

**2026–2027 Northern Southeast Inside Subdistrict
(Chatham Strait) Sablefish Pot Survey**

by

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July 2026

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code		<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL		AAC		
gram	g	all commonly accepted abbreviations		alternate hypothesis	H _A
hectare	ha		e.g., Mr., Mrs., AM, PM, etc.	base of natural logarithm	<i>e</i>
kilogram	kg			catch per unit effort	CPUE
kilometer	km	all commonly accepted professional titles		coefficient of variation	CV
liter	L		e.g., Dr., Ph.D., R.N., etc.	common test statistics	(F, t, χ^2 , etc.)
meter	m			confidence interval	CI
milliliter	mL	at	@	correlation coefficient	
millimeter	mm	compass directions:		(multiple)	R
		east	E	correlation coefficient (simple)	r
Weights and measures (English)		north	N	covariance	cov
cubic feet per second	ft³/s	south	S	degree (angular)	°
foot	ft	west	W	degrees of freedom	df
gallon	gal	copyright	©	expected value	<i>E</i>
inch	in	corporate suffixes:		greater than	>
mile	mi	Company	Co.	greater than or equal to	≥
nautical mile	nmi	Corporation	Corp.	harvest per unit effort	HPUE
ounce	oz	Incorporated	Inc.	less than	<
pound	lb	Limited	Ltd.	less than or equal to	≤
quart	qt	District of Columbia	D.C.	logarithm (natural)	ln
yard	yd	et alii (and others)	et al.	logarithm (base 10)	log
fathom	fm	et cetera (and so forth)	etc.	logarithm (specify base)	log ₂ , etc.
		exempli gratia		minute (angular)	'
Time and temperature		(for example)	e.g.	not significant	NS
day	d	Federal Information Code	FIC	null hypothesis	H ₀
degrees Celsius	°C	id est (that is)	i.e.	percent	%
degrees Fahrenheit	°F	latitude or longitude	lat or long	probability	P
degrees kelvin	K	monetary symbols		probability of a type I error	
hour	h	(U.S.)	\$, ¢	(rejection of the null hypothesis when true)	α
minute	min	months (tables and figures): first three letters		probability of a type II error	
second	s		Jan,...,Dec	(acceptance of the null hypothesis when false)	β
Physics and chemistry		registered trademark	®	second (angular)	"
all atomic symbols		trademark	™	standard deviation	SD
alternating current	AC	United States (adjective)	U.S.	standard error	SE
ampere	A	United States of America (noun)	USA	variance	
calorie	cal	U.S.C.	United States Code	population sample	Var
direct current	DC				var
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH	U.S. state	use two-letter abbreviations (e.g., AK, WA)		
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

REGIONAL OPERATIONAL PLAN NO. ROP.CF.1J.2026.08

**2026–2027 NORTHERN SOUTHEAST INSIDE SUBDISTRICT
(CHATHAM STRAIT) SABLEFISH POT SURVEY**

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July 2026

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Signature Page

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PURPOSE

This regional operational plan details the methodology for the first 2 years of the Northern Southeast Inside (NSEI) Subdistrict sablefish *Anoplopoma fimbria* pot survey that replaces the annual longline survey. This survey's primary objective is to estimate the relative abundance of sablefish through determination of catch per unit effort (CPUE) at fixed stations in the NSEI Subdistrict. Additionally, fishery independent sablefish biological data (age, length, weight, sex, and maturity) are obtained for assessment of biological trends and stock health. These data are used in conjunction with fishery CPUE and biological data, population estimates, and regional sablefish population trends to determine the NSEI annual harvest objective (AHO).

Keywords: sablefish, groundfish, Chatham Strait, codcoil pots, slinky pots, longline, CPUE.

BACKGROUND

Sablefish or black cod *Anoplopoma fimbria* are a commercially important species found in the northeast Pacific Ocean, ranging from Baja, California to the Aleutian Islands and into the Bering Sea (Mecklenburg et al. 2002). Adult sablefish inhabit deep waters of the continental shelf, slope, and coastal fjords. Most adults live at depths ranging from 366 m to 914 m (200 to 500 fathoms) but sablefish have been captured at depths over 1,829 m (1,000 fathoms; Allen and Smith 1988). Sablefish are a long-lived species, having been aged to 94 years old in Alaska waters (Munk 2001); however, sablefish captured by Southeast Alaska commercial fisheries are typically not older than 20 years (Mueter 2010).

The Northern Southeast Inside (NSEI) Subdistrict sablefish fishery (commonly referred to as the *Chatham fishery*; Figure 1) is one of the oldest and most lucrative groundfish fisheries managed by the State of Alaska. The harvest of sablefish in the internal waters of Southeast Alaska began in the early 1900s with the first directed sablefish landing recorded in 1913 (Kolloen 1944); however, until the 1940s, most landed sablefish were incidental catch from the halibut fishery (Bergmann 1975; Carlile et al. 2002). In 1945, the first seasonal limitation for the NSEI sablefish fishery was imposed to protect spawning fish and manage the fishery harvest within an established guideline harvest range (GHR; Bracken 1983). Sablefish fishing effort fluctuated until the 1970s, when a Japanese market developed, raising prices and driving increased harvests (Bracken 1983). Sablefish harvests continued to increase, exceeding one million round pounds annually by 1983 (Carroll and Green 2012). To keep harvest within GHRs, fishery managers began shortening fishing seasons; however, these shorter seasons proved ineffective at keeping harvest within GHRs, and the GHR was exceeded for several years despite seasons being limited to 24 hours (Green et al. 2014). As a result, in 1994, an equal quota share (EQS) system was implemented and remains in place (Carroll and Green 2013).

In 1988, the Alaska Department of Fish and Game (ADF&G) began conducting an annual NSEI longline survey at fixed survey stations to collect fishery independent data including catch per unit effort (CPUE), sablefish age, length, weight, sex, and maturity. Longline survey data were integrated into a yield-per-recruit assessment from 1997–2019, and into a statistical catch-at-age assessment (SCAA) since 2020 (Sullivan et al. 2020). The SCAA model uses surveys' sablefish CPUE (numbers of sablefish per hook), sablefish age and length compositions, and female maturity-at-age data to determine NSEI Subdistrict commercial sablefish fishery annual harvest objectives.

The longline survey was designed as a random stratified survey with fixed stations; however, survey methodology has varied over time (Table 1). For example, longline survey stations fluctuated from 1988–1996 but were standardized to 45 stations in 1997 in response to increased

fishing effort occurring in southern Chatham Strait (Carlile et al. 2002; Vaughn 2010). In 1997, soak times were standardized to a minimum of 3 hours and a maximum of 11 hours due to concerns that the prior 1-hour soaks were not providing representative CPUE data (Sigler 2000) and to match the soak times of the federal sablefish longline survey (Cartwright 2000). Also, survey bait was switched from herring to squid, as herring disintegrated with the longer soak times (Cartwright 2000; Carlile et al. 2002). In 2000, ADF&G standardized the survey longline gear to match federal sablefish survey specifications, facilitating comparison between federal and state sablefish stock assessments (Carlile et al. 2002). Since 2000, minimal changes to the survey methods have been made; only the number of survey stations was reduced to 44 in 2002, and to 42 in 2016 (Figure 2; Richardson 2003).

Regulations adopted at the 2022 Southeast Board of Fisheries meeting allowed sablefish to be taken in the directed NSEI sablefish fishery by longline and pot gear under a Commercial Fisheries Entry Commission (CFEC) limited entry C61A permit. Recent advances in pot gear allow vessels to use pots that are lightweight and can be fished with minimal vessel modifications on boats with longline equipment. To gain a better understanding of pot gear selectivity and catchability, as well as to examine the feasibility of changing the longline hook-and-line survey to longlined pot gear, ADF&G conducted side-by-side comparison surveys for sablefish in NSEI waters (Table 2) from 2023–2025. Beginning in 2026, the department completely changed to collapsible pot gear (codcoil or slinky pots; Figure 3) due to logistical issues with the hook-and-line surveys and ongoing whale depredation, which compromised survey data.

OBJECTIVES

1. Collect CPUE data from 42 survey stations in the NSEI Subdistrict and randomly sample 550 sablefish for biological data including fork length, weight, sex, gonad maturity stage, and otoliths (age structures).
2. Measure an additional 550 randomly sampled sablefish (fork length) during the survey.
3. Identify and enumerate, to the lowest possible taxonomic group, all other species captured in pot gear during the survey.
4. Recover tagged sablefish, record tag and recovery information, and collect length data for tagged fish caught in pots during the survey.

METHODS

SURVEY DESIGN

The NSEI sablefish survey is designed as a stratified, fixed-station survey with 42 stations located in Chatham Strait between the latitudes of Point Howard on Kuiu Island and Point Hepburn on Admiralty Island (Figure 2). The survey area is divided into 3 sections: Southern, Central, and Northern (trips 1, 2, and 3, respectively). Each section consists of 14 stations (Table 3) located at depths between 386 to 814 meters (211 to 445 fathoms). Three commercial pot vessels are chartered to complete the survey. Annual timing of the survey is from mid-July to early August during the smallest difference between low and high tides, as large tides cause gear entanglements. Survey duration is approximately 1 week; however, in the event of weather or mechanical delays, the survey may be extended to a maximum of 14 days. If winds exceed 25 knots, fishing operations

may be suspended to provide for the safety of crew and to prevent deterioration of data quality due to loss of fish in rough seas.

Each vessel is staffed with 2 scientific ADF&G crew members, 1 of whom is assigned as crew leader. ADF&G staff are responsible for data collection and entry, as well as adherence to survey protocols outlined in this document. The vessel crew consists of a captain (skipper) and 2–3 experienced crewmembers. The skipper is responsible for general navigation, crew supervision, and control of the vessel. The vessels set gear at 3 stations per day for 4 days and have 1 day in which only 2 stations are fished. The ADF&G crew leader on each vessel works with the skipper to adjust the daily schedule to accommodate changes in weather, whale depredation, problems with gear or the vessel, delays in tender offloading schedules, or other issues that arise. In some years, contracts allow 1 or more NSEI permit holder(s) to be on board the vessel during the survey in which the permit holder is allowed to fulfill their Personal Quota Share (PQS), and ADF&G sells the remainder of the harvested sablefish.

