, or used other, non-standardized methods.

The objectives of the RACE-GAP summer bottom trawl surveys of the GOA are to 1) describe the distribution and relative abundance of groundfish and invertebrate species that inhabit the GOA region; 2) collect biological measurements from these populations like age, length, and weight; 3) study the feeding habits of select groundfish species; 4) collect net mensuration data to estimate area swept and calculate catch per unit effort (CPUE); and 5) to carry out scientific projects and collections in partnership with collaborators, researchers, and other research institutions (Stauffer 2004). This information supports annual stock assessments to meet the requirements of Alaska's Fishery Management Plans.

This report presents survey results from 2025 for principal groundfish and invertebrate species from five National Marine Fisheries Service (NMFS) statistical areas. Previous years' data reports for this survey are available through the NOAA Library. The International North Pacific Fisheries Commission (INPFC) existed from 1952 to 1993 to facilitate the coordination, cooperation, and exchange of scientific information about marine species. The INPFC established reporting regions that were used to stratify the Aleutian Islands and GOA bottom trawl surveys and roughly overlapped with the NMFS statistical areas used to stratify the survey starting in 2025.

Collections for scientific projects are done on this survey by request after being selected via a proposal evaluation process. Scientific collection requests in 2025 included collections of fish and crab specimens for training fisheries observers. Our survey also provided a platform for Pacific halibut age, length and weight data collection by the International Pacific Halibut Commission (IPHC). They also included shark genetics; rockfish epigenetics; acoustic data for Acoustic Vessels of Opportunity; underwater camera deployments; eDNA collections; pollock collections to determine the influence of relative spawn timing on early survival; samples to assess the use of echosounder and acoustic data to predict trawlability; morphology data for Pacific ocean perch; visual maturity for Atka mackerel, Pacific ocean perch, Pacific cod, and walleye pollock; comparative analysis of gut contents for prowfish; and fish specimen collections for outreach. This survey also collected specimens in collaboration with other research institutions including collections of sponges for sponge genetics; lanternfish and collections of members of the genus *Cyclothone* (investigating global signals of adaptation to warming and acidification using comparative genomics, phylogenomics, and gut contents); measurement of harmful algal bloom toxins in Alaskan food webs to develop a model for toxic effects in fish

and marine mammals; comparative genomics of Pacific sand lance; and collections of sponge to isolate compounds for cancer treatment.

Methods

Survey Area

The GOA forms the northeastern border of the Pacific Ocean and consists of complex bathymetric features ranging from jagged, mountainous pinnacles to flat, muddy areas. These features provide a variety of habitats resulting in a complex ecosystem. The 2025 GOA survey area included the portion of the continental shelf from the Islands of Four Mountains eastward approximately 2,800 km to Dixon Entrance and from nearshore waters (minimum depth approximately 15 m) to a depth of 700 m (Fig. **2**). The total 2025 survey area was 301,174 km². There have been two changes in the total survey footprint since the start of the standardized survey: in 2015, the deepest strata historically sampled in the Gulf (700–1,000 m) ceased to be sampled due to unavoidable survey effort reductions, resulting in a 3% (8,206 km²) reduction in the survey footprint compared to pre-2015 surveys. The survey area was slightly reduced again in 2025 because of the new restratification (see the Survey Design section below for details).

Continental shelf waters shallower than 200 m made up ~80% of the survey area. The shelf width varies from approximately 20 km (11 nautical miles; nmi) off the Islands of Four Mountains to approximately 220 km (120 nmi) off Cook Inlet. Gullies intrude onto the shelf in many areas and extend from the upper slope to the inner shore. The outer shelf is bordered by the continental slope, a region approximately 20 km in width, which descends steeply to the abyssal Aleutian Trench in the western and central GOA and to the Alaska Plain in the eastern GOA. About 22% (54,940 km²) of the total survey area is within the Shumagin NMFS statistical area. The portions of the survey area contained within the Chirikof and Kodiak NMFS areas are approximately equal at about 26% (63,828 km²) and 24% (59,995 km²). The Southeast Outside area contains about 16% of the total survey area (38,563 km²). The West Yakutat area is the smallest portion of the total survey area at about 11% (27,146 km²).

Vessels

The two U.S. commercial fishing vessels chartered for the 2025 GOA bottom trawl survey were the FV *Ocean Explorer* and the FV *Alaska Provider*.

- The *Alaska Provider* is 53.6 m in overall length and is powered by two main engines with 2,200 continuous horsepower. It is equipped with two forward and one stern net reel.
- The *Ocean Explorer* is 47.2 m overall length with a 1,500 horsepower main engine. It is equipped with two forward net reels.

Both vessels are house-forward stern trawlers with hydraulic net reels and paired constant tension (autotrawl) hydraulic trawl winches carrying 2.54 cm diameter steel core cable. Both vessels have hydraulic cranes for handling catches and gear and are equipped with global positioning systems (GPS) integrated with radar, computerized plotting, and autopilots. Other essential electronics supplied by the vessels include trawl warp measuring systems, transceivers for detecting the acoustic signal from net mensuration sensors, a hull-mounted multi-beam transducer

for providing depth data and acoustic measurements, and a down sounder and transducer for depth and seafloor monitoring.

Captain Dan Carney operated the FV *Ocean Explorer* and Captain Paulo da Cruz operated the FV *Alaska Provider* for all legs of the survey.

Fishing Gear

The 2025 GOA survey was conducted on both vessels using a four-seam, hard bottom, high-rise Poly Nor'Eastern trawl net with an 89-ft (27.15 m) headrope and an 81.6-ft (24.8 m) footrope (Fig. **1**). The net is connected to the trawl doors via tail chains attached at the center hole on the bale of the door. Under normal fishing conditions, the average net width is 16.2 m and the average net height is 6.6 m measured by acoustic net mensuration sensors mounted on the trawl's upper wing-tips and headrope. Each trawl was certified as conforming to measurement and dimension standards prior to its use on the survey. The fishing gear and protocols for deployment are described in detail in Stauffer (2004).

Survey Design

In 2025, the GOA survey implemented a redesigned, optimized stratification of the historic survey area. The survey has had a stratified random design since the standardized time series began in 1990 (Siple et al. 2024; Munro and Hoff 1995). The historical design (2023 and earlier) a) used INPFC areas, depth, and habitat (shelf/gully/shelf edge/slope) to define strata; b) used a modified Neyman allocation to weight the sampling allocation by stratum area, stratum CPUE variance, and ex-vessel price across a representative set of 15 species; and c) surveyed portions of the survey area eliminated in the 2025 restratification (1.4% of the total historical survey footprint, including the southern portion of NMFS area 519 in northern Unimak Pass and a large portion of inner southeast Alaska NMFS area 659). The new design was deployed for the GOA survey in 2025, to increase survey design flexibility and improve the precision of biomass estimates for multiple species (Oyafuso et al. 2021). This new survey design a) uses NMFS statistical areas and depth to define strata; b) uses a recently compiled updated bathymetry dataset to inform depth strata (Zimmermann et al. 2025); c) allocates samples to strata based on minimizing precision targets for a subset of representative species (Bethel 1989); and d) covers a slightly smaller area than the full historical survey footprint.

This updated design was optimized and re-stratified based on bottom depth and NMFS statistical area, resulting in a total of 28 strata (compared to 59 strata in the earlier design). The NMFS statistical areas are: the Shumagins or 'Western Regulatory Area' (NMFS area 610), Chirikof (620), Kodiak (630), West Yakutat (640), and Southeast Outside (650). This differs from the historical survey stratification, which was based on depth and INPFC statistical area. Some INPFC areas roughly correspond to the NMFS statistical areas: Shumagin (610), Chirikof (620), and Kodiak (630). The INPFC Yakutat and Southeastern areas are divided at the 137°W meridian, while the NMFS West Yakutat (640) and Southeastern (650) areas are divided at the 140°W meridian.

The new depth strata also differ from those in the historical survey design: although the historical GOA surveys cover depths up to 1000 m, since 2017, the survey has

sampled depths only up to 700 m. Between 2017 and 2023, depth strata were continuous across the survey area. As of 2025, the depth ranges used to define strata are no longer shared across areas; instead, the depth bins are different in each NMFS statistical area.

The new survey design also uses a new survey grid with the same grid cell size as previous surveys. The survey grid is divided into 5 km x 5 km grid cells that can be subdivided by stratum boundaries, resulting in a sampling frame of more than 20,000 grid cell-stratum ("station") combinations. The new grid is also continuous across the GOA and Aleutian Islands, which will facilitate the combination of the GOA and AI grids with the Bering Sea grid when future survey redesign efforts occur.

The method for allocating sampling effort within GOA survey strata changed in the 2025 redesign. Sampling effort within each stratum was determined using a multispecies framework (Oyafuso et al. 2022) which seeks to minimize survey precision for a subset of species for a given level of total sampling effort. Unlike pre-2025 survey designs and the Aleutian Islands survey, this allocation does not use the ex-vessel price to determine sampling effort within a stratum. As before, once stratum allocations were determined, stations were randomly selected within strata from the full set of 'available' stations. 'Available' stations are those deemed trawlable or with unknown trawlability status.

This year's station allocation routine[1] draws stations at random without replacement from the pool of previously successfully sampled stations and stations of unknown status (never sampled before) within each stratum and allocates these to the two survey vessels. The allocation routine requires a minimum of four stations allocated to each stratum so that a sample stratum variance can be calculated, and for operational flexibility. In the event of fishing gear conflicts or untrawlable bottom at a preselected station, field party chiefs were instructed to find an alternate station in the same stratum. Alternate trawl stations could either be previously trawled locations not assigned to either vessel in that survey year, or new trawl sites located by systematically searching for patches of trawlable bottom large enough to accommodate a 15-minute tow within the proper stratum. Operations in Steller sea lion no-transit zones and areas with verified, active crab pot storage were avoided by choosing alternate stations. Search time to find an alternate station within a previously untrawled station was limited to 2 hours of searching for a 5 km × 5 km grid cell; maximum search time was proportionally reduced when stations represented a smaller area. If the full search time was expended within a grid cell without identifying a trawlable path, that grid cell was designated untrawlable for future station allocations.

In 2023, in conjunction with a GAP-wide effort to reduce science crew fatigue and related ergonomic injuries, the 'standard' station allocation was reduced to 520, consisting of 450 assigned stations and 70 'bonus' stations with an assigned stratum but no assigned location. This allocation was determined as follows: 1) In the GOA 2025 survey, the target total number of stations was 450, selected randomly across each stratum. This was a 13% reduction from the stations allocated in 2023. 2) The allocation protocol was run again, this time targeting the 450 assigned stations plus the intended number of bonus stations (in 2025, 70). Bonus stations were added to

[1] https://github.com/afsc-gap-products/StationAllocationAIGOA/releases/tag/v3.0

the strata where the allocation increased. These were sampled at the discretion of the FPC and vessel captain as time allowed.

Assigned sample densities were highest in the 176 - 200 and 201 - 300 depth intervals at 2.6 and 2.07 stations per 1,000 km^2 in each depth interval (Table **1**). At a sample size of 431 stations, the survey-wide sampling density was about 0.0014 tows per 1,000 km^2.

Trawling Methods and Effort Data Collection

Standard trawl configuration and towing procedures were followed as closely as possible (Stauffer 2004). The operational goal of each haul was for the net to reach the bottom as quickly as possible and to ensure the proper towing configuration (a net height of 6-10 m and net width of 14-18 m) at the standard towing speed of 3 knots. The trawl should then maintain towing speed and proper net configuration with the footrope in contact with the bottom for 15 minutes, after which the net should be lifted off the bottom as quickly as possible. Standardized scope tables of trawl warp relative to bottom depth were used to determine the amount of wire set out. Tow duration was sometimes reduced to avoid potential gear damage or when changing net dimensions indicated that a large catch was affecting the configuration of the net. Date, time, and geographical coordinates were recorded every few seconds during each tow. Depth, water temperature, and time were recorded every 1 to 3 seconds using a factory-calibrated Seabird® Model SBE-39 data logger that was attached near the middle of the trawl headrope. The vertical and horizontal trawl openings were monitored with Marport® acoustic net mensuration equipment during each haul. An accelerometer recording date, time, and acceleration in three dimensions to measure the degree of bottom contact was attached to the midpoint of the footrope. An effort was made to lift the trawl off the bottom as quickly as possible at the end of each haul by maintaining or increasing vessel speed while engaging the trawl winches.

Bottom and surface temperatures were recorded for each haul. Bottom temperatures were calculated as the average temperature between when the gear was determined to be on-bottom and when the gear was lifted off-bottom. Surface temperatures were taken to be either linearly interpolated from measurements on either side of 1 m depth during the upcast, or the first measurement at a depth of 1 m. Surface temperatures in previous years were measured and calculated in different ways; see Table 1 in Rohan et al. (2022) for equipment and calculation methods historically used for water temperature data, and see the methods section on page 5 of Rohan et al. (2022) for a description of the algorithm used to determine the surface temperature.

All hauls were performed during daylight hours between one-half hour after sunrise and one-half hour before sunset. Trawl performance was assessed after each haul by carefully analyzing data plots from the net mensuration system and other sensors deployed during the haul. A haul was considered to be “good performance” if the following conditions were met:

- The horizontal and vertical net openings remained within a range of 6-10 m (height) and ~14-18 m (spread).
- The bottom contact sensor indicated consistent contact with the bottom.

- The net suffered little to no damage during the tow.
- There were no encounters with large objects (e.g., boulders) or other fishing gear (e.g., crab pots, longline gear) that would alter the performance of the net.

The minimum acceptable duration for a satisfactory haul was 10 minutes, except when a large catch altered the trawl fishing configuration precipitating the need to haul back early. General guidance for short-duration, large-catch hauls has been to assign them a satisfactory performance code when catch rates meet or exceed 1,000 kg/min. and all the standards above apply.

Catch Processing and Data Collection

Trawl catches were brought on board and sorted. Catches weighing up to approximately 1 metric ton (t; 1,000 kg) were deposited directly onto a sorting table where taxa were identified to the lowest possible taxonomic level. All species nomenclature in our databases and in this report generally follow the Integrated Taxonomic Information System (ITIS)[2]. Taxon groups estimated to weigh more than a few kilos were weighed to the nearest 10 g using a motion-compensated Marel® electronic digital platform scale; non-colonial taxa were also enumerated. Taxon groups weighing around 2 kg or less were weighed to the nearest 2 g on a smaller capacity, electronic Marel® model M60 digital scale. Catches larger than ~1 t were often serially processed by depositing aliquots of the total catch onto the sorting table in 1 t portions. Very large catches were sampled one of three ways:

1) Very large catches that could be lifted off the deck with the crane (5-8 t) were weighed with a dynamometer (load cell) when the sea state allowed.
2) Some large catches were also split on deck and subsampled using a brailer net.
3) The weights of some of the largest catches (exceeding ca. 8 t) were estimated volumetrically, using the total volume and a subsample volume to obtain catch proportions and catch density to estimate total catch weights.

Pacific halibut were immediately measured and released when they were not retained for biological samples. In cases when halibut were released, their catch weights were estimated from their measured lengths during data entry using length-weight parameters supplied by the IPHC. When halibut were retained onboard, sample sizes were set in consultation with the IPHC. Halibut sample sizes are available in the otolith collection schedule and approved scientific collections requests. A random subsample of up to 50-100 (150 for arrowtooth flounder) specimens of each major fish species was collected, sexed, and measured to obtain length compositions (Table **2**). A smaller length frequency sample was collected for some minor catch components such as sculpins. All sharks and skates were measured. Unsexed length frequencies were collected for shortspine thornyhead and yellow Irish lord. Lengths for forage fishes such as Pacific herring, capelin, and eulachon are not required by survey protocols, but were opportunistically collected. Length measurements were collected and recorded with barcode-reader data loggers and barcoded length boards.

[2] https://www.itis.gov/index.html

When recording fish length, the most common measurement used was fork length (FL). However, sharks and skates were measured using total length (TL) and giant grenadiers were measured from the tip of the snout to the origin of the anal fin. Fish that could not be readily sexed were classified as unsexed. Fish length was measured to the nearest centimeter and individual fish weight was estimated to the nearest 1 g with digital motion compensated scales (Marel®). In this report, length data are presented as population-level length compositions by year and sex, and as individual lengths by bottom depth. When lengths by bottom depth are presented, a locally estimated scatterplot smoothing (LOESS) curve is shown with the data, to visualize changes in length by depth. Otoliths were collected from a subset of fish species to determine age composition and parameterize age-length keys. GAP scientists and stock assessment authors re-evaluated otolith collection requirements in 2022 using a simulation approach and subsequent surveys have used sample sizes collaboratively determined by both groups. Most of those targets were met in 2025 (Table **3**). Stomach samples were collected for selected species throughout the survey area by biologists from the AFSC's Resource Ecology and Ecosystem Management Program.

Data Analysis: Abundance, Length Composition, and Length-Weight Relationship

Biomass estimates were calculated using the area-swept method (Alverson and Pereyra 1969). The area swept was calculated as the product of observed distance towed and the observed mean net spread for each tow. The distance towed was assumed to be represented by the distance traveled over ground by the vessel between the time when the center of the footrope came into contact with the bottom (on-bottom) and the time when the center of the footrope left the bottom (off-bottom). The distance traveled by the vessel was determined by smoothing the GPS location data and measuring the distance along this path. The mean net spread was calculated by averaging the smoothed net spread readings from the Marport® sensors between on-bottom and off-bottom positions. Net spread readings below 8 m and above 22 m were rejected as outliers using sequential outlier rejection (Rohan and Akselrud 2025; Kotwicki et al. 2011). Net spreads for tows with insufficient Marport® data (fewer than 50 readings not evenly spaced throughout the duration of the tow) were estimated by a generalized additive model (GAM) using net number, net height (when available), mean speed over ground (when available), depth, total catch and the actual scope/expected scope ratio as variables. For each taxon, the CPUE of a tow was calculated as catch weight per area swept by the trawl. Mean CPUE was estimated for each stratum by the sample average of all valid observations of CPUE in that stratum, including tows with CPUE=0. Mean CPUE values for the total survey area were calculated as the weighted average CPUE of the component strata using the stratum areas as the weighting factor. Biomass estimates were calculated by multiplying each stratum mean CPUE by the stratum area and summing the results to obtain estimates across the entire GOA survey area or by NMFS statistical areas. A detailed description of the analytical procedures is presented in Wakabayashi et al. (1985).

Population length compositions were estimated by expanding the length-frequency to the total catch for each species by length and sex category at each station (Wakabayashi et al. 1985). The stratum population within a sex-length category was

calculated by multiplying the stratum population by the proportion of fish in each sex-length category from the summed station data. Population length composition estimates were summed over strata to derive estimates by area. Percent frequencies were calculated for each sex and length by dividing by the total population of fish for each area-depth category.

Individual length and weight measurements were used to estimate length-weight parameters, from the length-weight relationship

$$W = aL^b,$$

where *W* is weight in grams, *L* is length in mm and *a* and *b* are the fitted parameters (Appendix C). These values are used to expand the measured lengths to expected weights for each species in a given haul. Lengths and counts from the subsample are then expanded to the haul.

In this report, sex-specific differences in weight are provided in the results section for arrowtooth flounder, Pacific halibut, Pacific cod, walleye pollock, sablefish, and Pacific ocean perch. If a Komolgorov-Smirnov test of the male and female length distributions indicates the male and female length distributions differ, a bullet is included in the species results indicating this difference and the mean lengths for each sex.

Data Limitations

This survey supports management and conservation of multiple fish and benthic invertebrate species. Indices of abundance derived from survey catch rates and abundance estimates provide relative measures of abundance that are used to fit stock assessment models and monitor population trends and status. We expect that catchability may vary among species and species groups, and this is an important consideration when interpreting the relative indices of abundance produced by the survey.

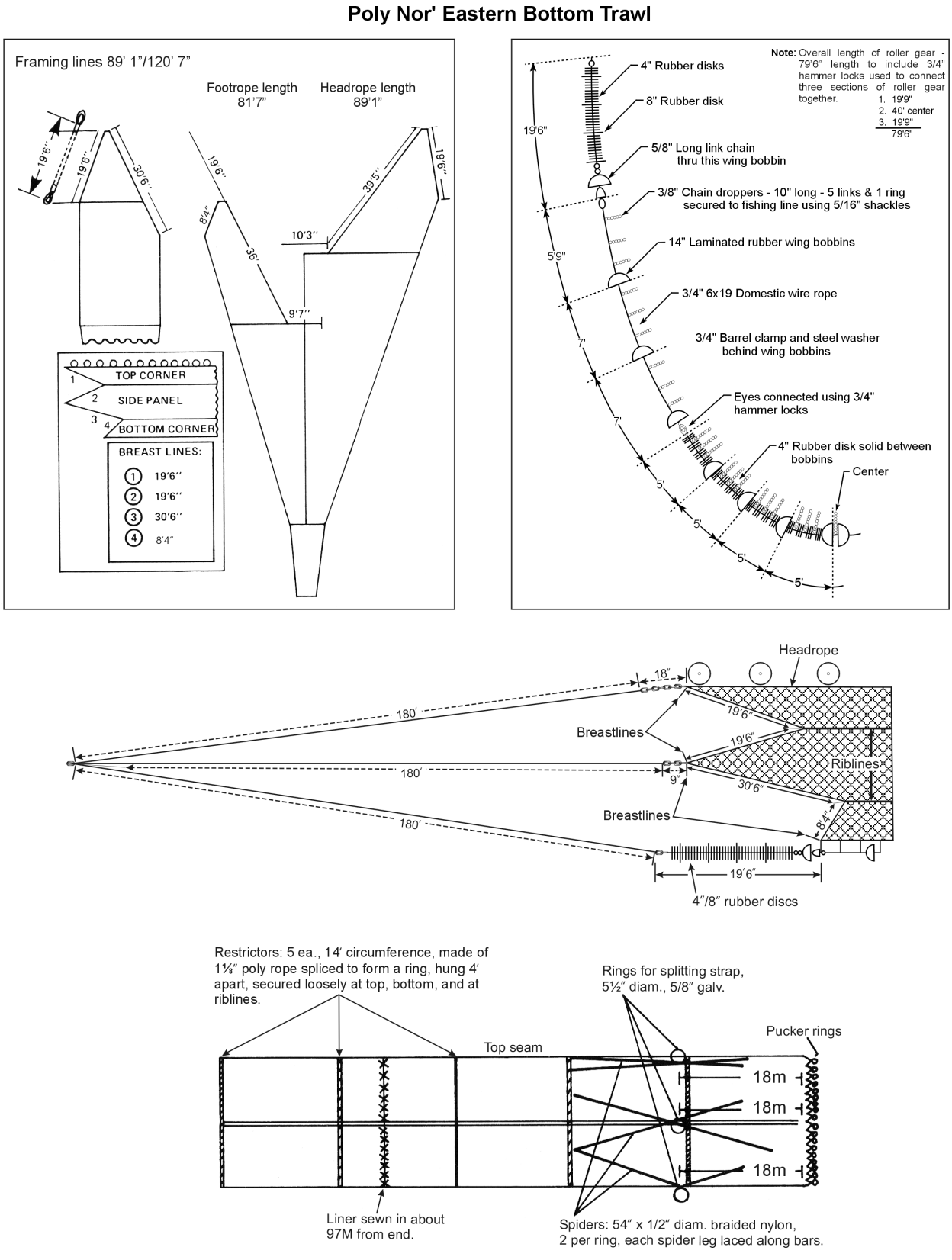


Figure 1. -- Diagram of the Poly Nor'eastern bottom trawl gear used.

Table 1. -- Stations allocated and sampled during the 2025 GOA bottom trawl survey.

NMFS area	Depth range (m)	Stations allocated	Stations attempted	Stations completed	Total area (km^2)	Stations per 1,000 km^2
Shumagin	1 - 50	14	13	13	7,938	1.64
	51 - 125	63	68	62	37,877	1.64
	126 - 225	14	15	14	9,125	1.53
	226 - 700	9	10	7	5,711	1.23
	All depths	**100**	**106**	**96**	**60,652**	**1.58**
Chirikof	1 - 50	9	9	9	9,746	0.92
	51 - 150	60	57	55	29,900	1.84
	151 - 250	40	38	37	17,943	2.06
	251 - 350	5	4	4	6,241	0.64
	351 - 700	4	6	4	2,699	1.48
	All depths	**118**	**114**	**109**	**66,528**	**1.64**
Kodiak	1 - 50	16	12	12	11,856	1.01
	51 - 75	15	13	13	10,927	1.19
	76 - 125	40	37	36	25,058	1.44
	126 - 150	29	25	25	12,154	2.06
	151 - 700	42	40	39	35,702	1.09
	All depths	**142**	**127**	**125**	**95,697**	**1.31**
West Yakutat	1 - 50	4	4	4	3,669	1.09
	51 - 100	4	4	4	7,329	0.55
	101 - 175	12	11	11	11,924	0.92
	176 - 200	11	11	11	4,225	2.60
	201 - 700	16	15	13	7,873	1.65
	All depths	**47**	**45**	**43**	**35,020**	**1.23**
Southeast Outside	1 - 100	8	7	7	8,974	0.78
	101 - 200	39	37	32	23,313	1.37
	201 - 300	18	13	13	6,277	2.07
	301 - 700	8	8	6	4,714	1.27
	All depths	**73**	**65**	**58**	**43,278**	**1.34**
All areas	1 - 50	43	38	38	33,209	1.14
	1 - 100	8	7	7	8,974	0.78
	51 - 75	15	13	13	10,927	1.19
	51 - 100	4	4	4	7,329	0.55
	51 - 125	63	68	62	37,877	1.64
	51 - 150	60	57	55	29,900	1.84
	76 - 125	40	37	36	25,058	1.44
	101 - 175	12	11	11	11,924	0.92
	101 - 200	39	37	32	23,313	1.37
	126 - 150	29	25	25	12,154	2.06
	126 - 225	14	15	14	9,125	1.53
	151 - 250	40	38	37	17,943	2.06
	151 - 700	42	40	39	35,702	1.09
	176 - 200	11	11	11	4,225	2.60
	201 - 300	18	13	13	6,277	2.07
	201 - 700	16	15	13	7,873	1.65
	226 - 700	9	10	7	5,711	1.23
	251 - 350	5	4	4	6,241	0.64
	301 - 700	8	8	6	4,714	1.27
	351 - 700	4	6	4	2,699	1.48
	All depths	**480**	**457**	**431**	**301,175**	**1.43**

Table 2. -- Target numbers per haul of length samples for each managed species. Asterisk (*) indicates species that are not sexed; all other species are collected as sexed lengths.

Species or species group	Target sample size
walleye pollock (*Gadus chalcogrammus*)	100
Pacific cod (*Gadus macrocephalus*)	100
arrowtooth flounder (ATF) (*Atheresthes stomias*)	150
All rockfish species (*Sebastes* spp.)	100
shortspine thornyhead (*Sebastolobus alascanus*)*	100
sablefish (*Anoplopoma fimbria*)	100
Atka mackerel (*Pleurogrammus monopterygius*)	100
All species of flatfish (except ATF) (Order Pleuronectiformes)	100
prowfish (*Zaprora silenus*)*	100
lingcod (*Ophiodon elongatus*)*	100
salmon (Family Salmonidae)*	100
yellow Irish lord (*Hemilepidotus jordani*)*	100
bigmouth sculpin (*Hemilepidotus bolini*)*	100
great sculpin (*Myoxocephalus polyacanthocephalus*)*	100
plain sculpin (*Myoxocephalus jaok*)*	100
warty sculpin (*Myoxocephalus verrucosus*)*	100
forage fish (herring, eulachon, capelin, sand lance) (Several families)*	100
magistrate armhook squid (*Berryteuthis magister*)*	100
skates and sharks (total length) (Subclass Elasmobranchii)	50
grenadiers (pre-anal length) (Family Macrouridae)	50

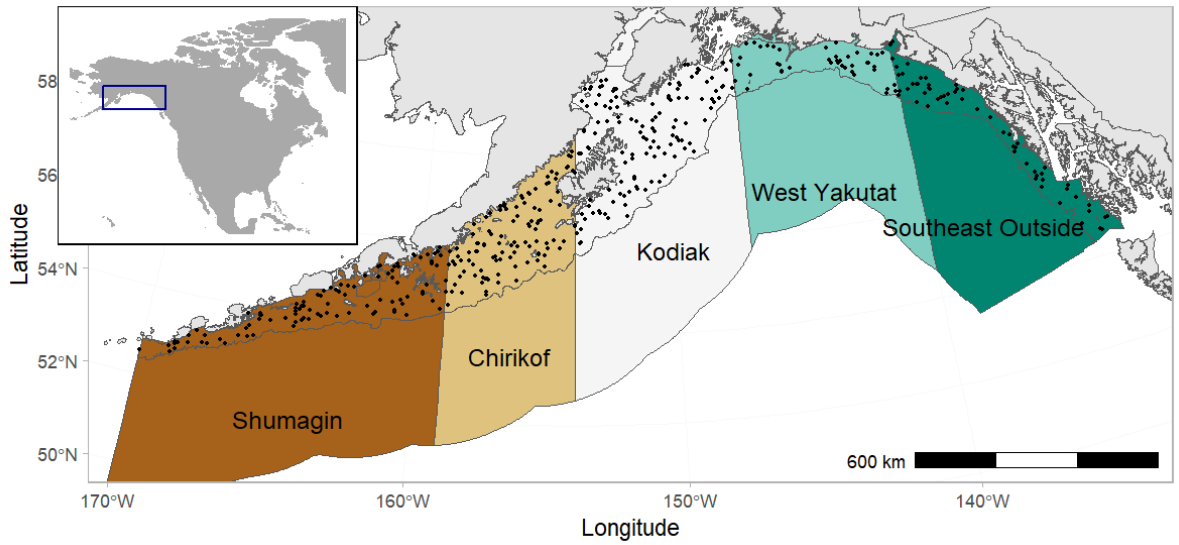


Figure 2. -- Map of the GOA 2025 bottom trawl survey area indicating NMFS statistical areas (color fill) and stations sampled (black points). The grey line indicates the outline of the bottom trawl survey area.

Results

We successfully sampled 431 stations from a total allocation of 450 (Table **1**). All successful tows were included in the biomass, length, and age composition analyses. Marport acoustic net mensuration sensors were deployed at all stations and net mensuration data were successfully collected at 338 stations. For the 93 stations without sufficient Marport spread data, net spread was estimated from a generalized additive model (GAM).

For hauls where there were no net height data available, we estimated net spread from the following GAM:

$$net.spread \sim factor(vessel) + factor(net.number) + s(bottom.depth) + s(speed) + s(scope.ratio) + s(total.catch)$$

For hauls where there were height data available, we estimated net spread from the following GAM:

$$net.spread \sim factor(vessel) + s(net.height) + factor(net.number) + s(bottom.depth) + s(speed) + s(scope.ratio) + s(total.catch)$$

In total, there were 35 unsuccessful tows during the 2025 survey. Bottom temperatures were recorded for all but 1 haul and surface temperature data were recorded for all but 2 hauls. Bottom temperatures ranged from 3.8 to 11.3 °C (Fig. **3**). Surface temperatures ranged from 5.4 to 15.5 °C.

We measured 136,646 lengths (135,251 fishes and 1,395 armhook squid) and collected 8,694 pairs of otoliths. A summary of the total otoliths sampled by species can be found in Table **3**.

Table 3. -- Otolith samples collected compared to otolith targets. A negative percent difference indicates an otolith sample shortfall; positive percent difference indicates that the target was exceeded.

Species	N collected	Target N	Percent difference between target and collection
sablefish	185	400	-54
flathead sole	406	500	-19
Pacific ocean perch	716	1,000	-28
Pacific cod	937	1,000	-6
walleye pollock	1,246	1,500	-17
Atka mackerel	262	100	162
dusky rockfish	292	500	-42
redstripe rockfish	116	200	-42
redbanded rockfish	153	200	-24
northern rockfish	159	500	-68
arrowtooth flounder	755	800	-6
rougheye rockfish	267	300	-11
blackspotted rockfish	204	250	-18
northern rock sole	470	500	-6
southern rock sole	378	500	-24
shortspine thornyhead	312	350	-11
rex sole	561	700	-20
Dover sole	407	500	-19
Pacific halibut	868	1,000	-13

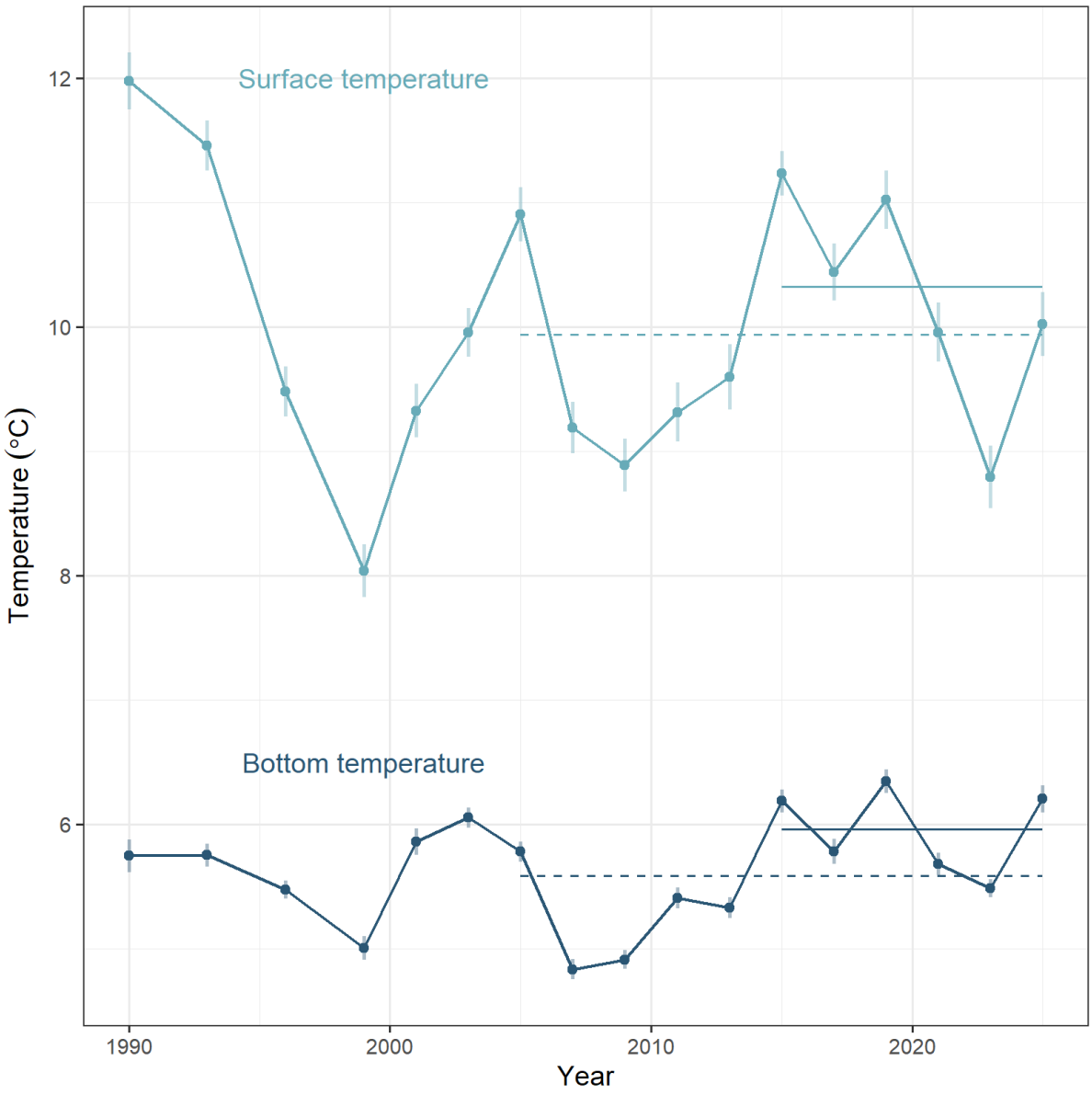


Figure 3. -- Surface and bottom (gear) temperatures from survey tows. Bottom temperature is measured at the headrope of the trawl. Horizontal lines show the mean of each time series over the past 10 (solid) and 20 (dashed) years. Vertical lines indicate 95% confidence intervals.

Results by Area

Total catches across the survey area included 129 fish species from 33 families, and 227 invertebrate species or taxa from 10 phyla (Appendix Table B1). Taxa reported here were selected based on 1) their inclusion in a fishery management plan (FMP), including species complexes like deep-water flatfishes and rougheye-blackspotted rockfish, and 2) their presumed importance in the ecosystem. Since groundfish populations are the primary focus of this bottom trawl survey and data report, we present relative abundance estimates for each of the survey statistical areas surveyed in 2025 and for the entire survey region (Table **4**). Arrowtooth flounder was the most abundant species over the entire survey area, followed by walleye pollock, Pacific ocean perch, and Pacific cod. The chondrichthyan with the highest estimated biomass was the sharks complex and the flatfish with the highest estimated biomass was arrowtooth flounder.

Results by Species

The following information is presented for each species or complex:

1) A brief summary of the data collected and data analyses;
2) A table with the number of hauls attempted, number of hauls where that species was present, mean CPUE, estimated biomass, and mean weight by statistical area;
3) A table with mean CPUE and estimated biomass by statistical area and depth range;
4) A figure showing estimated biomass, presence in hauls, and percent change since the previous survey;
5) A figure showing the spatial distribution of CPUE across the full survey area;
6) A figure showing the length distribution of the population starting from the year when that species was first identified;
7) A figure showing population-level length data by depth;
8) For arrowtooth flounder, Pacific halibut, Pacific cod, walleye pollock, sablefish, and Pacific ocean perch, a statement about whether a Kolmogorov-Smirnov test indicated a sex-specific difference in length.

Length data (5-6) are not shown for complexes or for invertebrates (e.g., magistrate armhook squid). Length data are presented starting from the year when that species was first positively identified and lengthed in a standardized way. For related species that were not always distinguished from one another, this may be later than the first standardized year of the survey. Specifically, arrowtooth flounder were distinguished from Kamchatka flounder starting in 1992, northern and southern rock sole were distinguished from one another starting in 1996, dusky and dark rockfish were distinguished from one another in 1996, and rougheye/blackspotted rockfish were distinguished from one another starting in 2006.

Table 4. -- Mean CPUE [kg/ha] for the 20 most abundant groundfish species in each survey regulatory area during the 2025 GOA bottom trawl survey.

Species	CPUE (kg/ha)
Shumagin	
walleye pollock	128.5
arrowtooth flounder	36.7
Atka mackerel	14.2
southern rock sole	11.6
Pacific cod	9.8
Pacific halibut	9.8
flathead sole	9.0
giant grenadier	5.2
sablefish	4.3
rex sole	3.6
Pacific ocean perch	3.4
yellowfin sole	3.0
northern rock sole	2.6
shortspine thornyhead	1.4
yellow Irish lord	1.3
starry flounder	1.2
northern rockfish	1.0
blackspotted rockfish	1.0
butter sole	0.9
English sole	0.4
Chirikof	
arrowtooth flounder	48.5
walleye pollock	33.6
Pacific cod	18.2
Pacific ocean perch	16.5
Pacific halibut	7.6
southern rock sole	6.4
flathead sole	6.2
sablefish	5.7
rex sole	4.4
northern rockfish	1.9
northern rock sole	1.9
giant grenadier	1.8
starry flounder	1.3
Dover sole	1.0
shortspine thornyhead	0.8
dusky rockfish	0.6
English sole	0.6
eulachon	0.4
chum salmon	0.4
butter sole	0.4

Species	CPUE (kg/ha)
Kodiak	
arrowtooth flounder	54.6
Pacific ocean perch	46.3
walleye pollock	17.8
Pacific cod	12.5
Pacific halibut	9.4
spiny dogfish	6.9
flathead sole	5.1
giant grenadier	5.0
sablefish	4.1
southern rock sole	4.0
rex sole	2.9
Pacific herring	2.9
dusky rockfish	2.7
lingcod	2.2
English sole	1.8
eulachon	1.7
starry flounder	1.3
shortspine thornyhead	1.2
Dover sole	1.2
rougheye rockfish	0.9
West Yakutat	
arrowtooth flounder	51.6
flathead sole	13.6
Pacific ocean perch	10.4
giant grenadier	8.2
Dover sole	8.2
sablefish	7.9
Pacific halibut	7.3
rex sole	6.9
Pacific herring	6.1
walleye pollock	5.0
shortraker rockfish	2.6
English sole	2.6
lingcod	2.3
shortspine thornyhead	1.7
spiny dogfish	1.7
starry flounder	1.6
eulachon	1.5
Pacific cod	1.5
silvergray rockfish	1.4
sharpchin rockfish	1.1

Species	CPUE (kg/ha)
Southeast Outside	
Pacific ocean perch	49.5
arrowtooth flounder	44.8
Pacific halibut	16.6
lingcod	11.6
silvergray rockfish	7.4
walleye pollock	5.3
sablefish	5.1
redstripe rockfish	4.6
Dover sole	3.8
sharpchin rockfish	3.3
spiny dogfish	3.2
dusky rockfish	2.9
shortspine thornyhead	2.4
flathead sole	2.4
rex sole	2.2
eulachon	1.7
shortraker rockfish	1.7
redbanded rockfish	1.3
Pacific cod	1.1
rougheye rockfish	0.9
All	
arrowtooth flounder	47.9
walleye pollock	40.3
Pacific ocean perch	27.4
Pacific cod	10.3
Pacific halibut	9.9
flathead sole	6.7
southern rock sole	5.1
sablefish	5.1
giant grenadier	4.0
rex sole	3.7
Atka mackerel	3.0
spiny dogfish	2.9
lingcod	2.7
Dover sole	2.1
Pacific herring	1.7
dusky rockfish	1.5
silvergray rockfish	1.5
shortspine thornyhead	1.4
English sole	1.2
starry flounder	1.2

arrowtooth flounder (*Atheresthes stomias*)

- Arrowtooth flounder was the most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 1,442,691 mt, which is a 21.8% increase from 2023 (Fig. **4**).
- The highest arrowtooth flounder CPUEs were recorded in the Kodiak and West Yakutat statistical areas (Table **5** and Fig. **5**).
- The largest estimated biomass for arrowtooth flounder was in the Kodiak statistical area and the depth range with the largest estimated biomass was 76 - 125 m (Table **6**).
- Historical length distributions are provided in Figure **6**. On average, the longest individuals were found in the Kodiak statistical area and in a depth range of 251 - 350 m (Fig. **7**).

