

Program	Coverage, sample size, or precision target	Mandatory	Sampling Frame	Vessel Selection Method
<p>Alaska Fisheries Science Center, North Pacific Groundfish Observer Program (NPGOP). Catch and bycatch in all North Pacific Groundfish fisheries is monitored inseason to support quota management, but the fleet is divided into four sectors by vessel size and processing mode (Catcher Processors (CPs) or Catcher Vessels (CVs) delivering to processing plants), each with different requirements for observer coverage. Changes in strategies for deployment of observers cannot be accomplished without changes in statutory authority to support collection of fees from industry.</p>				
<p><u>NPGOP, 0%.</u> Catcher Vessels <60 ft</p>	<p>0%</p>	<p>N</p>	<p>None Vessels < 60 ft not included in sampling frame for logistical reasons</p>	<p>No vessel selection No list of vessels or permits but information about landings from tickets</p>
<p><u>NPGOP, 30% Sector</u> Fleet: Catcher Vessels and C/P Vessels, LOA 60-124 ft: 46 bottom trawl vessels 58 pelagic trawl vessels 32 longline Vessels, LOA 70-176 ft: 75 pot vessels Vessels < 60 ft: No record</p>	<p>30% per quarter</p>	<p>Y</p>	<p>NPGOP vessels listed in the sector</p>	<p>Ad-hoc; fleet is responsible for obtaining observer coverage.</p>
<p><u>NPGOP, 100% Sector</u> Fleet: Vessels LOA \geq125 ft; 79 bottom trawl catcher vessels; 55 longline vessels; variable trip length</p>	<p>100% 1 observer per trip</p>	<p>Y</p>	<p>NPGOP vessels in the sector listed</p>	<p>Census</p>

Summary of Statistic Methods Used by Observer Programs

es Science Center, North Pacific Groundfish Observer Program (NPGOP), continued.

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6 Sector ≥125 ft; om trawl and longline /P vessels in the Atka ry; 2 week + trip	100%, 2 observers per trip	Y	NPGOP vessels in the sector listed	Census
al Office, Alaska Marine Mammal Observer Program (AMMOP)				
	5%	Y	Permit holders by stratified area	Randomly generated list

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Fisheries Science Center (NWFSC)				
<u>Hake</u> vessels; mid-water trawl; EFP	100% , observer coverage	Y	Experimental fishing permit list	Census
<u>Observer Program</u> , 200% limited-entry non-endorsed fleet	100%, 2 observers per trip	Y	All active catcher- processors and motherships	Census Fleet is responsible for obtaining coverage
<u>Off-shore Rockfish</u> 87 deemed active; pots, hook & line, pole	All vessels sampled once per year. This fishery occurs throughout the year with no defined seasons. For each year, a list of permits is generated, the permits are assigned to port groups, and then selected for coverage. The cycles occur back-to-back, so observing is an ongoing process.	Y	87 active state permits of 125 state permits issued	Stratified random sampling without replacement; Port-groups form strata State permit list
<u>Limited-entry Sablefish-Endorsed Fixed-</u> permits; vessels can have > 1 hook and fish pots	All vessels sampled once per cycle (currently 3 year cycle) The selection cycle is defined by the amount of time it will take to observe the entire fleet, currently 3 fishing seasons. For each cycle, a list of permits is generated, the permits are assigned to port groups, and then selected for coverage. The cycles occur back-to-back, so observing is an ongoing process.	Y	164 active federal permits, vessels can have more than one permit	Stratified random sampling without replacement; Port-groups form strata Federal permit list

¹ For the limited-entry fixed gear fishery, permits are either endorsed for sablefish or not. Thus an endorsed vessel cannot be a subset of the non-endorsed vessels. Both endorsed and non-endorsed vessel are distinct subsets of the limited-entry fixed-gear fishery (John Carlson, personal communication)