At each station, one pot set is deployed. Each set consists of 1,646 m (900 fathoms) of 1.11 cm (7/16 inch) floating groundline and 183 m (100 fathoms) of running line with a 23 kg (50 lb) anchor at each end (Figure 4). Approximately 640 m (350 fathoms) of buoy line, with buoys and a high-flier pole, are also attached at each end. Each string contains 30 slinky pots measuring 69 cm by 127 cm (27 inch x 50 inch), equipped with two 46 cm (18 inch) escape panels made of biodegradable twine, no escape rings, and a 1.8 m (6 ft) bridle for attachment to the groundline becket via a stainless steel swivel and carabiner clip. The groundline is arranged with 30 pot beckets and 33 cannonball beckets spaced at 27 m (30 fathoms), alternating every 13.5 m (15 fathoms) so that a cannonball becket precedes each pot becket along the line, ending with a cannonball. Slinky pot beckets are made of 0.64 cm (1/4 inch) yellow spectra line tied to a length of 1.8 m (6 ft), while cannonball beckets are 0.64 cm (1/4 inch) gray spectra line tied to a length of 20 cm (8 inch). Cannonball weights of 3.2 kg (7 lb) are attached to size 6/0 stainless steel swivel snaps using an overhand knotted 30 cm loop of #72 gangion twine (12 inch tied; 28 inch untied). The vessel crew is responsible for overhauling the gear after each set and ensuring the gear remains in good condition throughout the survey.

Each vessel receives 907 kg (2,000 lb) of squid *Illex* spp. for bait. ADF&G staff calculate the bait rate used at the first 3 stations to ensure enough bait is available to fish all survey stations. The rate of use is 1.8 kg (4 lb) per pot. Bait must be freshly cut squid, thawed no more than 24 hours prior to use. Squid bait is cut into 3.8 cm to 5 cm (1.5–2 in) pieces. The entirety of the squid is used as bait. Staff records details of the vessel, crew, and bait usage on the Vessel Information Form (Appendix A).

Pre-printed Survey Set Forms (Appendix B) for each station are provided and completed with trip number, station number, statistical area, and start and end coordinates for each set. It is at the skipper's discretion which end is set first based on ocean and tide conditions. All attempts are made to set between the 2 locations; however, the current or weather may force a deviation from course to fish the gear appropriately. If it is necessary to set differently, the set should be made as close to the original location points as possible. The start and end positions for each set are the locations where the anchors are deployed overboard. Any problems, unforeseen events, skipper comments, and start and end of the workday should be documented on the Daily Log Form (Appendix C).

Sets must soak at least 7 hours and no longer than 18 hours, as measured from second anchor overboard to first anchor on board. The length of soak depends on weather, daily schedule, presence of sand fleas *Lysianassoidea*, or other boat traffic in the area. A proposed schedule for setting gear is to set the first and second sets the evening before, set the third set the next morning, and haul all 3 sets beginning with the set that was set first the night before. Once all 3 sets have been hauled, the skipper should run to the next group of stations and again set the next 2 sets that evening. Seabird avoidance devices are not required for pots.

The vessel provides a crewmember who operates the gear to haul each set. Prior to hauling gear, a 46 cm (18 in) mark is placed on the hatch, deck, or rail so the crewmember can measure undersized fish. Sablefish less than the 46 cm (18 in) mark may be gently released due to low market value and to allow for future spawning potential. All other sablefish, rockfish including thornyheads *Sebastes* spp. and *Sebastolobus* spp., and Pacific cod *Gadus macrocephalus* are to be retained for sale. All other catch is carefully released with minimum damage. Fish returned to the water are not to be gaffed but should be gently released by hand (when safe to do so) overboard. Vessels with unfilled Pacific halibut *Hippoglossus stenolepis* individual fishing quota (IFQ) on board are required to retain legal halibut up to their IFQ amount; however, vessels without halibut IFQ must immediately release all Pacific halibut. A reasonable effort should be made to untangle live Pacific sleeper sharks *Somniosus pacificus* from gear when possible and safe to do so.

DATA COLLECTION

Pot Tallies

One ADF&G staff member is responsible for completing both the Survey Set Form (Appendix B) and the Pot Tally Form (Appendix D) for each set. The Survey Set Form is used to document set-level information during deployment and haulback, including set coordinates; dates and times of anchor and buoy deployment and retrieval; number and size of pots set and hauled; depths; haulback order; substrate type; and weather conditions during the setting of gear.

Dates and times (military) are recorded when the second anchor is deployed during setting and when the first and second anchors are retrieved during haulback. Depth (in fathoms) is recorded at each pot as it is set, with the first and last pots defining the start and end depths of the set; the average set depth is calculated as the mean depth across all pots. Staff also record whether gear is hauled in the same direction as it was set and describe substrate based on observations from retrieved gear. Any irregularities such as lost pots, damaged gear (e.g., holes, open ends), groundline breaks, missing bait bags, or tangled gear must be noted in the comments.

During haulback, the same staff member completes the Pot Tally Form for that set. This staff member must position themselves where they have an unobstructed view of pots as they come aboard and are emptied onto the sorting table or into totes. From this vantage point, they identify and enumerate all species captured in each pot to the lowest possible taxonomic level. This person must also carefully and quickly visually inspect each pot for damage. If a pot is structurally damaged, has holes in the mesh, an open door, is missing the bait bag, or has rotted biotwine, such that the pot allows fish to escape or does not allow fish to enter, the staff member must note on the Pot Tally Form that the pot was compromised. If the pot was not set or the pot was lost, the staff member must also note this for that particular pot. There are 4 pot condition codes: normal, pot compromised, pot not set, and pot lost. Sablefish from compromised (invalid) pots are excluded from CPUE calculations.

Each pot is dumped by the vessel crew, and all sablefish from the pot are tallied by disposition on the form. Any bycatch species are also enumerated and either retained (Pacific cod and all rockfishes) or discarded alive (all other bycatch). A handheld tally counter is the preferred method for accurately counting sablefish in each pot, particularly as crew rapidly transfer fish from the sorting table or tote to the hold. Gear should be operated at a speed that allows accurate counting, and staff should request that operations be slowed or paused if additional time is needed.

As pots are processed, the tally person also tracks sablefish counts and calls out every 20th fish for biological sampling. Sampling begins with the first sablefish of the set and continues with every 20th fish thereafter for the first 25 pots. Only “retained” and “discard small” sablefish are included in the sampling count; damaged or lost fish are excluded. If a designated sample fish is missed, the next available sablefish is retained. The sampling rate may be adjusted during the first 2 survey days to achieve the target of 550 biological samples across vessels.

In addition to biological samples, length-only samples are collected. The sablefish immediately following each biological sample (i.e., the second fish of the set and every 21st fish thereafter) is retained for length measurement and also serves as the first fish in the next sampling interval. It may be easiest to have 2 tally counters for sablefish: one counting the total sablefish in each pot that is cleared after all fish have been counted for that pot and another tally counting biological samples and length-only sablefish that is not cleared until it has reached 21 sablefish, which may span across multiple pots. The total number of sampled (full biological and length-only) sablefish from each pot must be recorded on the Pot Tally Form.

All irregularities related to pots, gear performance, setting, or haulback must be clearly documented on the Pot Tally Form and Survey Set Form, as appropriate. Staff must also carefully track pot order, particularly if gear is hauled out of sequence due to snarls, parted lines, or lost pots. If pots are skipped or missing, this should be reflected on both forms. Empty beckets observed during haulback should be recorded as missing pots or noted that the pot was not set to begin with. Staff should also note the weather during the haul on the Pot Tally Form, as these are the conditions that will be entered later into the database.

If gear parts during haulback, staff must record the pot number where the break occurred and the time each end is brought aboard. When hauling resumes from the opposite end, pot numbering should continue in proper sequence (e.g., resuming at pot 30 and tallying backward). Biological sampling should continue until 25 pots have been sampled, with remaining pots tallied only. The time the second anchor is retrieved (i.e., the second end of parted gear) must be recorded.

Document the presence of orca or sperm whales on the Pot Tally Form, and later in the comments of the Survey Set Form, noting if any evidence of depredation or gear damage occurs. If there are signs of gear damage or depredation, the vessel needs to consider other options prior to proceeding with additional fishing, and options to discourage additional interactions should be discussed by the ADF&G crew leader, skipper, and/or project leader. When feasible, staff should photograph identifying features (sperm whale flukes; left side of orca dorsal fins) for research purposes.

After the haulback for a set is complete, both forms must be reviewed and finalized. Staff should verify that all counts, species identifications, pot conditions, and comments are accurate and complete, correcting any errors as needed. Comments should clearly describe factors affecting gear performance or CPUE (e.g., gear loss, snarls, depredation). Finally, retained sablefish are summed on the Pot Tally Form and multiplied by the average weight derived from biological samples to estimate total catch weight for the set. Verified data are then transferred to the Summary

Form (Appendix J) for further calculations. All set and pot data will be entered into the Zander Pot Survey Metadata application upon return to the office.

Biological Sampling

While one scientific staff member is conducting the pot tallies, the other is collecting biological samples. Sablefish Age-Sex-Length (ASL) samples consist of fork length (nearest whole centimeter), weight (nearest 0.1 kg), sex, and maturity. The ASL samples on the pot survey are recorded using the Groundfish At-Sea Survey Sampling application on the tablet (Appendix E); however, the biological sampler should also bring 3 Sablefish Biological Data Collection Forms on deck with them (Appendix F) in the event that the tablet fails. Specimen numbers are assigned sequentially to each sablefish sample with the first sablefish sampled on each set assigned as “specimen 1.”

After taking a fork length measurement, sablefish are weighed using a Marel[®] electronic motion compensation scale. The scale is calibrated at the start of each set and as sea conditions change. If the Marel[®] scale cannot be properly calibrated due to rough weather or other issues, a hanging scale may be used. When using the hanging scale, weight readings should be taken twice to reduce misreading due to wave and wind action. Weight collection is skipped if the ocean conditions are not conducive to accurate and repeatable readings with either scale. Some sablefish may ingest water as they are hauled to the surface as evidenced by their swollen appearance. Samplers must purge the water from the fish stomachs prior to recording weight.