Table 5. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing arrowtooth flounder, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	89	93%	3,666.3	222,369	0.587	15%
Chirikof	109	98	90%	4,854.2	322,937	0.719	22%
Kodiak	125	112	90%	5,460.6	522,560	0.789	36%
West Yakutat	43	42	98%	5,163.2	180,815	0.922	13%
Southeast Outside	58	55	95%	4,482.9	194,010	0.687	13%
All areas	**431**	**396**	**92%**	**4,790.2**	**1,442,691**	**0.733**	**100%**

Table 6. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing arrowtooth flounder, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	10	77%	1,028.7	8,166
Shumagin	51 - 125	62	60	97%	3,936.6	149,105
Shumagin	126 - 225	14	14	100%	5,319.6	48,541
Shumagin	226 - 700	7	5	71%	2,899.0	16,557
Chirikof	1 - 50	9	4	44%	44.8	437
Chirikof	51 - 150	55	51	93%	7,991.1	238,931
Chirikof	151 - 250	37	37	100%	4,058.9	72,829
Chirikof	251 - 350	4	4	100%	1,557.9	9,722
Chirikof	351 - 700	4	2	50%	377.1	1,018
Kodiak	1 - 50	12	4	33%	127.2	1,509
Kodiak	51 - 75	13	9	69%	946.7	10,345
Kodiak	76 - 125	36	35	97%	11,474.8	287,538
Kodiak	126 - 150	25	25	100%	9,369.2	113,875
Kodiak	151 - 700	39	39	100%	3,061.3	109,294
West Yakutat	1 - 50	4	4	100%	1,895.0	6,952
West Yakutat	51 - 100	4	3	75%	1,341.9	9,835
West Yakutat	101 - 175	11	11	100%	12,696.2	151,386
West Yakutat	176 - 200	11	11	100%	1,647.1	6,959
West Yakutat	201 - 700	13	13	100%	721.6	5,682
Southeast Outside	1 - 100	7	5	71%	811.2	7,280
Southeast Outside	101 - 200	32	31	97%	7,529.9	175,543
Southeast Outside	201 - 300	13	13	100%	1,590.5	9,983
Southeast Outside	301 - 700	6	6	100%	255.3	1,204

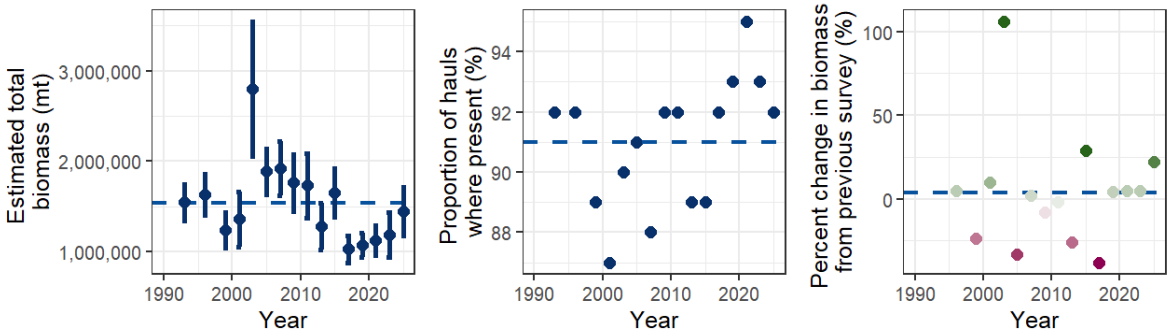


Figure 4. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of arrowtooth flounder in the GOA bottom trawl survey from 1992 to 2025. The dashed horizontal line indicates the long-term average.

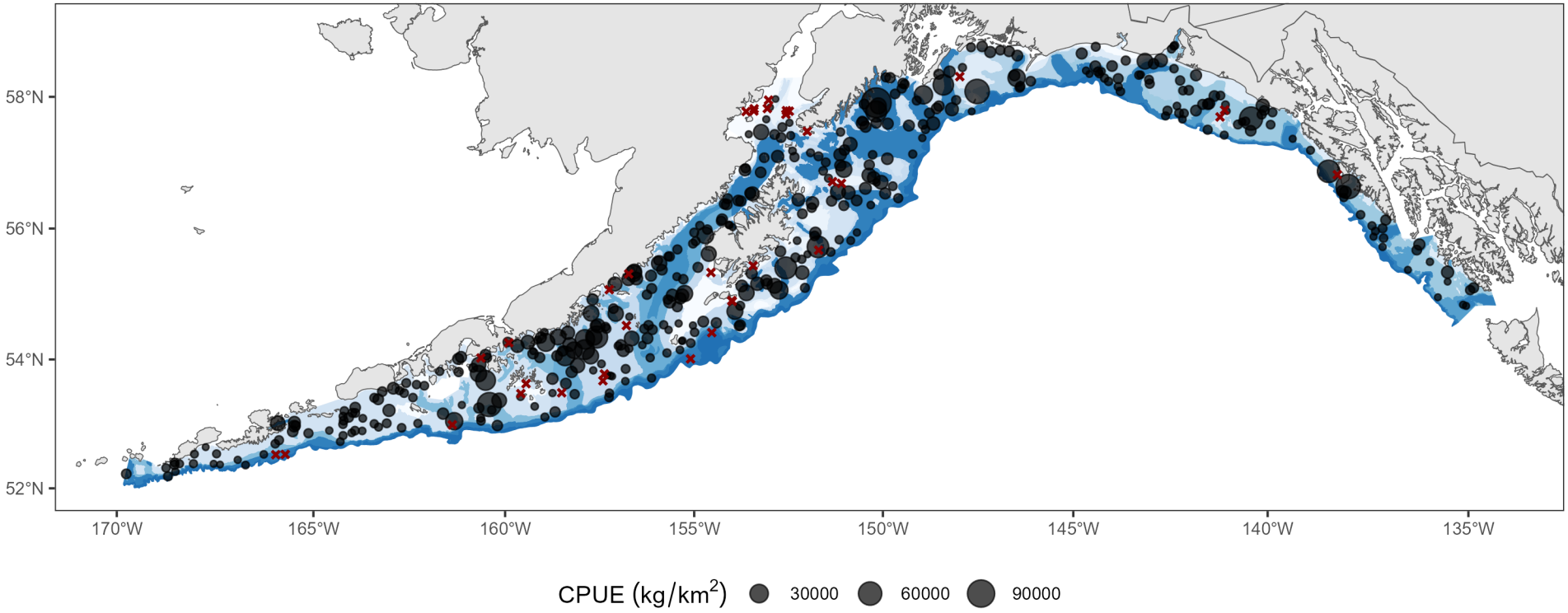


Figure 5. -- Catch per unit effort (CPUE; X = no catch) of arrowtooth flounder in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

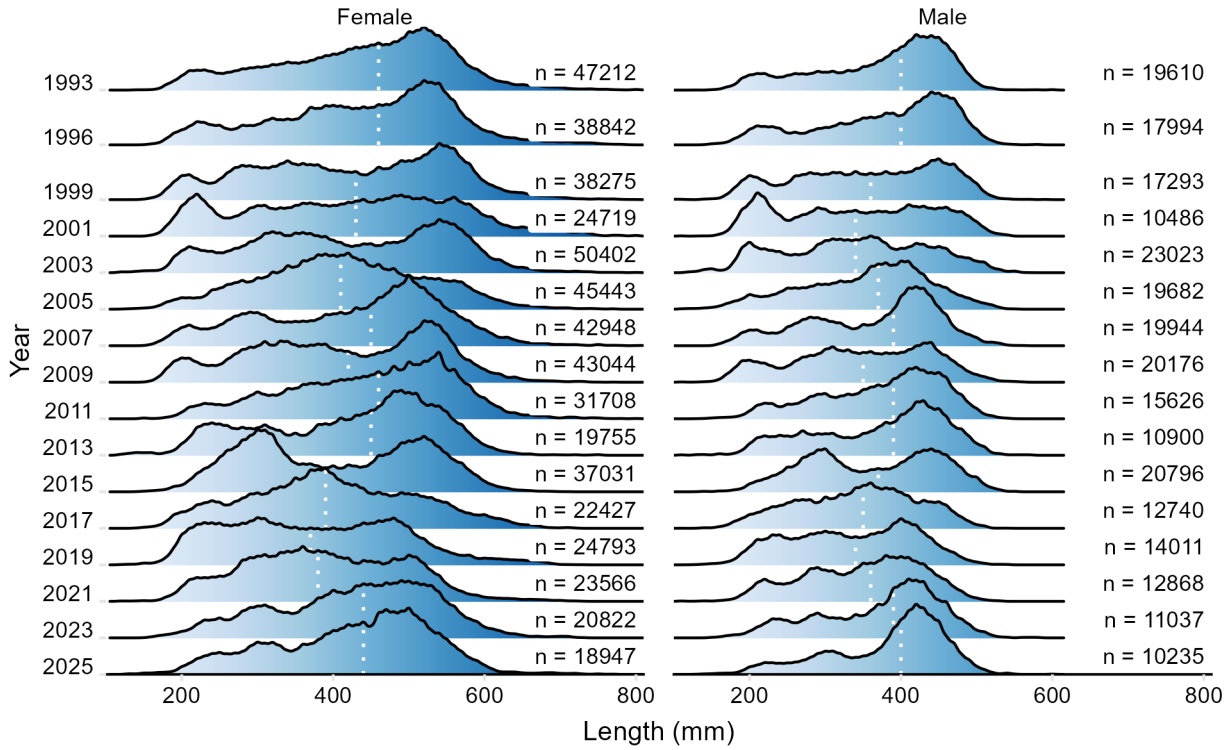


Figure 6. -- Population length composition of arrowtooth flounder in the GOA bottom trawl survey between 1992 and 2025. The dotted vertical line indicates median length.

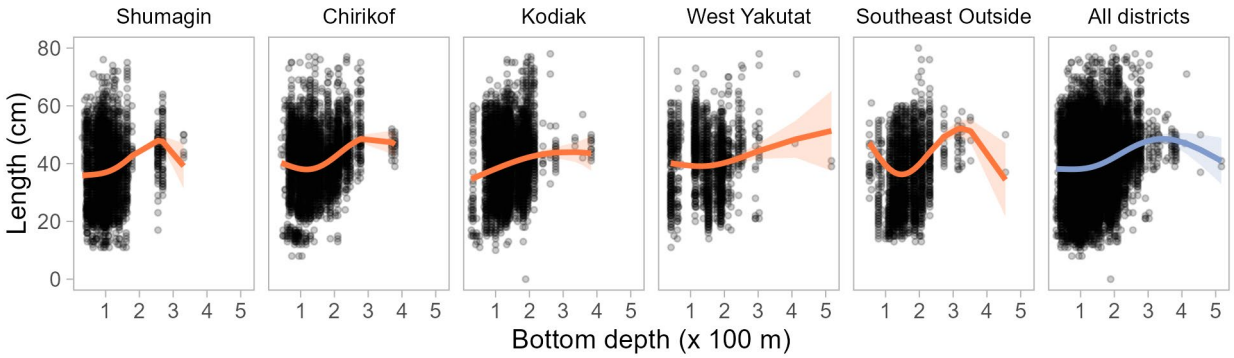


Figure 7. -- Length versus depth for arrowtooth flounder by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where arrowtooth flounder were collected.

flathead sole (*Hippoglossoides elassodon*)

- Flathead sole was the 7th most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 202,537 mt, which is a 44.7% increase from 2023 (Fig. **8**).
- The highest flathead sole CPUEs were recorded in the West Yakutat and Shumagin statistical areas (Table **7** and Fig. **9**).
- The largest estimated biomass for flathead sole was in the Shumagin statistical area and the depth range with the largest estimated biomass was 51 – 125 m (Table **8**).
- Historical length distributions are provided in Figure **10**. On average, the longest individuals were found in the West Yakutat statistical area and in a depth range of 51 - 75 m (Fig. **11**).

Table 7. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing flathead sole, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	64	67%	900.5	54,618	0.25	27%
Chirikof	109	85	78%	623.9	41,510	0.262	20%
Kodiak	125	84	67%	507.0	48,517	0.322	24%
West Yakutat	43	23	53%	1,361.7	47,685	0.556	24%
Southeast Outside	58	21	36%	235.8	10,207	0.242	5%
All areas	**431**	**277**	**64%**	**672.5**	**202,537**	**0.309**	**100%**

Table 8. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing flathead sole, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	5	38%	86.0	683
Shumagin	51 - 125	62	48	77%	1,129.5	42,782
Shumagin	126 - 225	14	10	71%	1,057.2	9,647
Shumagin	226 - 700	7	1	14%	263.7	1,506
Chirikof	1 - 50	9	2	22%	121.3	1,182
Chirikof	51 - 150	55	45	82%	916.4	27,400
Chirikof	151 - 250	37	34	92%	496.9	8,915
Chirikof	251 - 350	4	4	100%	643.0	4,013
Kodiak	1 - 50	12	7	58%	43.8	519
Kodiak	51 - 75	13	3	23%	328.5	3,589
Kodiak	76 - 125	36	28	78%	693.6	17,381
Kodiak	126 - 150	25	19	76%	868.7	10,559
Kodiak	151 - 700	39	27	69%	461.3	16,469
West Yakutat	1 - 50	4	4	100%	1,038.8	3,811
West Yakutat	51 - 100	4	2	50%	587.1	4,303
West Yakutat	101 - 175	11	8	73%	3,297.3	39,316
West Yakutat	176 - 200	11	3	27%	4.6	19
West Yakutat	201 - 700	13	6	46%	30.0	236
Southeast Outside	1 - 100	7	4	57%	1,070.8	9,609
Southeast Outside	101 - 200	32	13	41%	10.4	243
Southeast Outside	201 - 300	13	4	31%	56.4	354

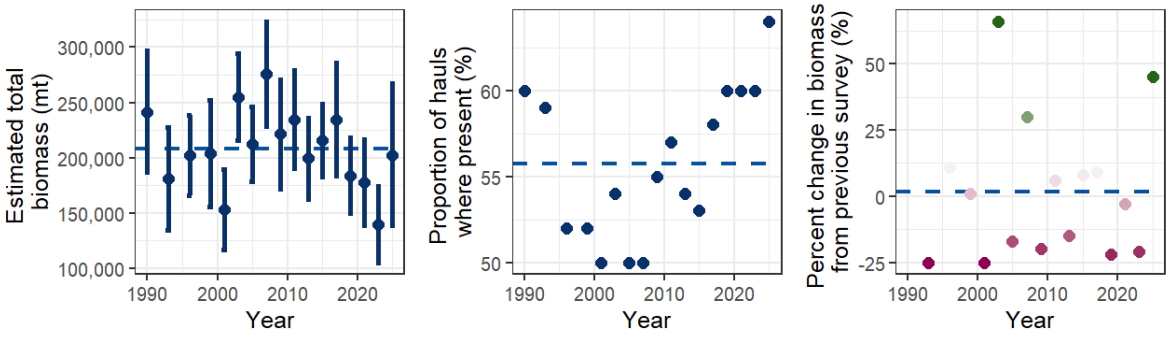


Figure 8. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of flathead sole in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

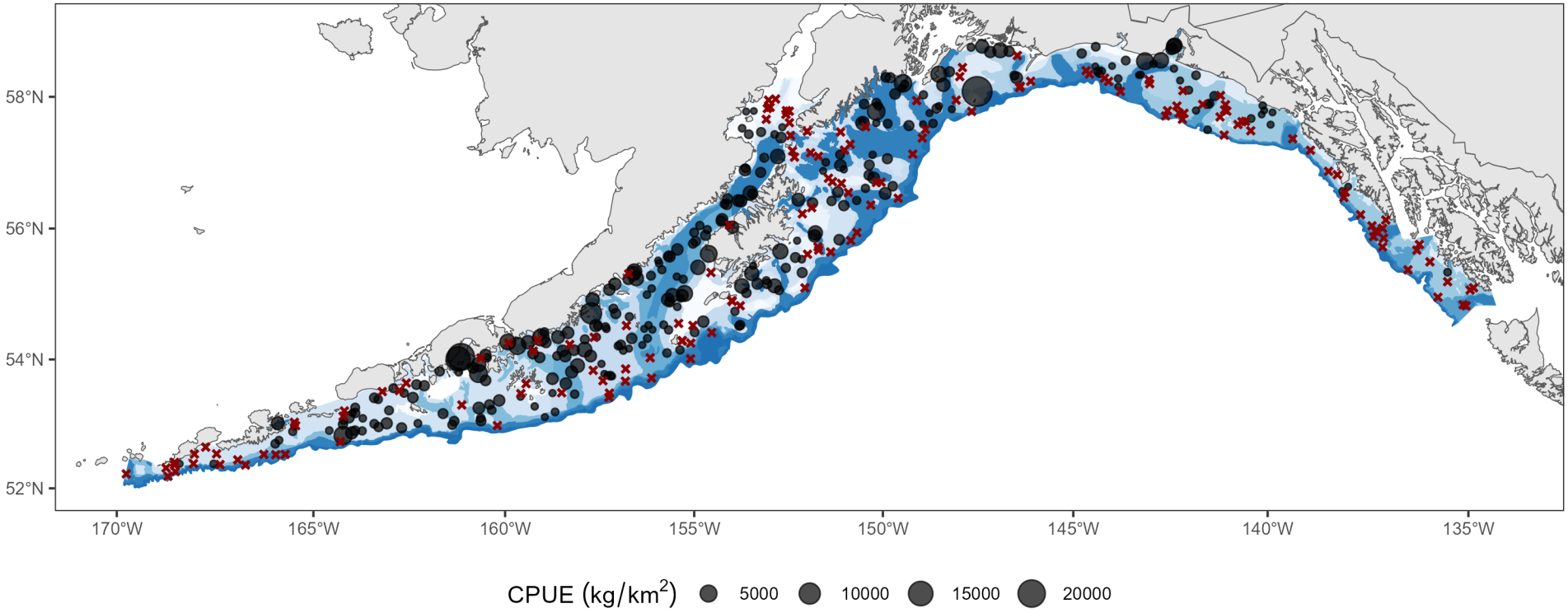


Figure 9. -- Catch per unit effort (CPUE; X = no catch) of flathead sole in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

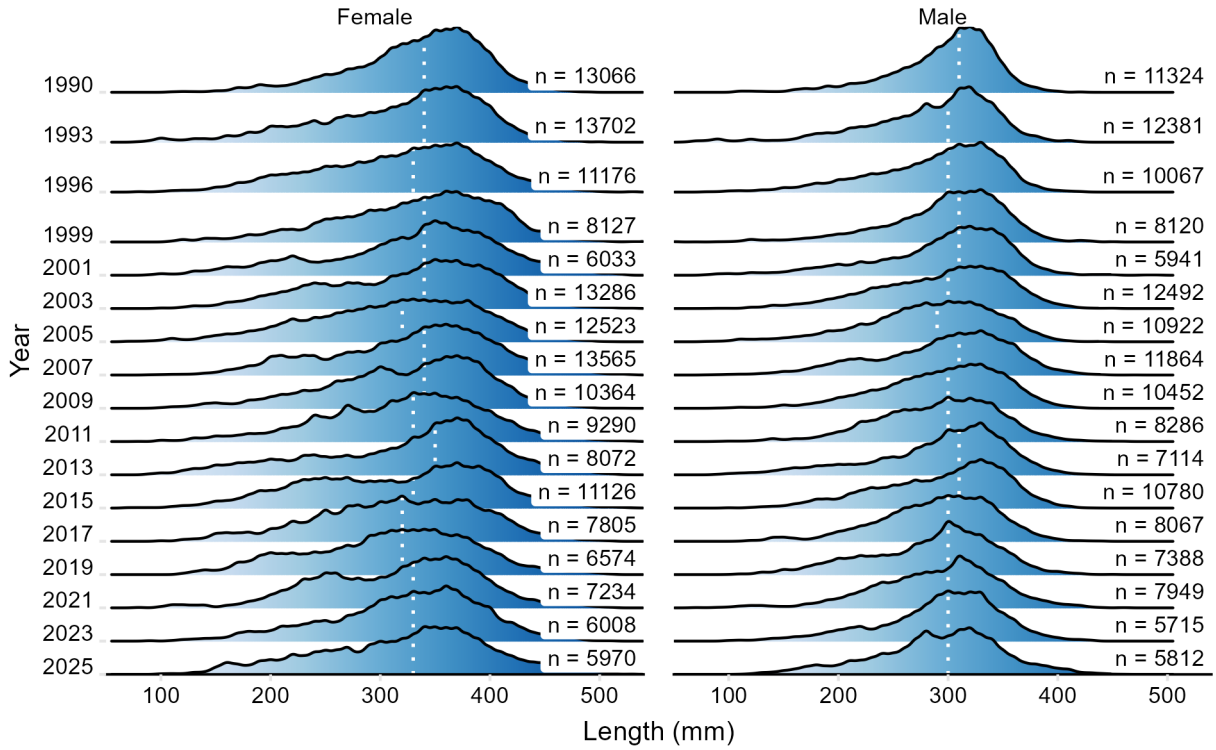


Figure 10. -- Population length composition of flathead sole in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

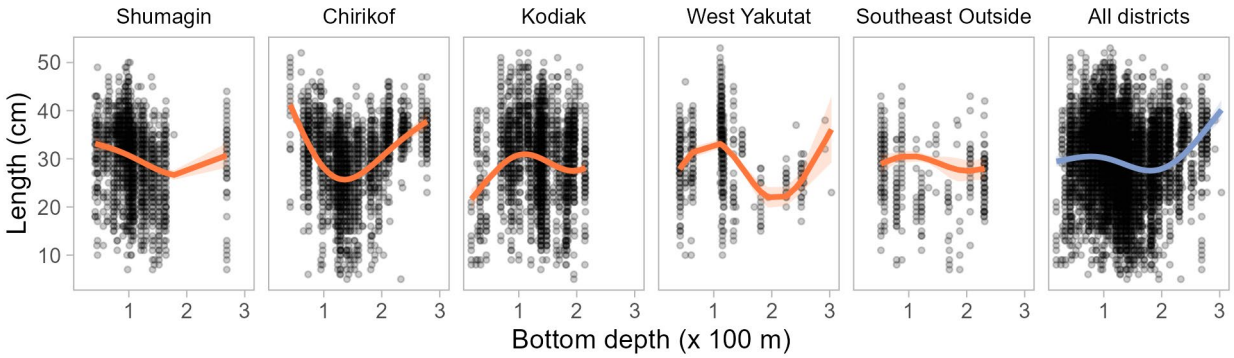


Figure 11. -- Length versus depth for flathead sole by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where flathead sole were collected.

rex sole (*Glyptocephalus zachirus*)

- Rex sole was the 13th most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 112,824 mt, which is a 22.6% increase from 2023 (Fig. **12**).
- The highest rex sole CPUEs were recorded in the West Yakutat and Chirikof statistical areas (Table **9** and Fig. **13**).
- The largest estimated biomass for rex sole was in the Chirikof statistical area and the depth range with the largest estimated biomass was 101 – 175 m (Table **10**).
- Historical length distributions are provided in Figure **14**. On average, the longest individuals were found in the Shumagin statistical area and in a depth range of 226 - 700 m (Fig. **15**).

Table 9. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing rex sole, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	54	56%	364.4	22,099	0.521	20%
Chirikof	109	82	75%	436.9	29,069	0.431	26%
Kodiak	125	83	66%	290.7	27,820	0.377	25%
West Yakutat	43	39	91%	692.4	24,249	0.242	21%
Southeast Outside	58	46	79%	221.5	9,587	0.204	8%
All areas	**431**	**304**	**71%**	**374.6**	**112,824**	**0.341**	**100%**

Table 10. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing rex sole, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	35	56%	229.3	8,687
Shumagin	126 - 225	14	12	86%	1,165.7	10,637
Shumagin	226 - 700	7	7	100%	486.0	2,775
Chirikof	51 - 150	55	39	71%	436.1	13,040
Chirikof	151 - 250	37	36	97%	699.3	12,547
Chirikof	251 - 350	4	4	100%	530.9	3,313
Chirikof	351 - 700	4	3	75%	62.6	169
Kodiak	51 - 75	13	3	23%	24.7	270
Kodiak	76 - 125	36	21	58%	343.6	8,609
Kodiak	126 - 150	25	23	92%	624.2	7,587
Kodiak	151 - 700	39	36	92%	318.0	11,355
West Yakutat	1 - 50	4	4	100%	569.7	2,090
West Yakutat	51 - 100	4	2	50%	107.9	791
West Yakutat	101 - 175	11	11	100%	1,402.9	16,728
West Yakutat	176 - 200	11	9	82%	225.1	951
West Yakutat	201 - 700	13	13	100%	468.5	3,689
Southeast Outside	1 - 100	7	3	43%	53.8	483
Southeast Outside	101 - 200	32	25	78%	190.7	4,445
Southeast Outside	201 - 300	13	12	92%	416.8	2,616
Southeast Outside	301 - 700	6	6	100%	433.5	2,044

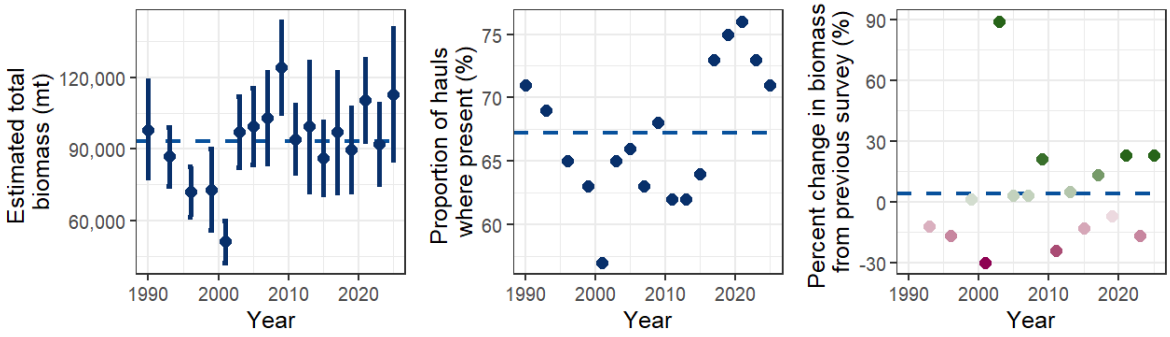


Figure 12. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of rex sole in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

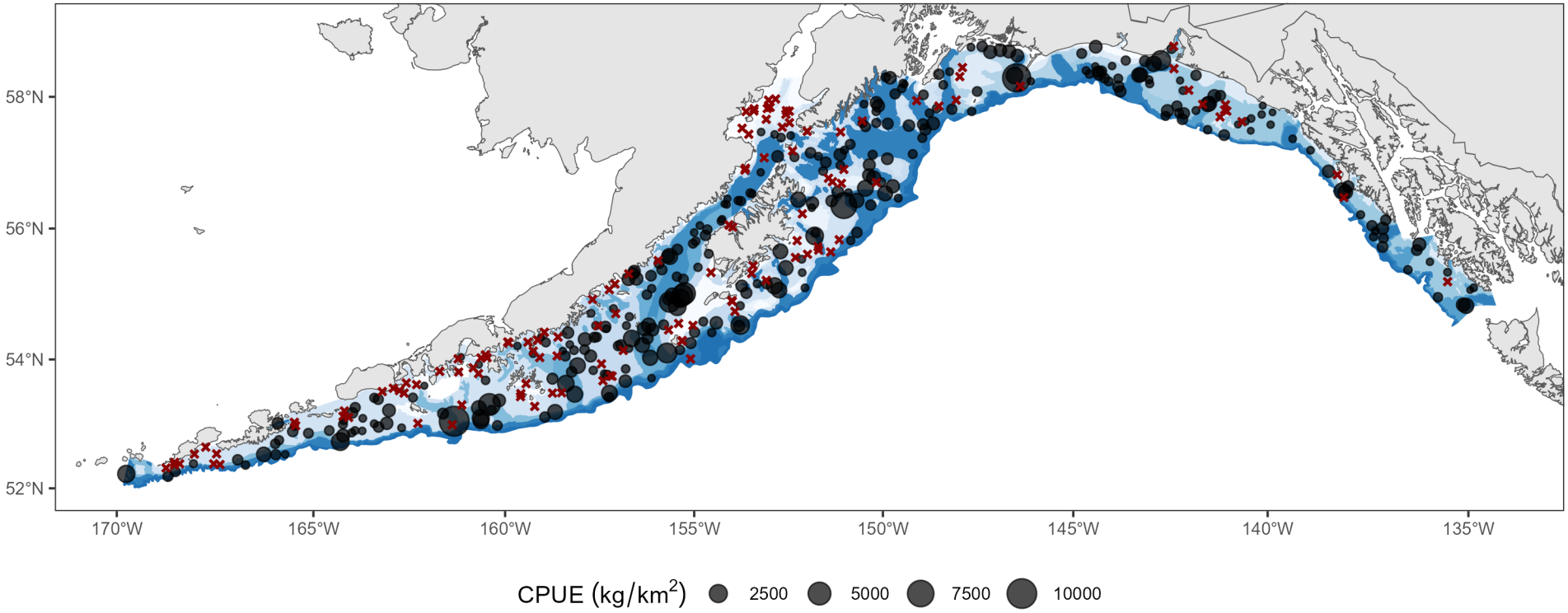


Figure 13. -- Catch per unit effort (CPUE; X = no catch) of rex sole in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

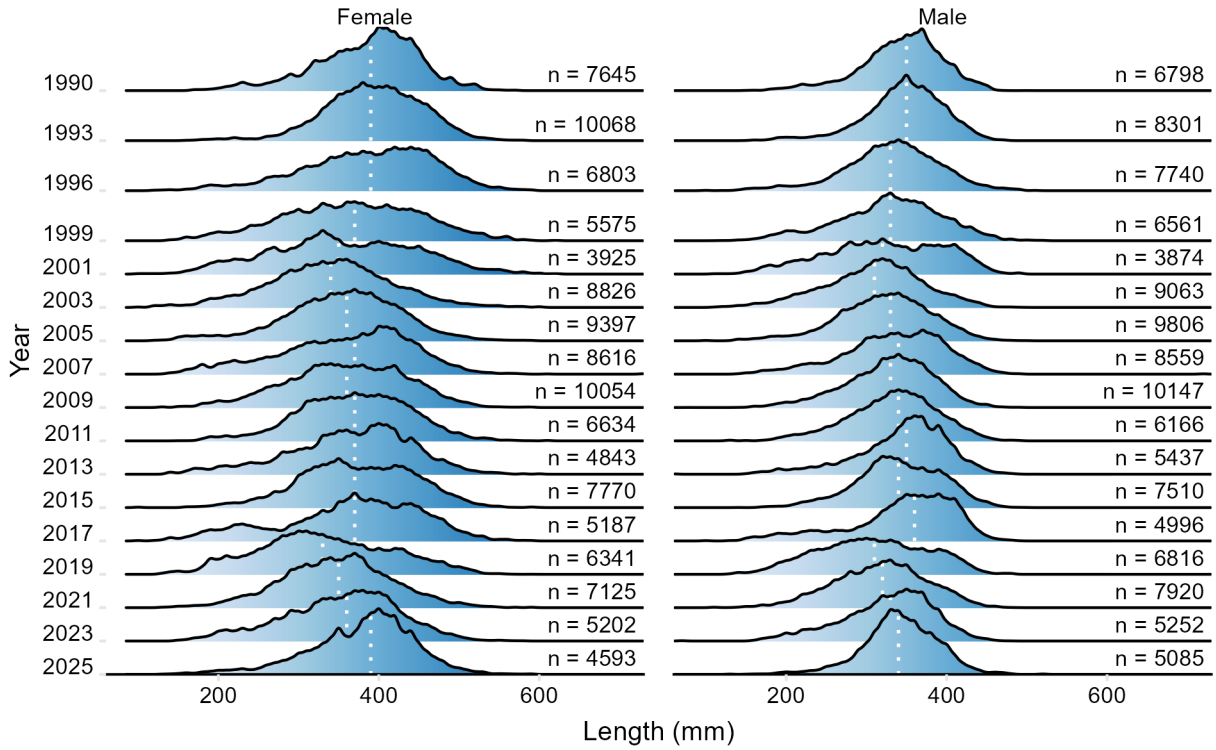


Figure 14. -- Population length composition of rex sole in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

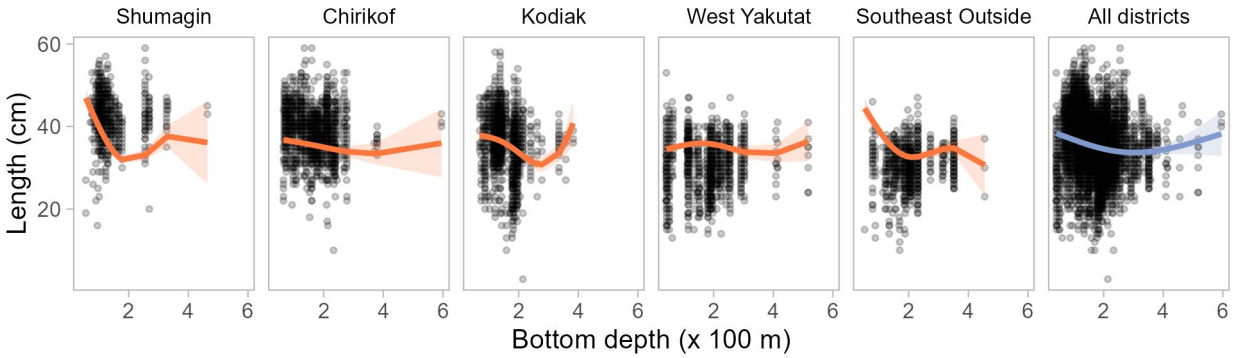


Figure 15. -- Length versus depth for rex sole by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where rex sole were collected.

Pacific cod (*Gadus macrocephalus*)

- Pacific cod was the 4th most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 309,761 mt, which is a 39.2% increase from 2023 (Fig. **16**).
- The highest Pacific cod CPUEs were recorded in the Chirikof and Kodiak statistical areas (Table **11** and Fig. **17**).
- The largest estimated biomass for Pacific cod was in the Chirikof statistical area and the depth range with the largest estimated biomass was 1 - 50 m (Table **12**).
- Historical length distributions are provided in Figure **18**. On average, the longest individuals were found in the West Yakutat statistical area and in a depth range of 226 - 700 m (Fig. **19**).