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Fisheries Science Center (NWFSC), continued				
<u>Non-Sablefish- Trawl-Gear</u> ¹ 10 deemed active; 100 gears	All vessels sampled once per year. This fishery occurs throughout the year with no defined seasons. For each year, a list of permits is generated, the permits are assigned to port groups, and then selected for coverage. The cycles occur back-to-back, so observing is an ongoing process.	Y	50 active federal permits of 62 issued.	Stratified random sampling without replacement; Port-groups form strata Federal permit list
<u>Nearshore Rockfish</u> 100 permits (fishermen); 100 deemed active; daytrips; 100 gears	All vessels sampled once per year. This fishery occurs throughout the year with no defined seasons. For each year, a list of permits is generated, the permits are assigned to port groups, and then selected for coverage. The cycles occur back-to-back, so observing is an ongoing process.	Y	101 active permits of 319 permits issued.	Stratified random sampling without replacement; Port-groups form strata State permit list
<u>Day Trawl</u> 116 deemed active; 116 trawls; flatfish net	All vessels sampled once per cycle (currently 8-month cycles) This fishery occurs throughout the year with no defined seasons, so WCGOP has defined ‘cycles’ a sampling event that has a distinct beginning and end in lieu of a fishing season or year. Currently, the length of the selection cycles have been defined by the amount of time it will take to observe the entire fleet, typically 4-6 2-month periods. For each cycle, a list of permits is generated, the permits are assigned to port groups, and then selected for coverage. The cycles occur back-to-back, so observing is an ongoing process.	Y	116 vessels with active federal permits of 178 issued.	Stratified random sampling without replacement; Port-groups form strata Federal permit list

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Pacific Islands Regional Office				
<u>Moorea Longline</u>	7-10% (tuna)	Y	Fleet listed; Based on federal permits	Systematic, Random start
<u>Line</u>	100% (swordfish)	Y	Fleet listed; based on federal permits	Census
swordfish; 28 tuna and swordfish; 15-25 day trips (tuna); 25-35 day (sh)	~20% (tuna)	Y	Fleet listed; based on federal permits	Systematic, Random start
Regional Office (SWRO)				
<u>Keolu Drift Gillnet Fishery</u> 10 active vessels; 7-10 day trips;	~20% of sets	Y	Fleet listed; based on federal permits	Ad-hoc; ~ 20% trips per vessel
<u>Keolu Longline Fishery</u> 1 vessel	100% of trips	Y	One active vessel	Census

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Fisheries Science Center (NEFSC)				
<u>Multispecies Groundfish</u> ; multiple gears: gillnets (drift, float, sink), trawl (mid-water, purse seine), longline; 1-7 day trips; Federal and state permits	Target 30% CV for bycatch estimates of protected species; 5% A-Days 20% B-Day Programs, Special Access Areas SBRM Omnibus Amendment allocation	Y	Fleet lists determined by Vessel Trip Reports from the previous year and opportunistic selection	Quarterly stratified random sample; SBRM fleet sectors form strata

<u>Port Managed Groundfish</u>	Target 30% CV for bycatch estimates of protected species; Coverage 38% of trips	Y	Fleet lists determined by Vessel Trip Reports from the previous year and opportunistic selection	Quarterly stratified random sample; SBRM fleet sectors form strata
<u>Other Fisheries</u>	Coverage typically < 5% SBRM Omnibus Amendment allocation	Y	Fleet lists determined by Vessel Trip Reports from the previous year and opportunistic selection	Quarterly stratified random sample for a portion of the fleet; SBRM fleet sectors form strata
<u>Scallop Dredge Fishery</u>	Target 10 % of trips Industry Funded Program	Y	Pre-trip notification required and opportunistic selection	Stratified random sample

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Fisheries Science Center (SEFSC)				
<u>Other Fisheries</u>	<1% coverage, Target sample of 1,500 sea-days variable depending on funding;	Y	Federally-Permitted Vessels	Stratified random sample by effort, area, season, depth strata
<u>Upper-Grouper</u>	~1% coverage, sea days variable depending on funding	Y	Federally-Permitted Vessels	Stratified random sample by region gear, and season based on previous year's effort from logbooks
<u>Shark Gillnet</u>	100% coverage (Nov 15 - Apr 1) for drift and strike boats; Otherwise target of 30% RSE for turtle or mammal interaction estimates	Y	Fleet	Census; stratified random sample
<u>Gulf of Mexico Bottom</u>	100 % of all sandbar shark directed sets	Y	Fleet listed as determined by	Stratified random sample by area and season based on previous years activity

<u>ery</u> sels, approximately 100 active; 500-1,500 hooks per line;	4-6% for non-sandbar shark directed sets		federal permits from the previous year	
<u>line</u> active vessel w/ swordfish, tuna, mits; 3-14 day trips 150-200 mi cal; some 20-40 day trips 200- port	8% of sets target, ~6% mean actual coverage	Y	Fleet listed as determined by federal permits from the previous year	Stratified random sample by statistical area and quarter based on previous years activity