Following the collection of length and weight data, the specimen’s otoliths are removed. The otoliths are accessed by making a horizontal cut across the top of the head, about a centimeter deep. The 2 otoliths are in opposing grooves within the cartilage and forward of the brain. The otoliths are removed with forceps and are stored temporarily on deck in 32-unit pill boxes or a similar style tray. The pill boxes are numbered from 1 through 32, 33 through 64, 65 through 96; specimens 97 through 100 must be placed in empty consecutive wells and noted in the comments to avoid otolith sequence issues while cleaning (e.g., specimen 97 placed in cell 67, 98 placed in 68, 99 placed in 69 and 100 placed in 70). This allows the trays to be reused for otoliths from 101 through 200 and so forth. Otolith numbers are assigned consecutively to sablefish with biological data beginning with the first sample collected (otolith 1) and ending with the last sample taken on the final set of the survey. Otolith numbers do not match specimen numbers, which restart numbering with 1 at the start of every set. To assign a specimen an otolith number in the Groundfish At-Sea Survey Sampling application (Appendix E), staff clicks on the “oto” button. Any notes for a sample’s otolith condition are made by clicking “Notes” in the Groundfish At-Sea Survey Sampling application and selecting the corresponding condition from the “notes/otolith comments” pop-up menu or by writing in the comments box. Length-only sablefish samples are not included in the otolith number sequence. The sampler should continually verify that the otolith number on the sampling form or tablet application matches the cell’s lid number on the pill box to avoid errors in sequencing.

Otoliths are cleaned daily to avoid compromising otolith storage capacity on deck and to reduce the chance of sample loss due to accidental spillage. Otoliths should be cleaned at the end of the day inside the vessel cabin by immersing individual pairs in a small bowl of water to remove any remaining blood or tissue and gently dabbing them using a paper towel. No more than one pair of otoliths should be cleaned or removed from their pill box cell at a time to avoid accidental mixing. Staff should ensure notes recorded for otoliths on paper and in the sampling application (e.g., no

otoliths, 1 otolith lost, etc.) match the number and condition of otoliths they are cleaning before placing them in the long-term storage 48-cell trays, which are labeled with trip information and specimen numbers (Appendix G). If no otoliths were collected for a specimen, the corresponding cell is left empty and uncapped. Any otolith sequence issues or abnormalities with the otoliths while collecting, cleaning, or storing the otoliths must be fully documented on the sampling application. Any questionable otoliths are noted and addressed in port with the Age Determination Unit (ADU).

After otoliths are extracted, sex and maturity data are collected by examining the specimen's gonads macroscopically. Sablefish are cut and dressed (eastern cut) to industry standards (Figure 5) to view the gonads. Male specimens are recorded with sex code "01" and females with code "02." A code of "00" is assigned to those specimens where the sex is not observed, and code "99" to those that are indiscernible. Maturity is coded according to 1 of 2 stages, immature "01" or mature "07" (Figures 6 and 7). Sablefish with undeveloped gonads that have not previously spawned are assigned as immature. Fish with gonads that are developed and have spawned or are prepared to spawn are recorded as mature. Questionable gonads should be saved to review with the other staff member after the set is complete. After sex and maturity data are recorded for a fish, the fish is cleaned with a scraper, rinsed with a deck hose, and then iced in a fish hold separate from round fish. If staff encounter any abnormalities while sampling sablefish (e.g., malformed gonads), they should document the abnormality and photograph it for further investigation.

All tagged sablefish encountered on the survey are retained and the tag number, fork length of the fish, and set number are recorded on the Deck Tag Recovery Form (Appendix H). If a tagged fish was designated as a biological sample, the individual is treated like a random biological sample, and the otoliths are included in the survey's otolith series. The tag number is also noted in the comments section of the sampling application or on the paper sample form for that specimen. Tags are removed from the fish and secured in a safe place (e.g., small sealable plastic bag or in an unused cell of the otolith pill box) on deck until the set is completed. Tags and associated information are then transferred to the Survey Tag Recovery Form (Appendix I) inside the vessel cabin in between sets or at the end of the day. If tags from other agencies are recovered (NMFS, ADF&G Homer, Fisheries and Oceans Canada Pacific Biological Station, or Japan), biological data (length, weight, sex, maturity, and otoliths) are collected from the tagged fish and mailed with the tag to the respective agency upon return to port. These otoliths are stored separately and not included in the survey's otolith number sequence, unless they were collected as part of the systematic sampling.

At the end of each day, the Vessel Summary Form (Appendix J) is filled out for the stations fished that day. The form captures the CPUE and the average sablefish weight for each station. A cumulative estimate of the catch weight is calculated to give the processor an estimate of landing size on offload days. The CPUE and average weights can also be compared by station for previous surveys, as available, to estimate relative catches and to facilitate adjusting biological sample rates if needed (Table 4).

VESSEL SAFETY

The safety of department staff is of utmost importance and ADF&G staff can terminate a survey at any time if they feel that the vessel is unsafe or that the skipper is making poor decisions that jeopardize the safety of crew and/or the integrity of the survey. If there is a situation on the vessel in which survey crew are in danger, the Zoleo satellite communication device is utilized to contact

the appropriate safety contacts for the current year's survey. If the situation warrants immediate response, staff should contact the United States Coast Guard (USCG) directly. If staff are unsure whether a situation constitutes a safety concern, they should: 1) address the concern with the skipper, 2) contact the land-based safety contact and Groundfish Project Leader, and 3) document the circumstances as the situation allows, utilizing photos or videos if necessary.

Each survey binder has a Vessel Safety Checklist Form (Appendix K) that must be completed with the skipper prior to the vessel leaving the dock along with a Vessel Diagram Form (Appendix L). The crew leader ensures that ADF&G staff have a safety orientation with the skipper that covers location and operation of the Emergency Position Indicating Radio Beacon (EPIRB), life raft, fire extinguishers, and other safety equipment. The Vessel Diagram Form illustrates locations of the necessary safety equipment and allows staff to orient themselves with the working space on deck. Staff are told where to report in an emergency and the best location to store their survival suits. Survey staff must wear a personal flotation device (PFD) while on deck. A personal locator beacon (PLB) is assigned to each ADF&G staff on each vessel and are stored in an accessible location of their choice. Staff and PLB assignments are documented and sent to the appropriate shoreside safety contacts if a PLB is activated. The PLBs are manually activated and send a signal to the USCG once activated.

Daily communication is required to ensure crew safety and operational awareness. Before departure, all crew must verify that their check-in message via Zoleo device and app successfully reach both designated emergency land contacts. Each day between 8:00 AM and 3:00 PM, crew leaders must send a check-in to both land contacts, who must confirm receipt. If a primary communication device fails, the other ADF&G crew member assumes check-in responsibilities, with Starlink or cellular SMS used if all Zoleo devices are unavailable. If no check-in is received by 3:00 PM, emergency land contacts will verify the missed check-in, attempt contact through the other vessel(s), notify the U.S. Coast Guard if communication cannot be established, and provide a situation update to project leadership. In addition, crew leaders must check in with the survey coordinator via the designated Microsoft Teams survey chat before 10:00 AM each day, providing planned survey activities, field conditions, schedule changes, and any safety concerns. By the end of each day, crew leaders must report biological sample totals and discuss any necessary sampling adjustments in the Teams survey chat, with the other ADF&G crew member assuming the above reporting duties if needed.

SCHEDULE AND DELIVERABLES

The NSEI sablefish survey coordinator will begin planning the annual survey in May, including ensuring 3 chartered vessels are contracted, opening a fish buy bid to local processors, organizing gear, and training ADF&G staff using the protocols outlined in this document. Chartered vessel skippers and ADF&G staff assigned to the survey are provided with survey gear and materials prior to the survey departure. The survey is then conducted in July or August.

RESPONSIBILITIES

Aaron Baldwin, Fishery Biologist II, Crew/Crew Leader. Responsible for collecting data during the survey as outlined in this document.

Abigail Brady, Fish & Wildlife Technician III, Crew/Crew Leader. Responsible for collecting data during the survey as outlined in this document.

Kalli Brettrager, Fishery Biologist I, Crew/Crew Leader. Responsible for collecting data during the survey as outlined in this document.

Laura Coleman, Fishery Biologist II, Shore based Lead and Safety Contact. Oversight of survey logistics and safety. Assists with ADF&G survey staff training, participation in survey, and data review, when necessary.

Rhea Ehresmann, Fishery Biologist III, Crew/Crew Leader and Survey Coordinator. Oversight of all aspects of the project, including operational planning, processor and vessel contracts, equipment purchasing and inventory, ADF&G survey staff training, participation in survey, and data review. Utilizes survey results for the stock assessment the following year.

Alex McCarrel, Fishery Biologist II, Crew/Crew Leader. Responsible for collecting data during the survey as outlined in this document.

Ana Vinson, Fishery Biologist I, Crew/Crew Leader. Responsible for collecting data during the survey as outlined in this document.

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TABLES

Table 1.–Northern Southeast Inside (NSEI) Subdistrict sablefish survey specifications, 1988–2025.