Table 11. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing Pacific cod, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	81	84%	981.0	59,500	1.195	19%
Chirikof	109	84	77%	1,816.8	120,868	1.743	39%
Kodiak	125	94	75%	1,248.3	119,463	1.856	39%
West Yakutat	43	10	23%	152.3	5,332	2.511	2%
Southeast Outside	58	21	36%	106.2	4,597	2.057	1%
All areas	**431**	**290**	**67%**	**1,028.5**	**309,761**	**1.649**	**100%**

Table 12. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing Pacific cod, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	12	92%	1,189.7	9,445
Shumagin	51 - 125	62	58	94%	1,232.3	46,674
Shumagin	126 - 225	14	10	71%	326.2	2,977
Shumagin	226 - 700	7	1	14%	70.9	405
Chirikof	1 - 50	9	6	67%	7,292.6	71,069
Chirikof	51 - 150	55	50	91%	1,285.0	38,422
Chirikof	151 - 250	37	24	65%	454.7	8,158
Chirikof	251 - 350	4	4	100%	515.6	3,218
Kodiak	1 - 50	12	8	67%	237.4	2,815
Kodiak	51 - 75	13	13	100%	1,842.3	20,130
Kodiak	76 - 125	36	31	86%	1,433.8	35,928
Kodiak	126 - 150	25	21	84%	3,566.4	43,346
Kodiak	151 - 700	39	21	54%	483.0	17,245
West Yakutat	1 - 50	4	3	75%	376.9	1,383
West Yakutat	51 - 100	4	2	50%	287.6	2,108
West Yakutat	101 - 175	11	2	18%	130.1	1,552
West Yakutat	176 - 200	11	2	18%	40.8	172
West Yakutat	201 - 700	13	1	8%	15.0	118
Southeast Outside	1 - 100	7	4	57%	106.2	953
Southeast Outside	101 - 200	32	11	34%	117.1	2,730
Southeast Outside	201 - 300	13	6	46%	145.6	914

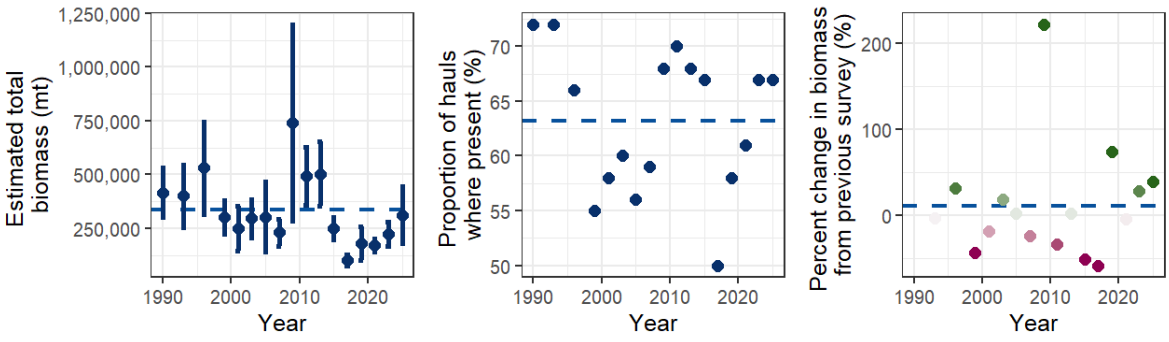


Figure 16. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of Pacific cod in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

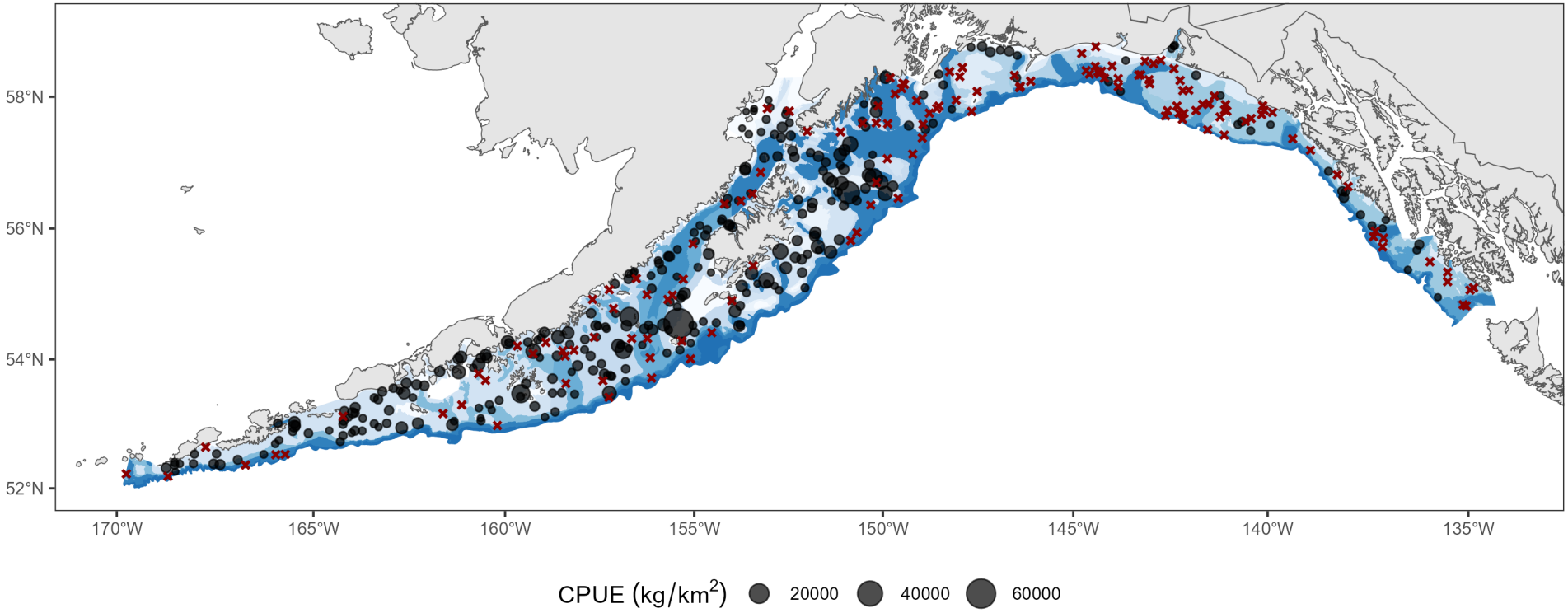


Figure 17. -- Catch per unit effort (CPUE; X = no catch) of Pacific cod in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

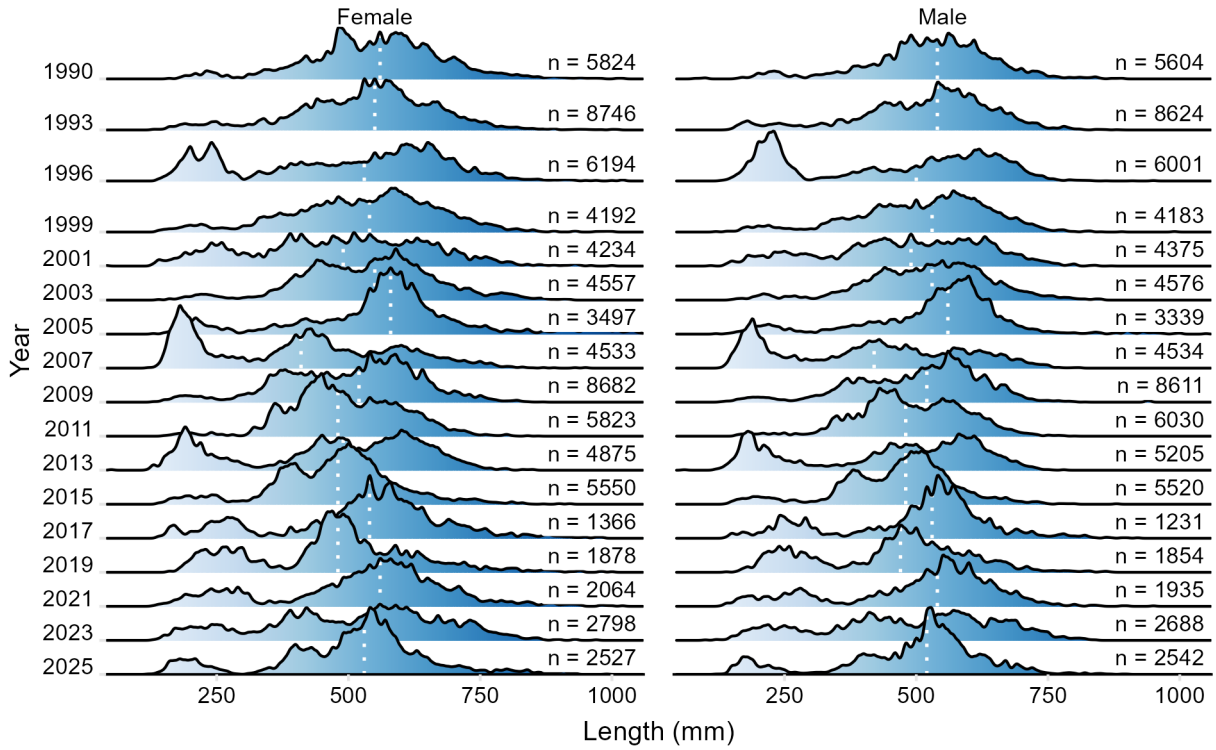


Figure 18. -- Population length composition of Pacific cod in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

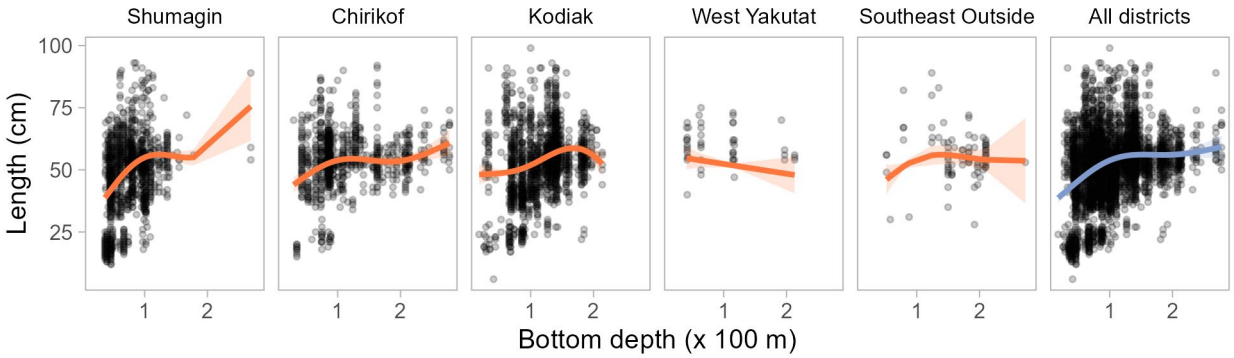


Figure 19. -- Length versus depth for Pacific cod by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where Pacific cod were collected.

walleye pollock (*Gadus chalcogrammus*)

- Walleye pollock was the 2nd most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 1,213,755 mt, which is a 32.1% increase from 2023 (Fig. **20**).
- The highest walleye pollock CPUEs were recorded in the Shumagin and Chirikof statistical areas (Table **13** and Fig. **21**).
- The largest estimated biomass for walleye pollock was in the Shumagin statistical area and the depth range with the largest estimated biomass was 51 – 125 m (Table **14**).
- Historical length distributions are provided in Figure **22**. On average, the longest individuals were found in the Chirikof statistical area and in a depth range of 226 - 700 m (Fig. **23**).

Table 13. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing walleye pollock, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	80	83%	12,846.1	779,138	0.664	64%
Chirikof	109	81	74%	3,355.8	223,256	0.833	18%
Kodiak	125	106	85%	1,784.1	170,736	0.574	14%
West Yakutat	43	39	91%	499.5	17,494	0.23	1%
Southeast Outside	58	43	74%	534.5	23,131	0.261	2%
All areas	**431**	**349**	**81%**	**4,030.1**	**1,213,755**	**0.638**	**100%**

Table 14. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing walleye pollock, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	9	69%	708.0	5,621
Shumagin	51 - 125	62	54	87%	18,903.2	715,999
Shumagin	126 - 225	14	13	93%	5,651.0	51,565
Shumagin	226 - 700	7	4	57%	1,042.4	5,954
Chirikof	51 - 150	55	42	76%	6,656.2	199,020
Chirikof	151 - 250	37	34	92%	1,229.4	22,059
Chirikof	251 - 350	4	4	100%	333.8	2,083
Chirikof	351 - 700	4	1	25%	35.0	95
Kodiak	1 - 50	12	7	58%	68.3	810
Kodiak	51 - 75	13	8	62%	1,474.5	16,111
Kodiak	76 - 125	36	30	83%	3,248.6	81,405
Kodiak	126 - 150	25	24	96%	2,453.4	29,819
Kodiak	151 - 700	39	37	95%	1,193.0	42,591
West Yakutat	1 - 50	4	4	100%	347.4	1,275
West Yakutat	51 - 100	4	3	75%	252.1	1,848
West Yakutat	101 - 175	11	10	91%	255.7	3,049
West Yakutat	176 - 200	11	11	100%	375.2	1,585
West Yakutat	201 - 700	13	11	85%	1,236.8	9,738
Southeast Outside	1 - 100	7	4	57%	634.9	5,697
Southeast Outside	101 - 200	32	25	78%	456.8	10,649
Southeast Outside	201 - 300	13	13	100%	1,078.3	6,768
Southeast Outside	301 - 700	6	1	17%	3.5	16

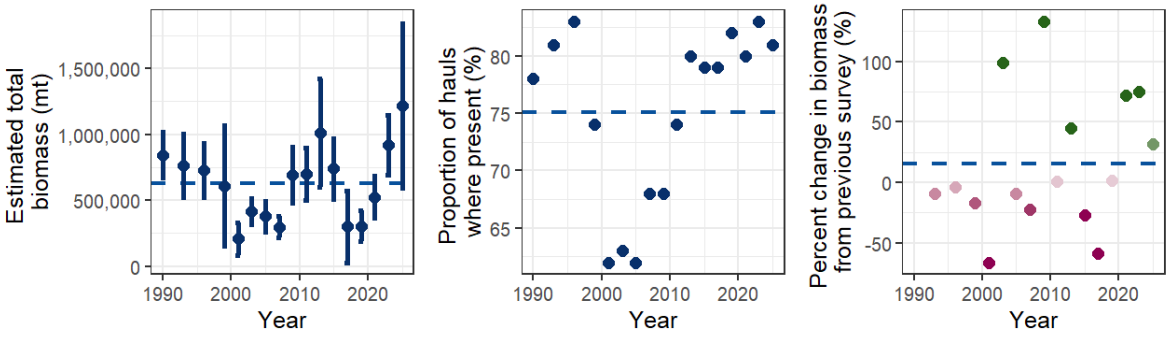


Figure 20. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of walleye pollock in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

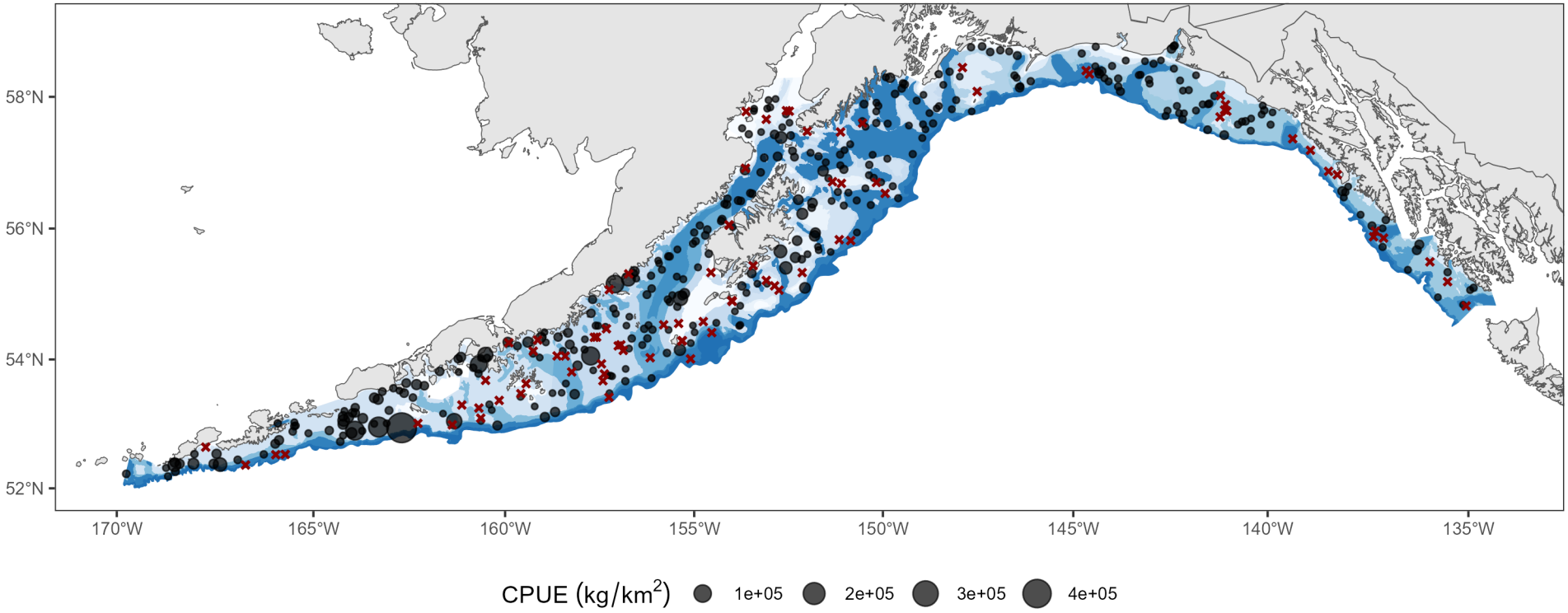


Figure 21. -- Catch per unit effort (CPUE; X = no catch) of walleye pollock in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

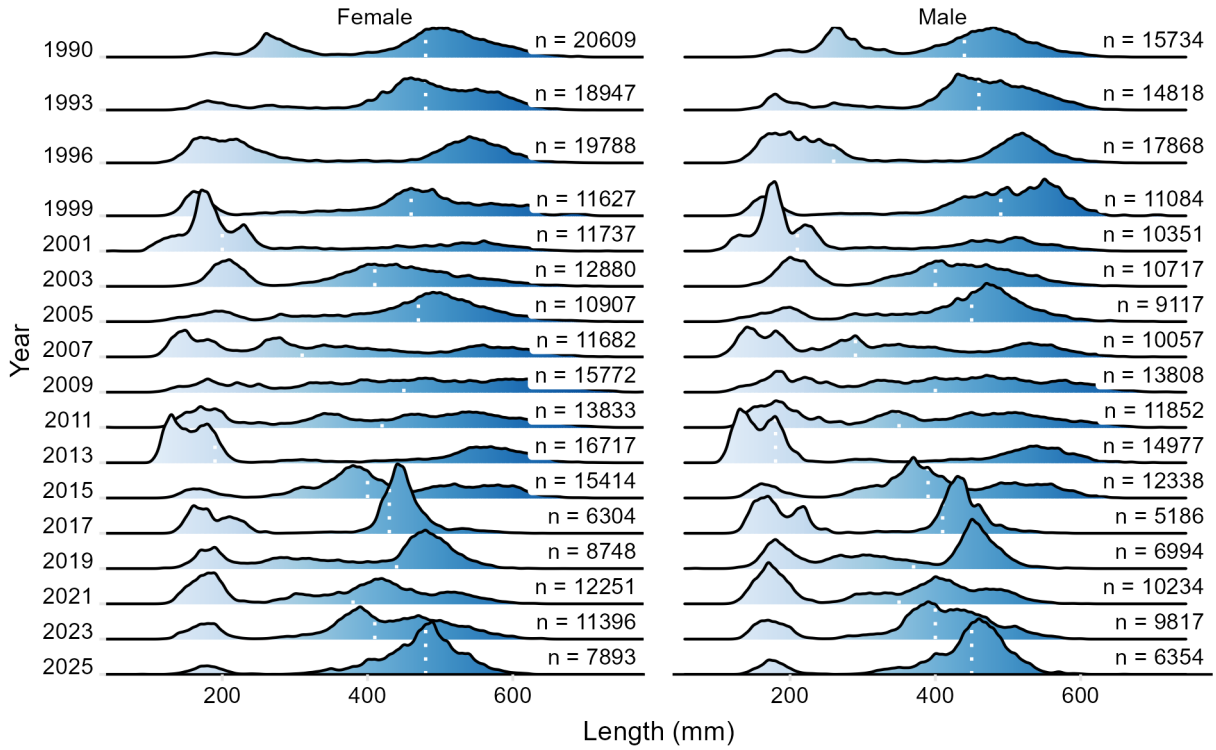


Figure 22. -- Population length composition of walleye pollock in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

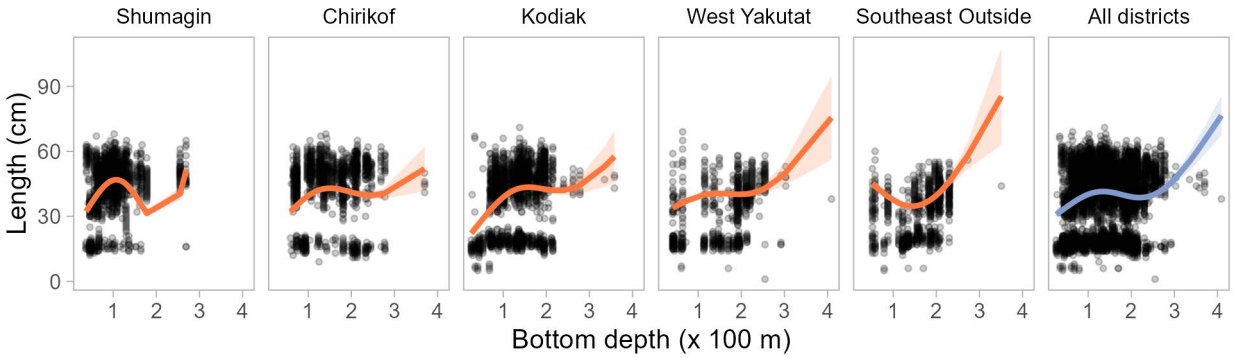


Figure 23. -- Length versus depth for walleye pollock by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where walleye pollock were collected.

Atka mackerel (*Pleurogrammus monopterygius*)

- Atka mackerel was the 15th most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 89,117 mt, which is a 16.3% increase from 2023 (Fig. **24**).
- The highest Atka mackerel CPUEs were recorded in the Shumagin and Chirikof statistical areas (Table **15** and Fig. **25**).
- The largest estimated biomass for Atka mackerel was in the Shumagin statistical area and the depth range with the largest estimated biomass was 51 - 125 m (Table **16**).
- Historical length distributions are provided in Figure **26**. On average, the longest individuals were found in the Chirikof statistical area and in a depth range of 51 - 150 m (Fig. **27**).

Table 15. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing Atka mackerel, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	33	34%	1,416.0	85,883	0.968	96%
Chirikof	109	26	24%	28.9	1,922	0.944	2%
Kodiak	125	16	13%	13.6	1,298	0.856	1%
West Yakutat	43	0	0%	0.0	0	--	0%
Southeast Outside	58	1	2%	0.3	14	0.728	0%
All areas	**431**	**76**	**18%**	**295.9**	**89,117**	**0.966**	**100%**

Table 16. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing Atka mackerel, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	1	8%	1.8	14
Shumagin	51 - 125	62	25	40%	2,251.7	85,289
Shumagin	126 - 225	14	5	36%	56.5	516
Shumagin	226 - 700	7	2	29%	11.3	64
Chirikof	51 - 150	55	13	24%	38.3	1,145
Chirikof	151 - 250	37	12	32%	40.2	721
Chirikof	251 - 350	4	1	25%	9.0	56
Kodiak	76 - 125	36	2	6%	2.2	54
Kodiak	126 - 150	25	6	24%	20.8	253
Kodiak	151 - 700	39	8	21%	27.8	991
Southeast Outside	201 - 300	13	1	8%	2.3	14

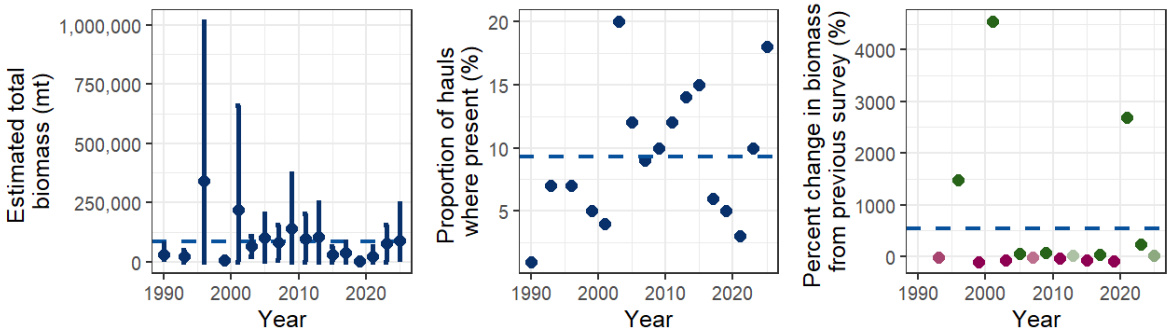


Figure 24. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of Atka mackerel in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

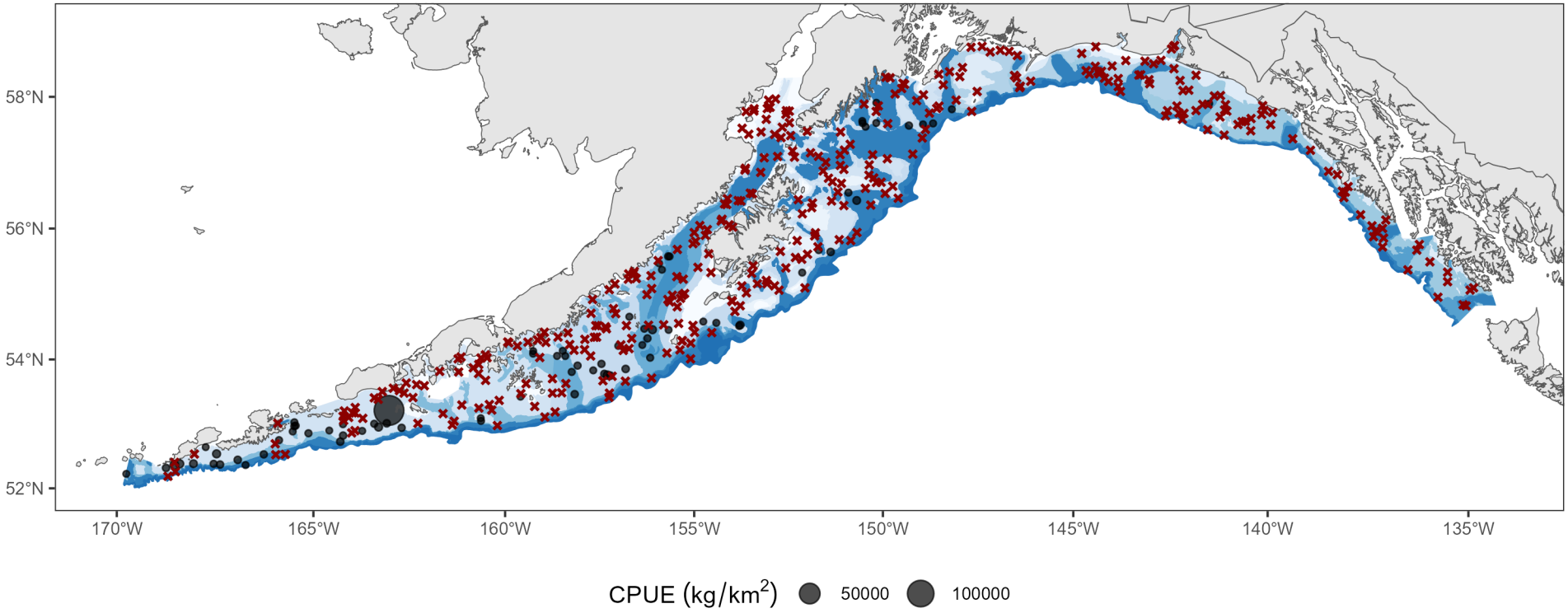


Figure 25. -- Catch per unit effort (CPUE; X = no catch) of Atka mackerel in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

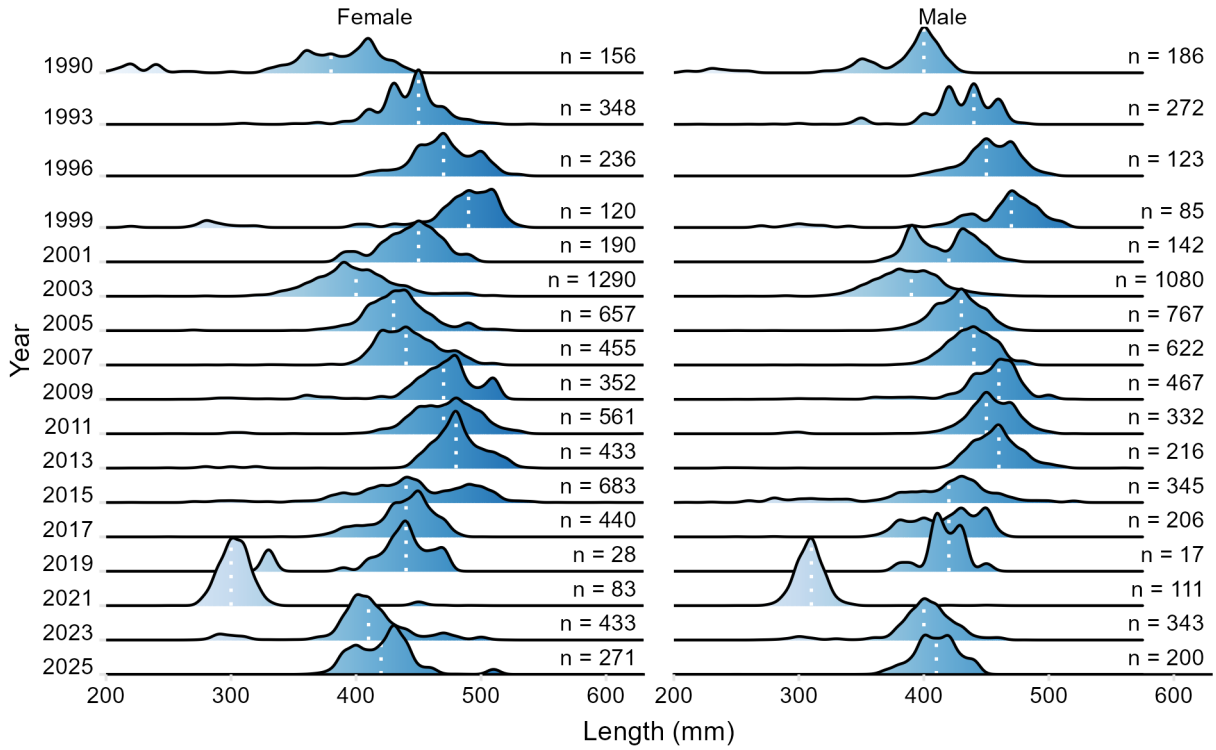


Figure 26. -- Population length composition of Atka mackerel in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

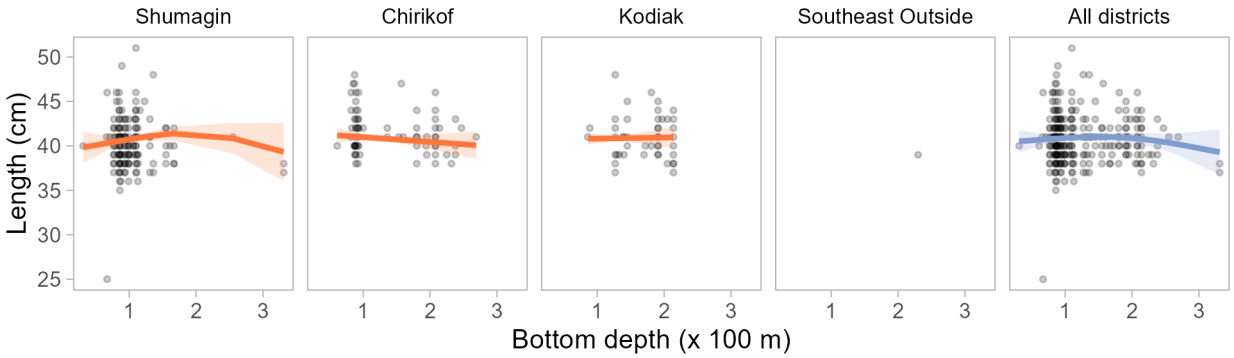


Figure 27. -- Length versus depth for Atka mackerel by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where Atka mackerel were collected.

sablefish (*Anoplopoma fimbria*)

- Sablefish was the 10th most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 152,655 mt, which is a 21.3% decrease from 2023 (Fig. **28**).
- The highest sablefish CPUEs were recorded in the West Yakutat and Chirikof statistical areas (Table **17** and Fig. **29**).
- The largest estimated biomass for sablefish was in the Kodiak statistical area and the depth range with the largest estimated biomass was 151 - 700 m (Table **18**).
- Historical length distributions are provided in Figure **30**. On average, the longest individuals were found in the West Yakutat statistical area and in a depth range of 201 - 700 m (Fig. **31**).

Table 17. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing sablefish, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	12	12%	425.4	25,803	1.324	17%
Chirikof	109	45	41%	565.1	37,597	1.822	25%
Kodiak	125	57	46%	411.8	39,412	1.75	26%
West Yakutat	43	31	72%	786.9	27,557	2.159	18%
Southeast Outside	58	34	59%	514.9	22,286	2.146	15%
All areas	**431**	**179**	**42%**	**506.9**	**152,655**	**1.779**	**100%**

Table 18. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing sablefish, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	1	8%	2.9	23
Shumagin	51 - 125	62	2	3%	0.8	30
Shumagin	126 - 225	14	2	14%	58.6	535
Shumagin	226 - 700	7	7	100%	4,415.0	25,215
Chirikof	1 - 50	9	1	11%	3.8	37
Chirikof	51 - 150	55	6	11%	42.2	1,262
Chirikof	151 - 250	37	30	81%	577.5	10,363
Chirikof	251 - 350	4	4	100%	842.8	5,260
Chirikof	351 - 700	4	4	100%	7,661.2	20,676
Kodiak	1 - 50	12	1	8%	2.1	25
Kodiak	76 - 125	36	6	17%	17.6	442
Kodiak	126 - 150	25	15	60%	296.7	3,607
Kodiak	151 - 700	39	35	90%	989.8	35,338
West Yakutat	1 - 50	4	1	25%	7.5	28
West Yakutat	101 - 175	11	7	64%	66.8	796
West Yakutat	176 - 200	11	10	91%	216.7	916
West Yakutat	201 - 700	13	13	100%	3,279.1	25,818
Southeast Outside	1 - 100	7	1	14%	5.0	45
Southeast Outside	101 - 200	32	16	50%	119.3	2,781
Southeast Outside	201 - 300	13	11	85%	543.3	3,410
Southeast Outside	301 - 700	6	6	100%	3,404.3	16,049

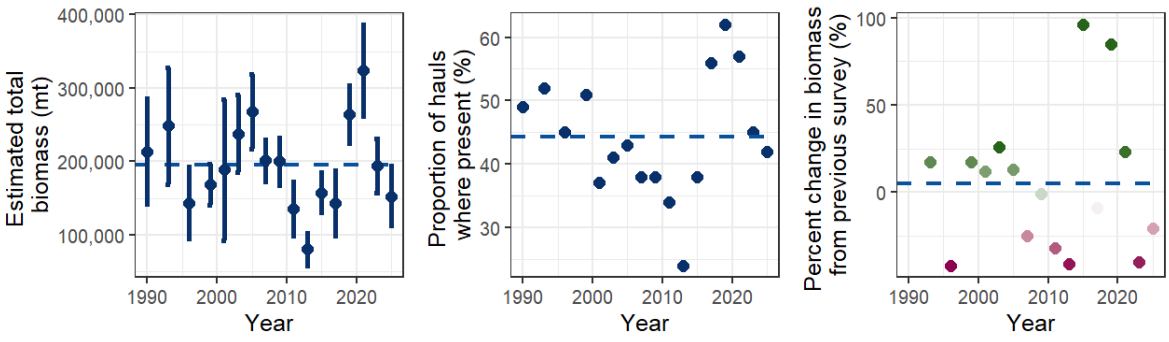


Figure 28. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of sablefish in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

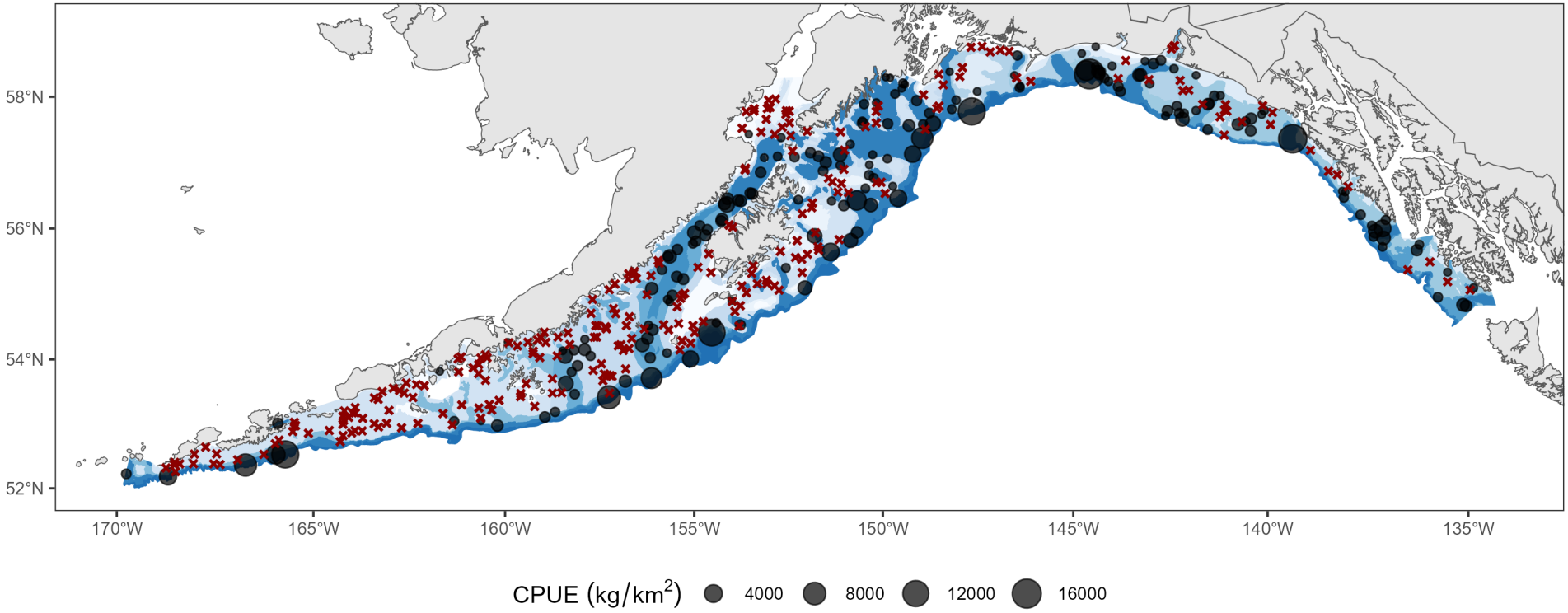


Figure 29. -- Catch per unit effort (CPUE; X = no catch) of sablefish in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

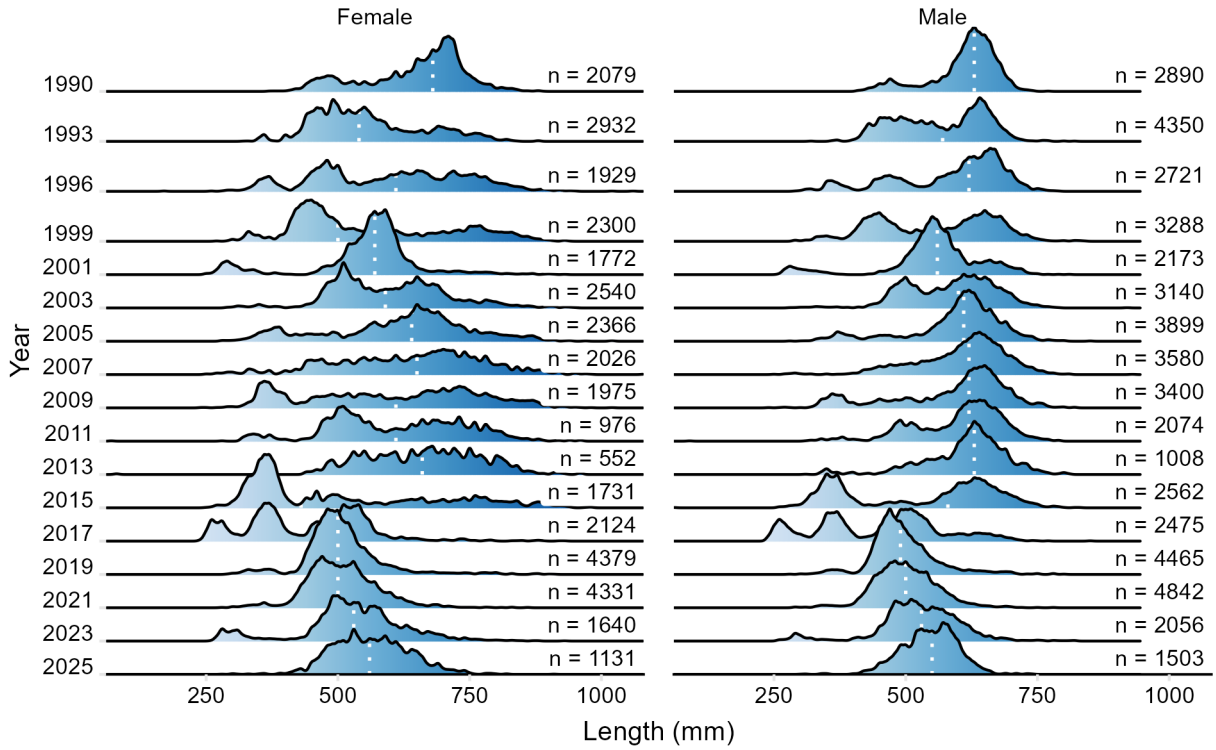


Figure 30. -- Population length composition of sablefish in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

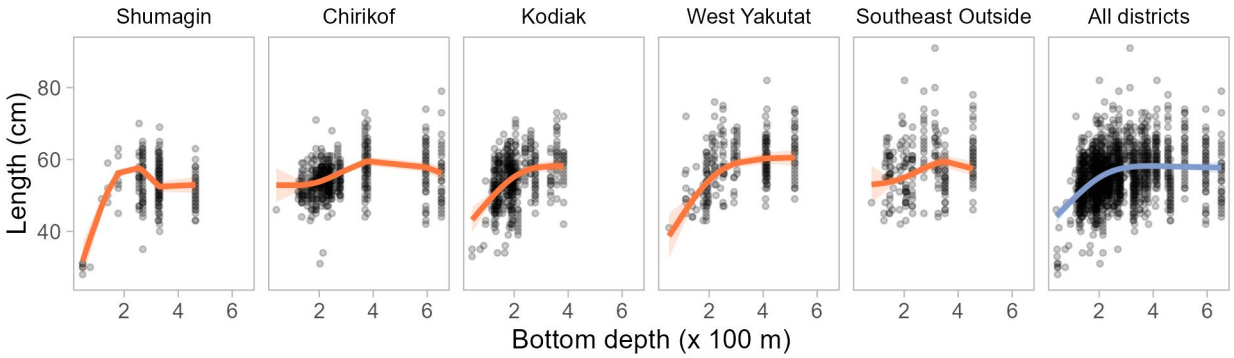


Figure 31. -- Length versus depth for sablefish by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where sablefish were collected.

Pacific ocean perch (*Sebastes alutus*)

- Pacific ocean perch was the 3rd most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 824,335 mt, which is a 46.4% decrease from 2023 (Fig. **32**).
- The highest Pacific ocean perch CPUEs were recorded in the Southeast Outside and Kodiak statistical areas (Table **19** and Fig. **33**).
- The largest estimated biomass for Pacific ocean perch was in the Kodiak statistical area and the depth range with the largest estimated biomass was 151 - 700 m (Table **20**).
- Historical length distributions are provided in Figure **34**. On average, the longest individuals were found in the Chirikof statistical area and in a depth range of 301 - 700 m (Fig. **35**).

Table 19. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing Pacific ocean perch, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	21	22%	339.0	20,564	0.632	2%
Chirikof	109	37	34%	1,649.1	109,712	0.74	13%
Kodiak	125	58	46%	4,631.3	443,199	0.788	54%
West Yakutat	43	25	58%	1,044.0	36,561	0.443	4%
Southeast Outside	58	39	67%	4,951.7	214,299	0.69	26%
All areas	**431**	**180**	**42%**	**2,737.1**	**824,335**	**0.725**	**100%**

Table 20. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing Pacific ocean perch, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	8	13%	79.7	3,017
Shumagin	126 - 225	14	7	50%	318.7	2,908
Shumagin	226 - 700	7	6	86%	2,563.1	14,638
Chirikof	51 - 150	55	12	22%	494.5	14,785
Chirikof	151 - 250	37	24	65%	5,289.5	94,909
Chirikof	351 - 700	4	1	25%	6.8	18
Kodiak	51 - 75	13	2	15%	252.7	2,762
Kodiak	76 - 125	36	9	25%	5,719.3	143,316
Kodiak	126 - 150	25	16	64%	5,423.9	65,923
Kodiak	151 - 700	39	31	79%	6,475.9	231,199
West Yakutat	101 - 175	11	4	36%	214.5	2,558
West Yakutat	176 - 200	11	10	91%	1,691.5	7,146
West Yakutat	201 - 700	13	11	85%	3,411.1	26,857
Southeast Outside	101 - 200	32	21	66%	1,442.6	33,631
Southeast Outside	201 - 300	13	13	100%	5,490.6	34,463
Southeast Outside	301 - 700	6	5	83%	31,012.4	146,205

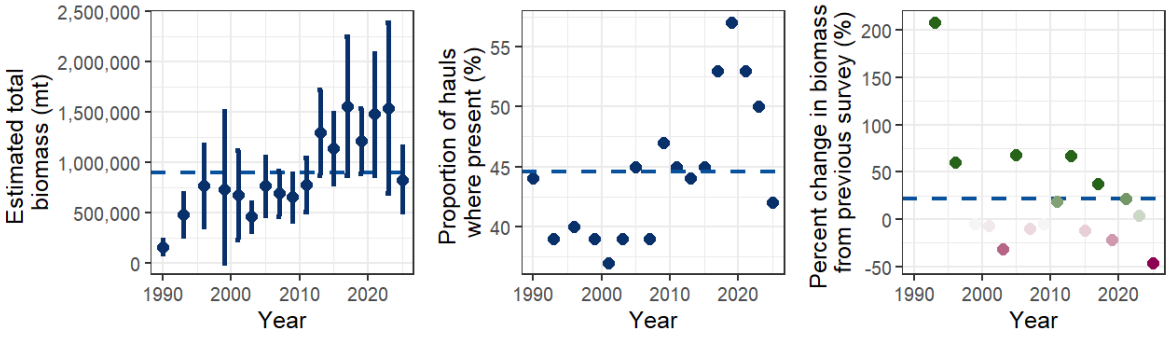


Figure 32. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of Pacific ocean perch in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

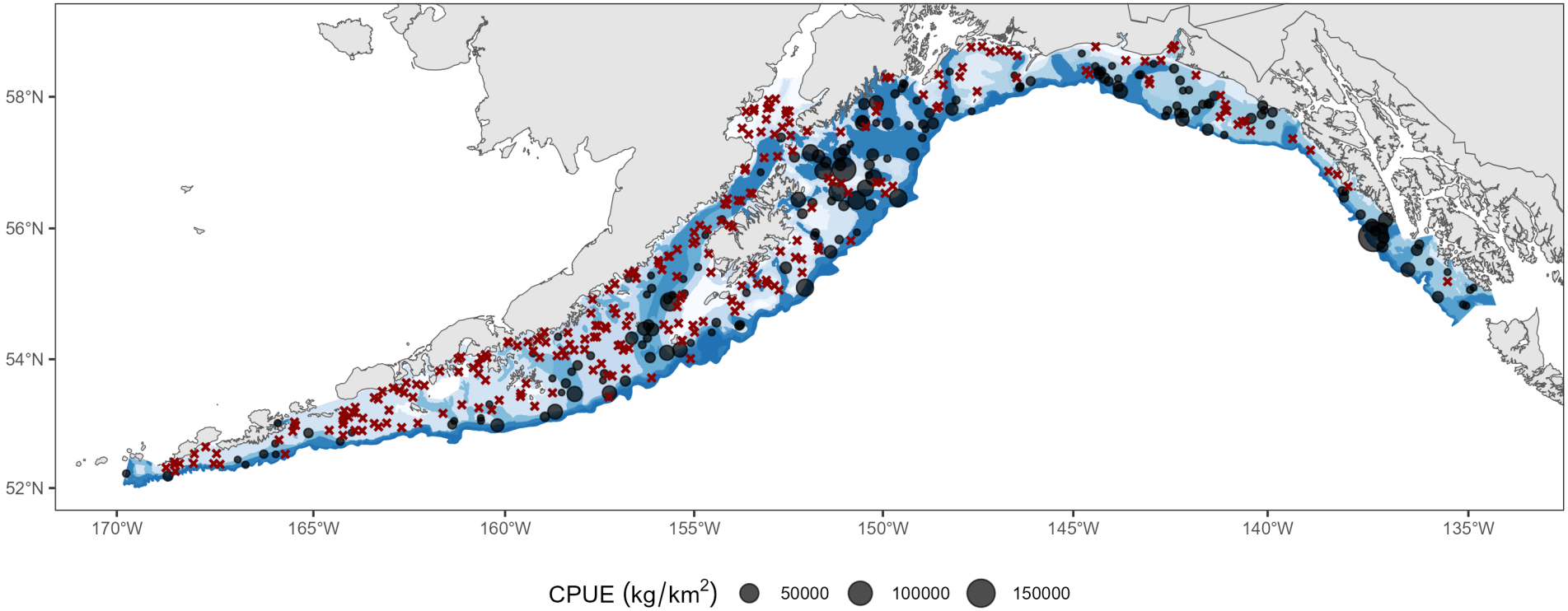


Figure 33. -- Catch per unit effort (CPUE; X = no catch) of Pacific ocean perch in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

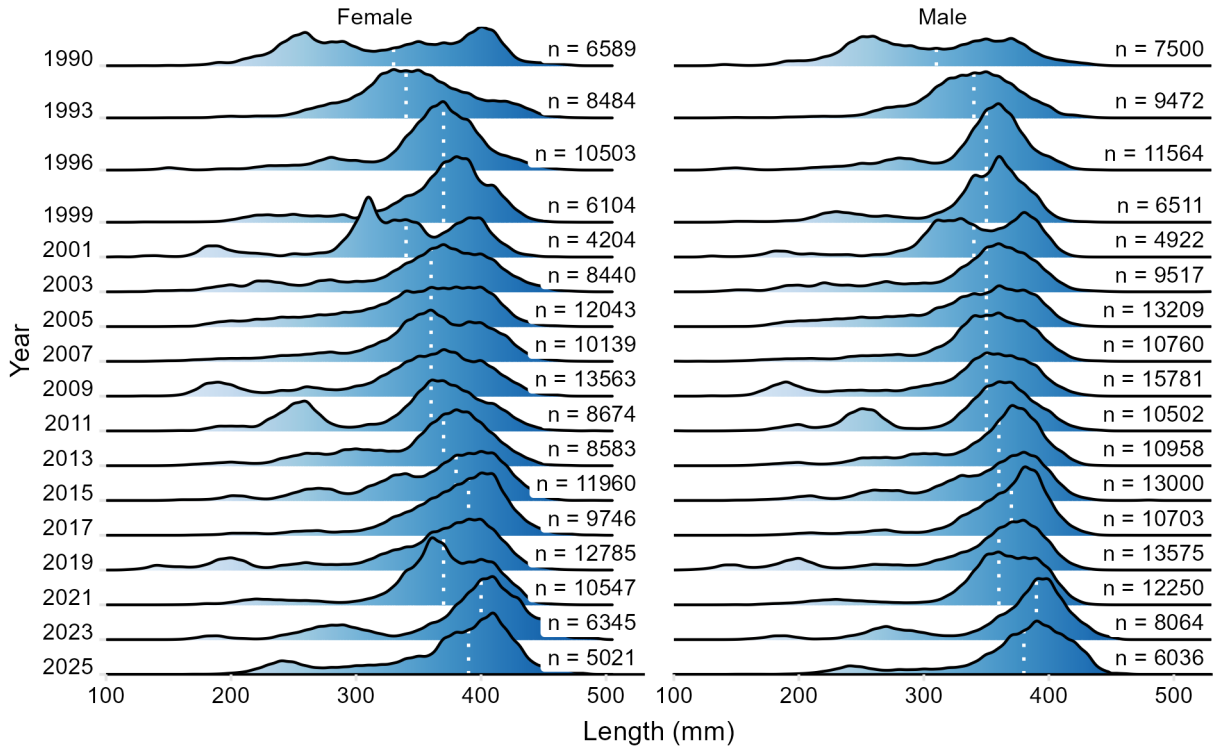


Figure 34. -- Population length composition of Pacific ocean perch in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

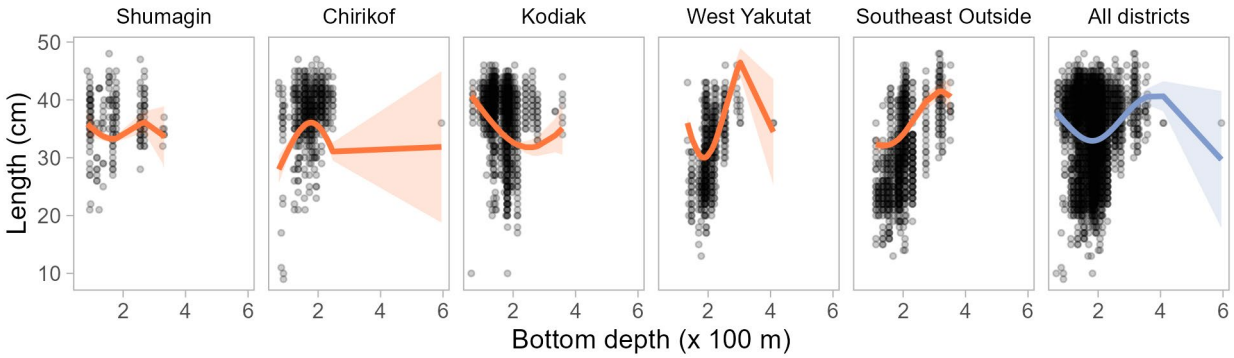


Figure 35. -- Length versus depth for Pacific ocean perch by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where Pacific ocean perch were collected.

northern rockfish (*Sebastes polyspinis*)

- Northern rockfish was the 38th most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 19,653 mt, which is a 38.1% decrease from 2023 (Fig. **36**).
- The highest northern rockfish CPUEs were recorded in the Chirikof and Shumagin statistical areas (Table **21** and Fig. **37**).
- The largest estimated biomass for northern rockfish was in the Chirikof statistical area and the depth range with the largest estimated biomass was 51 – 150 m (Table **22**).
- Historical length distributions are provided in Figure **38**. On average, the longest individuals were found in the Chirikof statistical area and in a depth range of 76 - 125 m (Fig. **39**).

Table 21. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing northern rockfish, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	12	12%	98.9	5,999	0.998	31%
Chirikof	109	11	10%	191.4	12,734	1.032	65%
Kodiak	125	5	4%	9.6	920	1.015	5%
West Yakutat	43	0	0%	0.0	0	--	0%
Southeast Outside	58	0	0%	0.0	0	--	0%
All areas	**431**	**28**	**6%**	**65.3**	**19,653**	**1.021**	**100%**

Table 22. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing northern rockfish, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	7	11%	154.2	5,842
Shumagin	126 - 225	14	3	21%	9.5	87
Shumagin	226 - 700	7	2	29%	12.3	70
Chirikof	51 - 150	55	8	15%	421.7	12,610
Chirikof	151 - 250	37	3	8%	6.9	125
Kodiak	76 - 125	36	3	8%	6.1	153
Kodiak	126 - 150	25	1	4%	61.1	743
Kodiak	151 - 700	39	1	3%	0.7	24

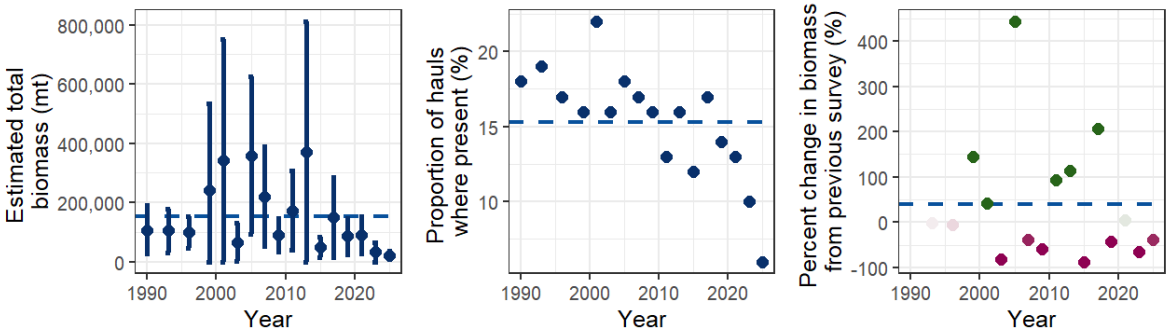


Figure 36. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of northern rockfish in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

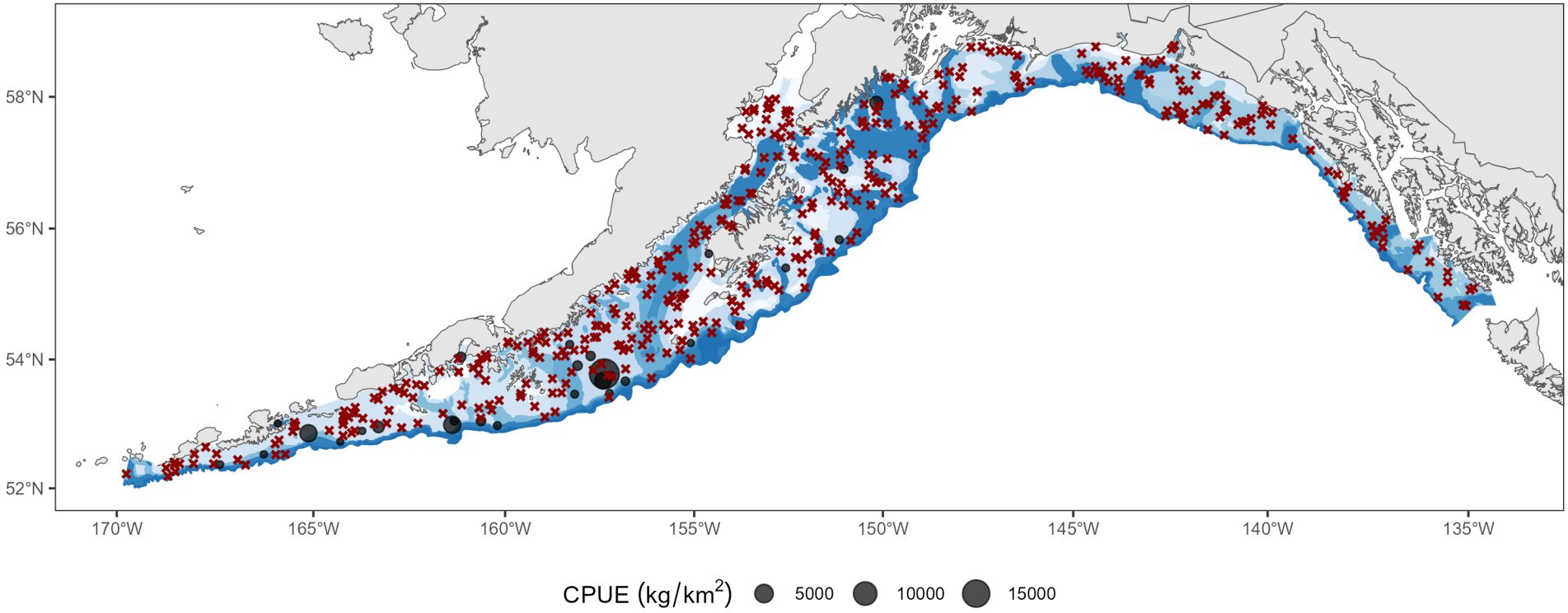


Figure 37. -- Catch per unit effort (CPUE; X = no catch) of northern rockfish in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

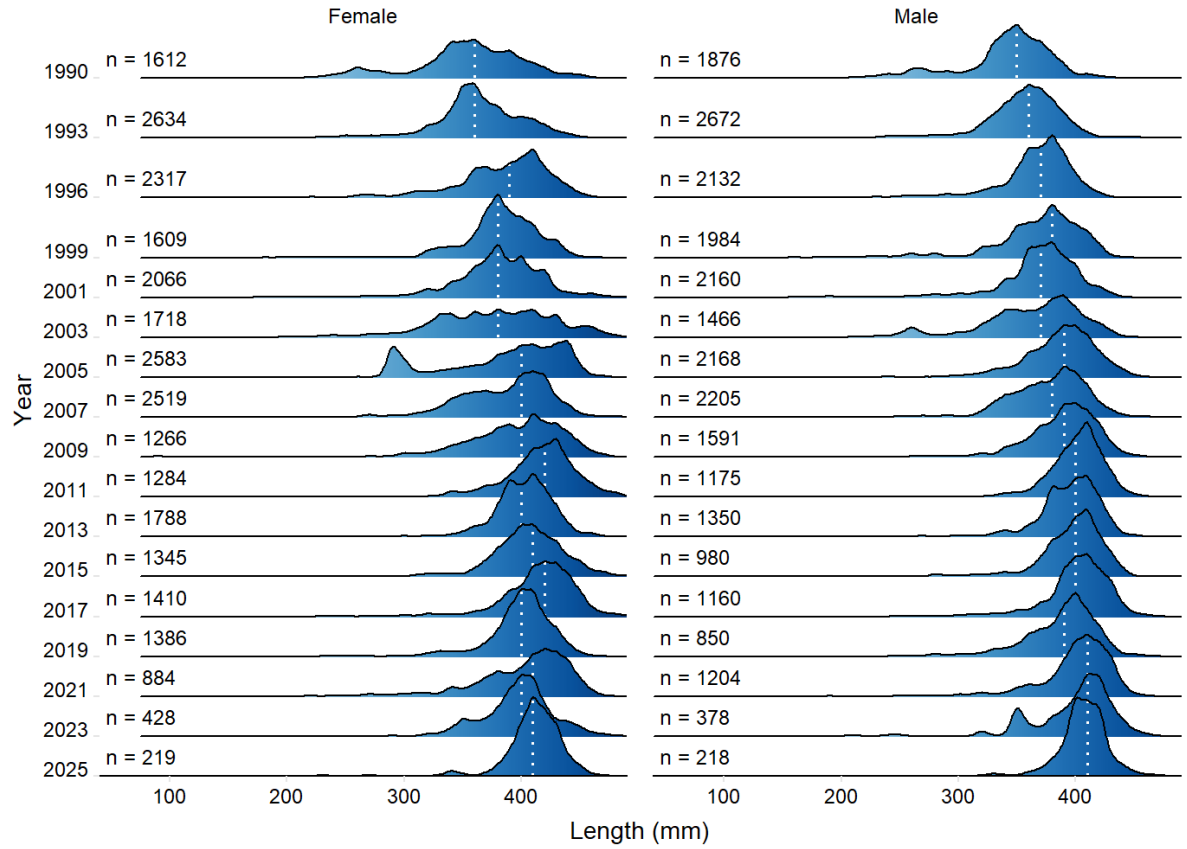


Figure 38. -- Population length composition of northern rockfish in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

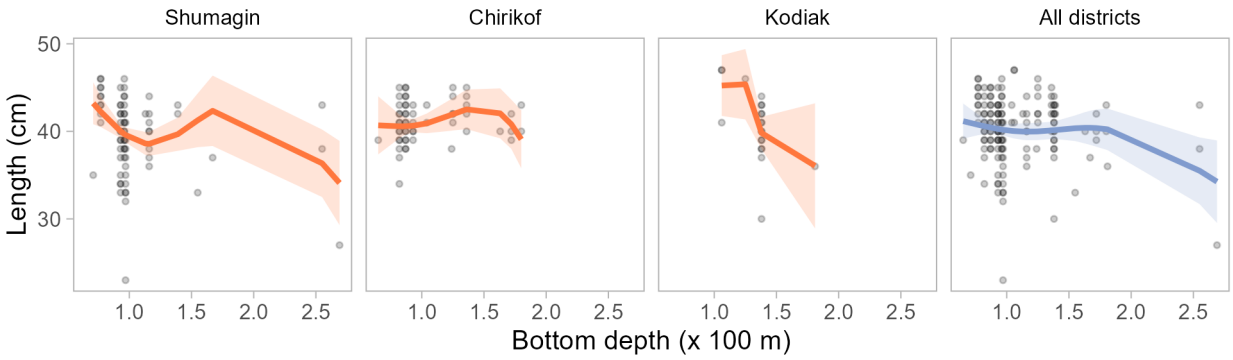


Figure 39. -- Length versus depth for northern rockfish by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where northern rockfish were collected.

blackspotted rockfish (*Sebastes melanostictus*)

- Blackspotted rockfish was the 42nd most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 11,622 mt, which is a 52.3% increase from 2023 (Fig. **40**).
- The highest blackspotted rockfish CPUEs were recorded in the Shumagin and Southeast Outside statistical areas (Table **23** and Fig. **41**).
- The largest estimated biomass for blackspotted rockfish was in the Shumagin statistical area and the depth range with the largest estimated biomass was 226 – 700 m (Table **24**).
- Historical length distributions are provided in Figure **42**. On average, the longest individuals were found in the Southeast Outside statistical area and in a depth range of 301 - 700 m (Fig. **43**).

Table 23. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing blackspotted rockfish, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	8	8%	98.7	5,985	0.928	51%
Chirikof	109	15	14%	12.8	853	0.737	7%
Kodiak	125	12	10%	17.5	1,673	0.502	14%
West Yakutat	43	6	14%	2.7	93	0.38	1%
Southeast Outside	58	6	10%	69.7	3,018	1.605	26%
All areas	**431**	**47**	**11%**	**38.6**	**11,622**	**0.889**	**100%**

Table 24. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing blackspotted rockfish, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	1	2%	0.1	2
Shumagin	126 - 225	14	2	14%	1.6	15
Shumagin	226 - 700	7	5	71%	1,045.0	5,968
Chirikof	51 - 150	55	1	2%	0.2	6
Chirikof	151 - 250	37	11	30%	18.0	322
Chirikof	351 - 700	4	3	75%	194.4	525
Kodiak	126 - 150	25	1	4%	5.2	64
Kodiak	151 - 700	39	11	28%	45.1	1,609
West Yakutat	176 - 200	11	4	36%	16.8	71
West Yakutat	201 - 700	13	2	15%	2.8	22
Southeast Outside	101 - 200	32	2	6%	1.1	24
Southeast Outside	301 - 700	6	4	67%	635.0	2,994

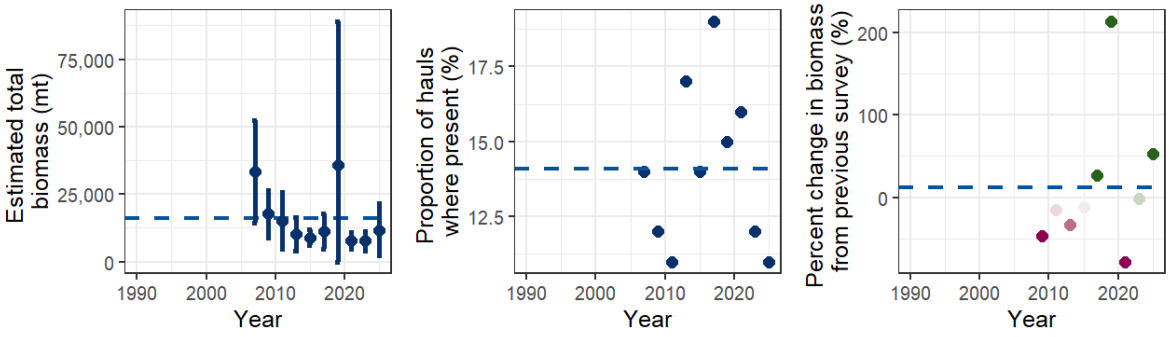


Figure 40. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of blackspotted rockfish in the GOA bottom trawl survey from 2006 to 2025. The dashed horizontal line indicates the long-term average.

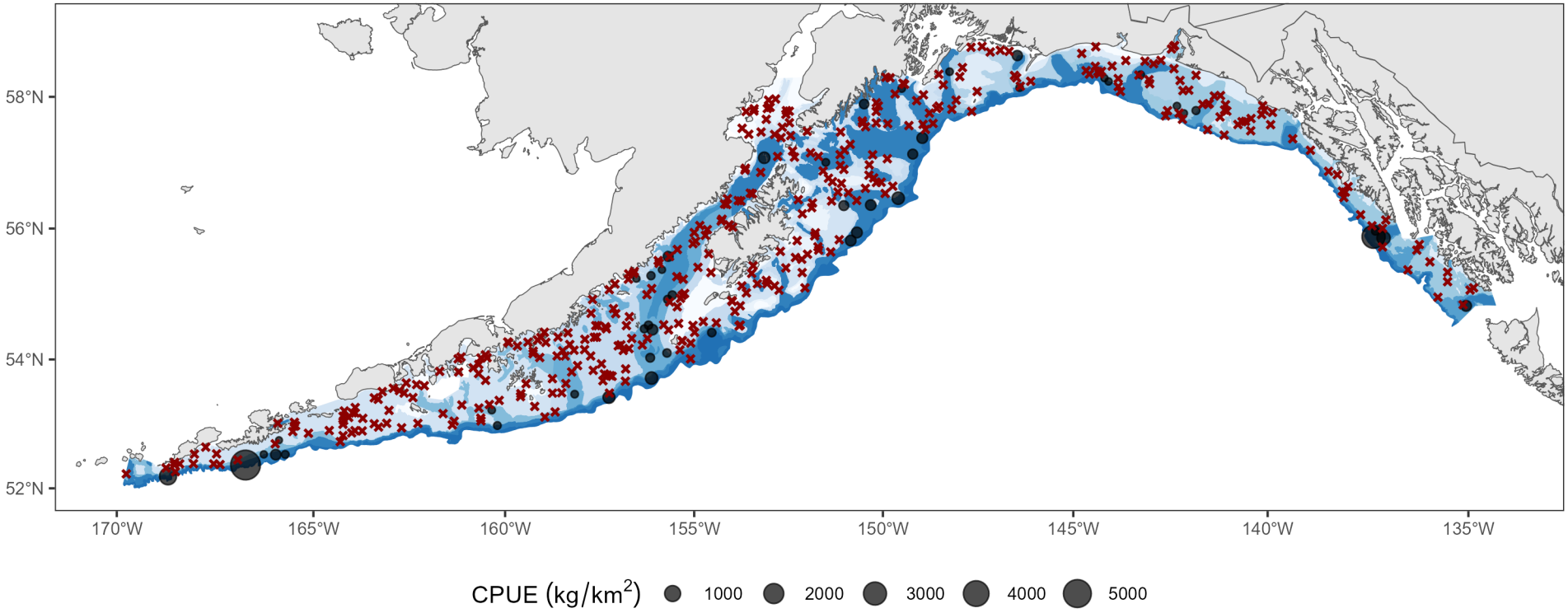


Figure 41. -- Catch per unit effort (CPUE; X = no catch) of blackspotted rockfish in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

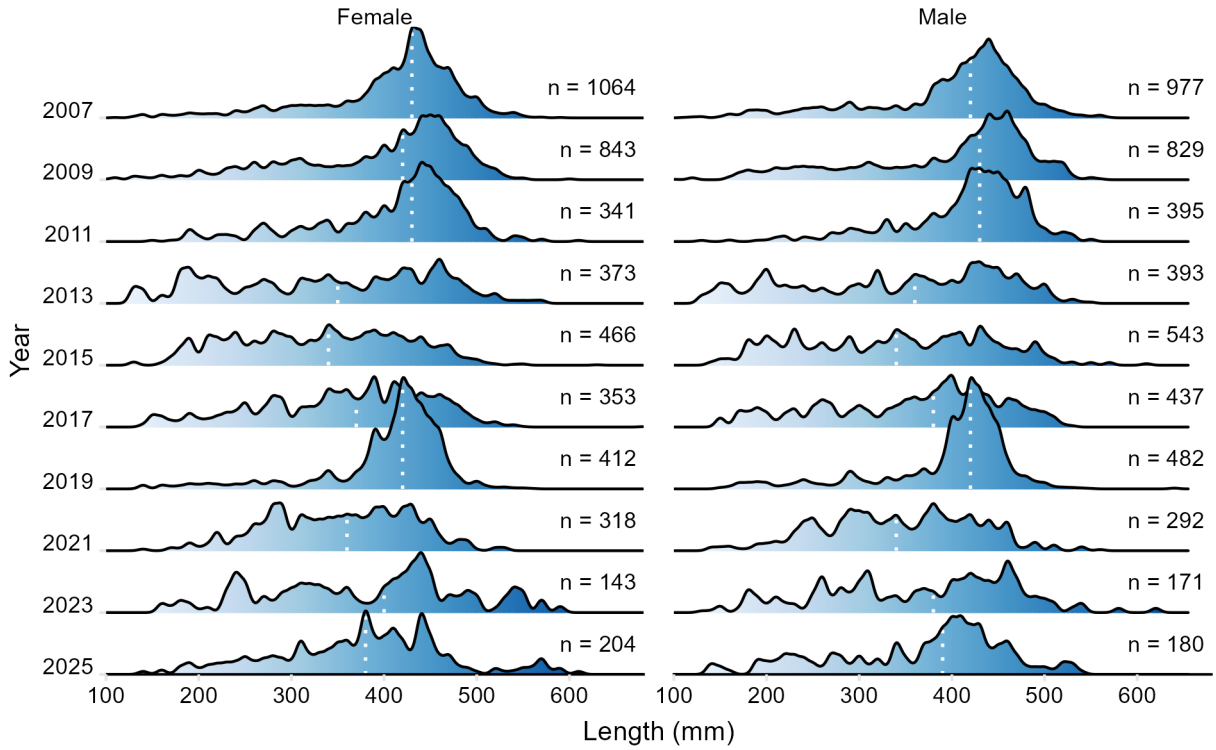


Figure 42. -- Population length composition of blackspotted rockfish in the GOA bottom trawl survey between 2006 and 2025. The dotted vertical line indicates median length.

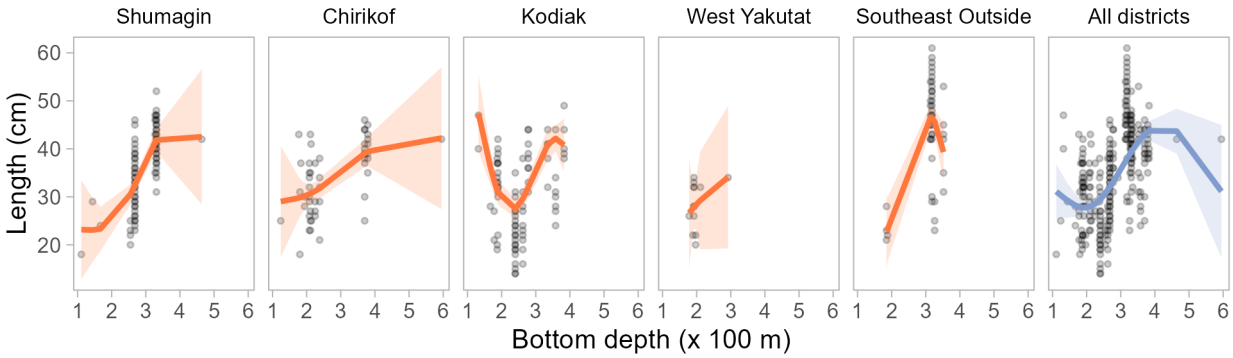


Figure 43. -- Length versus depth for blackspotted rockfish by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where blackspotted rockfish were collected.

dusky rockfish (*Sebastes variabilis*)

- Dusky rockfish was the 22nd most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 45,913 mt, which is a 37.5% decrease from 2023 (Fig. **44**).
- The highest dusky rockfish CPUEs were recorded in the Southeast Outside and Kodiak statistical areas (Table **25** and Fig. **45**).
- The largest estimated biomass for dusky rockfish was in the Kodiak statistical area and the depth range with the largest estimated biomass was 76 - 125 m (Table **26**).
- Historical length distributions are provided in Figure **46**. On average, the longest individuals were found in the Kodiak statistical area and in a depth range of 151 - 700 m (Fig. **47**).

Table 25. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing dusky rockfish, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	6	6%	31.3	1,900	1.647	4%
Chirikof	109	15	14%	56.9	3,789	1.361	8%
Kodiak	125	25	20%	269.1	25,750	1.735	56%
West Yakutat	43	10	23%	49.9	1,746	1.376	4%
Southeast Outside	58	8	14%	294.1	12,729	1.795	28%
All areas	**431**	**64**	**15%**	**152.4**	**45,913**	**1.692**	**100%**

Table 26. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing dusky rockfish, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	5	8%	49.4	1,872
Shumagin	126 - 225	14	1	7%	3.0	28
Chirikof	51 - 150	55	6	11%	17.9	536
Chirikof	151 - 250	37	9	24%	181.3	3,253
Kodiak	76 - 125	36	3	8%	544.7	13,649
Kodiak	126 - 150	25	7	28%	568.2	6,906
Kodiak	151 - 700	39	15	38%	145.5	5,195
West Yakutat	51 - 100	4	1	25%	16.4	120
West Yakutat	101 - 175	11	1	9%	41.4	494
West Yakutat	176 - 200	11	6	55%	231.8	979
West Yakutat	201 - 700	13	2	15%	19.4	152
Southeast Outside	101 - 200	32	4	12%	536.4	12,504
Southeast Outside	201 - 300	13	4	31%	35.8	225

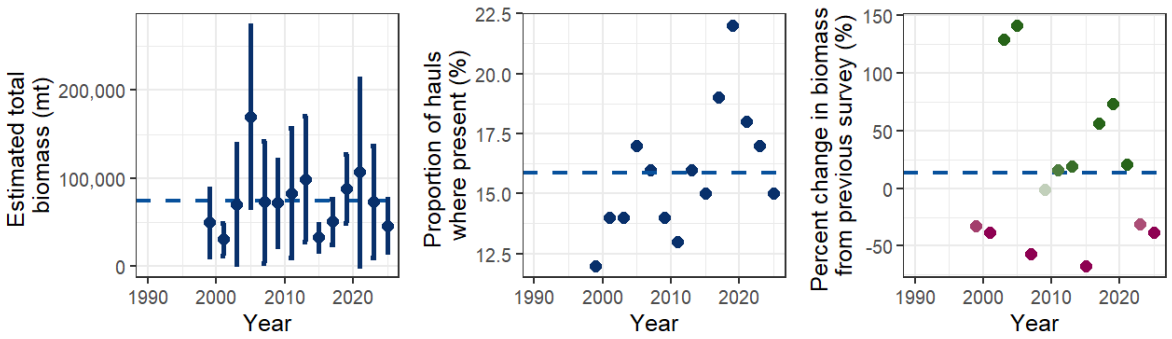


Figure 44. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of dusky rockfish in the GOA bottom trawl survey from 1996 to 2025. The dashed horizontal line indicates the long-term average.

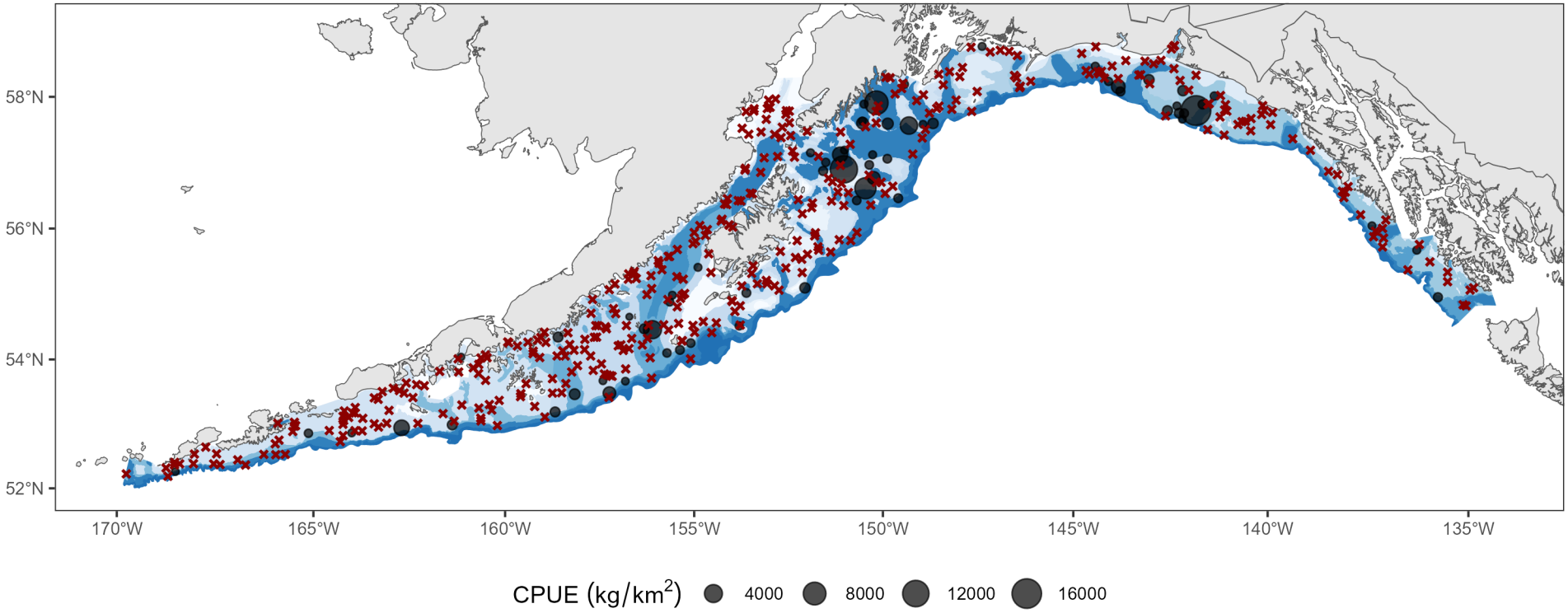


Figure 45. -- Catch per unit effort (CPUE; X = no catch) of dusky rockfish in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

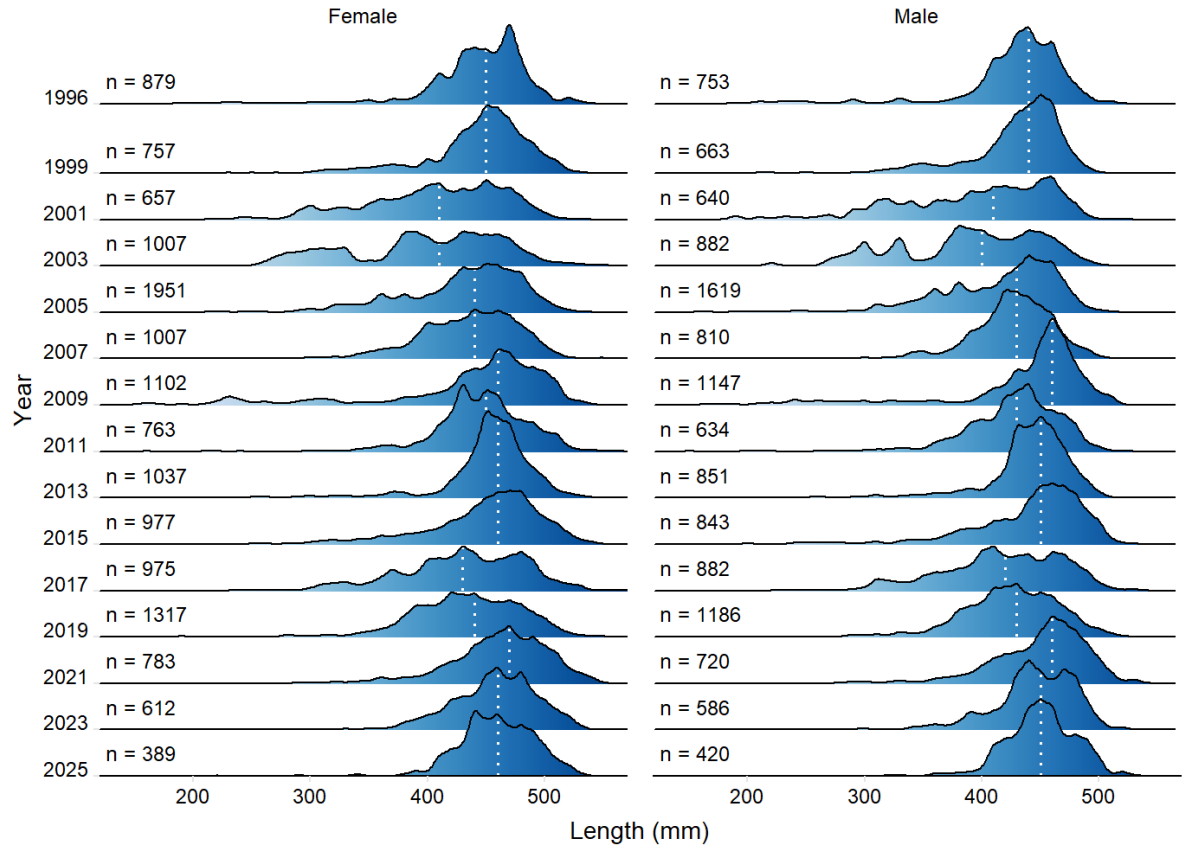


Figure 46. -- Population length composition of dusky rockfish in the GOA bottom trawl survey between 1996 and 2025. The dotted vertical line indicates median length.