Year	Date	Vessel(s)	Bait	Soak (hrs)	Hook size	Hook space (m)	Tied gangion length (cm)	Skate length (m)	Hooks/ skate	Skates/ set	Hooks/ set	Sets made/ planned
1988	8/14–8/26	<i>Betty</i>	Herring	1	13 C	3	25	1,600	ND	ND	1,000	24 / 24
1989	8/07–8/25	<i>Carrie</i>	Herring	1	13 C	3	25	1,600	ND	ND	500	44 / 44
1990	8/26–9/10	<i>Isis</i>	Herring	1	13 C	3	25	1,600	ND	ND	500	40 / 40
1991	8/13–8/30	<i>R/V Stellar</i>	Herring	1	13 C	3	25	1,600	ND	ND	500	40 / 40
1992	8/17–8/31	<i>Charles T</i>	Herring	1	13 C	3	25	1,600	ND	ND	500	40 / 40
1993	8/23–9/08	<i>R/V Medeia</i>	Herring	1	13 C	3	25	1,600	ND	ND	500	38 / 38
1994	8/23–9/05	<i>R/V Medeia</i>	Herring	1	13 C	3	25	1,600	ND	ND	500	38 / 38
1995 ^a	8/23–9/08	<i>R/V Medeia</i>	Herring	1	13 C	3	25	1,600	ND	ND	500	30 / 30
1995 ^a	8/23–9/08	<i>R/V Medeia</i>	Squid	3	13 C	3	25	1,600	ND	ND	500	6 / 6
1995 ^a	8/23–9/08	<i>R/V Medeia</i>	Squid	3	13 C	3	25	1,600	ND	ND	500	24 / 24
1996	8/17–8/31	<i>R/V Medeia</i>	Herring	1	13 C	3	25	1,600	ND	ND	500	38 / 38
1996	8/19–8/22	<i>Ida June</i>	Squid	3–7	13 C	1	20	550	122	6	750	16 / 16
1997	8/07–8/13	<i>Ida June,</i> <i>Charles T,</i> <i>Kruzof</i>	Squid	3–11	13 C	2.0–2.1	18–30	–	76–125	8–14	923–1,217	45 / 45
1998	8/13–8/19	<i>Ida June,</i> <i>Charles T,</i> <i>Ocean Cape</i>	Squid	3–11	13 C	1.8–2.1	23–33	183–548	75–122	8–14	831–1,267	45 / 45
1999	8/14–8/24	<i>Ida June,</i> <i>Charles T,</i>	Squid	3–11	13 C	1.8–2.1	23–25	–	–	8–11	1,002–1,129	45 / 45
2000	8/15–8/24	<i>Ida June,</i> <i>Charles T,</i> <i>Spirit</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	45 / 45
2001	8/07–8/14	<i>Ida June,</i> <i>Charles T,</i> <i>Sylvia</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44

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Table 1.—Page 2 of 4.

Year	Date	Vessel(s)	Bait	Soak (hrs)	Hook size	Hook space (m)	Tied gangion length (cm)	Skate length (m)	Hooks/ skate	Skates/ set	Hooks/ set	Sets made/planned
2002	8/12–8/19	<i>Archangel, Charles T, Ida June</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2003	8/02–8/08	<i>Archangel, Ida June, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2004	8/04–8/10	<i>Archangel, Charles T, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2005	7/27–8/02	<i>Charles T, Masonic, Sea View</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2006	8/01–8/07	<i>Charles T, Masonic, Sea View</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2007	8/04–8/10	<i>Charles T, Masonic, Sea View</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2008	8/06–8/12	<i>Charles T, Masonic, Sea View</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2009	7/28–8/03	<i>Ida June, Sea View, Sherrie Marie</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2010	7/31–8/6	<i>Ida June, Masonic, Sea View</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2011	7/24–7/30	<i>Kaia, Pacific Dawn, Sea View</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44

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Table 1.–Page 3 of 4.

Year	Date	Vessel(s)	Bait	Soak (hrs)	Hook size	Hook space (m)	Tied gangion length (cm)	Skate length (m)	Hooks/ skate	Skates/ set	Hooks/ set	Sets made/planned
2012	7/24–7/30	<i>Ida June, Kaia, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2013	7/28–8/5	<i>Cobra, Kaia, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2014	7/31–8/6	<i>Kaia, Magia, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2015	7/23–7/29	<i>Kaia, Magia, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	44 / 44
2016	7/25–7/31	<i>Kaia, Marilyn J, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	42 / 42
2017	7/30–8/5	<i>Kaia, Magia, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	42 / 42
2018	8/4–8/10	<i>Kaia, Magia, Masonic</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	42 / 42
2019	7/23–7/30	<i>Kaia, Magia, Marilyn J</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	40 / 42
2020	8/9–8/15	<i>Ilona B, Kaia, Kristina</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	42 / 42
2021	7/28–8/4	<i>Ilona B, Julia Breeze, Kristina</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	40 / 42

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Table 1.–Page 4 of 4.

Year	Date	Vessel(s)	Bait	Soak (hrs)	Hook size	Hook space (m)	Tied gangion length (cm)	Skate length (m)	Hooks/ skate	Skates/ set	Hooks/ set	Sets made/planned
2022	8/3–8/9	<i>Tammy Lin, Ilona B, Ida June</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	42 / 42
2023	7/23–7/28	<i>Tammy Lin, Ida June, Lea</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	42 / 42
2024	8/8–8/14	<i>Indigo, Kraken, Ida June</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	42 / 42
2025	7/31–8/6	<i>Ida June, Kraken, North Light</i>	Squid	3–11	13 C	2	38	91	45	25	1,125	42 / 42

Note: ND indicates no data available. En dash indicates a lack of standardization in gear types causing varied data

^a In 1995, 30 sets were made side-by-side to compare 1 hour and 3 hours soaks; 6 of these were conventional gear but due to operational problems the rest of the comparison sets were snap-on gear.

Table 2.—Gear history of the Northern Southeast Inside (NSEI) Subdistrict pot survey from 2023 to 2027.

Year	ADF&G number	Vessel name	Gear type	Skate length (m)	Pot size (cm)	Pot spacing (m)	Bait	Pots per set	Pots per skate	Soak time (hr)
2023 ^a	37833	<i>Ilona B</i>	Slinky pots	550	69x127; 77x152	55	Cut squid	30	10	7 to 10
2024 ^a	37833	<i>Ilona B</i>	Slinky pots	550	69x127; 77x152	55	Cut squid	30	10	7 to 10
2025 ^a	37833	<i>Ilona B</i>	Slinky pots	550	69x127; 77x152	55	Cut squid	30	10	7 to 10
2026 ^b	37833	<i>Ilona B</i>	Slinky pots	550	69x127	55	Cut squid	30	10	7 to 18
	26017	<i>Ida June</i>	Slinky pots	550	69x127	55	Cut squid	30	10	7 to 18
	36979	<i>Kraken</i>	Slinky pots	550	69x127	55	Cut squid	30	10	7 to 18
2027 ^b	37833	<i>Ilona B</i>	Slinky pots	550	69x127	55	Cut squid	30	10	7 to 18
	26017	<i>Ida June</i>	Slinky pots	550	69x127	55	Cut squid	30	10	7 to 18
	36979	<i>Kraken</i>	Slinky pots	550	69x127	55	Cut squid	30	10	7 to 18

^a Surveys from 2023–2025 were side-by-side comparison studies along hook-and-line longline gear.

^b The first pot survey was conducted in 2026 with new, standardized pot gear for each boat and will be repeated in 2027.

Table 3.–Northern Southeast Inside (NSEI) Subdistrict pot survey master station list.

Station	Trip	Statistical area	Start latitude	Start longitude	End latitude	End longitude	Start depth (fathoms)	End depth (fathoms)	Area description
55	1	345603	56 06.72	134 30.55	56 05.30	134 30.50	291	282	Point Howard Middle
58	1	345603	56 08.10	134 34.80	56 06.50	134 34.90	303	284	Cape Ommaney
52	1	345603	56 15.50	134 27.30	56 14.00	134 27.30	392	390	Port Alexander Middle
57	1	345603	56 16.69	134 24.73	56 15.13	134 24.73	393	366	Port Malmesbury
54	1	345603	56 19.93	134 34.12	56 18.40	134 35.00	245	354	Port Alexander
56	1	345603	56 26.17	134 36.30	56 24.40	134 36.00	312	312	Port Herbert
53	1	345603	56 26.90	134 29.90	56 25.20	134 29.70	380	386	Port Herbert Middle
1	1	345631	56 32.90	134 34.60	56 31.28	134 34.60	277	284	Patterson Point
3	1	345631	56 35.20	134 31.30	56 33.50	134 31.10	356	354	N. Patterson Point
4	1	345631	56 41.60	134 34.80	56 40.10	134 34.80	370	373	Mt. Ada
5	1	345631	56 42.30	134 33.10	56 40.60	134 33.10	385	374	S. Gut Bay
6	1	345631	56 40.61	134 25.61	56 39.23	134 25.67	277	292	S. Washington Bay
7	1	345631	56 43.20	134 26.50	56 41.70	134 26.10	274	242	Washington Bay
8	1	345631	56 45.00	134 33.20	56 43.00	134 33.20	389	396	Gut Bay
9	2	345631	56 45.53	134 29.21	56 44.01	134 28.46	354	361	N. Washington Bay
10	2	345631	56 48.80	134 31.80	56 47.00	134 31.80	385	378	Hoggat Bay Middle
13	2	345631	56 50.49	134 37.71	56 48.91	134 37.45	397	382	Kingsmill Point
16	2	345631	56 54.39	134 33.75	56 52.78	134 33.75	350	364	Yasha Island
15	2	345631	56 54.46	134 38.37	56 52.67	134 38.44	366	360	N. Red Bluff Bay
18	2	345701	57 02.05	134 42.68	57 00.60	134 42.62	336	354	Cascade Bay
19	2	345701	57 02.90	134 43.92	57 01.35	134 43.95	362	340	N. Cascade Bay
21	2	345701	57 07.52	134 42.07	57 06.00	134 42.09	343	357	Warm Springs Bay
22	2	345701	57 11.40	134 48.39	57 10.07	134 47.40	320	330	White Cliff

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Table 3.–Page 2 of 2.