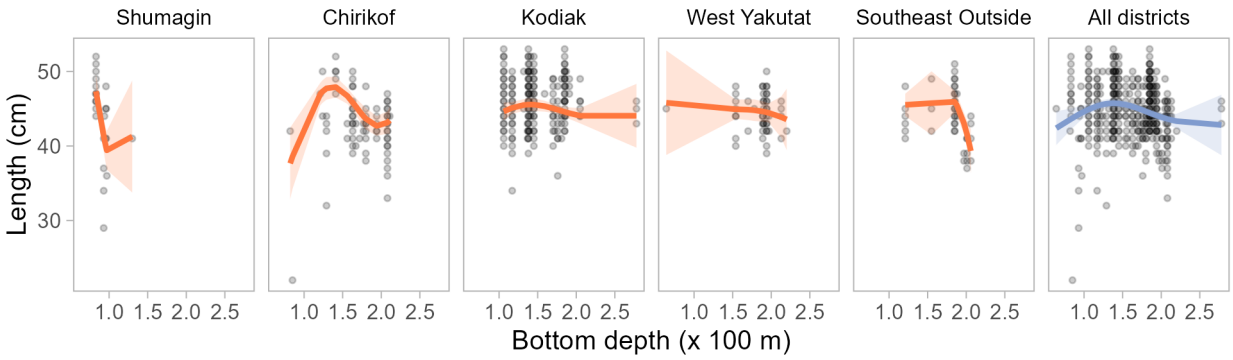


Figure 47. -- Length versus depth for dusky rockfish by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where dusky rockfish were collected.

shortraker rockfish (*Sebastes borealis*)

- Shortraker rockfish was the 36th most abundant species caught in the 2025 GOA survey. Their total biomass was estimated to be 23,767 mt, which is a 21.2% decrease from 2023 (Fig. **48**).
- The highest shortraker rockfish CPUEs were recorded in the West Yakutat and Southeast Outside statistical areas (Table **27** and Fig. **49**).
- The largest estimated biomass for shortraker rockfish was in the West Yakutat statistical area and the depth range with the largest estimated biomass was 201 - 700 m (Table **28**).
- Historical length distributions are provided in Figure **50**. On average, the longest individuals were found in the West Yakutat statistical area and in a depth range of 201 - 700 m (Fig. **51**).

Table 27. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing shortraker rockfish, their mean CPUE and biomass estimates, and average fish weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	7	7%	25.5	1,548	2.41	7%
Chirikof	109	4	4%	10.2	679	2.825	3%
Kodiak	125	6	5%	53.9	5,158	3.369	22%
West Yakutat	43	6	14%	260.8	9,132	4.01	38%
Southeast Outside	58	7	12%	167.5	7,250	3.872	31%
All areas	**431**	**30**	**7%**	**78.9**	**23,767**	**3.621**	**100%**

Table 28. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing shortraker rockfish, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	1	2%	1.0	37
Shumagin	226 - 700	7	6	86%	264.6	1,511
Chirikof	151 - 250	37	2	5%	10.6	191
Chirikof	351 - 700	4	2	50%	180.8	488
Kodiak	126 - 150	25	1	4%	15.7	190
Kodiak	151 - 700	39	5	13%	139.2	4,968
West Yakutat	201 - 700	13	6	46%	1,159.8	9,132
Southeast Outside	201 - 300	13	2	15%	29.9	188
Southeast Outside	301 - 700	6	5	83%	1,498.1	7,063

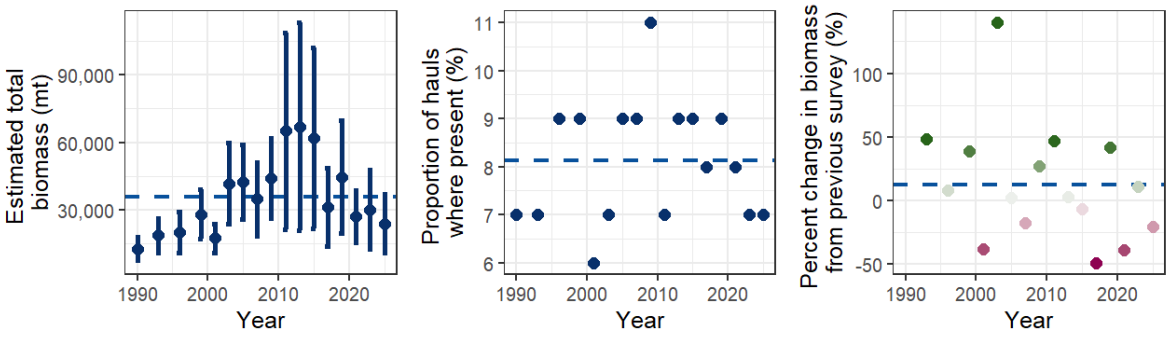


Figure 48. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of shortraker rockfish in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

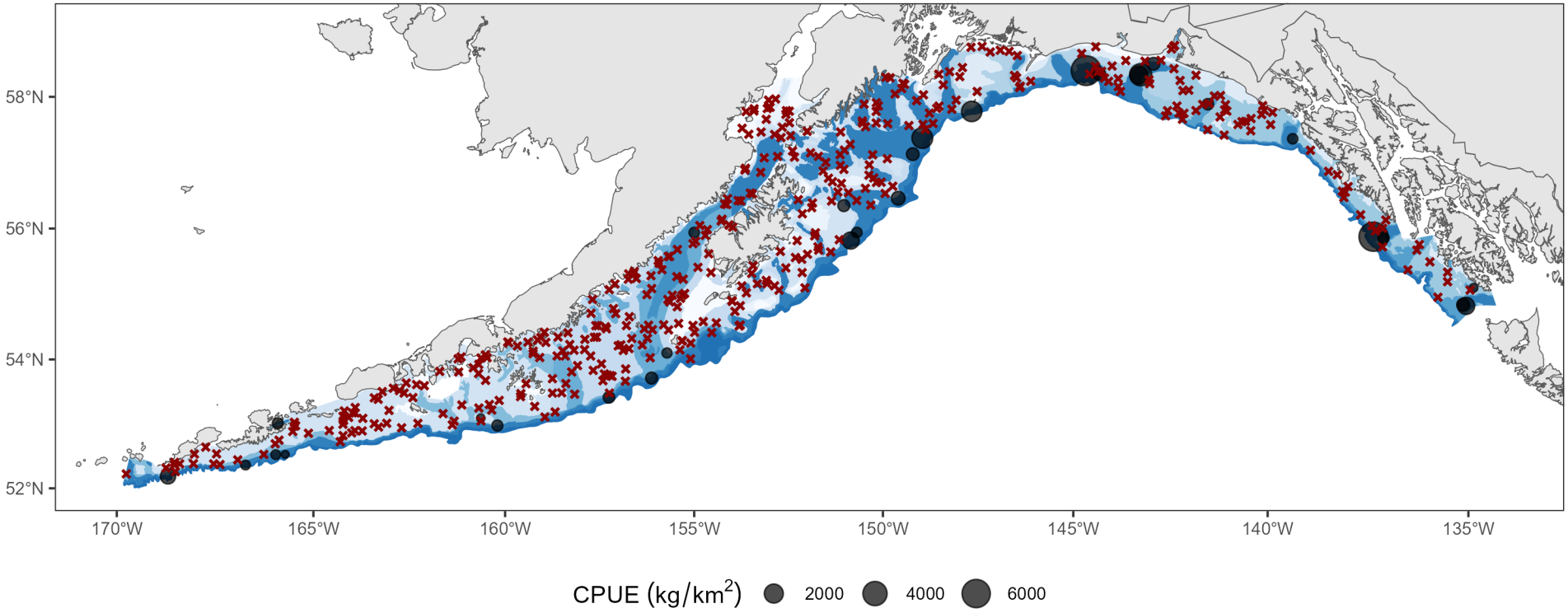


Figure 49. -- Catch per unit effort (CPUE; X = no catch) of shortraker rockfish in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

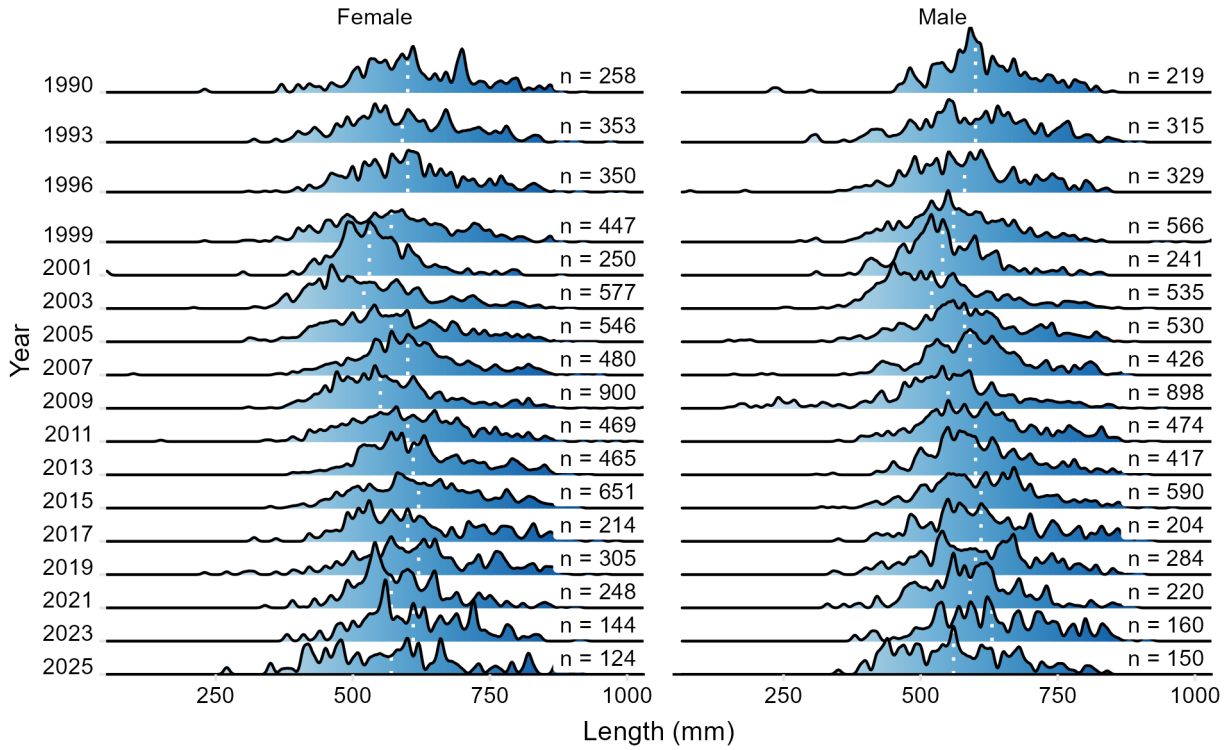


Figure 50. -- Population length composition of shortraker rockfish in the GOA bottom trawl survey between 1990 and 2025. The dotted vertical line indicates median length.

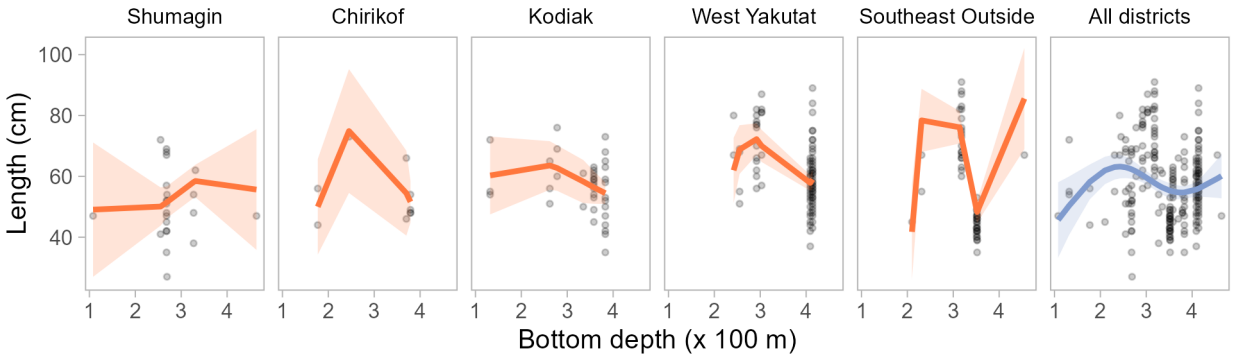


Figure 51. -- Length versus depth for shortraker rockfish by survey district in the 2025 GOA bottom trawl survey. Lines represent predictions from a GAM of length by depth (with a random haul effect) added to show trends in length. Shaded bands indicate 95% confidence intervals. Semitransparent black points indicate raw (measured) lengths. The x-axis represents the full depth range where shortraker rockfish were collected.

giant octopus (*Enteroctopus dofleini*)

- Giant octopus was the 56th most abundant species caught in the 2025 GOA survey. The total biomass was estimated to be 5,064 mt, which is a 4.3% increase from 2023 (Fig. **52**).
- The highest giant octopus CPUEs were recorded in the Shumagin and Kodiak statistical areas (Table **29** and Fig. **53**).
- The largest estimated biomass for giant octopus was in the Shumagin statistical area, and the depth range with the largest estimated biomass was 51 - 125 m (Table **30**).

Table 29. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of trawl hauls), number of hauls containing giant octopus, their mean CPUE and biomass estimates, and average individual weight.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	Average weight (kg)	% biomass in area
Shumagin	96	13	14%	46.1	2,795	6.276	55%
Chirikof	109	11	10%	13.3	884	3.601	17%
Kodiak	125	8	6%	14.3	1,365	4.301	27%
West Yakutat	43	2	5%	0.2	8	0.217	0%
Southeast Outside	58	1	2%	0.3	12	0.445	0%
All areas	**431**	**35**	**8%**	**16.8**	**5,064**	**4.73**	**100%**

Table 30. -- Summary by survey district (NMFS area), survey subdistrict, and depth intervals of 2025 GOA survey trawl effort (number of hauls), number of hauls containing giant octopus, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	10	16%	59.1	2,238
Shumagin	126 - 225	14	2	14%	58.5	534
Shumagin	226 - 700	7	1	14%	4.0	23
Chirikof	51 - 150	55	6	11%	24.9	743
Chirikof	151 - 250	37	4	11%	5.9	106
Chirikof	351 - 700	4	1	25%	13.0	35
Kodiak	76 - 125	36	4	11%	33.2	833
Kodiak	126 - 150	25	1	4%	42.9	522
Kodiak	151 - 700	39	3	8%	0.3	10
West Yakutat	176 - 200	11	1	9%	0.3	1
West Yakutat	201 - 700	13	1	8%	0.9	7
Southeast Outside	101 - 200	32	1	3%	0.5	12

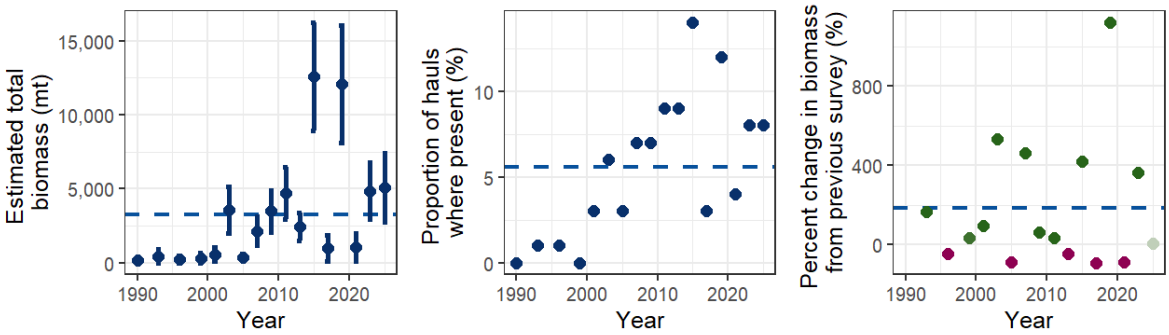


Figure 52. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of giant octopus in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

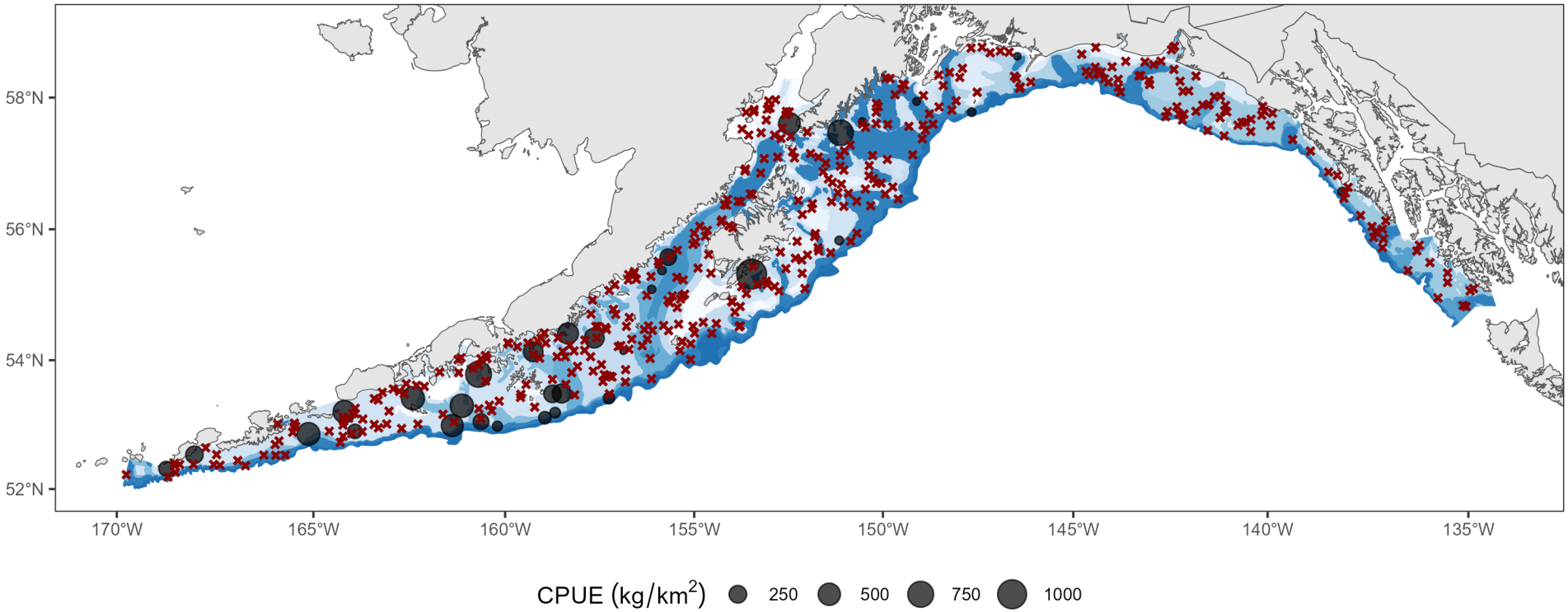


Figure 53. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of giant octopus in the 2025 GOA summer bottom trawl survey catches.

deepwater flatfish complex (*various*)

- The deepwater flatfish complex includes Dover sole (*Microstomus pacificus*), Greenland turbot (*Reinhardtius hippoglossoides*), Kamchatka flounder (*Atheresthes evermanni*), and deepsea sole (*Embassichthys bathybius*).
- The deepwater flatfish complex was the 19th most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 64,282 mt, which is a 32.7% increase from 2023 (Fig. **54**).
- The highest CPUEs for deepwater flatfish were recorded in the West Yakutat and Southeast Outside statistical areas (Table **31** and Fig. **55**).
- The largest estimated biomass for deepwater flatfish was in the West Yakutat statistical area and the depth range with the largest estimated biomass was 101 - 175 m (Table **32**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 31. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing members of the deepwater flatfish complex, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	21	22%	12.1	737	1%
Chirikof	109	57	52%	104.5	6,953	11%
Kodiak	125	71	57%	123.1	11,783	18%
West Yakutat	43	36	84%	815.8	28,570	44%
Southeast Outside	58	42	72%	375.2	16,239	25%
All areas	431	227	53%	213.4	64,282	100%

Table 32. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing members of the deepwater flatfish complex, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	10	16%	5.8	220
Shumagin	126 - 225	14	5	36%	7.3	67
Shumagin	226 - 700	7	6	86%	78.7	450
Chirikof	51 - 150	55	18	33%	28.9	863
Chirikof	151 - 250	37	31	84%	178.0	3,193
Chirikof	251 - 350	4	4	100%	381.7	2,382
Chirikof	351 - 700	4	4	100%	190.8	515
Kodiak	1 - 50	12	2	17%	0.4	5
Kodiak	51 - 75	13	1	8%	218.7	2,390
Kodiak	76 - 125	36	17	47%	49.8	1,248
Kodiak	126 - 150	25	18	72%	74.8	909
Kodiak	151 - 700	39	33	85%	202.5	7,231
West Yakutat	1 - 50	4	2	50%	414.8	1,522
West Yakutat	51 - 100	4	1	25%	21.0	154
West Yakutat	101 - 175	11	10	91%	1,786.3	21,299
West Yakutat	176 - 200	11	10	91%	230.8	975
West Yakutat	201 - 700	13	13	100%	586.8	4,620
Southeast Outside	1 - 100	7	4	57%	52.4	470
Southeast Outside	101 - 200	32	21	66%	72.9	1,700
Southeast Outside	201 - 300	13	11	85%	392.6	2,464
Southeast Outside	301 - 700	6	6	100%	2,461.4	11,604

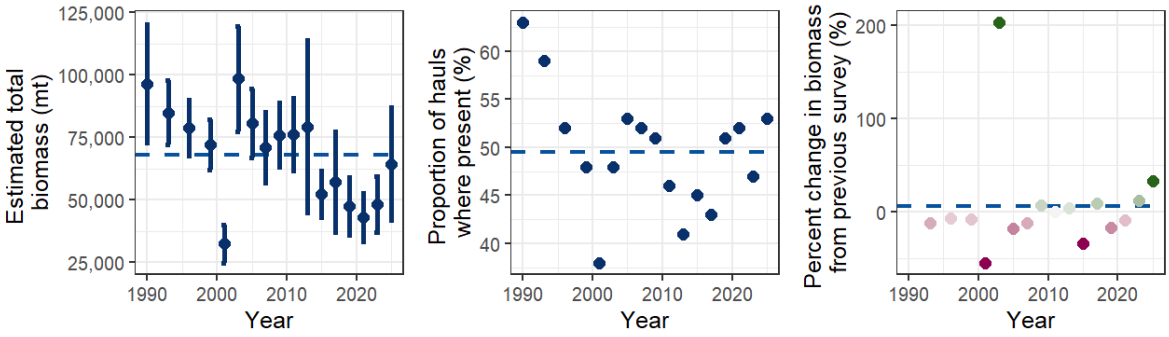


Figure 54. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of deepwater flatfish in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

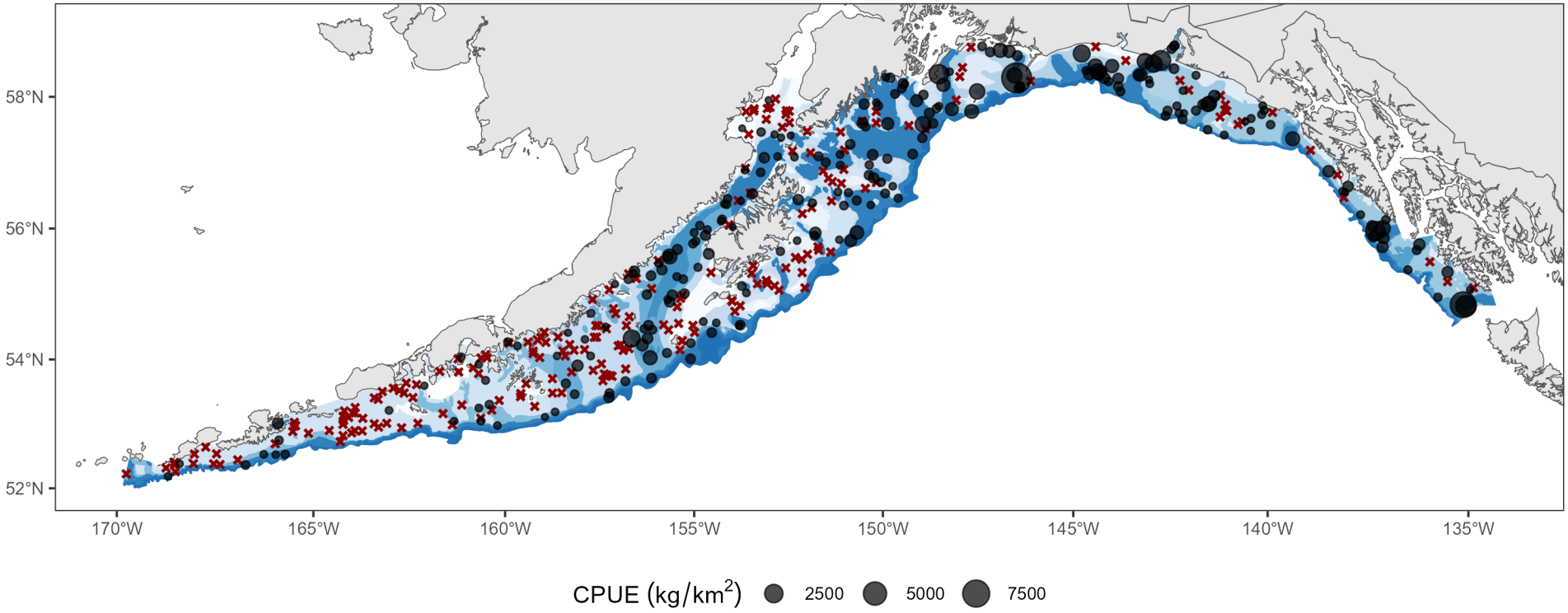


Figure 55. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of deepwater flatfish in the 2025 GOA RACE GAP summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

demersal shelf rockfish complex (*various*)

- The demersal shelf rockfish complex includes yelloweye rockfish (*Sebastes ruberrimus*), quillback rockfish (*Sebastes maliger*), copper rockfish (*Sebastes caurinus*), rosethorn rockfish (*Sebastes helvomaculatus*), canary rockfish (*Sebastes pinniger*), tiger rockfish (*Sebastes nigrocinctus*), and China rockfish (*Sebastes nebulosus*).
- Demersal shelf rockfish were the 48th most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 8,891 mt, which is a 53.2% decrease from 2023 (Fig. **56**).
- The highest CPUEs for demersal shelf rockfish were recorded in the West Yakutat and Southeast Outside statistical areas (Table **33** and Fig. **57**).
- The largest estimated biomass for demersal shelf rockfish was in the West Yakutat statistical area and the depth range with the largest estimated biomass was 101 - 200 m (Table **34**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 33. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing members of the demersal shelf rockfish complex, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	2	2%	2.3	137	2%
Chirikof	109	9	8%	13.0	863	10%
Kodiak	125	17	14%	26.6	2,547	29%
West Yakutat	43	7	16%	77.8	2,724	31%
Southeast Outside	58	13	22%	60.5	2,619	29%
All areas	431	48	11%	29.5	8,891	100%

Table 34. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing members of the demersal shelf rockfish complex, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	2	3%	3.6	137
Chirikof	51 - 150	55	7	13%	27.6	824
Chirikof	151 - 250	37	2	5%	2.2	39
Kodiak	76 - 125	36	7	19%	59.4	1,489
Kodiak	126 - 150	25	7	28%	44.3	538
Kodiak	151 - 700	39	3	8%	14.6	520
West Yakutat	51 - 100	4	1	25%	167.0	1,224
West Yakutat	101 - 175	11	1	9%	5.1	61
West Yakutat	176 - 200	11	3	27%	149.7	633
West Yakutat	201 - 700	13	2	15%	102.5	807
Southeast Outside	1 - 100	7	1	14%	5.0	45
Southeast Outside	101 - 200	32	6	19%	68.0	1,585
Southeast Outside	201 - 300	13	5	38%	147.0	923
Southeast Outside	301 - 700	6	1	17%	14.0	66

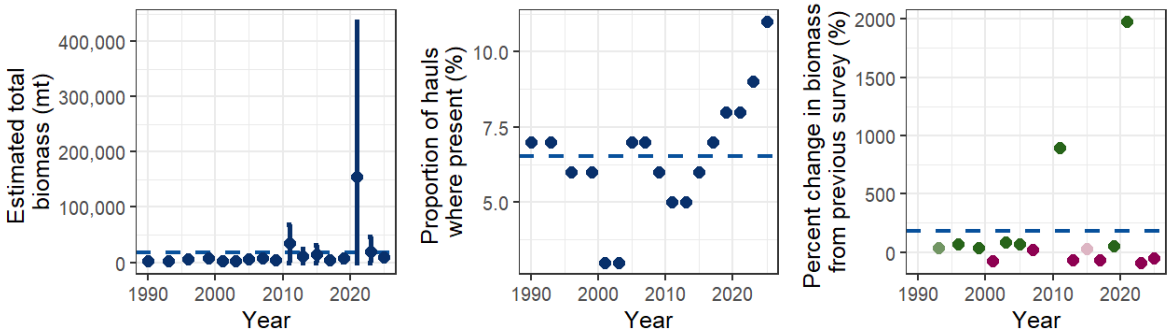


Figure 56. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of demersal shelf rockfish in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

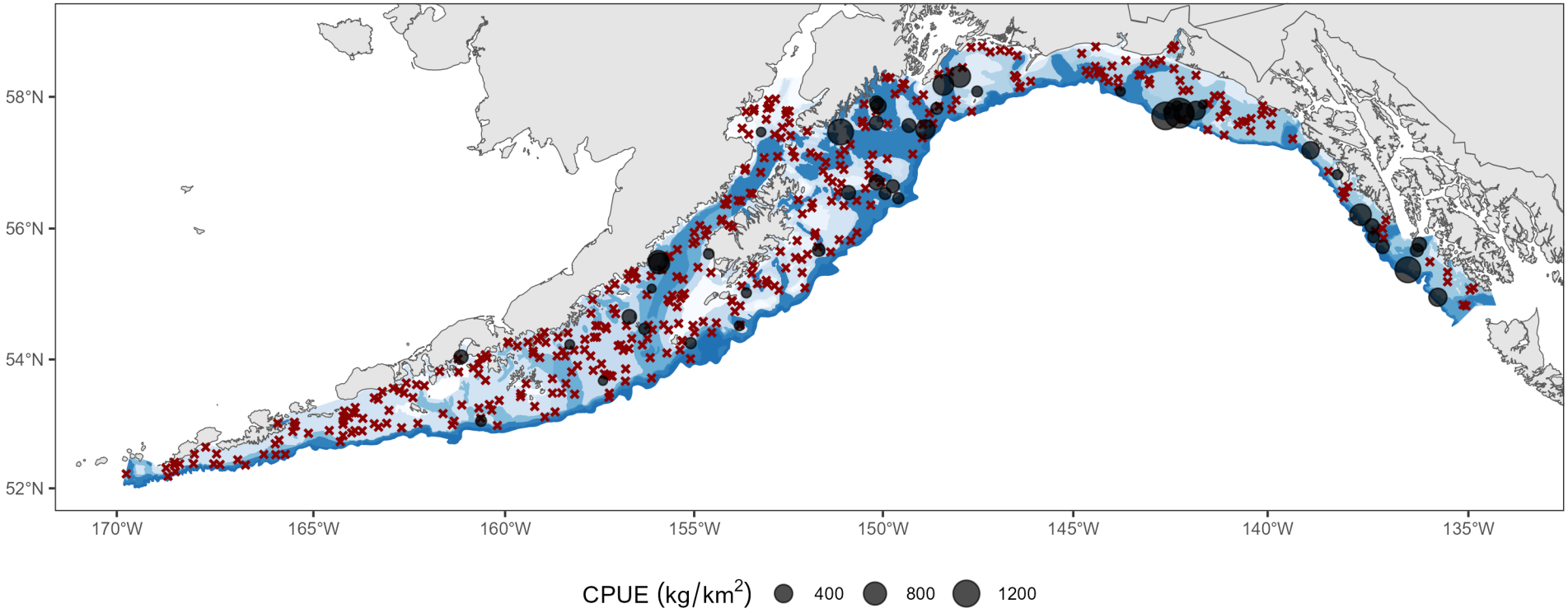


Figure 57. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of the demersal shelf rockfish complex in the 2025 GOA summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

northern - southern rock sole complex (*various*)

- The northern - southern rock sole complex includes northern rock sole (*Lepidopsetta polyxystra*), and southern rock sole (*Lepidopsetta bilineata*). It does not include unidentified rock sole.
- Northern and southern rock sole were the 8th most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 184,110 mt, which is a 30.8% increase from 2023 (Fig. **58**).
- The highest CPUEs for the Northern - southern rock sole complex were recorded in the Shumagin and Chirikof statistical areas (Table **35** and Fig. **59**).
- The largest estimated biomass for the northern - southern rock sole complex was in the Shumagin statistical area and the depth range with the largest estimated biomass was 51 - 125 m (Table **36**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 35. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing members of the northern - southern rock sole complex, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	79	82%	1,426.8	86,541	47%
Chirikof	109	49	45%	822.5	54,720	30%
Kodiak	125	52	42%	430.1	41,156	22%
West Yakutat	43	3	7%	37.8	1,323	1%
Southeast Outside	58	7	12%	8.6	370	0%
All areas	431	190	44%	611.3	184,110	100%

Table 36. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing northern and southern rock sole, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	13	100%	3,709.8	29,449
Shumagin	51 - 125	62	60	97%	1,489.4	56,413
Shumagin	126 - 225	14	5	36%	72.5	662
Shumagin	226 - 700	7	1	14%	2.9	16
Chirikof	1 - 50	9	9	100%	3,508.9	34,196
Chirikof	51 - 150	55	39	71%	686.0	20,511
Chirikof	151 - 250	37	1	3%	0.7	12
Kodiak	1 - 50	12	12	100%	269.0	3,189
Kodiak	51 - 75	13	11	85%	1,478.6	16,156
Kodiak	76 - 125	36	24	67%	864.7	21,669
Kodiak	126 - 150	25	2	8%	2.4	29
Kodiak	151 - 700	39	3	8%	3.2	114
West Yakutat	1 - 50	4	1	25%	1.3	5
West Yakutat	51 - 100	4	2	50%	179.9	1,319
Southeast Outside	1 - 100	7	3	43%	18.5	166
Southeast Outside	101 - 200	32	4	12%	8.7	204

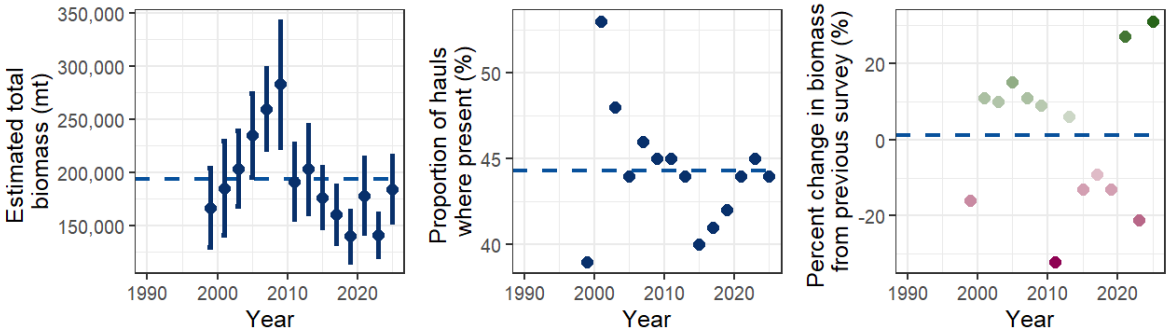


Figure 58. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of northern and southern rock sole in the GOA bottom trawl survey from 1996 to 2025. The dashed horizontal line indicates the long-term average.

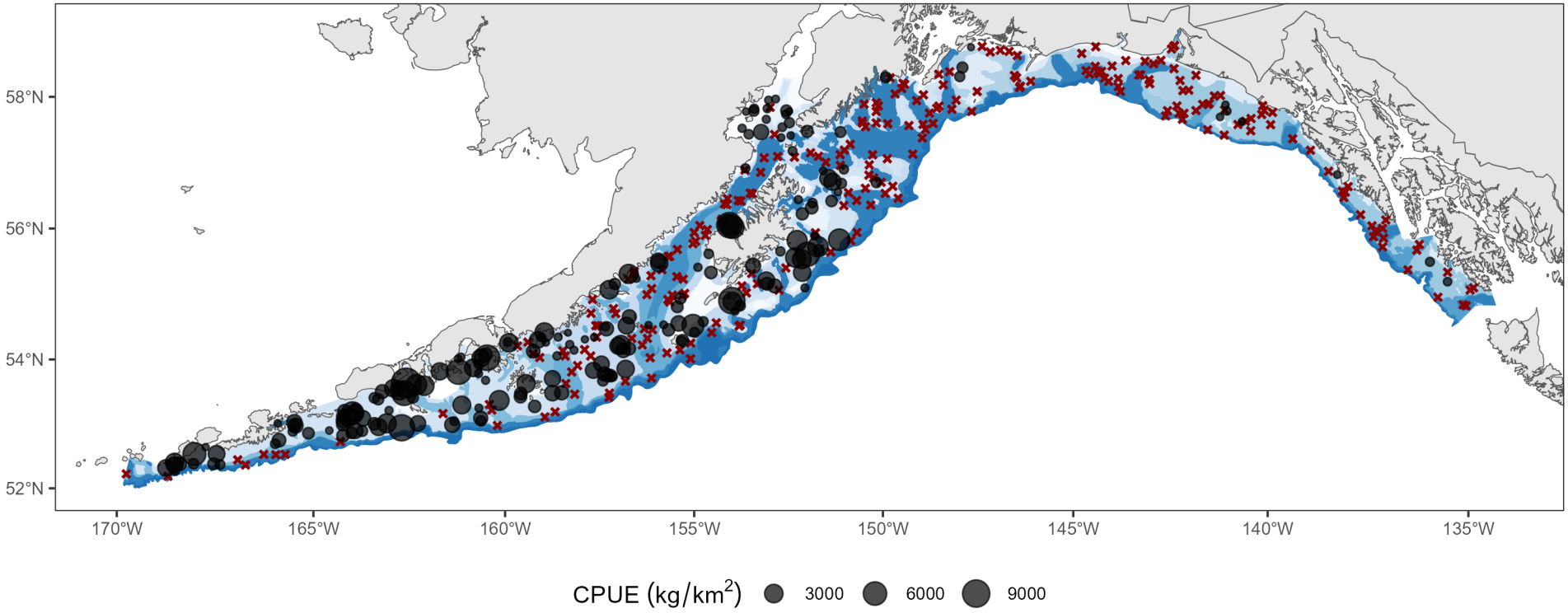


Figure 59. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of northern and southern rock sole in the 2025 GOA summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

other rockfish complex (*various*)

- The other rockfish complex includes aurora rockfish (*Sebastes aurora*), blackgill rockfish (*Sebastes melanostomus*), bocaccio (*Sebastes paucispinus*), chilipepper rockfish (*Sebastes goodei*), darkblotched rockfish (*Sebastes crameri*), greenstriped rockfish (*Sebastes elongatus*), harlequin rockfish (*Sebastes variegatus*), northern rockfish (*Sebastes polyspinis*), pygmy rockfish (*Sebastes wilsoni*), redbanded rockfish (*Sebastes babcocki*), redstripe rockfish (*Sebastes proriger*), sharpchin rockfish (*Sebastes zacentrus*), shortbelly rockfish (*Sebastes jordani*), silvergray rockfish (*Sebastes brevispinis*), splitnose rockfish (*Sebastes diploproa*), stripetail rockfish (*Sebastes saxicola*), vermilion rockfish (*Sebastes miniatus*), widow rockfish (*Sebastes entomelas*), yellowmouth rockfish (*Sebastes reedi*), and yellowtail rockfish (*Sebastes flavidus*).
- Other rockfish were the 11th most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 123,133 mt, which is a 11.6% increase from 2023 (Fig. **60**).
- The highest CPUEs for other rockfish were recorded in the Southeast Outside and West Yakutat statistical areas (Table **37** and Fig. **61**).
- The largest estimated biomass for other rockfish was in the Southeast Outside statistical area and the depth range with the largest estimated biomass was 201 - 300 m (Table **38**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 37. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing members of the other rockfish complex, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	14	15%	100.4	6,090	5%
Chirikof	109	20	18%	228.8	15,223	12%
Kodiak	125	21	17%	181.3	17,351	14%
West Yakutat	43	17	40%	321.3	11,251	9%
Southeast Outside	58	33	57%	1,691.8	73,217	59%
All areas	431	105	24%	408.8	123,133	100%

Table 38. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing members of the other rockfish complex, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	7	11%	154.8	5,863
Shumagin	126 - 225	14	4	29%	10.4	95
Shumagin	226 - 700	7	3	43%	23.3	133
Chirikof	51 - 150	55	10	18%	423.0	12,648
Chirikof	151 - 250	37	10	27%	143.5	2,576
Kodiak	76 - 125	36	5	14%	11.1	278
Kodiak	126 - 150	25	3	12%	857.3	10,419
Kodiak	151 - 700	39	13	33%	186.4	6,654
West Yakutat	101 - 175	11	2	18%	3.3	40
West Yakutat	176 - 200	11	8	73%	1,128.0	4,766
West Yakutat	201 - 700	13	7	54%	818.6	6,445
Southeast Outside	1 - 100	7	1	14%	147.0	1,319
Southeast Outside	101 - 200	32	17	53%	1,287.8	30,023
Southeast Outside	201 - 300	13	13	100%	6,654.3	41,767
Southeast Outside	301 - 700	6	2	33%	23.0	108

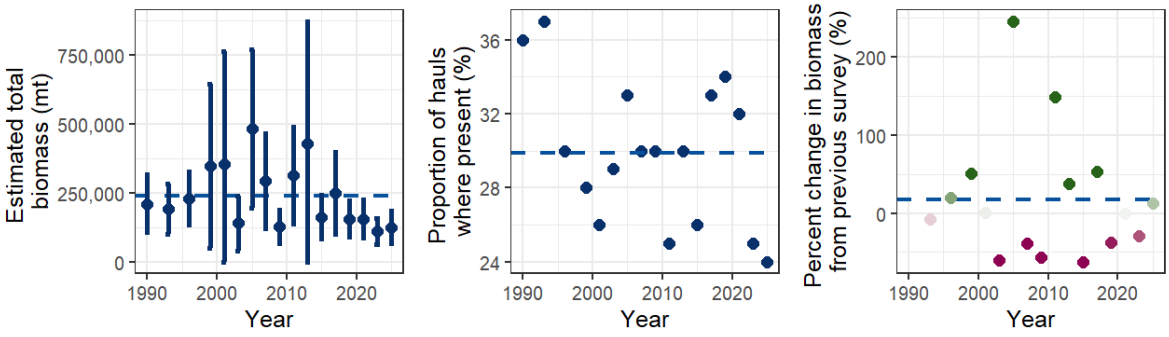


Figure 60. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of other rockfish in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

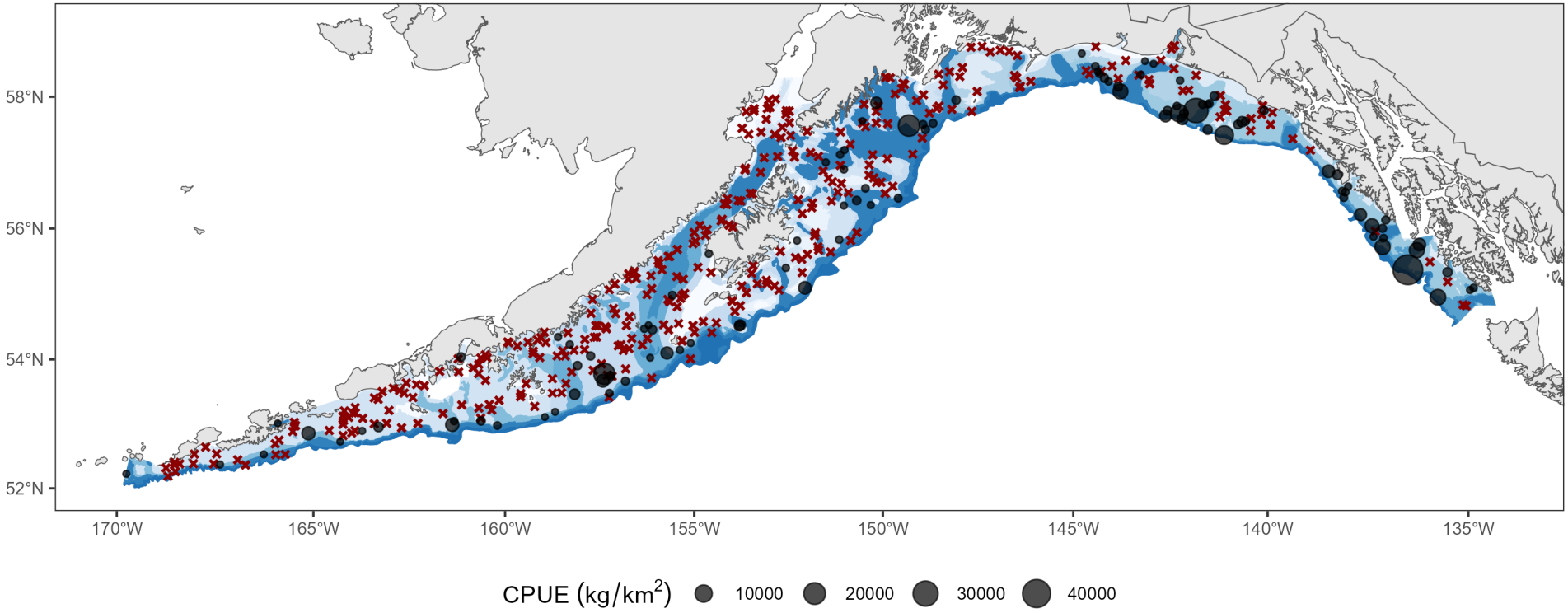


Figure 61. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of other rockfish in the 2025 GOA summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

rougheye - blackspotted rockfish group (*various*)

- The rougheye - blackspotted rockfish group includes rougheye rockfish (*Sebastes aleutianus*), blackspotted rockfish (*Sebastes melanostictus*), and rougheye and unidentified rougheye and blackspotted rockfishes.
- Rougheye and blackspotted rockfish were the 33rd most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 30,269 mt, which is a 2.3% decrease from 2023 (Fig. **62**).
- The highest CPUEs for rougheye/blackspotted rockfish were recorded in the Southeast Outside and Shumagin statistical areas (Table **39** and Fig. **63**).
- The largest estimated biomass for rougheye/blackspotted rockfish was in the Kodiak statistical area and the depth range with the largest estimated biomass was 151 - 700 m (Table **40**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 39. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing rougheye/blackspotted rockfish, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	12	12%	136.5	8,277	27%
Chirikof	109	32	29%	38.5	2,559	8%
Kodiak	125	30	24%	104.2	9,968	33%
West Yakutat	43	21	49%	75.5	2,645	9%
Southeast Outside	58	14	24%	157.6	6,820	23%
All areas	431	109	25%	100.5	30,269	100%

Table 40. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing rougheye/blackspotted rockfish, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	2	3%	0.5	17
Shumagin	126 - 225	14	4	29%	9.0	82
Shumagin	226 - 700	7	6	86%	1,431.8	8,177
Chirikof	51 - 150	55	3	5%	4.1	123
Chirikof	151 - 250	37	24	65%	86.8	1,558
Chirikof	251 - 350	4	2	50%	49.2	307
Chirikof	351 - 700	4	3	75%	211.5	571
Kodiak	76 - 125	36	3	8%	2.9	72
Kodiak	126 - 150	25	4	16%	14.0	171
Kodiak	151 - 700	39	23	59%	272.4	9,726
West Yakutat	101 - 175	11	3	27%	25.4	303
West Yakutat	176 - 200	11	10	91%	118.0	499
West Yakutat	201 - 700	13	8	62%	234.1	1,843
Southeast Outside	101 - 200	32	5	16%	22.7	529
Southeast Outside	201 - 300	13	3	23%	93.7	588
Southeast Outside	301 - 700	6	6	100%	1,209.9	5,704

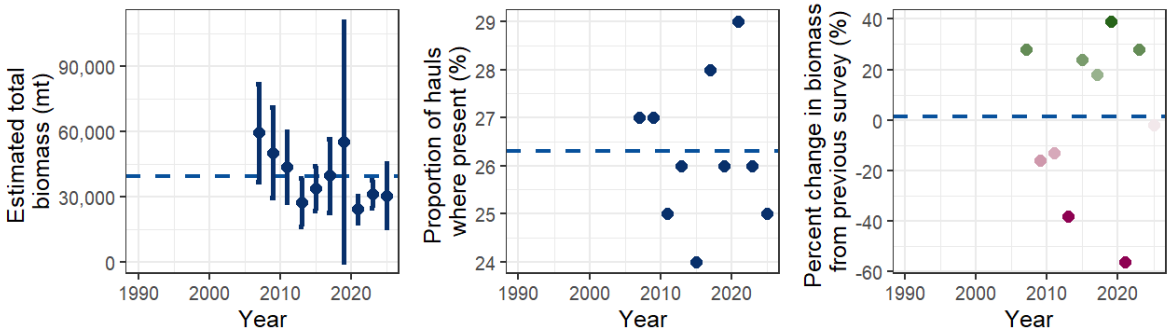


Figure 62. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of rougheye/blackspotted rockfish in the GOA bottom trawl survey from 2006 to 2025. The dashed horizontal line indicates the long-term average.

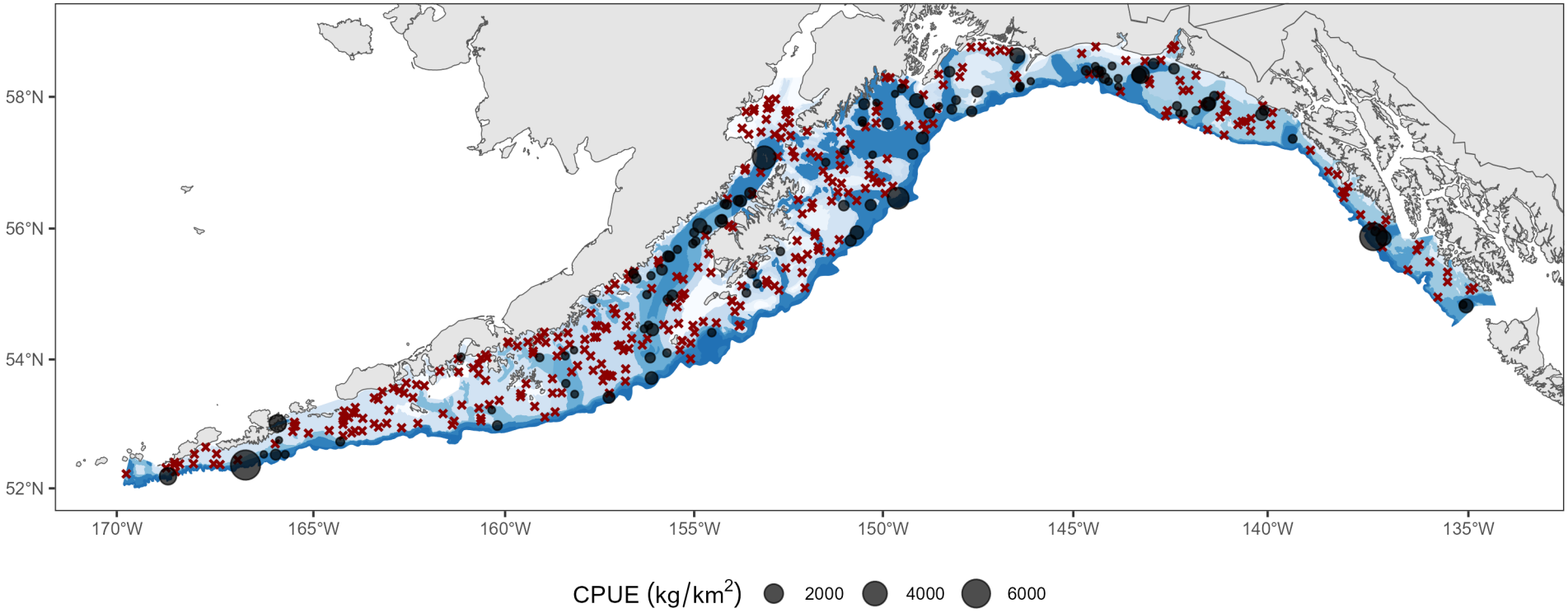


Figure 63. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of rougheye/blackspotted rockfish in the 2025 GOA summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

shallow-water flatfish complex (*various*)

- The shallow-water flatfish complex includes northern rock sole (*Lepidopsetta polyxystra*), southern rock sole (*Lepidopsetta bilineata*), yellowfin sole (*Limanda aspera*), butter sole (*Isopsetta isolepis*), starry flounder (*Platichthys stellatus*), English sole (*Parophrys vetulus*), sand sole (*Psettichthys melanostictus*), and Alaska plaice (*Pleuronectes quadrituberculatus*).
- Shallow-water flatfish were the 5th most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 304,649 mt, which is a 15.9% increase from 2023 (Fig. **64**).
- The highest CPUEs for shallow-water flatfish were recorded in the Shumagin and Chirikof statistical areas (Table **41** and Fig. **65**).
- The largest estimated biomass for shallow-water flatfish was in the Shumagin statistical area and the depth range with the largest estimated biomass was 51 – 125 m (Table **42**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 41. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing shallow-water flatfish, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	79	82%	2,018.7	122,440	40%
Chirikof	109	53	49%	1,061.8	70,637	23%
Kodiak	125	71	57%	948.1	90,727	30%
West Yakutat	43	14	33%	464.9	16,282	5%
Southeast Outside	58	15	26%	105.4	4,563	1%
All areas	431	232	54%	1,011.5	304,649	100%

Table 42. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing members of the shallow-water flatfish complex, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	13	100%	6,978.4	55,397
Shumagin	51 - 125	62	60	97%	1,749.6	66,269
Shumagin	126 - 225	14	5	36%	83.1	758
Shumagin	226 - 700	7	1	14%	2.9	16
Chirikof	1 - 50	9	9	100%	4,423.1	43,105
Chirikof	51 - 150	55	43	78%	920.4	27,519
Chirikof	151 - 250	37	1	3%	0.7	12
Kodiak	1 - 50	12	12	100%	2,787.7	33,052
Kodiak	51 - 75	13	13	100%	2,159.6	23,598
Kodiak	76 - 125	36	28	78%	1,252.6	31,387
Kodiak	126 - 150	25	12	48%	166.0	2,017
Kodiak	151 - 700	39	6	15%	18.9	673
West Yakutat	1 - 50	4	4	100%	3,236.3	11,874
West Yakutat	51 - 100	4	4	100%	579.7	4,249
West Yakutat	101 - 175	11	6	55%	13.4	160
Southeast Outside	1 - 100	7	6	86%	285.4	2,562
Southeast Outside	101 - 200	32	9	28%	85.8	2,001

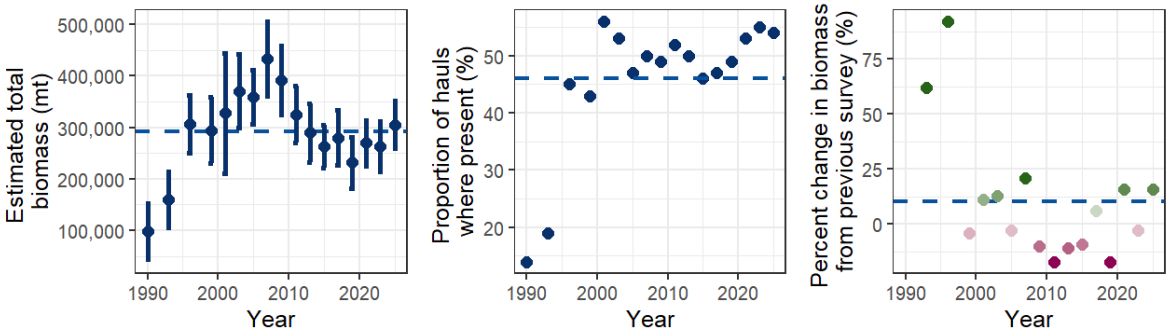


Figure 64. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of shallow-water flatfish in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

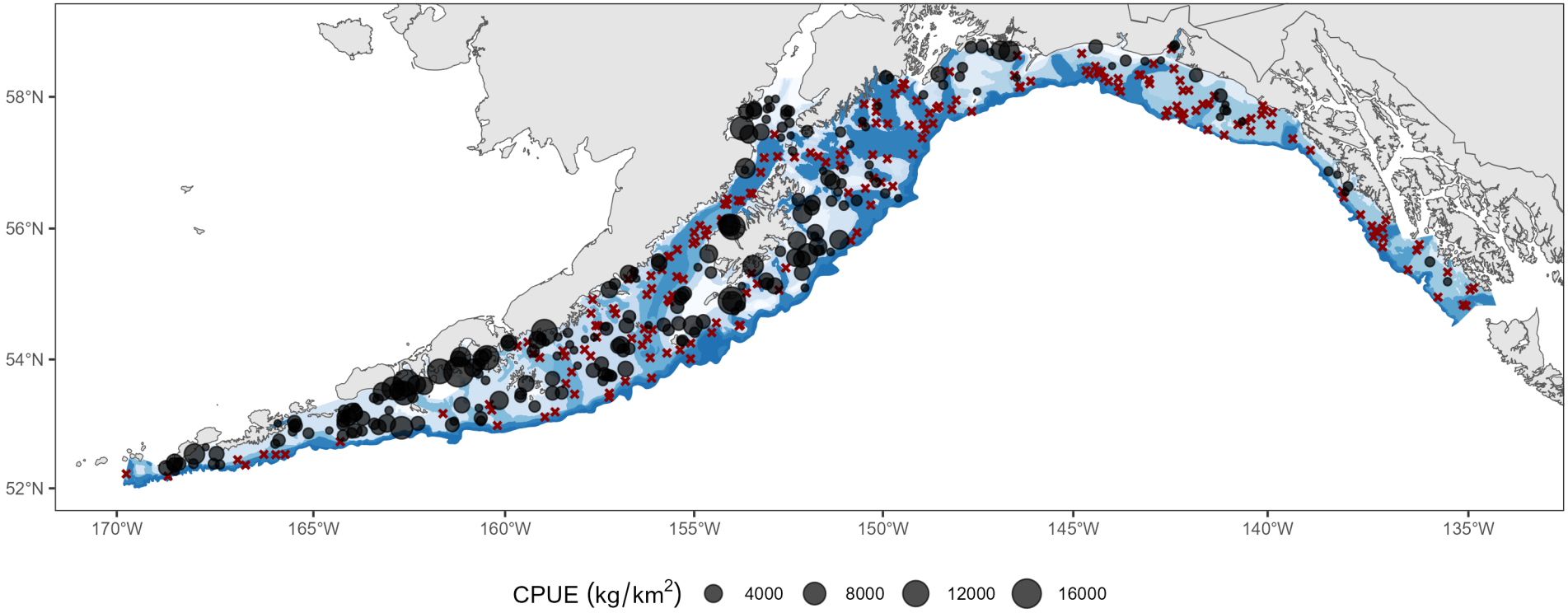


Figure 65. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of shallow-water flatfish in the 2025 GOA summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

sharks complex (*various*)

- The sharks complex includes spiny dogfish (*Squalus suckleyi*), Pacific sleeper shark (*Somniosus pacificus*), and salmon shark (*Lamna ditropis*).
- Sharks were the 14th most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 89,624 mt, which is a 32.6% increase from 2023 (Fig. **66**).
- The highest CPUEs for sharks were recorded in the Kodiak and Southeast Outside statistical areas (Table **43** and Fig. **67**).
- The largest estimated biomass for sharks was in the Kodiak statistical area and the depth range with the largest estimated biomass was 51 – 75 m (Table **44**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 43. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing sharks, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	0	0%	0.0	0	0%
Chirikof	109	3	3%	6.1	406	0%
Kodiak	125	32	26%	727.3	69,601	78%
West Yakutat	43	17	40%	168.4	5,899	7%
Southeast Outside	58	30	52%	317.0	13,719	15%
All areas	431	82	19%	297.6	89,624	100%

Table 44. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing sharks, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Chirikof	1 - 50	9	1	11%	27.8	271
Chirikof	51 - 150	55	1	2%	0.9	27
Chirikof	151 - 250	37	1	3%	6.0	107
Kodiak	1 - 50	12	5	42%	116.9	1,386
Kodiak	51 - 75	13	4	31%	5,506.0	60,162
Kodiak	76 - 125	36	8	22%	243.8	6,110
Kodiak	126 - 150	25	7	28%	50.2	610
Kodiak	151 - 700	39	8	21%	37.3	1,332
West Yakutat	1 - 50	4	2	50%	83.9	308
West Yakutat	51 - 100	4	3	75%	333.2	2,442
West Yakutat	101 - 175	11	7	64%	234.7	2,799
West Yakutat	176 - 200	11	2	18%	9.1	39
West Yakutat	201 - 700	13	3	23%	39.6	311
Southeast Outside	1 - 100	7	3	43%	342.2	3,071
Southeast Outside	101 - 200	32	23	72%	447.1	10,424
Southeast Outside	201 - 300	13	4	31%	35.6	224

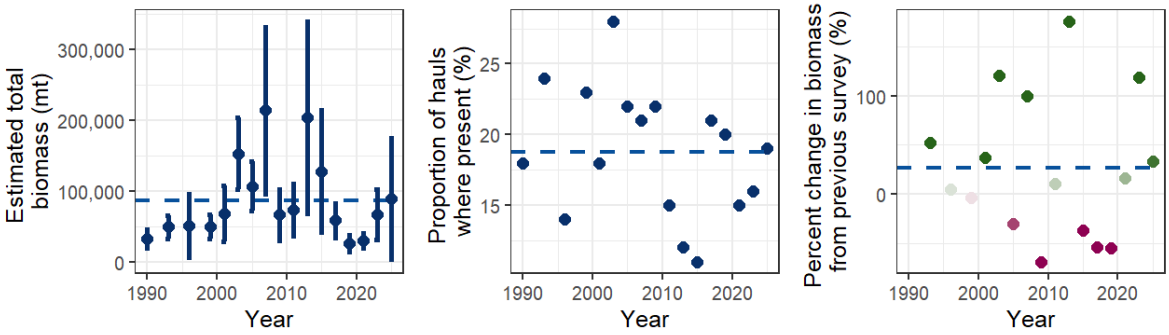


Figure 66. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of sharks in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

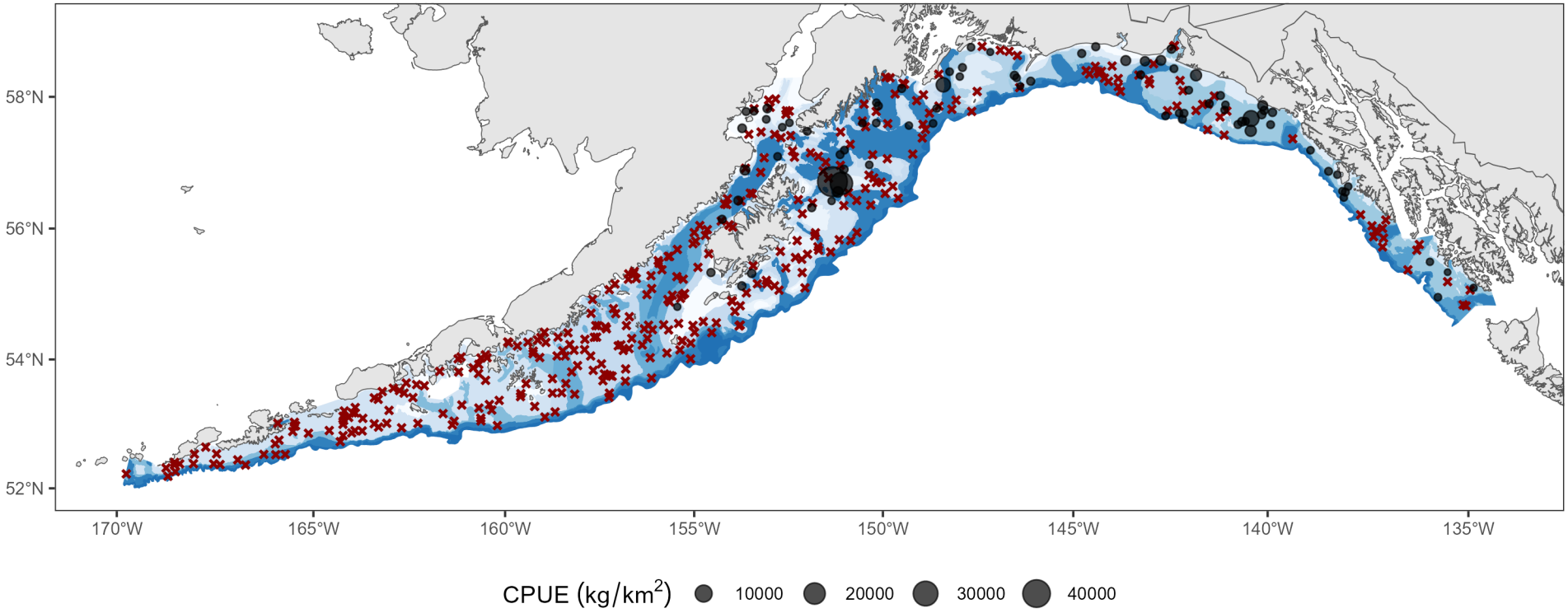


Figure 67. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of sharks in the 2025 GOA summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

skates complex (*various*)

- The skates complex includes unidentified members of the family *Rajidae*, white skate (*Bathyraja spinosissima*), deepsea skate (*Bathyraja abyssicola*), big skate (*Beringraja binoculata*), California skate (*Raja inornata*), Bering skate (*Bathyraja interrupta*), longnose skate (*Beringraja rhina*), roughshoulder skate (*Amblyraja hyperborea*), starry skate (*Raja stellulata*), mud skate (*Bathyraja taranetzi*), roughtail skate (*Bathyraja trachura*), Alaska skate (*Arctoraja parmifera*), Aleutian skate (*Bathyraja aleutica*), commander skate (*Bathyraja lindbergi*), leopard skate (*Bathyraja panthera*), whiteblotched skate (*Bathyraja maculata*), butterfly skate (*Bathyraja mariposa*), whitebrow skate (*Bathyraja minispinosa*), golden skate (*Bathyraja smirnovi*), and Okhotsk skate (*Bathyraja violacea*).
- Skates were the 17th most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 84,758 mt, which is a 8% increase from 2023 (Fig. **68**).
- The highest CPUEs for skates were recorded in the Chirikof and Kodiak statistical areas (Table **45** and Fig. **69**).
- The largest estimated skate biomass in the Kodiak statistical area and the depth range with the largest estimated biomass was 1 - 50 m (Table **46**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 45. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing skates, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	20	21%	150.4	9,121	11%
Chirikof	109	55	50%	447.9	29,795	35%
Kodiak	125	61	49%	319.4	30,562	36%
West Yakutat	43	24	56%	301.0	10,541	12%
Southeast Outside	58	21	36%	109.5	4,740	6%
All areas	431	181	42%	281.4	84,758	100%

Table 46. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing skates, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	1 - 50	13	2	15%	140.3	1,114
Shumagin	51 - 125	62	12	19%	132.9	5,035
Shumagin	126 - 225	14	4	29%	133.8	1,221
Shumagin	226 - 700	7	2	29%	306.4	1,750
Chirikof	1 - 50	9	4	44%	1,176.0	11,461
Chirikof	51 - 150	55	24	44%	284.5	8,508
Chirikof	151 - 250	37	24	65%	477.2	8,562
Chirikof	251 - 350	4	3	75%	202.6	1,265
Kodiak	1 - 50	12	10	83%	679.7	8,059
Kodiak	51 - 75	13	4	31%	296.8	3,243
Kodiak	76 - 125	36	14	39%	385.3	9,656
Kodiak	126 - 150	25	13	52%	234.6	2,852
Kodiak	151 - 700	39	20	51%	189.1	6,752
West Yakutat	1 - 50	4	2	50%	163.8	601
West Yakutat	51 - 100	4	2	50%	252.2	1,849
West Yakutat	101 - 175	11	8	73%	543.9	6,485
West Yakutat	176 - 200	11	3	27%	25.5	108
West Yakutat	201 - 700	13	9	69%	190.4	1,499
Southeast Outside	1 - 100	7	4	57%	178.3	1,600
Southeast Outside	101 - 200	32	10	31%	76.1	1,774
Southeast Outside	201 - 300	13	5	38%	158.4	994
Southeast Outside	301 - 700	6	2	33%	78.9	372

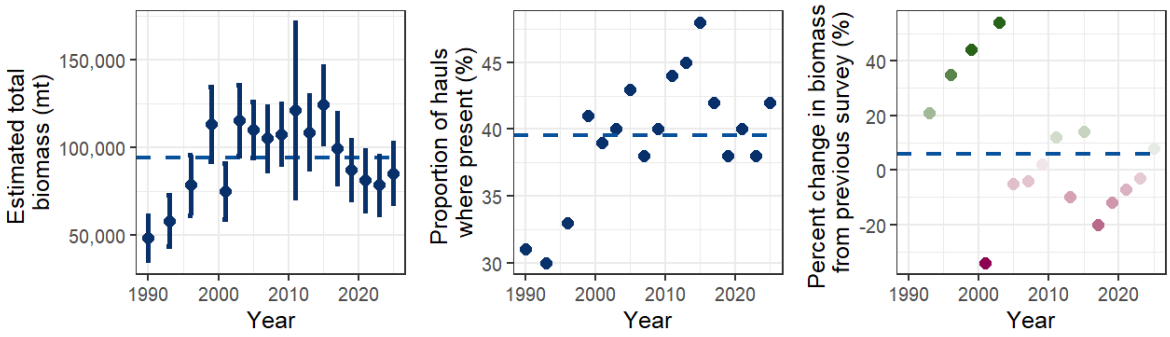


Figure 68. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of skates in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

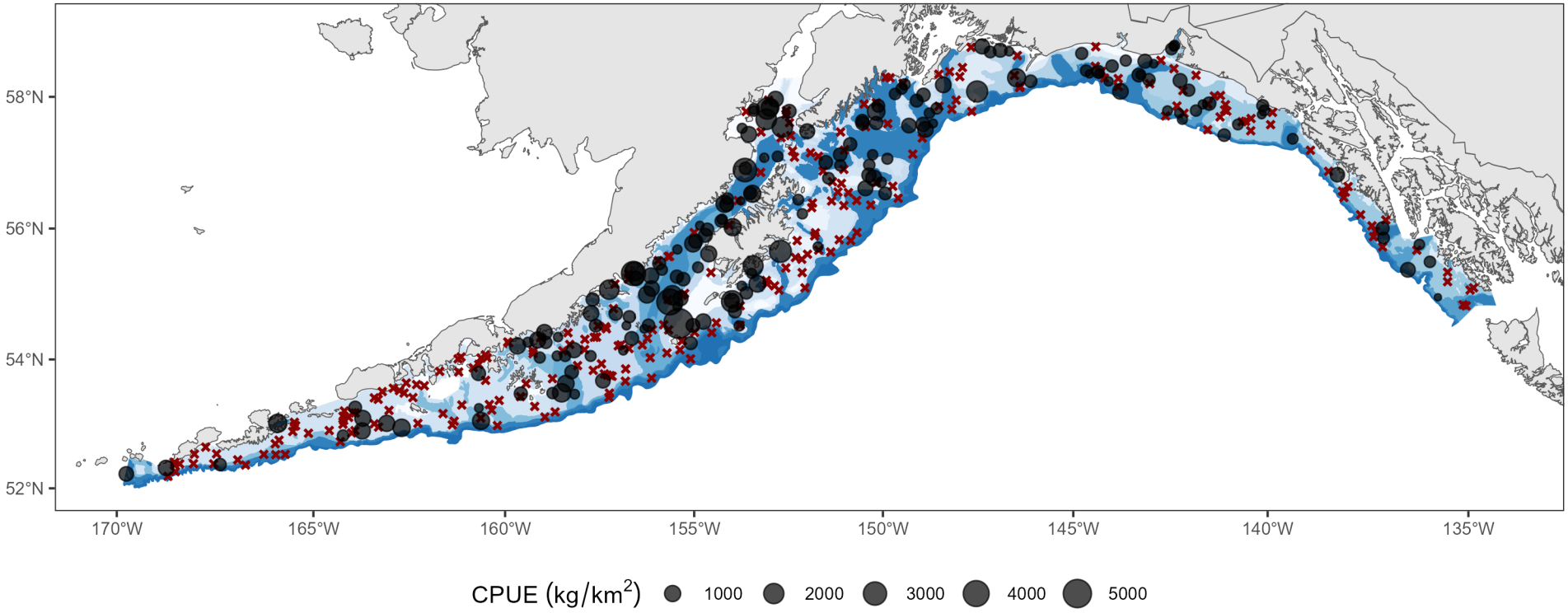


Figure 69. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of skates in the 2025 GOA summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

thornyheads complex (*various*)

- The thornyheads complex includes shortspine thornyhead (*Sebastolobus alascanus*), longspine thornyhead (*Sebastolobus altivelis*), and broadfin thornyhead (*Sebastolobus macrochir*).
- Thornyheads were the 25th most abundant group caught in the 2025 GOA survey. Their total biomass was estimated to be 42,328 mt, which is a 25.9% decrease from 2023 (Fig. **70**).
- The highest CPUEs for thornyheads were recorded in the Southeast Outside and West Yakutat statistical areas (Table **47** and Fig. **71**).
- The largest estimated thornyhead biomass was in the Kodiak statistical area and the depth range with the largest estimated biomass was 151 - 700 m (Table **48**).
- Length compositions and size by depth are not shown for complexes; these data are available upon request.

Table 47. -- Summary by NMFS statistical areas of 2025 GOA trawl effort (number of hauls), number of hauls containing thornyheads, and their mean CPUE and biomass estimates.

NMFS area	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)	% biomass in area
Shumagin	96	12	12%	138.9	8,425	20%
Chirikof	109	21	19%	84.4	5,613	13%
Kodiak	125	22	18%	124.2	11,881	28%
West Yakutat	43	25	58%	171.7	6,014	14%
Southeast Outside	58	26	45%	240.2	10,395	25%
All areas	431	106	25%	140.5	42,328	100%

Table 48. -- Summary by area and depth interval of 2025 GOA survey trawl effort (number of hauls), number of hauls containing thornyheads, and their mean CPUE and biomass estimates.

NMFS area	Depth (m)	Total haul count	Hauls w/ positive catch	% positive tows	CPUE (kg/km^2)	Biomass (t)
Shumagin	51 - 125	62	1	2%	0.3	10
Shumagin	126 - 225	14	5	36%	323.7	2,954
Shumagin	226 - 700	7	6	86%	956.2	5,461
Chirikof	151 - 250	37	16	43%	99.7	1,788
Chirikof	251 - 350	4	1	25%	43.7	272
Chirikof	351 - 700	4	4	100%	1,316.3	3,552
Kodiak	76 - 125	36	1	3%	0.8	19
Kodiak	151 - 700	39	21	54%	332.2	11,862
West Yakutat	101 - 175	11	4	36%	43.7	521
West Yakutat	176 - 200	11	8	73%	86.2	364
West Yakutat	201 - 700	13	13	100%	651.4	5,129
Southeast Outside	101 - 200	32	7	22%	27.9	651
Southeast Outside	201 - 300	13	13	100%	330.1	2,072
Southeast Outside	301 - 700	6	6	100%	1,627.3	7,672

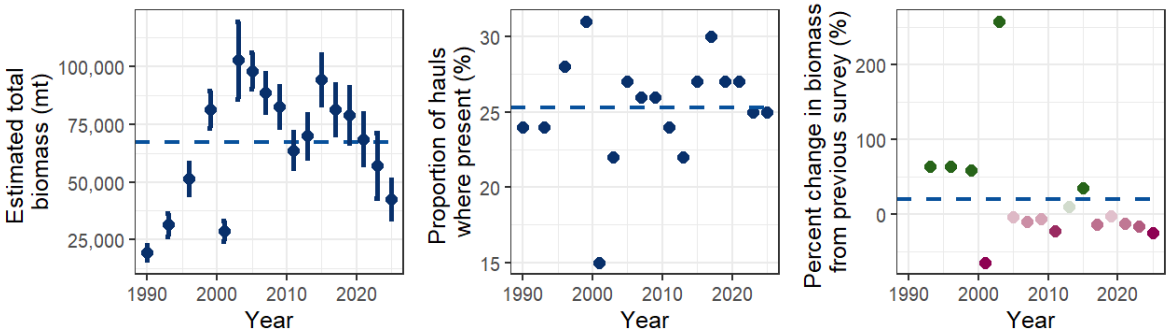


Figure 70. -- Time series of biomass, prevalence in survey hauls, and percent change in biomass of thornyheads in the GOA bottom trawl survey from 1990 to 2025. The dashed horizontal line indicates the long-term average.

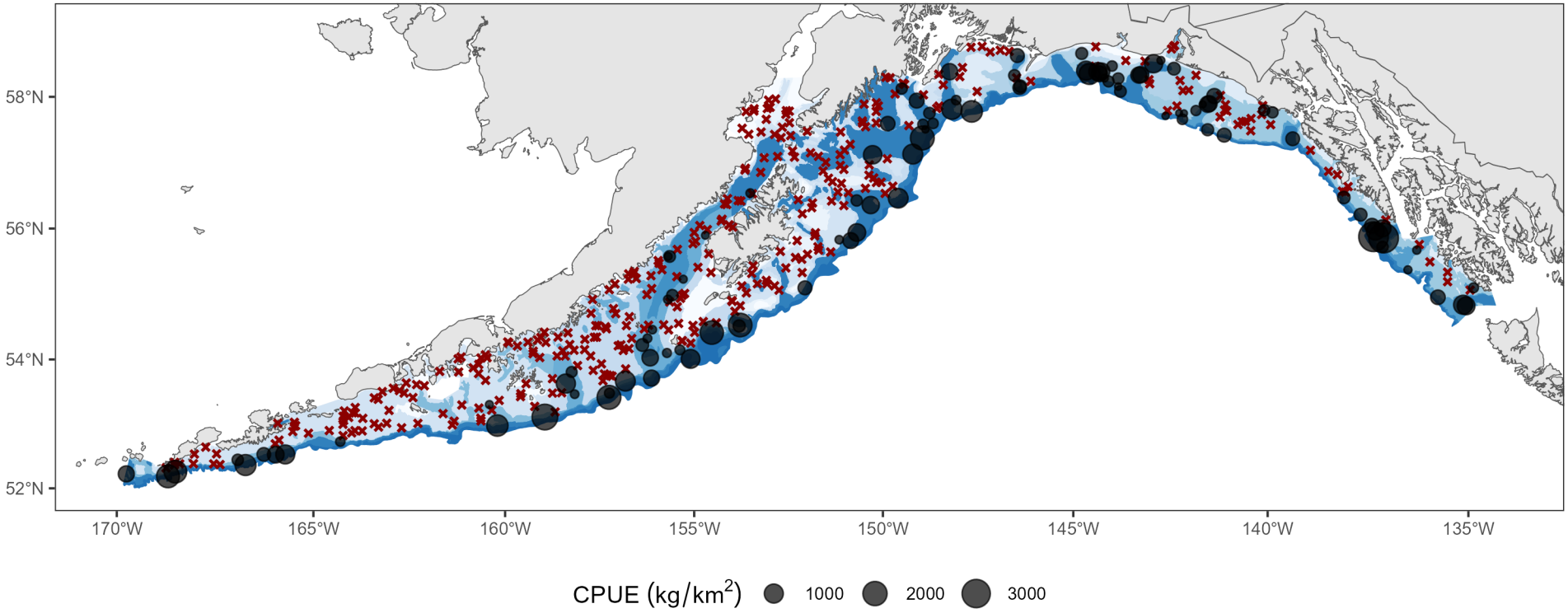


Figure 71. -- Catch per unit effort (CPUE, kg/ha; X = no catch) of thornyheads in the 2025 GOA summer bottom trawl survey. Strata are shaded by their maximum depth (darker colors = deeper).

Acknowledgments

The authors thank Thaddaeus Buser and Susanne McDermott for internally reviewing this data report. We also thank the staff of the Groundfish Assessment Program for their energy and dedication to high-quality, timely survey data products.

Appendices

Appendix Table A1.-- Survey strata used for the 2025 GOA bottom trawl survey including depth, stratum number, name and area.