Station	Trip	Statistical area	Start latitude	Start longitude	End latitude	End longitude	Start depth (fathoms)	End depth (fathoms)	Area description
23	2	345701	57 12.90	134 40.87	57 11.27	134 41.46	340	445	N. Wilson Cove
24	2	345701	57 15.38	134 40.49	57 14.02	134 40.75	277	242	Point Caution
25	2	345701	57 17.96	134 39.94	57 16.60	134 39.92	272	281	Woody Point
28	2	345701	57 20.01	134 42.73	57 18.68	134 42.71	339	285	Point Lull Middle
27	2	345701	57 20.31	134 44.78	57 18.80	134 44.79	373	405	Point Lull
30	3	345701	57 21.27	134 39.27	57 19.80	134 39.37	370	330	Village Point
32	3	345701	57 23.97	134 46.01	57 22.58	134 46.04	380	365	S. Point Thatcher
33	3	345701	57 26.80	134 41.55	57 25.46	134 41.62	310	291	Distant Point Middle
35	3	345731	57 32.64	134 42.07	57 31.02	134 42.07	250	330	N. Danger Point
37	3	345731	57 33.83	134 45.14	57 32.31	134 45.21	319	346	White Rock Middle
39	3	345731	57 35.91	134 43.56	57 34.73	134 42.22	229	247	Parker Point
41	3	345731	57 41.65	134 52.54	57 41.43	134 50.34	300	315	Basket Bay
42	3	345731	57 43.91	134 53.10	57 42.66	134 52.91	294	316	S. Passage Point South
43	3	345731	57 45.74	134 45.97	57 44.43	134 45.78	260	258	S. Fishery Creek
44	3	345731	57 46.26	134 48.76	57 44.88	134 48.76	277	277	S. Passage Point Middle
45	3	345731	57 47.35	134 50.12	57 45.91	134 50.19	301	288	S. Passage Point
46	3	345731	57 49.78	134 48.87	57 48.31	134 48.64	244	266	Fishery Point
47	3	345731	57 52.10	134 46.22	57 50.78	134 45.96	265	244	N. Fishery Point
51	3	345731	57 56.49	134 48.12	57 55.15	134 47.80	235	303	Point Hepburn

Table 4.—Station catch per unit effort (CPUE; sablefish per hook) and average sablefish weight (kg) from the 2023 to 2025 Northern Southeast Inside (NSEI) Subdistrict longline surveys with average for all 3 years.

Trip	Station number	2023		2024		2025		Average	
		Sablefish per hook	Average weight (kg)	Sablefish per hook	Average weight (kg)	Sablefish per hook	Average weight (kg)	Sablefish per hook	Average weight (kg)
1	1	0.46	2.8	0.51	3.0	0.47	3.2	0.48	3.0
1	3	0.44	2.8	0.56	3.1	0.53	2.6	0.51	2.8
1	4	0.51	1.6	0.62	2.4	0.54	2.0	0.56	2.0
1	5	0.48	1.7	0.50	2.3	0.55	2.4	0.51	2.1
1	6	0.52	2.8	0.50	3.1	0.59	2.8	0.54	2.9
1	7	0.51	2.6	0.48	2.9	0.42	2.9	0.47	2.8
1	8	0.50	2.3	0.55	2.3	0.55	3.0	0.54	2.5
1	52	0.52	2.6	0.57	2.9	0.53	2.8	0.54	2.8
1	53	0.56	2.6	0.62	2.2	0.64	2.2	0.61	2.4
1	54	0.40	2.4	0.56	2.5	0.53	2.8	0.50	2.5
1	55	0.51	1.9	0.68	2.1	0.56	2.3	0.58	2.1
1	56	0.58	2.3	0.51	2.7	0.45	2.7	0.51	2.5
1	57	0.45	2.5	0.68	3.2	0.50	3.3	0.54	3.0
1	58	0.48	2.9	0.41	3.0	0.64	3.2	0.51	3.0
2	9	0.53	2.1	0.68	2.9	0.68	2.7	0.63	2.6
2	10	0.38	3.0	0.52	2.8	0.64	2.4	0.51	2.7
2	13	0.53	1.9	0.63	2.1	0.75	3.0	0.64	2.4
2	15	0.52	2.2	0.67	2.9	0.68	2.6	0.62	2.6
2	16	0.52	2.5	0.67	2.4	0.70	2.7	0.63	2.5
2	18	0.44	2.6	0.64	3.0	0.65	3.0	0.57	2.9
2	19	0.42	2.4	0.51	2.7	0.64	2.8	0.53	2.6
2	21	0.54	2.5	0.66	2.7	0.78	2.9	0.66	2.7
2	22	0.48	2.3	0.53	2.5	0.70	2.4	0.57	2.4
2	23	0.33	2.3	0.41	2.7	0.57	2.9	0.44	2.7
2	24	0.34	2.5	0.45	2.8	0.53	2.8	0.44	2.7
2	25	0.43	3.0	0.59	2.9	0.74	3.2	0.58	3.0
2	27	0.44	2.5	0.48	2.8	0.58	2.7	0.51	2.7
2	28	0.30	2.6	0.52	3.0	0.60	2.7	0.46	2.8
3	30	0.43	3.1	0.58	2.5	0.52	2.8	0.51	2.8
3	32	0.44	2.4	0.52	2.3	0.65	2.7	0.54	2.5
3	33	0.55	2.1	0.40	2.0	0.57	2.3	0.51	2.1

-continued-

Table 4.–Page 2 of 2.

Trip	Station number	2023		2024		2025		Average	
		Sablefish per hook	Average weight (kg)	Sablefish per hook	Average weight (kg)	Sablefish per hook	Average weight (kg)	Sablefish per hook	Average weight (kg)
3	35	0.56	2.0	0.52	2.3	0.63	2.5	0.57	2.3
3	37	0.60	1.7	0.40	2.4	0.61	2.3	0.54	2.1
3	39	0.35	2.9	0.58	2.9	0.58	2.8	0.50	2.9
3	41	0.47	2.4	0.60	2.2	0.64	2.2	0.57	2.3
3	42	0.35	2.0	0.56	2.3	0.65	2.0	0.52	2.1
3	43	0.48	2.5	0.65	2.4	0.65	2.3	0.60	2.4
3	44	0.38	2.1	0.49	1.9	0.67	2.6	0.51	2.2
3	45	0.45	2.3	0.54	2.4	0.57	2.5	0.52	2.4
3	46	0.44	2.6	0.65	2.3	0.63	2.8	0.57	2.6
3	47	0.35	2.7	0.66	2.6	0.62	2.8	0.54	2.7
3	51	0.50	2.6	0.59	2.6	0.66	3.0	0.58	2.8
Year averages		0.52	2.4	0.56	2.6	0.60	2.7	0.54	2.6

FIGURES

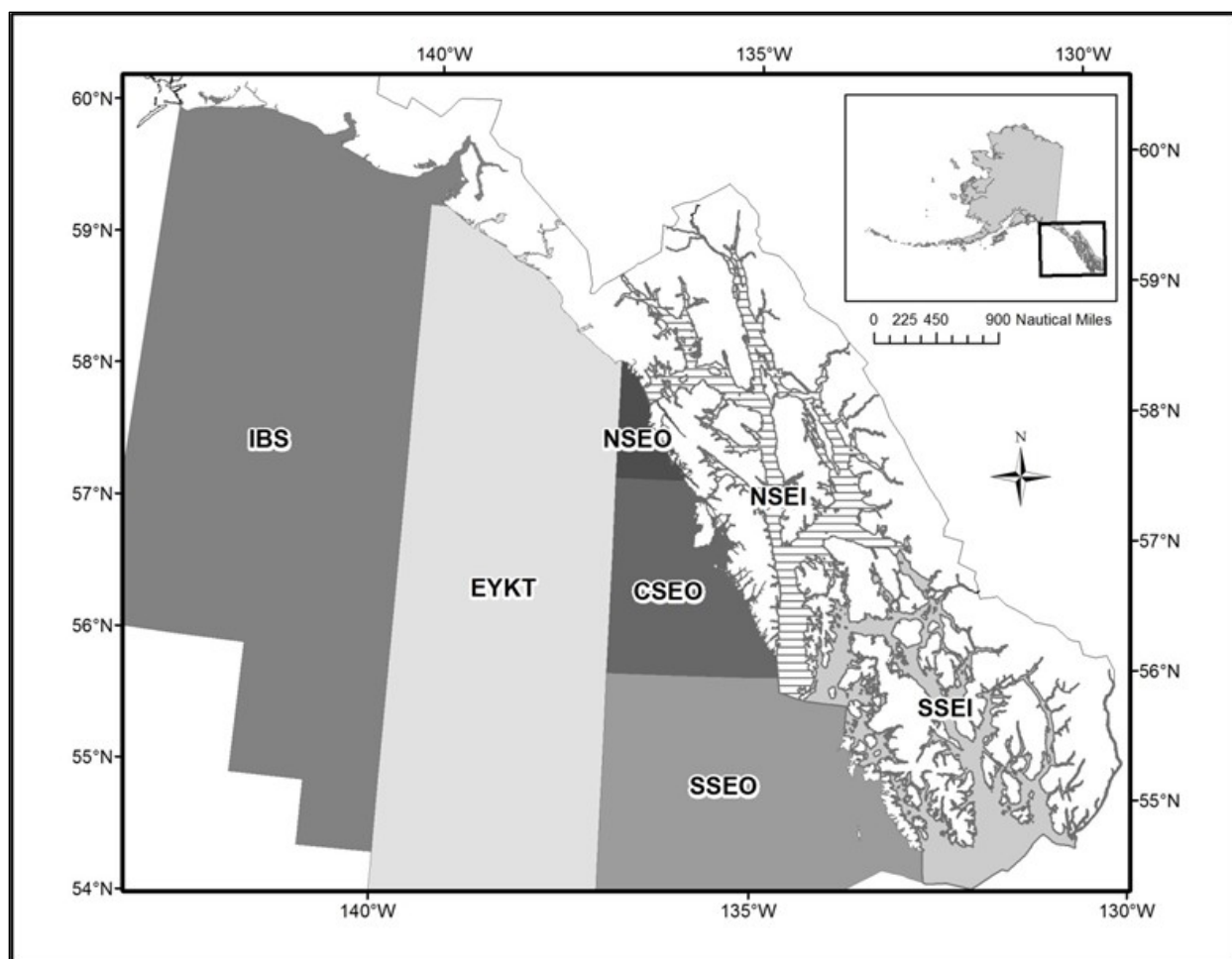


Figure 1.—Southeast District groundfish management area boundaries in Southeast Alaska waters excluding lingcod and black rockfish: Icy Bay Subdistrict (IBS), East Yakutat (EYKT) Section, Northern Southeast Outside (NSEO) Section, Central Southeast Outside (CSEO) Section, Southern Southeast Outside (SSEO) Section, Northern Southeast Inside (NSEI) Subdistrict and Southern Southeast Inside (SSEI) Subdistrict.