Depth range (m)	Stratum number	Stratum name	Area (km^2)
1 - 50	14	Shumagin	7,938
1 - 50	23	Chirikof	9,745
1 - 50	36	Kodiak	11,856
1 - 50	42	West Yakutat	3,669
1 - 100	51	Southeast Outside	8,974
51 - 75	37	Kodiak	10,927
51 - 100	43	West Yakutat	7,329
51 - 125	15	Shumagin	37,877
51 - 150	24	Chirikof	29,900
76 - 125	38	Kodiak	25,058
101 - 175	144	West Yakutat	11,924
101 - 200	152	Southeast Outside	23,313
126 - 150	135	Kodiak	12,154
126 - 225	113	Shumagin	9,125
151 - 250	123	Chirikof	17,943
151 - 700	136	Kodiak	35,702
176 - 200	145	West Yakutat	4,225
201 - 300	252	Southeast Outside	6,277
201 - 700	242	West Yakutat	7,873
226 - 700	211	Shumagin	5,711
251 - 350	222	Chirikof	6,241
301 - 700	352	Southeast Outside	4,714
351 - 700	321	Chirikof	2,699
1 - 700		**Grand total**	**315,502**

Appendix Table B1. -- Fish and invertebrate species encountered and identified during the 2025 GOA bottom trawl survey.

NMFS area	Family	Common name	Species name
Chirikof	Rajidae	Alaska skate	*Arctoraja parmifera*
Chirikof	Rajidae	Aleutian skate	*Bathyraja aleutica*
Chirikof	Rajidae	Bering skate	*Bathyraja interrupta*
Chirikof	Rajidae	big skate	*Beringraja binoculata*
Chirikof	Rajidae	longnose skate	*Beringraja rhina*
Chirikof	Squalidae	spiny dogfish	*Squalus suckleyi*
Chirikof	Pleuronectidae	Kamchatka flounder	*Atheresthes evermanni*
Chirikof	Pleuronectidae	arrowtooth flounder	*Atheresthes stomias*
Chirikof	Pleuronectidae	rex sole	*Glyptocephalus zachirus*
Chirikof	Pleuronectidae	flathead sole	*Hippoglossoides elassodon*
Chirikof	Pleuronectidae	Pacific halibut	*Hippoglossus stenolepis*
Chirikof	Pleuronectidae	butter sole	*Isopsetta isolepis*
Chirikof	Pleuronectidae	southern rock sole	*Lepidopsetta bilineata*
Chirikof	Pleuronectidae	northern rock sole	*Lepidopsetta polyxystra*
Chirikof	Pleuronectidae	Dover sole	*Microstomus pacificus*
Chirikof	Pleuronectidae	English sole	*Parophrys vetulus*
Chirikof	Pleuronectidae	starry flounder	*Platichthys stellatus*
Chirikof	Pleuronectidae	Alaska plaice	*Pleuronectes quadrituberculatus*
Chirikof	Pleuronectidae	sand sole	*Psettichthys melanostictus*
Chirikof	Macrouridae	giant grenadier	*Albatrossia pectoralis*
Chirikof	Anoplopomatidae	sablefish	*Anoplopoma fimbria*
Chirikof	Moridae	Pacific flatnose	*Antimora microlepis*
Chirikof	Cyclopteridae	smooth lumpsucker	*Aptocyclus ventricosus*
Chirikof	Agonidae	spinycheek starsnout	*Bathyagonus infraspinatus*
Chirikof	Bathymasteridae	searcher	*Bathymaster signatus*
Chirikof	Liparidae	smalldisk snailfish	*Careproctus gilberti*
Chirikof	Stomiidae	Pacific viperfish	*Chauliodus macouni*
Chirikof	Clupeidae	Pacific herring	*Clupea pallasii*
Chirikof	Macrouridae	Pacific grenadier	*Coryphaenoides acrolepis*
Chirikof	Macrouridae	popeye grenadier	*Coryphaenoides cinereus*
Chirikof	Cryptacanthodidae	giant wrymouth	*Cryptacanthodes giganteus*
Chirikof	Liparidae	blotched snailfish	*Crystallichthys cyclospilus*
Chirikof	Psychrolutidae	spinyhead sculpin	*Dasycottus setiger*
Chirikof	Cyclopteridae	Pacific spiny lumpsucker	*Eumicrotremus orbis*
Chirikof	Gadidae	walleye pollock	*Gadus chalcogrammus*
Chirikof	Gadidae	Pacific cod	*Gadus macrocephalus*
Chirikof	Cottidae	yellow Irish lord	*Hemilepidotus jordani*
Chirikof	Hemitripteridae	bigmouth sculpin	*Hemitripterus bolini*
Chirikof	Hexagrammidae	kelp greenling	*Hexagrammos decagrammus*
Chirikof	Agonidae	fourhorn poacher	*Hypsagonus quadricornis*
Chirikof	Cottidae	thorny sculpin	*Icelus spiniger*
Chirikof	Bathylagidae	northern smoothtongue	*Leuroglossus schmidti*
Chirikof	Stichaeidae	longsnout prickleback	*Lumpenella longirostris*
Chirikof	Stichaeidae	slender eelblenny	*Lumpenus fabricii*

NMFS area	Family	Common name	Species name
Chirikof	Zoarcidae	shortfin eelpout	*Lycodes brevipes*
Chirikof	Zoarcidae	wattled eelpout	*Lycodes palearis*
Chirikof	Psychrolutidae	darkfin sculpin	*Malacocottus zonurus*
Chirikof	Osmeridae	Pacific capelin	*Mallotus catervarius (=villosus)*
Chirikof	Gadidae	Pacific tomcod	*Microgadus proximus*
Chirikof	Cottidae	great sculpin	*Myoxocephalus polyacanthocephalus*
Chirikof	Salmonidae	chum salmon	*Oncorhynchus keta*
Chirikof	Salmonidae	chinook salmon	*Oncorhynchus tshawytscha*
Chirikof	Hexagrammidae	lingcod	*Ophiodon elongatus*
Chirikof	Hexagrammidae	Atka mackerel	*Pleurogrammus monopterygius*
Chirikof	Agonidae	sturgeon poacher	*Podothecus accipenserinus*
Chirikof	Agonidae	sawback poacher	*Sarritor frenatus*
Chirikof	Scorpaenidae	rougheye rockfish	*Sebastes aleutianus*
Chirikof	Scorpaenidae	Pacific ocean perch	*Sebastes alutus*
Chirikof	Scorpaenidae	redbanded rockfish	*Sebastes babcocki*
Chirikof	Scorpaenidae	shortraker rockfish	*Sebastes borealis*
Chirikof	Scorpaenidae	dark rockfish	*Sebastes ciliatus*
Chirikof	Scorpaenidae	quillback rockfish	*Sebastes maliger*
Chirikof	Scorpaenidae	blackspotted rockfish	*Sebastes melanostictus*
Chirikof	Scorpaenidae	northern rockfish	*Sebastes polyspinis*
Chirikof	Scorpaenidae	redstripe rockfish	*Sebastes proriger*
Chirikof	Scorpaenidae	yelloweye rockfish	*Sebastes ruberrimus*
Chirikof	Scorpaenidae	dusky rockfish	*Sebastes variabilis*
Chirikof	Scorpaenidae	shortspine thornyhead	*Sebastolobus alascanus*
Chirikof	Osmeridae	eulachon	*Thaleichthys pacificus*
Chirikof	Cottidae	scissortail sculpin	*Triglops forficatus*
Chirikof	Zaproridae	prowfish	*Zaprora silenus*
Chirikof	Rossellidae	angel-hair vase sponge	*Acanthascus* sp. A
Chirikof	Hormathiidae	reticulate anemone	*Actinauge verrilli*
Chirikof	Actinostolidae	rough purple sea anemone	*Actinostola faeculenta*
Chirikof	Polyclinidae	sand-grain imbedded ascidian	*Amaroucium soldatovi*
Chirikof	Aphrocallistidae	clay pipe sponge	*Aphrocallistes vastus*
Chirikof	Stichopodidae	California sea cucumber	*Apostichopus californicus*
Chirikof	Volutidae		*Arctomelon borealis*
Chirikof	Crangonidae	kuro argid	*Argis lar*
Chirikof	Crangonidae	Nelson argid	*Argis levior*
Chirikof	Primnoidae		*Arthrogorgia otsukai*
Chirikof	Asteriidae	purple-orange sea star	*Asterias amurensis*
Chirikof	Rossellidae	vase sponge	*Aulosaccus schulzei*
Chirikof	Ulmaridae		*Aurelia labiata*
Chirikof	Balanidae	beaked barnacle	*Balanus rostratus*
Chirikof	Octopodidae	smoothskin octopus	*Benthoctopus leioderma*
Chirikof	Gonatidae	magistrate armhook squid	*Berryteuthis magister*
Chirikof	Schizasteridae	heart urchin	*Brisaster latifrons*
Chirikof	Goniasteridae	red bat star	*Ceramaster japonicus*

NMFS area	Family	Common name	Species name
Chirikof	Goniasteridae		*Ceramaster stellatus*
Chirikof	Nereididae	red and white banded sea nymph	*Cheilonereis cyclurus*
Chirikof	Benthopectinidae	fragile sea star	*Cheiraster dawsoni*
Chirikof	Oregoniidae	Tanner crab	*Chionoecetes bairdi*
Chirikof	Oregoniidae	grooved Tanner crab	*Chionoecetes tanneri*
Chirikof	Balanidae	giant barnacle	*Chirona evermanni*
Chirikof	Pisidae	longhorned decorator crab	*Chorilia longipes*
Chirikof	Pelagiidae		*Chrysaora melanaster*
Chirikof	Trochidae		*Cidarina cidaris*
Chirikof	Cardiidae	hairy cockle	*Ciliatoclinocardium ciliatum*
Chirikof	Chalinidae	rough hat sponge	*Cladocroce attu*
Chirikof	Styelidae	broad base tunicate	*Cnemidocarpa finmarkiensis*
Chirikof	Crangonidae	twospine Crangon	*Crangon communis*
Chirikof	Crangonidae	ridged Crangon	*Crangon dalli*
Chirikof	Actiniidae	chevron-tentacled anemone	*Cribrinopsis fernaldi*
Chirikof	Solasteridae	grooved sea star	*Crossaster borealis*
Chirikof	Solasteridae	rose sea star	*Crossaster papposus*
Chirikof	Ctenodiscidae	common mud star	*Ctenodiscus crispatus*
Chirikof	Cucumariidae		*Cucumaria frondosa*
Chirikof	Cyaneidae	lion's mane jelly	*Cyanea capillata*
Chirikof	Propeamussidae	salmon glass-scallop	*Cyclopecten davidsoni*
Chirikof	Clavelinidae	globular ascidian	*Distaplia occidentalis*
Chirikof	Echinarachniidae	parma sand dollar	*Echinarachnius parma*
Chirikof	Microcionidae	hat sponge	*Echinoclathria beringensis*
Chirikof	Paguridae	purple hermit	*Elassochirus cavimanus*
Chirikof	Paguridae	widehand hermit crab	*Elassochirus tenuimanus*
Chirikof	Limopsidae	vaginated limops	*Empleconia vaginata*
Chirikof	Octopodidae	giant octopus	*Enteroctopus dofleini*
Chirikof	Scrupariidae	feathery bryozoan	*Eucratea loricata*
Chirikof	Asteriidae	mottled sea star	*Evasterias troschelii*
Chirikof	Primnoidae		*Fanellia compressa*
Chirikof	Antedonidae	common northern feather star	*Florometra asperrima*
Chirikof	Ranellidae	Oregon triton	*Fusitriton oregonensis*
Chirikof	Goniasteridae	Swift sea star	*Gephyreaster swifti*
Chirikof	Cancridae	Oregon rock crab	*Glebocarcinus oregonensis*
Chirikof	Gorgonocephalidae	basketstar	*Gorgonocephalus eucnemis*
Chirikof	Halichondriidae	ginseng sponge	*Halichondria oblonga*
Chirikof	Halipteridae	maroon sea whip	*Halipteris* sp. A (Stone 2015)
Chirikof	Halipteridae		*Halipteris willemoesi*
Chirikof	Pyuridae	bristly tunicate	*Halocynthia igaboja*
Chirikof	Echinasteridae	ridged blood star	*Henricia aspera*
Chirikof	Coelosphaeridae	spud sponge	*Histodermella kagigunensis*
Chirikof	Oregoniidae	Pacific lyre crab	*Hyas lyratus*
Chirikof	Paguridae	splendid hermit	*Labidochirus splendescens*
Chirikof	Laqueidae	California lamp shell	*Laqueus californianus*
Chirikof	Latrunculiidae	green papillate sponge	*Latrunculia oparinae*

NMFS area	Family	Common name	Species name
Chirikof	Asteriidae		*Leptasterias polaris*
Chirikof	Asteriidae	blackspined sea star	*Lethasterias nanimensis*
Chirikof	Liponematidae	tentacle-shedding anemone	*Liponema brevicorne*
Chirikof	Lithodidae	golden king crab	*Lithodes aequispinus*
Chirikof	Lithodidae	scarlet king crab	*Lithodes couesi*
Chirikof	Lithodidae	brown box crab	*Lopholithodes foraminatus*
Chirikof	Metridiidae	gigantic anemone	*Metridium farcimen*
Chirikof	Mytilidae	northern horsemussel	*Modiolus modiolus*
Chirikof	Molgulidae	sea grape	*Molgula griffithsii*
Chirikof	Molpadiidae	sweet sea potato	*Molpadia intermedia*
Chirikof	Mycalidae	tree sponge	*Mycale loveni*
Chirikof	Buccinidae	Pribilof whelk	*Neptunea pribiloffensis*
Chirikof	Ophiactidae		*Ophiopholis japonica*
Chirikof	Ophiuridae	notched brittlestar	*Ophiura sarsii*
Chirikof	Opisthoteuthidae	flapjack devilfish	*Opisthoteuthis californiana*
Chirikof	Oregoniidae	split-nose decorator crab	*Oregonia bifurca*
Chirikof	Oregoniidae	graceful decorator crab	*Oregonia gracilis*
Chirikof	Asteriidae	redbanded sea star	*Orthasterias koehleri*
Chirikof	Paguridae	Aleutian hermit	*Pagurus aleuticus*
Chirikof	Paguridae	sponge hermit	*Pagurus brandti*
Chirikof	Paguridae	hairy hermit crab	*Pagurus capillatus*
Chirikof	Paguridae	knobbyhand hermit	*Pagurus confragosus*
Chirikof	Paguridae	Alaskan hermit	*Pagurus ochotensis*
Chirikof	Paguridae	longfinger hermit	*Pagurus rathbuni*
Chirikof	Paguridae	setose hermit	*Pagurus setosus*
Chirikof	Paguridae	fuzzy hermit crab	*Pagurus trigonocheirus*
Chirikof	Pandalidae	sidestripe shrimp	*Pandalopsis dispar*
Chirikof	Pandalidae	Alaskan pink shrimp	*Pandalus eous*
Chirikof	Pandalidae	coonstripe shrimp	*Pandalus hypsinotus*
Chirikof	Pandalidae	ocean shrimp	*Pandalus jordani*
Chirikof	Pandalidae	yellowleg pandalid	*Pandalus tridens*
Chirikof	Pasiphaeidae	Pacific glass shrimp	*Pasiphaea pacifica*
Chirikof	Pectinidae	weathervane scallop	*Patinopecten caurinus*
Chirikof	Pedicellasteridae	majestic sea star	*Pedicellaster magister*
Chirikof	Periphyllidae	helmet jelly	*Periphylla periphylla*
Chirikof	Ulmaridae	egg yolk jelly	*Phacellophora camtschatica*
Chirikof	Pinnotheridae	pea crab	*Pinnixa occidentalis*
Chirikof	Anomiidae	abalone jingle	*Pododesmus cepio*
Chirikof	Anomiidae	Alaska falsejingle	*Pododesmus macrochisma*
Chirikof	Polymastiidae	Flugel nippled sponge	*Polymastia fluegeli*
Chirikof	Polymastiidae	orange nipple ball sponge	*Polymastia* sp. B (Clark 2006)
Chirikof	Echinasteridae	thorny sea star	*Poraniopsis inflata*
Chirikof	Primnoidae		*Primnoa pacifica*
Chirikof	Goniasteridae		*Pseudarchaster alascensis*
Chirikof	Goniasteridae	scarlet sea star	*Pseudarchaster parelii*
Chirikof	Synallactidae	sandy sea cucumber	*Pseudostichopus mollis*

NMFS area	Family	Common name	Species name
Chirikof	Psolidae		*Psolus phantapus*
Chirikof	Psolidae		*Psolus* sp. A (Clark 2006)
Chirikof	Pterasteridae		*Pteraster jordani*
Chirikof	Pterasteridae		*Pteraster tesselatus*
Chirikof	Asteriidae	sunflower sea star	*Pycnopodia helianthoides*
Chirikof	Buccinidae	left-hand whelk	*Pyrulofusus harpa*
Chirikof	Pyuridae	wrinkled tunicate	*Pyura haustor*
Chirikof	Lithodidae	rhinoceros crab	*Rhinolithodes wosnessenskii*
Chirikof	Aegidae	sea cockroach	*Rocinela angustata*
Chirikof	Cancridae	furrowed rock crab	*Romaleon branneri*
Chirikof	Sepiolidae	eastern Pacific bobtail	*Rossia pacifica*
Chirikof	Serpulidae	red trumpet calcareous tubeworm	*Serpula columbiana*
Chirikof	Cardiidae	oblique smoothcockle	*Serripes notabilis*
Chirikof	Actinostolidae	orange actinistolid	*Sicyonis* sp. A (Clark 2006)
Chirikof	Solasteridae	morning sun sea star	*Solaster dawsoni*
Chirikof	Ophiuridae		*Stegophiura ponderosa*
Chirikof	Asteriidae	long-rayed star	*Stylasterias forreri*
Chirikof	Suberitidae	hermit sponge	*Suberites domuncula*
Chirikof	Synallactidae		*Synallactes challengeri*
Chirikof	Laqueidae	common brachiopod	*Terebratalia transversa*
Chirikof	Opheliidae	pupa utility worm	*Travisia pupa*
Chirikof	Polymastiidae	pale mammilated sponge	*Weberella bursa*
Chirikof	Zoanthidae	hot dog zoanthid	*Zoanthidae* sp. A
Kodiak	Rajidae	Alaska skate	*Arctoraja parmifera*
Kodiak	Rajidae	Aleutian skate	*Bathyraja aleutica*
Kodiak	Rajidae	Bering skate	*Bathyraja interrupta*
Kodiak	Rajidae	big skate	*Beringraja binoculata*
Kodiak	Rajidae	longnose skate	*Beringraja rhina*
Kodiak	Lamnidae	salmon shark	*Lamna ditropis*
Kodiak	Squalidae	spiny dogfish	*Squalus suckleyi*
Kodiak	Pleuronectidae	arrowtooth flounder	*Atheresthes stomias*
Kodiak	Pleuronectidae	rex sole	*Glyptocephalus zachirus*
Kodiak	Pleuronectidae	flathead sole	*Hippoglossoides elassodon*
Kodiak	Pleuronectidae	Pacific halibut	*Hippoglossus stenolepis*
Kodiak	Pleuronectidae	butter sole	*Isopsetta isolepis*
Kodiak	Pleuronectidae	southern rock sole	*Lepidopsetta bilineata*
Kodiak	Pleuronectidae	northern rock sole	*Lepidopsetta polyxystra*
Kodiak	Pleuronectidae	yellowfin sole	*Limanda aspera*
Kodiak	Pleuronectidae	slender sole	*Lyopsetta exilis*
Kodiak	Pleuronectidae	Dover sole	*Microstomus pacificus*
Kodiak	Pleuronectidae	English sole	*Parophrys vetulus*
Kodiak	Pleuronectidae	starry flounder	*Platichthys stellatus*
Kodiak	Pleuronectidae	Alaska plaice	*Pleuronectes quadrituberculatus*
Kodiak	Pleuronectidae	sand sole	*Psettichthys melanostictus*
Kodiak	Macrouridae	giant grenadier	*Albatrossia pectoralis*

NMFS area	Family	Common name	Species name
Kodiak	Ammodytidae	Pacific sand lance	*Ammodytes personatus*
Kodiak	Anoplopomatidae	sablefish	*Anoplopoma fimbria*
Kodiak	Cyclopteridae	smooth lumpsucker	*Aptocyclus ventricosus*
Kodiak	Agonidae	Aleutian alligatorfish	*Aspidophoroides monopterygius*
Kodiak	Agonidae	spinycheek starsnout	*Bathyagonus infraspinatus*
Kodiak	Bathymasteridae	searcher	*Bathymaster signatus*
Kodiak	Liparidae	monster snailfish	*Careproctus phasma*
Kodiak	Clupeidae	Pacific herring	*Clupea pallasii*
Kodiak	Cryptacanthodidae	giant wrymouth	*Cryptacanthodes giganteus*
Kodiak	Liparidae	blotched snailfish	*Crystallichthys cyclospilus*
Kodiak	Psychrolutidae	spinyhead sculpin	*Dasycottus setiger*
Kodiak	Cyclopteridae	Pacific spiny lumpsucker	*Eumicrotremus orbis*
Kodiak	Gadidae	walleye pollock	*Gadus chalcogrammus*
Kodiak	Gadidae	Pacific cod	*Gadus macrocephalus*
Kodiak	Cottidae	red Irish lord	*Hemilepidotus hemilepidotus*
Kodiak	Cottidae	yellow Irish lord	*Hemilepidotus jordani*
Kodiak	Hemitripteridae	bigmouth sculpin	*Hemitripterus bolini*
Kodiak	Hexagrammidae	kelp greenling	*Hexagrammos decagrammus*
Kodiak	Hexagrammidae	whitespotted greenling	*Hexagrammos stelleri*
Kodiak	Agonidae	fourhorn poacher	*Hypsagonus quadricornis*
Kodiak	Cottidae	northern sculpin	*Icelinus borealis*
Kodiak	Bathylagidae	northern smoothtongue	*Leuroglossus schmidti*
Kodiak	Stichaeidae	longsnout prickleback	*Lumpenella longirostris*
Kodiak	Zoarcidae	Bering eelpout	*Lycodes beringi*
Kodiak	Zoarcidae	shortfin eelpout	*Lycodes brevipes*
Kodiak	Zoarcidae	wattled eelpout	*Lycodes palearis*
Kodiak	Psychrolutidae	darkfin sculpin	*Malacocottus zonurus*
Kodiak	Osmeridae	Pacific capelin	*Mallotus catervarius (=villosus)*
Kodiak	Gadidae	Pacific tomcod	*Microgadus proximus*
Kodiak	Cottidae	great sculpin	*Myoxocephalus polyacanthocephalus*
Kodiak	Salmonidae	pink salmon	*Oncorhynchus gorbuscha*
Kodiak	Salmonidae	chum salmon	*Oncorhynchus keta*
Kodiak	Salmonidae	coho salmon	*Oncorhynchus kisutch*
Kodiak	Salmonidae	sockeye salmon	*Oncorhynchus nerka*
Kodiak	Salmonidae	chinook salmon	*Oncorhynchus tshawytscha*
Kodiak	Hexagrammidae	lingcod	*Ophiodon elongatus*
Kodiak	Hexagrammidae	Atka mackerel	*Pleurogrammus monopterygius*
Kodiak	Agonidae	sturgeon poacher	*Podothecus accipenserinus*
Kodiak	Rhamphocottidae	grunt sculpin	*Rhamphocottus richardsonii*
Kodiak	Agonidae	sawback poacher	*Sarritor frenatus*
Kodiak	Scorpaenidae	rougheye rockfish	*Sebastes aleutianus*
Kodiak	Scorpaenidae	Pacific ocean perch	*Sebastes alutus*
Kodiak	Scorpaenidae	redbanded rockfish	*Sebastes babcocki*
Kodiak	Scorpaenidae	shortraker rockfish	*Sebastes borealis*
Kodiak	Scorpaenidae	silvergray rockfish	*Sebastes brevispinis*

NMFS area	Family	Common name	Species name
Kodiak	Scorpaenidae	widow rockfish	*Sebastes entomelas*
Kodiak	Scorpaenidae	yellowtail rockfish	*Sebastes flavidus*
Kodiak	Scorpaenidae	quillback rockfish	*Sebastes maliger*
Kodiak	Scorpaenidae	black rockfish	*Sebastes melanops*
Kodiak	Scorpaenidae	blackspotted rockfish	*Sebastes melanostictus*
Kodiak	Scorpaenidae	canary rockfish	*Sebastes pinniger*
Kodiak	Scorpaenidae	northern rockfish	*Sebastes polyspinis*
Kodiak	Scorpaenidae	redstripe rockfish	*Sebastes proriger*
Kodiak	Scorpaenidae	yelloweye rockfish	*Sebastes ruberrimus*
Kodiak	Scorpaenidae	dusky rockfish	*Sebastes variabilis*
Kodiak	Scorpaenidae	harlequin rockfish	*Sebastes variegatus*
Kodiak	Scorpaenidae	sharpchin rockfish	*Sebastes zacentrus*
Kodiak	Scorpaenidae	shortspine thornyhead	*Sebastolobus alascanus*
Kodiak	Osmeridae	eulachon	*Thaleichthys pacificus*
Kodiak	Trichodontidae	Pacific sandfish	*Trichodon trichodon*
Kodiak	Cottidae	scissortail sculpin	*Triglops forficatus*
Kodiak	Cottidae	roughspine sculpin	*Triglops macellus*
Kodiak	Cottidae	ribbed sculpin	*Triglops pingelii*
Kodiak	Zaproridae	prowfish	*Zaprora silenus*
Kodiak	Lithodidae	fuzzy crab	*Acantholithodes hispidus*
Kodiak	Hormathiidae	reticulate anemone	*Actinauge verrilli*
Kodiak	Polyclinidae	sand-grain imbedded ascidian	*Amaroucium soldatovi*
Kodiak	Aphrocallistidae	clay pipe sponge	*Aphrocallistes vastus*
Kodiak	Aphroditidae		*Aphrodita negligens*
Kodiak	Stichopodidae	California sea cucumber	*Apostichopus californicus*
Kodiak	Volutidae	Alaska volute	*Arctomelon stearnsii*
Kodiak	Crangonidae	kuro argid	*Argis lar*
Kodiak	Arminidae	California Armina	*Armina californica*
Kodiak	Ulmaridae		*Aurelia labiata*
Kodiak	Balanidae		*Balanus balanus*
Kodiak	Octopodidae	smoothskin octopus	*Benthoctopus leioderma*
Kodiak	Buccinidae		*Beringius kennicottii*
Kodiak	Gonatidae	magistrate armhook squid	*Berryteuthis magister*
Kodiak	Schizasteridae	heart urchin	*Brisaster latifrons*
Kodiak	Goniasteridae	red bat star	*Ceramaster japonicus*
Kodiak	Nereididae	red and white banded sea nymph	*Cheilonereis cyclurus*
Kodiak	Benthopectinidae	fragile sea star	*Cheiraster dawsoni*
Kodiak	Oregoniidae	Tanner crab	*Chionoecetes bairdi*
Kodiak	Balanidae	giant barnacle	*Chirona evermanni*
Kodiak	Pisidae	longhorned decorator crab	*Chorilia longipes*
Kodiak	Pelagiidae		*Chrysaora melanaster*
Kodiak	Trochidae		*Cidarina cidaris*
Kodiak	Chalinidae	rough hat sponge	*Cladocroce attu*
Kodiak	Crangonidae	shell shrimp	*Crangon alaskensis*
Kodiak	Crangonidae	twospine Crangon	*Crangon communis*
Kodiak	Crangonidae	ridged Crangon	*Crangon dalli*

NMFS area	Family	Common name	Species name
Kodiak	Actiniidae	chevron-tentacled anemone	*Cribrinopsis fernaldi*
Kodiak	Solasteridae	grooved sea star	*Crossaster borealis*
Kodiak	Solasteridae	rose sea star	*Crossaster papposus*
Kodiak	Ctenodiscidae	common mud star	*Ctenodiscus crispatus*
Kodiak	Cucumariidae	sea football	*Cucumaria fallax*
Kodiak	Cucumariidae		*Cucumaria frondosa*
Kodiak	Cyaneidae	lion's mane jelly	*Cyanea capillata*
Kodiak	Poraniidae	leather sea star	*Dermasterias imbricata*
Kodiak	Discodorididae		*Diaulula* sp. A (Clark 2006)
Kodiak	Pterasteridae	pincushion sea star	*Diplopteraster multipes*
Kodiak	Clavelinidae	globular ascidian	*Distaplia occidentalis*
Kodiak	Echinarachniidae	parma sand dollar	*Echinarachnius parma*
Kodiak	Paguridae	purple hermit	*Elassochirus cavimanus*
Kodiak	Paguridae	widehand hermit crab	*Elassochirus tenuimanus*
Kodiak	Octopodidae	giant octopus	*Enteroctopus dofleini*
Kodiak	Hippolytidae	bigeye eualid	*Eualus macrophthalmus*
Kodiak	Scrupariidae	feathery bryozoan	*Eucratea loricata*
Kodiak	Asteriidae		*Evasterias retifera*
Kodiak	Asteriidae	mottled sea star	*Evasterias troschelii*
Kodiak	Primnoidae		*Fanellia compressa*
Kodiak	Antedonidae	common northern feather star	*Florometra asperrima*
Kodiak	Ranellidae	Oregon triton	*Fusitriton oregonensis*
Kodiak	Cancridae	Oregon rock crab	*Glebocarcinus oregonensis*
Kodiak	Gorgonocephalidae	basketstar	*Gorgonocephalus eucnemis*
Kodiak	Halipteridae		*Halipteris willemoesi*
Kodiak	Pyuridae	sea peach	*Halocynthia aurantium*
Kodiak	Pyuridae	bristly tunicate	*Halocynthia igaboja*
Kodiak	Solasteridae	cannonball sun star	*Heterozonias alternatus*
Kodiak	Goniasteridae	Aleutian spiny star	*Hippasteria aleutica*
Kodiak	Goniasteridae		*Hippasteria californica*
Kodiak	Goniasteridae	spiny red sea star	*Hippasteria phrygiana (=spinosa)*
Kodiak	Hippoporinidae		*Hippoporina insculpta*
Kodiak	Veneridae	Kennerleys venus	*Humilaria kennerleyi*
Kodiak	Oregoniidae	Pacific lyre crab	*Hyas lyratus*
Kodiak	Paguridae	splendid hermit	*Labidochirus splendescens*
Kodiak	Laqueidae	California lamp shell	*Laqueus californianus*
Kodiak	Hippolytidae	spiny lebbeid	*Lebbeus groenlandicus*
Kodiak	Asteriidae		*Leptasterias coei*
Kodiak	Astropectinidae		*Leptychaster pacificus*
Kodiak	Asteriidae	blackspined sea star	*Lethasterias nanimensis*
Kodiak	Liponematidae	tentacle-shedding anemone	*Liponema brevicorne*
Kodiak	Lithodidae	golden king crab	*Lithodes aequispinus*
Kodiak	Lithodidae	brown box crab	*Lopholithodes foraminatus*
Kodiak	Lithodidae	red box crab	*Lopholithodes mandtii*
Kodiak	Luidiidae	sand sea star	*Luidia foliolata*
Kodiak	Naticidae	pale moonsnail	*Lunatia pallida*

NMFS area	Family	Common name	Species name
Kodiak	Cancridae	Dungeness crab	*Metacarcinus magister*
Kodiak	Metridiidae	gigantic anemone	*Metridium farcimen*
Kodiak	Mytilidae	northern horsemussel	*Modiolus modiolus*
Kodiak	Molpadiidae	sweet sea potato	*Molpadia intermedia*
Kodiak	Galatheidae	pinchbug	*Munida quadrispina*
Kodiak	Mycalidae	tree sponge	*Mycale loveni*
Kodiak	Myriaporidae		*Myriapora orientalis*
Kodiak	Buccinidae	lyre whelk	*Neptunea lyrata*
Kodiak	Ophiactidae	ubiquitous brittle star	*Ophiopholis aculeata*
Kodiak	Ophiactidae		*Ophiopholis japonica*
Kodiak	Ophiuridae	notched brittlestar	*Ophiura sarsii*
Kodiak	Oregoniidae	graceful decorator crab	*Oregonia gracilis*
Kodiak	Asteriidae	redbanded sea star	*Orthasterias koehleri*
Kodiak	Paguridae	Aleutian hermit	*Pagurus aleuticus*
Kodiak	Paguridae	Bering hermit	*Pagurus beringanus*
Kodiak	Paguridae	sponge hermit	*Pagurus brandti*
Kodiak	Paguridae	hairy hermit crab	*Pagurus capillatus*
Kodiak	Paguridae	knobbyhand hermit	*Pagurus confragosus*
Kodiak	Paguridae	hornyhand hermit	*Pagurus cornutus*
Kodiak	Paguridae	bluespine hermit	*Pagurus kennerlyi*
Kodiak	Paguridae	Alaskan hermit	*Pagurus ochotensis*
Kodiak	Paguridae	longfinger hermit	*Pagurus rathbuni*
Kodiak	Paguridae	setose hermit	*Pagurus setosus*
Kodiak	Paguridae	fuzzy hermit crab	*Pagurus trigonocheirus*
Kodiak	Pandalidae	sidestripe shrimp	*Pandalopsis dispar*
Kodiak	Pandalidae	Alaskan pink shrimp	*Pandalus eous*
Kodiak	Pandalidae	humpy shrimp	*Pandalus goniurus*
Kodiak	Pandalidae	ocean shrimp	*Pandalus jordani*
Kodiak	Pandalidae	spot shrimp	*Pandalus platyceros*
Kodiak	Pandalidae	roughpatch shrimp	*Pandalus stenolepis*
Kodiak	Pandalidae	yellowleg pandalid	*Pandalus tridens*
Kodiak	Pasiphaeidae	Pacific glass shrimp	*Pasiphaea pacifica*
Kodiak	Pectinidae	weathervane scallop	*Patinopecten caurinus*
Kodiak	Discodorididae	Pacific sea lemon	*Peltodoris nobilis*
Kodiak	Periphyllidae	helmet jelly	*Periphylla periphylla*
Kodiak	Ulmaridae	egg yolk jelly	*Phacellophora camtschatica*
Kodiak	Lithodidae	scaled crab	*Placetron wosnessenskii*
Kodiak	Anomiidae	Alaska falsejingle	*Pododesmus macrochisma*
Kodiak	Echinasteridae	thorny sea star	*Poraniopsis inflata*
Kodiak	Mucronellidae	flattened bryozoan	*Porella compressa*
Kodiak	Goniasteridae		*Pseudarchaster alascensis*
Kodiak	Goniasteridae	scarlet sea star	*Pseudarchaster parelii*
Kodiak	Synallactidae	sandy sea cucumber	*Pseudostichopus mollis*
Kodiak	Psolidae		*Psolus japonicus*
Kodiak	Pterasteridae		*Pteraster tesselatus*
Kodiak	Pennatulidae	orange sea pen	*Ptilosarcus gurneyi*

NMFS area	Family	Common name	Species name
Kodiak	Asteriidae	sunflower sea star	*Pycnopodia helianthoides*
Kodiak	Buccinidae	left-hand whelk	*Pyrulofusus harpa*
Kodiak	Pyuridae	wrinkled tunicate	*Pyura haustor*
Kodiak	Mucronellidae	ribbed bryozoan	*Rhamphostomella costata*
Kodiak	Aegidae	sea cockroach	*Rocinela angustata*
Kodiak	Sepiolidae	eastern Pacific bobtail	*Rossia pacifica*
Kodiak	Crangonidae	sculptured shrimp	*Sclerocrangon boreas*
Kodiak	Serpulidae	red trumpet calcareous tubeworm	*Serpula columbiana*
Kodiak	Solasteridae	Kessler sun star	*Solaster* sp. E (Clark)
Kodiak	Ophiuridae		*Stegophiura ponderosa*
Kodiak	Asteriidae	long-rayed star	*Stylasterias forreri*
Kodiak	Suberitidae	hermit sponge	*Suberites domuncula*
Kodiak	Synallactidae		*Synallactes challengeri*
Kodiak	Laqueidae	common brachiopod	*Terebratalia transversa*
Kodiak	Tritoniidae	giant orange tochui	*Tochuina gigantea*
Kodiak	Yoldiidae	northern Yoldia	*Yoldia hyperborea*
Shumagin	Rajidae	Alaska skate	*Arctoraja parmifera*
Shumagin	Rajidae	Aleutian skate	*Bathyraja aleutica*
Shumagin	Rajidae	whiteblotched skate	*Bathyraja maculata*
Shumagin	Rajidae	mud skate	*Bathyraja taranetzi*
Shumagin	Rajidae	big skate	*Beringraja binoculata*
Shumagin	Rajidae	longnose skate	*Beringraja rhina*
Shumagin	Pleuronectidae	arrowtooth flounder	*Atheresthes stomias*
Shumagin	Pleuronectidae	rex sole	*Glyptocephalus zachirus*
Shumagin	Pleuronectidae	flathead sole	*Hippoglossoides elassodon*
Shumagin	Pleuronectidae	Pacific halibut	*Hippoglossus stenolepis*
Shumagin	Pleuronectidae	butter sole	*Isopsetta isolepis*
Shumagin	Pleuronectidae	southern rock sole	*Lepidopsetta bilineata*
Shumagin	Pleuronectidae	northern rock sole	*Lepidopsetta polyxystra*
Shumagin	Pleuronectidae	yellowfin sole	*Limanda aspera*
Shumagin	Pleuronectidae	Dover sole	*Microstomus pacificus*
Shumagin	Pleuronectidae	English sole	*Parophrys vetulus*
Shumagin	Pleuronectidae	starry flounder	*Platichthys stellatus*
Shumagin	Pleuronectidae	hybrid starry flounder X Alaska plaice	*Platichthys stellatus* X *Pleuronectes quadrituberculatus* hybrid
Shumagin	Pleuronectidae	Alaska plaice	*Pleuronectes quadrituberculatus*
Shumagin	Pleuronectidae	sand sole	*Psettichthys melanostictus*
Shumagin	Macrouridae	giant grenadier	*Albatrossia pectoralis*
Shumagin	Ammodytidae	Pacific sand lance	*Ammodytes personatus*
Shumagin	Anoplopomatidae	sablefish	*Anoplopoma fimbria*
Shumagin	Agonidae	blackfin poacher	*Bathyagonus nigripinnis*
Shumagin	Bathymasteridae	searcher	*Bathymaster signatus*
Shumagin	Clupeidae	Pacific herring	*Clupea pallasii*
Shumagin	Macrouridae	popeye grenadier	*Coryphaenoides cinereus*
Shumagin	Liparidae	blotched snailfish	*Crystallichthys cyclospilus*
Shumagin	Psychrolutidae	spinyhead sculpin	*Dasycottus setiger*

NMFS area	Family	Common name	Species name
Shumagin	Myctophidae	California headlightfish	*Diaphus theta*
Shumagin	Gadidae	walleye pollock	*Gadus chalcogrammus*
Shumagin	Gadidae	Pacific cod	*Gadus macrocephalus*
Shumagin	Cottidae	armorhead sculpin	*Gymnocanthus galeatus*
Shumagin	Cottidae	red Irish lord	*Hemilepidotus hemilepidotus*
Shumagin	Cottidae	yellow Irish lord	*Hemilepidotus jordani*
Shumagin	Hemitripteridae	bigmouth sculpin	*Hemitripterus bolini*
Shumagin	Hexagrammidae	kelp greenling	*Hexagrammos decagrammus*
Shumagin	Stichaeidae	daubed shanny	*Leptoclinus maculatus*
Shumagin	Cottidae	Pacific staghorn sculpin	*Leptocottus armatus*
Shumagin	Bathylagidae	northern smoothtongue	*Leuroglossus schmidti*
Shumagin	Stichaeidae	longsnout prickleback	*Lumpenella longirostris*
Shumagin	Stichaeidae	snake prickleback	*Lumpenus sagitta*
Shumagin	Zoarcidae	Bering eelpout	*Lycodes beringi*
Shumagin	Zoarcidae	shortfin eelpout	*Lycodes brevipes*
Shumagin	Zoarcidae	wattled eelpout	*Lycodes palearis*
Shumagin	Psychrolutidae	darkfin sculpin	*Malacocottus zonurus*
Shumagin	Osmeridae	Pacific capelin	*Mallotus catervarius (=villosus)*
Shumagin	Gadidae	Pacific tomcod	*Microgadus proximus*
Shumagin	Cottidae	plain sculpin	*Myoxocephalus jaok*
Shumagin	Cottidae	great sculpin	*Myoxocephalus polyacanthocephalus*
Shumagin	Salmonidae	chum salmon	*Oncorhynchus keta*
Shumagin	Salmonidae	coho salmon	*Oncorhynchus kisutch*
Shumagin	Salmonidae	sockeye salmon	*Oncorhynchus nerka*
Shumagin	Salmonidae	chinook salmon	*Oncorhynchus tshawytscha*
Shumagin	Hexagrammidae	Atka mackerel	*Pleurogrammus monopterygius*
Shumagin	Agonidae	sturgeon poacher	*Podothecus accipenserinus*
Shumagin	Cottidae	slim sculpin	*Radulinus asprellus*
Shumagin	Agonidae	sawback poacher	*Sarritor frenatus*
Shumagin	Scorpaenidae	rougheye rockfish	*Sebastes aleutianus*
Shumagin	Scorpaenidae	Pacific ocean perch	*Sebastes alutus*
Shumagin	Scorpaenidae	redbanded rockfish	*Sebastes babcocki*
Shumagin	Scorpaenidae	shortraker rockfish	*Sebastes borealis*
Shumagin	Scorpaenidae	silvergray rockfish	*Sebastes brevispinis*
Shumagin	Scorpaenidae	dark rockfish	*Sebastes ciliatus*
Shumagin	Scorpaenidae	black rockfish	*Sebastes melanops*
Shumagin	Scorpaenidae	blackspotted rockfish	*Sebastes melanostictus*
Shumagin	Scorpaenidae	northern rockfish	*Sebastes polyspinis*
Shumagin	Scorpaenidae	yelloweye rockfish	*Sebastes ruberrimus*
Shumagin	Scorpaenidae	dusky rockfish	*Sebastes variabilis*
Shumagin	Scorpaenidae	harlequin rockfish	*Sebastes variegatus*
Shumagin	Scorpaenidae	shortspine thornyhead	*Sebastolobus alascanus*
Shumagin	Myctophidae	northern lampfish	*Stenobrachius leucopsarus*
Shumagin	Osmeridae	eulachon	*Thaleichthys pacificus*
Shumagin	Trichodontidae	Pacific sandfish	*Trichodon trichodon*