Chatham Pot Survey Stations

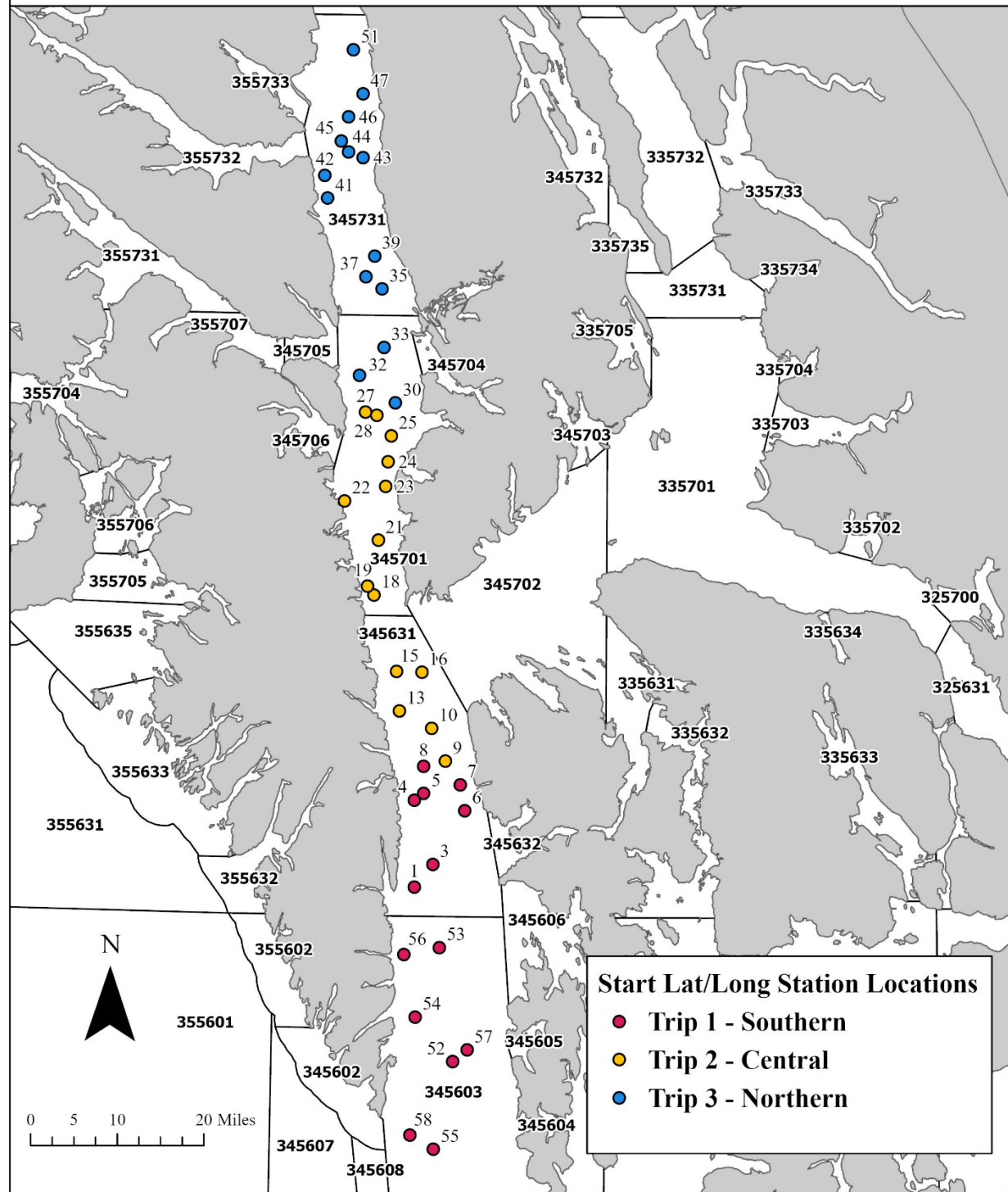


Figure 2.—Northern Southeast Inside (NSEI) Subdistrict survey stations by trip.

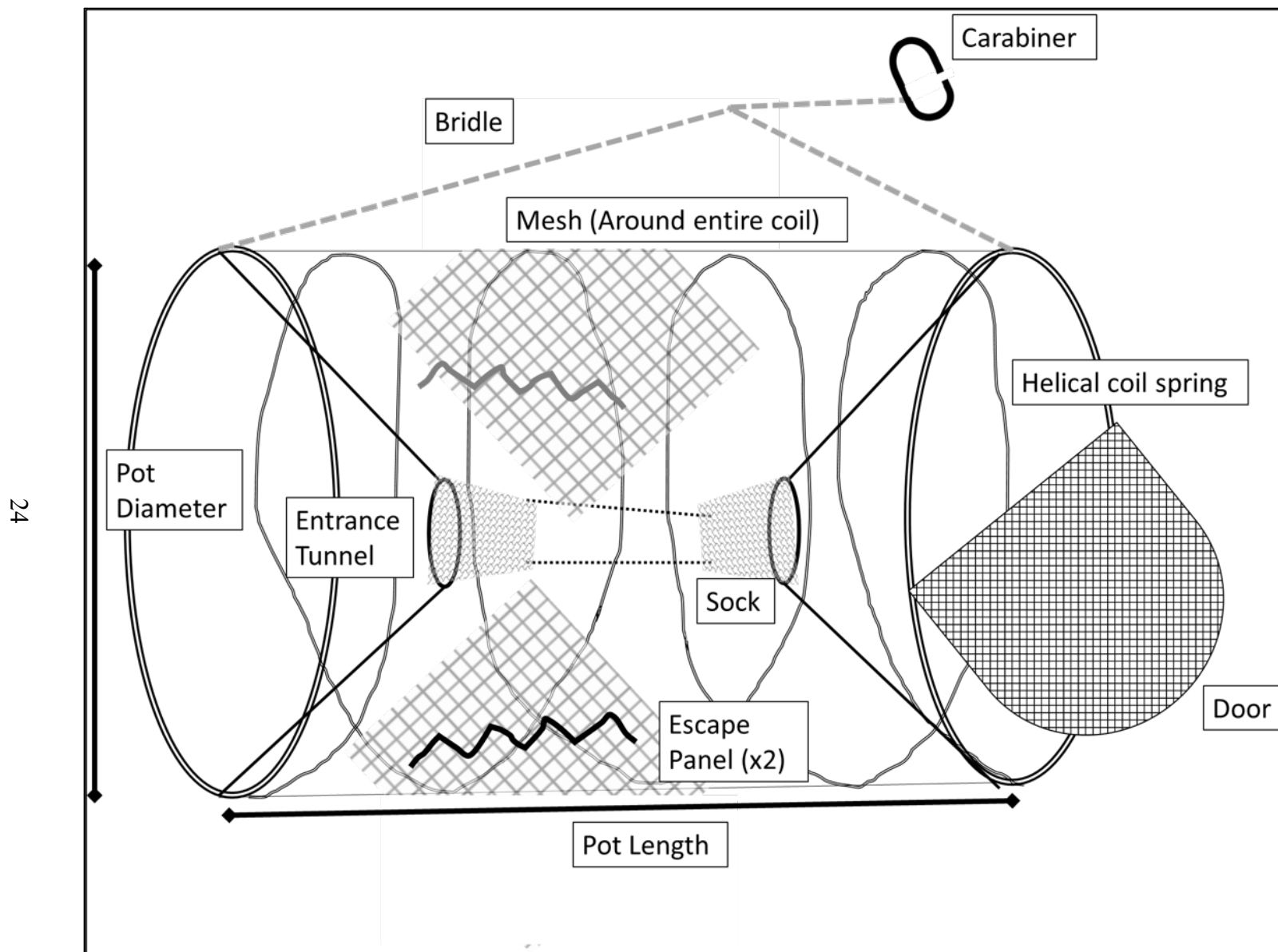


Figure 3.—One slinky pot configuration.