NMFS area	Family	Common name	Species name
Shumagin	Cottidae	roughspine sculpin	*Triglops macellus*
Shumagin	Cottidae	spectacled sculpin	*Triglops scepticus*
Shumagin	Hormathiidae	reticulate anemone	*Actinauge verrilli*
Shumagin	Alcyonidiidae	fruit leather bryozoan	*Alcyonidium pedunculatum*
Shumagin	Alcyonidiidae	medusa bryozoan	*Alcyonidium* sp. A
Shumagin	Polyclinidae	sand-grain imbedded ascidian	*Amaroucium soldatovi*
Shumagin	Aphrocallistidae	clay pipe sponge	*Aphrocallistes vastus*
Shumagin	Stichopodidae	California sea cucumber	*Apostichopus californicus*
Shumagin	Crangonidae	Arctic argid	*Argis dentata*
Shumagin	Crangonidae	kuro argid	*Argis lar*
Shumagin	Asteriidae	purple-orange sea star	*Asterias amurensis*
Shumagin	Gorgonocephalidae		*Astrochele* sp. A (Clark 2006)
Shumagin	Rossellidae	vase sponge	*Aulosaccus schulzei*
Shumagin	Axinellidae	firm finger sponge	*Axinella blanca*
Shumagin	Octopodidae	smoothskin octopus	*Benthoctopus leioderma*
Shumagin	Buccinidae	thick-cord whelk	*Beringius crebricostatus*
Shumagin	Gonatidae	magistrate armhook squid	*Berryteuthis magister*
Shumagin	Schizasteridae	heart urchin	*Brisaster latifrons*
Shumagin	Schizasteridae		*Brisaster townsendi*
Shumagin	Goniasteridae		*Ceramaster stellatus*
Shumagin	Benthopectinidae	fragile sea star	*Cheiraster dawsoni*
Shumagin	Oregoniidae	Tanner crab	*Chionoecetes bairdi*
Shumagin	Balanidae	giant barnacle	*Chirona evermanni*
Shumagin	Pisidae	longhorned decorator crab	*Chorilia longipes*
Shumagin	Pelagiidae		*Chrysaora melanaster*
Shumagin	Cardiidae	low-rib cockle	*Clinocardium blandum*
Shumagin	Cardiidae	Nuttall cockle	*Clinocardium nuttallii*
Shumagin	Actiniidae	chevron-tentacled anemone	*Cribrinopsis fernaldi*
Shumagin	Solasteridae	grooved sea star	*Crossaster borealis*
Shumagin	Solasteridae	rose sea star	*Crossaster papposus*
Shumagin	Naticidae	Aleutian moonsnail	*Cryptonatica aleutica*
Shumagin	Ctenodiscidae	common mud star	*Ctenodiscus crispatus*
Shumagin	Cucumariidae	sea football	*Cucumaria fallax*
Shumagin	Cucumariidae		*Cucumaria frondosa*
Shumagin	Cyaneidae	lion's mane jelly	*Cyanea capillata*
Shumagin	Pterasteridae	pincushion sea star	*Diplopteraster multipes*
Shumagin	Clavelinidae	globular ascidian	*Distaplia occidentalis*
Shumagin	Archidorididae	white night doris	*Doris odhneri*
Shumagin	Echinarachniidae	parma sand dollar	*Echinarachnius parma*
Shumagin	Microcionidae	hat sponge	*Echinoclathria beringensis*
Shumagin	Paguridae	purple hermit	*Elassochirus cavimanus*
Shumagin	Paguridae	Pacific red hermit	*Elassochirus gilli*
Shumagin	Paguridae	widehand hermit crab	*Elassochirus tenuimanus*
Shumagin	Emplectonematidae	black specked ribbon worm	*Emplectonema* sp. (Clark 2006)
Shumagin	Octopodidae	giant octopus	*Enteroctopus dofleini*
Shumagin	Asteriidae		*Evasterias retifera*

NMFS area	Family	Common name	Species name
Shumagin	Primnoidae		*Fanellia compressa*
Shumagin	Antedonidae	common northern feather star	*Florometra asperrima*
Shumagin	Antedonidae	featherstar crinoid	*Florometra serratissima*
Shumagin	Ranellidae	Oregon triton	*Fusitriton oregonensis*
Shumagin	Geodiidae	calcareous finger sponge	*Geodinella lendenfeldi*
Shumagin	Goniasteridae	Swift sea star	*Gephyreaster swifti*
Shumagin	Cancridae	Oregon rock crab	*Glebocarcinus oregonensis*
Shumagin	Gonatidae	boreopacific armhook squid	*Gonatopsis borealis*
Shumagin	Gonatidae	Berry armhook squid	*Gonatus berryi*
Shumagin	Gonatidae	clawed armhook squid	*Gonatus onyx*
Shumagin	Gonatidae	fiery armhook squid	*Gonatus pyros*
Shumagin	Gorgonocephalidae	basketstar	*Gorgonocephalus eucnemis*
Shumagin	Halichondriidae	ginseng sponge	*Halichondria oblonga*
Shumagin	Halipteridae	maroon sea whip	*Halipteris* sp. A (Stone 2015)
Shumagin	Halipteridae		*Halipteris willemoesi*
Shumagin	Pyuridae	sea peach	*Halocynthia aurantium*
Shumagin	Pyuridae	bristly tunicate	*Halocynthia igaboja*
Shumagin	Alcyoniidae	gray mushroom coral	*Heteropolypus (=Anthomastus)* sp. B
Shumagin	Solasteridae	cannonball sun star	*Heterozonias alternatus*
Shumagin	Goniasteridae	Aleutian spiny star	*Hippasteria aleutica*
Shumagin	Goniasteridae	spiny red sea star	*Hippasteria phrygiana (=spinosa)*
Shumagin	Coelosphaeridae	spud sponge	*Histodermella kagigunensis*
Shumagin	Oregoniidae	Pacific lyre crab	*Hyas lyratus*
Shumagin	Paguridae	splendid hermit	*Labidochirus splendescens*
Shumagin	Laqueidae	California lamp shell	*Laqueus californianus*
Shumagin	Latrunculiidae	green papillate sponge	*Latrunculia oparinae*
Shumagin	Asteriidae	blackspined sea star	*Lethasterias nanimensis*
Shumagin	Limopsidae	Akutan limops	*Limopsis akutanica*
Shumagin	Liponematidae	tentacle-shedding anemone	*Liponema brevicorne*
Shumagin	Lithodidae	brown box crab	*Lopholithodes foraminatus*
Shumagin	Luidiidae	sand sea star	*Luidia foliolata*
Shumagin	Mactridae	Arctic surfclam	*Mactromeris polynyma*
Shumagin	Cancridae	Dungeness crab	*Metacarcinus magister*
Shumagin	Metridiidae	gigantic anemone	*Metridium farcimen*
Shumagin	Mytilidae	northern horsemussel	*Modiolus modiolus*
Shumagin	Molgulidae	sea grape	*Molgula griffithsii*
Shumagin	Molpadiidae	sweet sea potato	*Molpadia intermedia*
Shumagin	Crambeidae		*Monanchora alaskensis*
Shumagin	Crambeidae	yellow leafy sponge	*Monanchora pulchra*
Shumagin	Plexauridae		*Muriceides nigra*
Shumagin	Mycalidae	tree sponge	*Mycale loveni*
Shumagin	Myriaporidae		*Myriapora orientalis*
Shumagin	Buccinidae	lyre whelk	*Neptunea lyrata*
Shumagin	Nuculanidae	northern nutclam	*Nuculana pernula*
Shumagin	Ophiuridae	gray brittle star	*Ophiura luetkenii*

NMFS area	Family	Common name	Species name
Shumagin	Ophiuridae	notched brittlestar	*Ophiura sarsii*
Shumagin	Opisthoteuthidae	flapjack devilfish	*Opisthoteuthis californiana*
Shumagin	Oregoniidae	split-nose decorator crab	*Oregonia bifurca*
Shumagin	Oregoniidae	graceful decorator crab	*Oregonia gracilis*
Shumagin	Asteriidae	redbanded sea star	*Orthasterias koehleri*
Shumagin	Paguridae	Aleutian hermit	*Pagurus aleuticus*
Shumagin	Paguridae	sponge hermit	*Pagurus brandti*
Shumagin	Paguridae	hairy hermit crab	*Pagurus capillatus*
Shumagin	Paguridae	knobbyhand hermit	*Pagurus confragosus*
Shumagin	Paguridae	bluespine hermit	*Pagurus kennerlyi*
Shumagin	Paguridae	Alaskan hermit	*Pagurus ochotensis*
Shumagin	Paguridae	longfinger hermit	*Pagurus rathbuni*
Shumagin	Paguridae	setose hermit	*Pagurus setosus*
Shumagin	Paguridae	fuzzy hermit crab	*Pagurus trigonocheirus*
Shumagin	Pandalidae	sidestripe shrimp	*Pandalopsis dispar*
Shumagin	Pandalidae	Alaskan pink shrimp	*Pandalus eous*
Shumagin	Pandalidae	ocean shrimp	*Pandalus jordani*
Shumagin	Pandalidae	spot shrimp	*Pandalus platyceros*
Shumagin	Pandalidae	roughpatch shrimp	*Pandalus stenolepis*
Shumagin	Pandalidae	yellowleg pandalid	*Pandalus tridens*
Shumagin	Pasiphaeidae	Pacific glass shrimp	*Pasiphaea pacifica*
Shumagin	Pectinidae	weathervane scallop	*Patinopecten caurinus*
Shumagin	Ulmaridae	egg yolk jelly	*Phacellophora camtschatica*
Shumagin	Lithodidae	scaled crab	*Placetron wosnessenskii*
Shumagin	Primnoidae	pinnate Plumarella	*Plumarella* sp. B
Shumagin	Primnoidae	bushy coral	*Plumarella superba*
Shumagin	Anomiidae	Alaska falsejingle	*Pododesmus macrochisma*
Shumagin	Polymastiidae	orange nipple-ball sponge	*Polymastia pacifica*
Shumagin	Polymastiidae	prolific nipple sponge	*Polymastia* sp. A (Clark 2006)
Shumagin	Synallactidae	sandy sea cucumber	*Pseudostichopus mollis*
Shumagin	Suberitidae	peach sponge	*Pseudosuberites montiniger*
Shumagin	Pterasteridae		*Pteraster jordani*
Shumagin	Pterasteridae	wrinkled star	*Pteraster militaris*
Shumagin	Pterasteridae		*Pteraster tesselatus*
Shumagin	Pennatulidae	orange sea pen	*Ptilosarcus gurneyi*
Shumagin	Epialtidae	graceful kelp crab	*Pugettia gracilis*
Shumagin	Asteriidae	sunflower sea star	*Pycnopodia helianthoides*
Shumagin	Buccinidae		*Pyrulofusus dexius*
Shumagin	Lithodidae	rhinoceros crab	*Rhinolithodes wosnessenskii*
Shumagin	Aegidae	sea cockroach	*Rocinela angustata*
Shumagin	Sepiolidae	eastern Pacific bobtail	*Rossia pacifica*
Shumagin	Veneridae	butter clam	*Saxidomus gigantea*
Shumagin	Crangonidae	sculptured shrimp	*Sclerocrangon boreas*
Shumagin	Cardiidae	Greenland cockle	*Serripes groenlandicus*
Shumagin	Cardiidae	oblique smoothcockle	*Serripes notabilis*
Shumagin	Solasteridae	morning sun sea star	*Solaster dawsoni*

NMFS area	Family	Common name	Species name
Shumagin	Solasteridae	northern sun sea star	*Solaster endeca*
Shumagin	Ophiuridae		*Stegophiura ponderosa*
Shumagin	Myxillidae	scapula sponge	*Stelodoryx oxeata*
Shumagin	Styelidae	sea potato	*Styela rustica*
Shumagin	Asteriidae	long-rayed star	*Stylasterias forreri*
Shumagin	Suberitidae	hermit sponge	*Suberites domuncula*
Shumagin	Synallactidae		*Synallactes challengeri*
Shumagin	Tedaniidae	club sponge	*Tedania kagalaskai*
Shumagin	Laqueidae	common brachiopod	*Terebratalia transversa*
Shumagin	Opheliidae	pupa utility worm	*Travisia pupa*
Shumagin	Actiniidae	mottled anemone	*Urticina crassicornis*
Southeast Outside	Scyliorhinidae	brown cat shark	*Apristurus brunneus*
Southeast Outside	Rajidae	Aleutian skate	*Bathyraja aleutica*
Southeast Outside	Rajidae	Bering skate	*Bathyraja interrupta*
Southeast Outside	Rajidae	big skate	*Beringraja binoculata*
Southeast Outside	Rajidae	longnose skate	*Beringraja rhina*
Southeast Outside	Chimaeridae	spotted ratfish	*Hydrolagus colliei*
Southeast Outside	Squalidae	spiny dogfish	*Squalus suckleyi*
Southeast Outside	Pleuronectidae	arrowtooth flounder	*Atheresthes stomias*
Southeast Outside	Paralichthyidae	Pacific sanddab	*Citharichthys sordidus*
Southeast Outside	Pleuronectidae	petrale sole	*Eopsetta jordani*
Southeast Outside	Pleuronectidae	rex sole	*Glyptocephalus zachirus*
Southeast Outside	Pleuronectidae	flathead sole	*Hippoglossoides elassodon*
Southeast Outside	Pleuronectidae	Pacific halibut	*Hippoglossus stenolepis*
Southeast Outside	Pleuronectidae	butter sole	*Isopsetta isolepis*
Southeast Outside	Pleuronectidae	southern rock sole	*Lepidopsetta bilineata*
Southeast Outside	Pleuronectidae	slender sole	*Lyopsetta exilis*
Southeast Outside	Pleuronectidae	Dover sole	*Microstomus pacificus*
Southeast Outside	Pleuronectidae	English sole	*Parophrys vetulus*
Southeast Outside	Pleuronectidae	starry flounder	*Platichthys stellatus*
Southeast Outside	Macrouridae	giant grenadier	*Albatrossia pectoralis*
Southeast Outside	Ammodytidae	Pacific sand lance	*Ammodytes personatus*
Southeast Outside	Anoplopomatidae	sablefish	*Anoplopoma fimbria*
Southeast Outside	Cyclopteridae	smooth lumpsucker	*Aptocyclus ventricosus*
Southeast Outside	Bathymasteridae	searcher	*Bathymaster signatus*
Southeast Outside	Zoarcidae	Alaska eelpout	*Bothrocara pusillum*
Southeast Outside	Stomiidae	Pacific viperfish	*Chauliodus macouni*
Southeast Outside	Clupeidae	Pacific herring	*Clupea pallasii*
Southeast Outside	Psychrolutidae	spinyhead sculpin	*Dasycottus setiger*
Southeast Outside	Gadidae	walleye pollock	*Gadus chalcogrammus*
Southeast Outside	Gadidae	Pacific cod	*Gadus macrocephalus*
Southeast Outside	Hexagrammidae	kelp greenling	*Hexagrammos decagrammus*
Southeast Outside	Bathylagidae	northern smoothtongue	*Leuroglossus schmidti*
Southeast Outside	Zoarcidae	snakehead eelpout	*Lycenchelys crotalinus*
Southeast Outside	Zoarcidae	Bering eelpout	*Lycodes beringi*
Southeast Outside	Zoarcidae	shortfin eelpout	*Lycodes brevipes*

NMFS area	Family	Common name	Species name
Southeast Outside	Zoarcidae	wattled eelpout	*Lycodes palearis*
Southeast Outside	Psychrolutidae	darkfin sculpin	*Malacocottus zonurus*
Southeast Outside	Osmeridae	Pacific capelin	*Mallotus catervarius (=villosus)*
Southeast Outside	Gadidae	Pacific tomcod	*Microgadus proximus*
Southeast Outside	Salmonidae	chinook salmon	*Oncorhynchus tshawytscha*
Southeast Outside	Hexagrammidae	lingcod	*Ophiodon elongatus*
Southeast Outside	Cottidae	thornback sculpin	*Paricelinus hopliticus*
Southeast Outside	Hexagrammidae	Atka mackerel	*Pleurogrammus monopterygius*
Southeast Outside	Psychrolutidae	tadpole sculpin	*Psychrolutes paradoxus*
Southeast Outside	Scorpaenidae	rougheye rockfish	*Sebastes aleutianus*
Southeast Outside	Scorpaenidae	Pacific ocean perch	*Sebastes alutus*
Southeast Outside	Scorpaenidae	redbanded rockfish	*Sebastes babcocki*
Southeast Outside	Scorpaenidae	shortraker rockfish	*Sebastes borealis*
Southeast Outside	Scorpaenidae	silvergray rockfish	*Sebastes brevispinis*
Southeast Outside	Scorpaenidae	darkblotched rockfish	*Sebastes crameri*
Southeast Outside	Scorpaenidae	greenstriped rockfish	*Sebastes elongatus*
Southeast Outside	Scorpaenidae	widow rockfish	*Sebastes entomelas*
Southeast Outside	Scorpaenidae	yellowtail rockfish	*Sebastes flavidus*
Southeast Outside	Scorpaenidae	rosethorn rockfish	*Sebastes helvomaculatus*
Southeast Outside	Scorpaenidae	quillback rockfish	*Sebastes maliger*
Southeast Outside	Scorpaenidae	blackspotted rockfish	*Sebastes melanostictus*
Southeast Outside	Scorpaenidae	bocaccio	*Sebastes paucispinis*
Southeast Outside	Scorpaenidae	canary rockfish	*Sebastes pinniger*
Southeast Outside	Scorpaenidae	redstripe rockfish	*Sebastes proriger*
Southeast Outside	Scorpaenidae	yellowmouth rockfish	*Sebastes reedi*
Southeast Outside	Scorpaenidae	yelloweye rockfish	*Sebastes ruberrimus*
Southeast Outside	Scorpaenidae	dusky rockfish	*Sebastes variabilis*
Southeast Outside	Scorpaenidae	harlequin rockfish	*Sebastes variegatus*
Southeast Outside	Scorpaenidae	sharpchin rockfish	*Sebastes zacentrus*
Southeast Outside	Scorpaenidae	shortspine thornyhead	*Sebastolobus alascanus*
Southeast Outside	Stomiidae	longfin dragonfish	*Tactostoma macropus*
Southeast Outside	Osmeridae	eulachon	*Thaleichthys pacificus*
Southeast Outside	Trichodontidae	Pacific sandfish	*Trichodon trichodon*
Southeast Outside	Cottidae	roughspine sculpin	*Triglops macellus*
Southeast Outside	Zaproridae	prowfish	*Zaprora silenus*
Southeast Outside	Rossellidae	angel-hair vase sponge	*Acanthascus* sp. A
Southeast Outside	Lithodidae	fuzzy crab	*Acantholithodes hispidus*
Southeast Outside	Hormathiidae	reticulate anemone	*Actinauge verrilli*
Southeast Outside	Aphrocallistidae	clay pipe sponge	*Aphrocallistes vastus*
Southeast Outside	Aphroditidae		*Aphrodita negligens*
Southeast Outside	Ulmaridae		*Aurelia labiata*
Southeast Outside	Gonatidae	magistrate armhook squid	*Berryteuthis magister*
Southeast Outside	Schizasteridae	heart urchin	*Brisaster latifrons*
Southeast Outside	Benthopectinidae	fragile sea star	*Cheiraster dawsoni*
Southeast Outside	Oregoniidae	Tanner crab	*Chionoecetes bairdi*
Southeast Outside	Pisidae	longhorned decorator crab	*Chorilia longipes*

NMFS area	Family	Common name	Species name
Southeast Outside	Pelagiidae		*Chrysaora melanaster*
Southeast Outside	Trochidae		*Cidarina cidaris*
Southeast Outside	Cardiidae	hairy cockle	*Ciliatoclinocardium ciliatum*
Southeast Outside	Solasteridae	rose sea star	*Crossaster papposus*
Southeast Outside	Ctenodiscidae	common mud star	*Ctenodiscus crispatus*
Southeast Outside	Cyaneidae	lion's mane jelly	*Cyanea capillata*
Southeast Outside	Pterasteridae	pincushion sea star	*Diplopteraster multipes*
Southeast Outside	Octopodidae	giant octopus	*Enteroctopus dofleini*
Southeast Outside	Hippolytidae	bigeye eualid	*Eualus macrophthalmus*
Southeast Outside	Ranellidae	Oregon triton	*Fusitriton oregonensis*
Southeast Outside	Gorgonocephalidae	basketstar	*Gorgonocephalus eucnemis*
Southeast Outside	Halipteridae		*Halipteris willemoesi*
Southeast Outside	Pyuridae	bristly tunicate	*Halocynthia igaboja*
Southeast Outside	Goniasteridae	spiny red sea star	*Hippasteria phrygiana (=spinosa)*
Southeast Outside	Oregoniidae	Pacific lyre crab	*Hyas lyratus*
Southeast Outside	Paguridae	splendid hermit	*Labidochirus splendescens*
Southeast Outside	Laqueidae	California lamp shell	*Laqueus californianus*
Southeast Outside	Lithodidae	brown box crab	*Lopholithodes foraminatus*
Southeast Outside	Luidiidae	sand sea star	*Luidia foliolata*
Southeast Outside	Metridiidae	gigantic anemone	*Metridium farcimen*
Southeast Outside	Galatheidae	pinchbug	*Munida quadrispina*
Southeast Outside	Mycalidae	tree sponge	*Mycale loveni*
Southeast Outside	Buccinidae	lyre whelk	*Neptunea lyrata*
Southeast Outside	Buccinidae	Pribilof whelk	*Neptunea pribiloffensis*
Southeast Outside	Ophiuridae	notched brittlestar	*Ophiura sarsii*
Southeast Outside	Asteriidae	redbanded sea star	*Orthasterias koehleri*
Southeast Outside	Paguridae	Aleutian hermit	*Pagurus aleuticus*
Southeast Outside	Paguridae	sponge hermit	*Pagurus brandti*
Southeast Outside	Paguridae	hairy hermit crab	*Pagurus capillatus*
Southeast Outside	Paguridae	knobbyhand hermit	*Pagurus confragosus*
Southeast Outside	Paguridae	hornyhand hermit	*Pagurus cornutus*
Southeast Outside	Paguridae	bluespine hermit	*Pagurus kennerlyi*
Southeast Outside	Paguridae	Alaskan hermit	*Pagurus ochotensis*
Southeast Outside	Pandalidae	sidestripe shrimp	*Pandalopsis dispar*
Southeast Outside	Pandalidae	Alaskan pink shrimp	*Pandalus eous*
Southeast Outside	Pandalidae	ocean shrimp	*Pandalus jordani*
Southeast Outside	Pandalidae	spot shrimp	*Pandalus platyceros*
Southeast Outside	Pasiphaeidae	Pacific glass shrimp	*Pasiphaea pacifica*
Southeast Outside	Pectinidae	weathervane scallop	*Patinopecten caurinus*
Southeast Outside	Ulmaridae	egg yolk jelly	*Phacellophora camtschatica*
Southeast Outside	Echinasteridae	thorny sea star	*Poraniopsis inflata*
Southeast Outside	Goniasteridae		*Pseudarchaster alascensis*
Southeast Outside	Goniasteridae	scarlet sea star	*Pseudarchaster parelii*
Southeast Outside	Synallactidae	sandy sea cucumber	*Pseudostichopus mollis*
Southeast Outside	Asteriidae	sunflower sea star	*Pycnopodia helianthoides*
Southeast Outside	Aegidae	sea cockroach	*Rocinela angustata*

NMFS area	Family	Common name	Species name
Southeast Outside	Sepiolidae	eastern Pacific bobtail	*Rossia pacifica*
Southeast Outside	Ophiuridae		*Stegophiura ponderosa*
Southeast Outside	Asteriidae	long-rayed star	*Stylasterias forreri*
Southeast Outside	Synallactidae		*Synallactes challengeri*
Southeast Outside	Zoanthidae	hot dog zoanthid	*Zoanthidae* sp. A
West Yakutat	Rajidae	Aleutian skate	*Bathyraja aleutica*
West Yakutat	Rajidae	Bering skate	*Bathyraja interrupta*
West Yakutat	Rajidae	big skate	*Beringraja binoculata*
West Yakutat	Rajidae	longnose skate	*Beringraja rhina*
West Yakutat	Chimaeridae	spotted ratfish	*Hydrolagus colliei*
West Yakutat	Squalidae	spiny dogfish	*Squalus suckleyi*
West Yakutat	Pleuronectidae	arrowtooth flounder	*Atheresthes stomias*
West Yakutat	Pleuronectidae	petrale sole	*Eopsetta jordani*
West Yakutat	Pleuronectidae	rex sole	*Glyptocephalus zachirus*
West Yakutat	Pleuronectidae	flathead sole	*Hippoglossoides elassodon*
West Yakutat	Pleuronectidae	Pacific halibut	*Hippoglossus stenolepis*
West Yakutat	Pleuronectidae	butter sole	*Isopsetta isolepis*
West Yakutat	Pleuronectidae	southern rock sole	*Lepidopsetta bilineata*
West Yakutat	Pleuronectidae	northern rock sole	*Lepidopsetta polyxystra*
West Yakutat	Pleuronectidae	slender sole	*Lyopsetta exilis*
West Yakutat	Pleuronectidae	Dover sole	*Microstomus pacificus*
West Yakutat	Pleuronectidae	English sole	*Parophrys vetulus*
West Yakutat	Pleuronectidae	starry flounder	*Platichthys stellatus*
West Yakutat	Pleuronectidae	sand sole	*Psettichthys melanostictus*
West Yakutat	Macrouridae	giant grenadier	*Albatrossia pectoralis*
West Yakutat	Anoplopomatidae	sablefish	*Anoplopoma fimbria*
West Yakutat	Agonidae	blackfin poacher	*Bathyagonus nigripinnis*
West Yakutat	Agonidae	bigeye poacher	*Bathyagonus pentacanthus*
West Yakutat	Bathymasteridae	searcher	*Bathymaster signatus*
West Yakutat	Zoarcidae	Alaska eelpout	*Bothrocara pusillum*
West Yakutat	Stichaeidae	pearly prickleback	*Bryozoichthys marjorius*
West Yakutat	Liparidae	emarginate snailfish	*Careproctus furcellus*
West Yakutat	Liparidae	blacktail snailfish	*Careproctus melanurus*
West Yakutat	Stomiidae	Pacific viperfish	*Chauliodus macouni*
West Yakutat	Clupeidae	Pacific herring	*Clupea pallasii*
West Yakutat	Psychrolutidae	spinyhead sculpin	*Dasycottus setiger*
West Yakutat	Gadidae	walleye pollock	*Gadus chalcogrammus*
West Yakutat	Gadidae	Pacific cod	*Gadus macrocephalus*
West Yakutat	Hexagrammidae	kelp greenling	*Hexagrammos decagrammus*
West Yakutat	Bathylagidae	northern smoothtongue	*Leuroglossus schmidti*
West Yakutat	Zoarcidae	snakehead eelpout	*Lycenchelys crotalinus*
West Yakutat	Zoarcidae	shortfin eelpout	*Lycodes brevipes*
West Yakutat	Zoarcidae	wattled eelpout	*Lycodes palearis*
West Yakutat	Psychrolutidae	darkfin sculpin	*Malacocottus zonurus*
West Yakutat	Osmeridae	Pacific capelin	*Mallotus catervarius (=villosus)*
West Yakutat	Gadidae	Pacific tomcod	*Microgadus proximus*

NMFS area	Family	Common name	Species name
West Yakutat	Salmonidae	chum salmon	*Oncorhynchus keta*
West Yakutat	Salmonidae	coho salmon	*Oncorhynchus kisutch*
West Yakutat	Salmonidae	chinook salmon	*Oncorhynchus tshawytscha*
West Yakutat	Hexagrammidae	lingcod	*Ophiodon elongatus*
West Yakutat	Osmeridae	rainbow smelt	*Osmerus mordax*
West Yakutat	Cottidae	thornback sculpin	*Paricelinus hopliticus*
West Yakutat	Scorpaenidae	rougheye rockfish	*Sebastes aleutianus*
West Yakutat	Scorpaenidae	Pacific ocean perch	*Sebastes alutus*
West Yakutat	Scorpaenidae	redbanded rockfish	*Sebastes babcocki*
West Yakutat	Scorpaenidae	shortraker rockfish	*Sebastes borealis*
West Yakutat	Scorpaenidae	silvergray rockfish	*Sebastes brevispinis*
West Yakutat	Scorpaenidae	darkblotched rockfish	*Sebastes crameri*
West Yakutat	Scorpaenidae	greenstriped rockfish	*Sebastes elongatus*
West Yakutat	Scorpaenidae	widow rockfish	*Sebastes entomelas*
West Yakutat	Scorpaenidae	yellowtail rockfish	*Sebastes flavidus*
West Yakutat	Scorpaenidae	rosethorn rockfish	*Sebastes helvomaculatus*
West Yakutat	Scorpaenidae	quillback rockfish	*Sebastes maliger*
West Yakutat	Scorpaenidae	black rockfish	*Sebastes melanops*
West Yakutat	Scorpaenidae	blackspotted rockfish	*Sebastes melanostictus*
West Yakutat	Scorpaenidae	redstripe rockfish	*Sebastes proriger*
West Yakutat	Scorpaenidae	yelloweye rockfish	*Sebastes ruberrimus*
West Yakutat	Scorpaenidae	dusky rockfish	*Sebastes variabilis*
West Yakutat	Scorpaenidae	harlequin rockfish	*Sebastes variegatus*
West Yakutat	Scorpaenidae	pygmy rockfish	*Sebastes wilsoni*
West Yakutat	Scorpaenidae	sharpchin rockfish	*Sebastes zacentrus*
West Yakutat	Scorpaenidae	shortspine thornyhead	*Sebastolobus alascanus*
West Yakutat	Osmeridae	longfin smelt	*Spirinchus thaleichthys*
West Yakutat	Osmeridae	eulachon	*Thaleichthys pacificus*
West Yakutat	Trichodontidae	Pacific sandfish	*Trichodon trichodon*
West Yakutat	Cottidae	roughspine sculpin	*Triglops macellus*
West Yakutat	Cottidae	spectacled sculpin	*Triglops scepticus*
West Yakutat	Zaproridae	prowfish	*Zaprora silenus*
West Yakutat	Hormathiidae	reticulate anemone	*Actinauge verrilli*
West Yakutat	Actinostolidae	rough purple sea anemone	*Actinostola faeculenta*
West Yakutat	Aphrocallistidae	clay pipe sponge	*Aphrocallistes vastus*
West Yakutat	Aphroditidae		*Aphrodita negligens*
West Yakutat	Stichopodidae	California sea cucumber	*Apostichopus californicus*
West Yakutat	Arminidae	California Armina	*Armina californica*
West Yakutat	Octopodidae		*Benthoctopus oregonensis*
West Yakutat	Gonatidae	magistrate armhook squid	*Berryteuthis magister*
West Yakutat	Schizasteridae	heart urchin	*Brisaster latifrons*
West Yakutat	Benthopectinidae	fragile sea star	*Cheiraster dawsoni*
West Yakutat	Oregoniidae	Tanner crab	*Chionoecetes bairdi*
West Yakutat	Pisidae	longhorned decorator crab	*Chorilia longipes*
West Yakutat	Pelagiidae		*Chrysaora melanaster*
West Yakutat	Chalinidae	rough hat sponge	*Cladocroce attu*

NMFS area	Family	Common name	Species name
West Yakutat	Solasteridae	rose sea star	*Crossaster papposus*
West Yakutat	Ctenodiscidae	common mud star	*Ctenodiscus crispatus*
West Yakutat	Cyaneidae	lion's mane jelly	*Cyanea capillata*
West Yakutat	Astropectinidae	northern sea star	*Dipsacaster borealis*
West Yakutat	Paguridae	purple hermit	*Elassochirus cavimanus*
West Yakutat	Octopodidae	giant octopus	*Enteroctopus dofleini*
West Yakutat	Hippolytidae	barbed eualid	*Eualus barbatus*
West Yakutat	Ranellidae	Oregon triton	*Fusitriton oregonensis*
West Yakutat	Gorgonocephalidae	basketstar	*Gorgonocephalus eucnemis*
West Yakutat	Halipteridae		*Halipteris willemoesi*
West Yakutat	Pyuridae	bristly tunicate	*Halocynthia igaboja*
West Yakutat	Goniasteridae	spiny red sea star	*Hippasteria phrygiana (=spinosa)*
West Yakutat	Oregoniidae	Pacific lyre crab	*Hyas lyratus*
West Yakutat	Paguridae	splendid hermit	*Labidochirus splendescens*
West Yakutat	Laqueidae	California lamp shell	*Laqueus californianus*
West Yakutat	Liponematidae	tentacle-shedding anemone	*Liponema brevicorne*
West Yakutat	Lithodidae	brown box crab	*Lopholithodes foraminatus*
West Yakutat	Cancridae	Dungeness crab	*Metacarcinus magister*
West Yakutat	Metridiidae	gigantic anemone	*Metridium farcimen*
West Yakutat	Molpadiidae	sweet sea potato	*Molpadia intermedia*
West Yakutat	Onychoteuthidae	robust clubhook squid	*Moroteuthis robusta*
West Yakutat	Galatheidae	pinchbug	*Munida quadrispina*
West Yakutat	Mycalidae	tree sponge	*Mycale loveni*
West Yakutat	Buccinidae	Pribilof whelk	*Neptunea pribiloffensis*
West Yakutat	Ophiuridae	notched brittlestar	*Ophiura sarsii*
West Yakutat	Paguridae	Aleutian hermit	*Pagurus aleuticus*
West Yakutat	Paguridae	sponge hermit	*Pagurus brandti*
West Yakutat	Paguridae	knobbyhand hermit	*Pagurus confragosus*
West Yakutat	Paguridae	bluespine hermit	*Pagurus kennerlyi*
West Yakutat	Paguridae	Alaskan hermit	*Pagurus ochotensis*
West Yakutat	Pandalidae	sidestripe shrimp	*Pandalopsis dispar*
West Yakutat	Pandalidae	Alaskan pink shrimp	*Pandalus eous*
West Yakutat	Pandalidae	ocean shrimp	*Pandalus jordani*
West Yakutat	Pandalidae	spot shrimp	*Pandalus platyceros*
West Yakutat	Pasiphaeidae	Pacific glass shrimp	*Pasiphaea pacifica*
West Yakutat	Pectinidae	weathervane scallop	*Patinopecten caurinus*
West Yakutat	Ulmaridae	egg yolk jelly	*Phacellophora camtschatica*
West Yakutat	Echinasteridae	thorny sea star	*Poraniopsis inflata*
West Yakutat	Primnoidae		*Primnoa pacifica*
West Yakutat	Goniasteridae		*Pseudarchaster alascensis*
West Yakutat	Goniasteridae	scarlet sea star	*Pseudarchaster parelii*
West Yakutat	Synallactidae	sandy sea cucumber	*Pseudostichopus mollis*
West Yakutat	Pennatulidae	orange sea pen	*Ptilosarcus gurneyi*
West Yakutat	Asteriidae	sunflower sea star	*Pycnopodia helianthoides*
West Yakutat	Lithodidae	rhinoceros crab	*Rhinolithodes wosnessenskii*
West Yakutat	Aegidae	sea cockroach	*Rocinela angustata*

NMFS area	Family	Common name	Species name
West Yakutat	Sepiolidae	eastern Pacific bobtail	*Rossia pacifica*
West Yakutat	Ophiuridae		*Stegophiura nodosa*
West Yakutat	Ophiuridae		*Stegophiura ponderosa*
West Yakutat	Styelidae	sea potato	*Styela rustica*
West Yakutat	Asteriidae	long-rayed star	*Stylasterias forreri*
West Yakutat	Synallactidae		*Synallactes challengeri*
West Yakutat	Zoanthidae	hot dog zoanthid	*Zoanthidae* sp. A

Appendix Table C1. -- Length-weight parameters (*a* and *b*) fitted for species caught in the GOA bottom trawl survey.

Common name	Scientific name	Sex	Sample size (n)	beta	R^2	Max length (mm)	alpha (g)
arrowtooth flounder	*Atheresthes stomias*	male	214	3.13090	0.986	520	0.000003824
arrowtooth flounder	*Atheresthes stomias*	female	535	3.18805	0.992	740	0.000002808
arrowtooth flounder	*Atheresthes stomias*	all	751	3.19566	0.991	740	0.000002659
flathead sole	*Hippoglossoides elassodon*	male	174	3.38111	0.986	460	0.000000946
flathead sole	*Hippoglossoides elassodon*	female	232	3.48394	0.980	520	0.000000528
flathead sole	*Hippoglossoides elassodon*	all	406	3.44086	0.984	520	0.000000676
rex sole	*Glyptocephalus zachirus*	male	230	3.39619	0.962	470	0.000000615
rex sole	*Glyptocephalus zachirus*	female	328	3.41519	0.981	590	0.000000561
rex sole	*Glyptocephalus zachirus*	all	558	3.42569	0.977	590	0.000000523
Pacific cod	*Gadus macrocephalus*	male	484	3.17193	0.992	870	0.000003559
Pacific cod	*Gadus macrocephalus*	female	450	3.14640	0.990	930	0.000004197
Pacific cod	*Gadus macrocephalus*	all	934	3.16219	0.991	930	0.000003790
walleye pollock	*Gadus chalcogrammus*	male	534	3.05531	0.992	650	0.000005256
walleye pollock	*Gadus chalcogrammus*	female	707	3.05067	0.992	700	0.000005290
walleye pollock	*Gadus chalcogrammus*	all	1,241	3.04927	0.992	700	0.000005382
Atka mackerel	*Pleurogrammus monopterygius*	male	99	3.28221	0.783	490	0.000002374
Atka mackerel	*Pleurogrammus monopterygius*	female	163	2.81285	0.799	490	0.000036845
Atka mackerel	*Pleurogrammus monopterygius*	all	262	2.90259	0.760	490	0.000022084
sablefish	*Anoplopoma fimbria*	male	91	3.28600	0.962	640	0.000001604
sablefish	*Anoplopoma fimbria*	female	94	3.23955	0.981	810	0.000002091
sablefish	*Anoplopoma fimbria*	all	185	3.25496	0.974	810	0.000001923
Pacific ocean perch	*Sebastes alutus*	male	368	3.09282	0.983	450	0.000007742
Pacific ocean perch	*Sebastes alutus*	female	341	2.99392	0.985	480	0.000013542
Pacific ocean perch	*Sebastes alutus*	all	710	3.03994	0.984	480	0.000010453
northern rockfish	*Sebastes polyspinis*	male	89	3.00379	0.876	470	0.000014201
northern rockfish	*Sebastes polyspinis*	female	69	2.96620	0.946	460	0.000017206
northern rockfish	*Sebastes polyspinis*	all	158	2.98018	0.912	470	0.000016124
blackspotted rockfish	*Sebastes melanostictus*	male	92	3.22601	0.990	540	0.000003842
blackspotted rockfish	*Sebastes melanostictus*	female	103	3.17948	0.986	520	0.000005125

Common name	Scientific name	Sex	Sample size (n)	beta	R^2	Max length (mm)	alpha (g)
blackspotted rockfish	*Sebastes melanostictus*	all	195	3.20291	0.988	540	0.000004436
dusky rockfish	*Sebastes variabilis*	male	143	3.12950	0.868	520	0.000007495
dusky rockfish	*Sebastes variabilis*	female	149	3.12430	0.944	530	0.000007710
dusky rockfish	*Sebastes variabilis*	all	292	3.12473	0.918	530	0.000007703

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