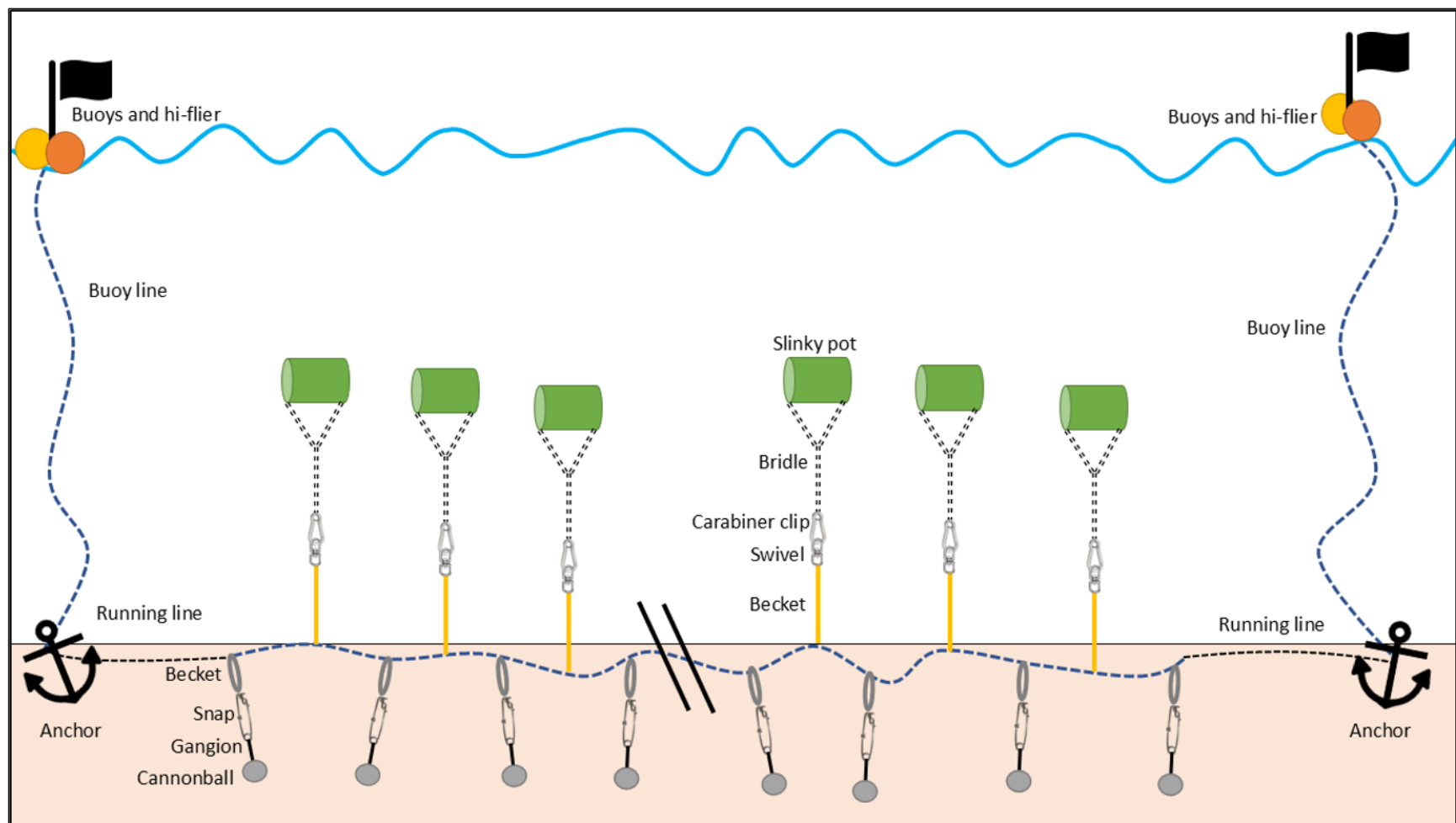


Figure 4.—Gear configuration for one pot set.



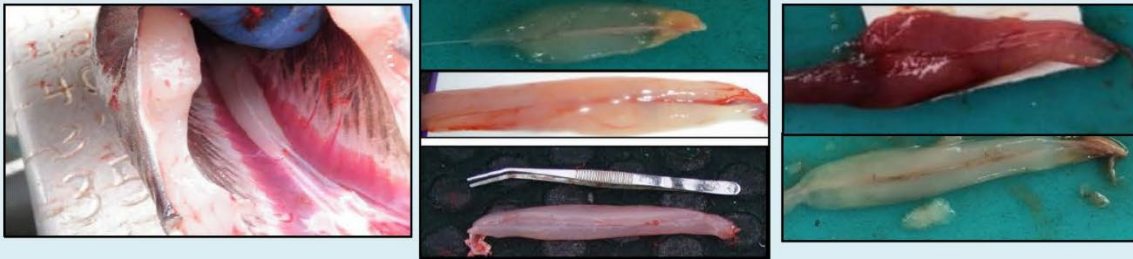
Figure 5.—Eastern cut sablefish.

Female (02) Macroscopic Maturity Guide

Sex Not Observed (00) or Sex Indiscernible (99)

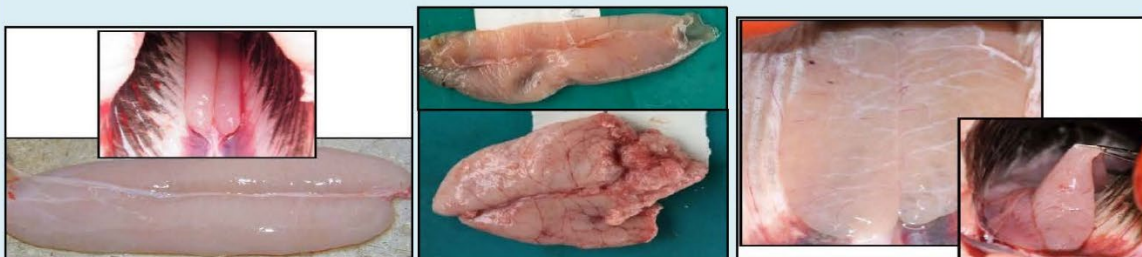
Immature (01)

- Two small elongated lobes or enlarging ovaries.
- Translucent (some light should pass through) and smooth.
- Clear, beige, yellowish, or red if experienced trauma.
- Has not spawned before.



Mature (07)

- Ovary medium to large in size.
- Full or flaccid.
- Flaccid if recently spawned, just beginning to develop yolk, or will skip spawning.
- Full if yolk further developed and eggs enlarged.
- Eggs visible if enlarged but not visible if no yolk or early yolk stage.
- Beige, yellowish, or somewhat red if experienced trauma or recently spawned.
- At spawning, eggs will run with light pressure.
- Has spawned before or may be first time to spawn.



Maturity Not Observed (09)

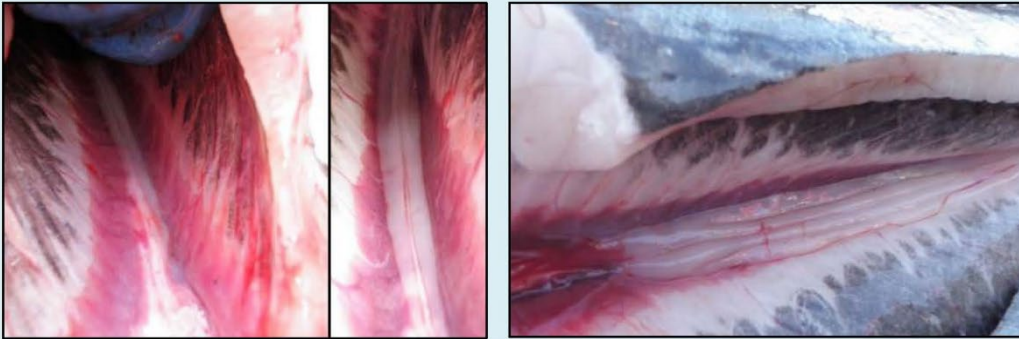
Figure 6.—Female sablefish macroscopic maturity guide.

Male (01) Macroscopic Maturity Guide

Sex Not Observed (00) or Sex Indiscernible (99)

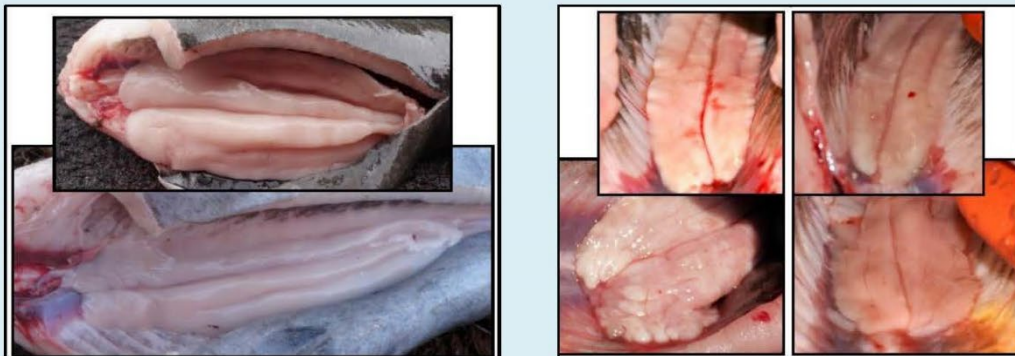
Immature (01)

- Testes small, narrow, flat; ribbon-like to enlarging with four discernible creases.
- Clear to light pink.
- Has not spawned before.



Mature (07)

- Testes large with 4 distinct lobes.
- Off-white to white.
- May be full, firm, or shriveled with wrinkles.
- Will be full if further developed in preparation for spawning.
- Will be shriveled or firm if recently spawned or early in preparation for spawning.
- When spawning, milt will extrude with slight pressure.
- Has spawned before or may be first time to spawn.



Maturity Not Observed (09)

Figure 7.—Male sablefish macroscopic maturity guide.

APPENDICES

VESSEL INFORMATION FORM

Project: Sablefish Pot Survey - NSEI or SSEI *(circle one)*

Year: 20____

Trip #:

Vessel:

Departure Port: _____ Date: _____ Time: _____

Return to Port: _____ Date: _____ Time: _____

Vessel Hold Type: ICE SLUSH RSW

ADF&G Crew: _____

Skipper and crew: _____

Amount of bait taken: _____ bags @ _____ lbs/bag = _____ lbs

Number of sets:

Amount of bait left over: _____ bags @ _____ lbs/bag = _____ lbs

Processor/Tender name: _____

Location, date, and time of **1st delivery**: _____

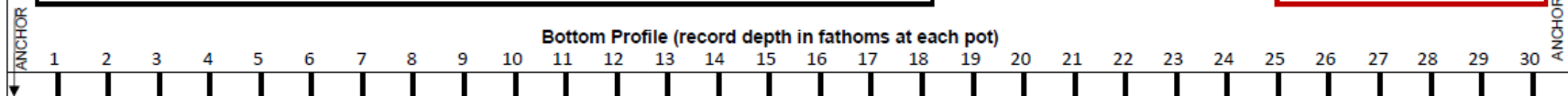
Est. time to unload: _____

Location, date, and time of **2nd delivery**: _____

Est. time to unload: _____

SKIPPER SET FORM

SEAS (FT)



[illegible]

Appendix D.–Pot tally form.

NSEI Sablefish Pot Survey Tally Form													
Year: 20		Trip: _____		Date: _____		Set: 							
Set #:		Station:		Sample Rate 1:		# Pots Sampled:		Haul: 					
Haul Information		Time		Haul Weather, Substrate, Comments									
Start	1st Buoy:	Wind (kt):		Anchor (substrate):									
	1st Anchor:	Seas (ft):		Comments:									
End	2nd Anchor:	Wind (kt):		Anchor (substrate):									
	2nd Buoy:	Seas (ft):		Comments:									
Pot #	# of samples taken per pot	SABLEFISH					IS THE POT VALID? Y / N	COMMENTS	Pot #	BYCATCH *Note if Dead! *			
		Retained	Discard Small	Discard SandFleas	Discard Other	Lost		Biotwine, door closures, fleas, missing bait bag, etc.		Halibut (200)	ATF (121)	Dover (124)	Other
1									1				
2									2				
3									3				
4									4				
5									5				
6									6				
7									7				
8									8				
9									9				
10									10				
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25									25				
26									26				
27									27				
28									28				
29									29				
30									30				
Totals:													

Appendix E.—Annotated main screen for Groundfish at-sea survey sampling application and notes/otolith comments pop-up menu.

The screenshot displays the main interface of the Groundfish at-sea survey sampling application. At the top, a header bar includes buttons for "Set number", "Enter next set", and "Launches Main Menu options". Below this, a form section contains fields for "Year: 2026", "Project: Chatham Sablefish Pot Survey", "Trip #: 1", and "Effort #: 1". A "New Effort" button is also present. A table with columns "SP", "Wt (kg)", "L (cm)", "Spe", "Sex", "Maturity", "OTO", "Otolith Cond.", "Comment", and "Actions" is shown. A pop-up window titled "Notes/Otolith Comments" is open, featuring a "Comments" text area, an "Otolith #" field with a "Get Next" button, and a list of "Otolith Condition" options: "Not Taken", "Both Otolos Found", "1 Broken Oto", "2 Broken Otolos", "1 Lost Oto", "2 Lost Otolos", "1 Broken 1 Lost", and "Asymmetrical Otolos". The pop-up has "SAVE" and "CANCEL" buttons. On the right side, a vertical panel contains input fields for "Weight" (kg/lbs), "Length", "Species" (Sablefish), "Sex" (Select Sex), and "Maturity" (Select Maturity). It also includes "OTO" and "NOTES" buttons, a "Running average of sample weights" field, and an "ADD" button. Red arrows and text boxes provide annotations for various elements: "Set number" points to the "Set number" button; "Enter next set" points to the "Enter next set" button; "Launches Main Menu options" points to the "MAIN MENU" button; "Current specimen number" points to the "OTO" column header; "Assigns the specimen otolith number" points to the "OTO" button; "Running average of sample weights" points to the "Avg. Sample Weight" field; "Type custom notes or select Otolith Condition from menu" points to the "NOTES" button; and "Saves specimen data and moves forward to next specimen number" points to the "ADD" button. A blue "# 1" is displayed above the "Weight" field.

[illegible]

Appendix G.—Example of 48-cell sablefish otolith tray label (front and back) and information written on front of completed 48-cell sablefish otolith tray in third rectangular image.

ALASKA DEPT. OF FISH & GAME - AGE DETERMINATION UNIT

SAMPLE DATE: 07/28/2024 TRAY NO. 1 OF 7

PORT/LOCATION Chatham Strait NSEI

SAMPLE ID: 24NSEI~1 (1 - 48)

SPECIES: 710

SAMPLERS: Anna Plopoma & Sebastian Lobus

COMMENTS: #23 broken during cleaning

ADU CONTACT INFO: 907-465-3054(v); 907-465-2765(f); dfg.dcf.adu@alaska.gov
PO BOX 115526 JUNEAU, AK 99811

24NSEI~1 1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	24NSEI~1 48

NSEI Trip #, Specimen otolith range
Ex: 24NSEI~1 (1-48)

Tray #1 of _____
(fill in end of survey when total known)

Appendix H.—Deck tag recovery form.

[illegible]

Appendix I.—Example of a survey tag recovery form.

ADFG Survey Tag Recovery Form			
for use only for tags with survey trip number and set number			
F/V _____	Trip # _____	Date of Landing _____ yr _____	
Species _____	Set Number _____	Port of landing _____	
Attach tags here (so tag numbers are visible)	Tag Number _____	Size _____ cm	FL _____
	Tag Number _____	Size _____ cm	FL _____
	Tag Number _____	Size _____ cm	FL _____
	Tag Number _____	Size _____ cm	FL _____
	Tag Number _____	Size _____ cm	FL _____
	Tag Number _____	Size _____ cm	FL _____
			Reward _____
			Measured by staff _____
Reward recipient _____			
Data entered (date) _____	Recovery Info: ADF&G Survey	Tag turned in by: ADF&G Survey	
Sampler _____ Please put your name in here if you are the one filling in this form		Return to: ADFG; 304 Lake St., Room 103; Sitka AK 99835 revised 6/16/26	

Appendix J.—Vessel summary form.

Vessel Summary Form -- Sablefish Pot Survey												Trip #:		20		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Date Hauled	Set #	Station #	Retained	Discard only + lost = Total	Sablefish from invalid pots only	Total valid sablefish = (D + E - F)	Number of valid pots	CPUE fish/valid pots (G / H)	Last Year CPUE fish/valid pots	Avg kg	Avg round lbs (K*2.2046)	Last Year Avg round lbs	Total round lbs for set (D * L)	Cumulative round lbs on board	Round lbs discarded (Discard only * L)	Stat area
				____ + ____ =												
				____ + ____ =												
				____ + ____ =												
				____ + ____ =												
				____ + ____ =												
				____ + ____ =												
				____ + ____ =												
				____ + ____ =												
Date of Landing						Landed Weight					Stat Area % Breakdown for Fish Ticket					

Vessel Safety Checklist	
Must be completed and signed prior to departure. Items in RED are no-go items. If these cannot be answered with a "Yes" or fixed prior to start of survey, the vessel may not depart!	
YYYY Circle One Prior to the departure of the _____ SSEI/NSEI sablefish survey the ADF&G science crew (_____ and _____) met with _____ (vessel captain) to discuss vessel safety procedures and equipment. This meeting took place onboard the FV _____ at _____, _____. During this meeting we saw and discussed:	
Time and Date	
1) The USCG Commercial Fishing Safety Decal (typically located on window of wheelhouse). We verified that this sticker is valid through the end of this survey (Yes) (No)	6) During this safety check we have: ☐ Seen the location of radios and discussed emergency call procedures (these are posted) ☐ Discussed emergency alarms and procedures (duties, muster station, etc.) ☐ Discussed Man Overboard (MOB) procedures ☐ Seen the location of fire extinguishers, especially those near high-risk areas ☐ Know the location of primary and secondary first aid kits ☐ Seen station bill and have discussed our duties, if any, during the listed emergencies ☐ Seen location of vessel flares and have discussed which types are available ☐ Seen location of smoke detectors and confirmed Co2 detectors are up to date and functional
2) The life raft is located in a float-free location and has sufficient capacity for everyone who will be on board during this survey (Yes) (No)	7) We have also discussed: ☐ The expected workflow and safe areas for us to be on deck ☐ Our mandatory daily check-in procedures with home port ☐ Verified, if needed, any allergies, potential medical conditions or dietary requirements of science crew ☐ Where our sampling gear, including raingear, should be stowed to be both accessible to us but not infringing upon crew space ☐ Where we can safely plug in and charge our electronics, both during the day and overnight
3) The hydrostatic release on the life raft is correctly set up (see diagram on next page) and the hydrostatic release expiration date is valid through survey (Yes) (No)	
4) The Type 1 EPIRB on this vessel was visually confirmed and is: Located in a float-free location (Yes) (No) Hydrostatic release expiration date is valid through survey (Yes) (No) Battery and NOAA registration sticker are valid through survey (Yes) (No)	
5) There are sufficient immersion suits onboard for all crew. Both members of the science crew have their own and know where these will be stowed. Location is accessible in case of cabin fire or other emergency (Yes) (No)	
As the science crew onboard this vessel for the _____ SSEI/NSEI sablefish survey we certify that we participated in the above safety check in person and that the above checked statements are true to the best of our knowledge (sign and date). _____(Lead) _____(Crew)	

-continued-

Illustrations of safety checklist items.



Commercial Fishing Safety Examination Decal – Sticker typically located on window of wheelhouse. Verify that expiration date is after survey dates.

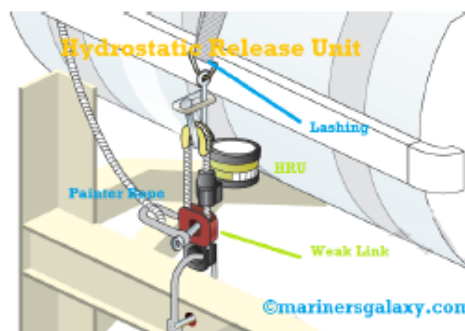
EPIRB Type 1 = will deploy automatically



Type 1 EPIRB – Needs to be located in a float-free location. Check registration, hydrostatic release expiration dates, and battery. Verify that expiration dates are after survey dates.



Examples of **life raft** – need to be in float-free locations. Check capacity (large enough for all personnel onboard). Check expiration dates – verify that these are after survey dates.



Setup of **hydrostatic release for life raft**.
Verify that this is correctly assembled.
Verify that expiration dates are after survey dates.



CLASSES OF FIRES					
					
	CLASS A SOLID COMBUSTIBLES	CLASS B LIQUID COMBUSTIBLES	CLASS C GASEOUS COMBUSTIBLES	CLASS D METAL COMBUSTIBLES	CLASS K KITCHEN HOODS AND COOKING APPLIANCES
EXTINGUISHING TYPE	CLASS A	CLASS B	CLASS C	CLASS D	CLASS K
FLAMMABLE LIQUID	YES	YES	NO	NO	NO
AIR POWDER	YES	YES	YES	YES	NO
CHARCOAL/COKE	NO	YES	NO	YES	NO
WET CHEMICAL	YES	NO	NO	NO	YES
WATER	YES	NO	NO	NO	NO

[illegible]

Example of Station Bill – this should include crew duties during major emergencies; Abandon ship, Fire, Man Overboard.

Vessel Diagram

At beginning of survey please make a sketch of working area of boat. Include locations for setting and hauling, area where pot tallies and biological sampling staff will typically stand, identify crew work areas, roller, block, direction of line, checker bins, and identify hazard areas.

Vessel Name: _____

Scientific Staff: _____ (Lead)

Scientific Staff: _____ (Crew)

Stern

Starboard

Port

Bow