

Groundfish Science Report

Michelle McClure and John Stein

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**NOAA
FISHERIES
SERVICE**



Overview

Economic Data Collection Status

Fishery-independent survey updates

Observer update and website

Efficiency studies to support catch shares

Off-year science

Future needs and plans

Economic Data Collection Program

- Status of EDC Forms (# of entities)

	Current Participants*			Total Required		
	Complete	Incomplete	%	Complete	Incomplete	%
First Recv'r/ Processor	30	5	86%	41	29	59%
Catcher Vessel	116	5	96%	140	19	88%
Catcher Processor	8	0	100%	8	0	100%
Mothership	8	0	100%	6	0	100%

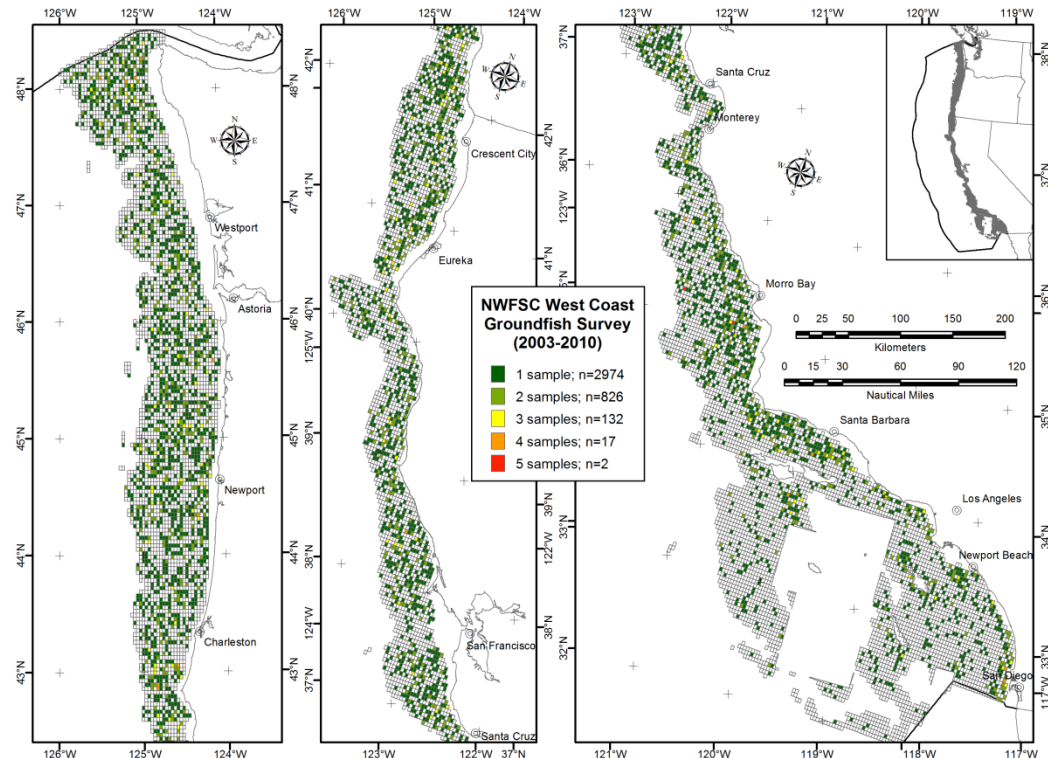
* Current participants are defined as any entity (person or business) who currently has an LEP-Trawl, QS permit, vessel account, or first receiver site license

West Coast Groundfish Bottom Trawl Survey



2011 Summary

Sampling days	190
Number of stations	727
Fish taxa identified	271
Number of otoliths	20,796
Individual weights	21,888
Individual sex/length	130,534



Southern California Shelf Rockfish Hook and Line Survey 2011



Dates

Sept. 22 – Oct. 6

Vessel-days

22

Chartered vessels

**F/V Aggressor
F/V Mirage**

Information:

- Humboldt squid present at several locations including Anacapa Is., Harrison Reef, Santa Monica Bay, and 9 Mile Bank
- Plan on CIE/Peer Review of this survey in 2012



2011 Joint US-Canada Pacific Hake Integrated Acoustic Trawl Survey



- ❖ 70 Days at Sea
- ❖ 10072 nmi.
- ❖ 53 Trawls
- ❖ Bi-national effort

- ❖ Ecosystem components:
 - Physical Oceanography
 - Harmful Algal Bloom Sampling
 - Plankton Sampling

- ❖ No Humboldt Squid caught coast wide



Catch Shares Observer Data



- Current Implementation Challenges:
Timeliness and accuracy of observer data into the Vessel Account system
- ***2010 Solutions***
 - On-board data entry
 - Database and process improvement
 - Printed IFQ trip summary receipts by obs.
 - Working with providers for data transfer

Observer Program Website Redevelopment



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[Janell Majewski, Team Leader](#)

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West Coast Groundfish Observer Program

The Northwest Fisheries Science Center (NWFSC) Observer Program is essential to NOAA Fisheries' successful stewardship and health of living marine resources and ecosystems along the U.S. Pacific coast. NOAA Fisheries mission to ensure economically and biologically sustainable fisheries is dependent on the monitoring of commercial fisheries' total catch, including both the portion of the catch retained (landed) and that which is catch discarded at-sea. Strategies employed to monitor commercial fisheries catch include landing receipts, shoreside monitors/observers, port biologists, at-sea observers, and technology-based devices.

The program is responsible for monitoring catch at-sea and deploys independent biologists (observers) to document the catch aboard fishing vessels. With scientific backgrounds, intensive training and in-field support, observers provide comprehensive, high-quality at-sea data essential to the management of Pacific coast fish stocks.

West Coast Groundfish Trawl Catch Share Program



The NWFSC observer program is one of many observer programs around the country. Deployed across 42 fisheries, U.S. observers log more than 60,000 days at-sea every year. This program, working within the overall mission of the Fishery Resource Analysis and Monitoring Division, collects, manages and analyzes fishery dependent data for use in management decisions, tracking catch share quotas and annual catch limits, stock assessments and research. The program trains, ensures data quality, and administers observers, who collect fishing-related data including: fishing locations and times, catch composition including discards/bycatch and biological data (see Data Collection section). Observer program staff includes NOAA employees, contractors, and collaborators from the [Pacific States Marine Fisheries Commission \(PSMFC\)](#).

There are two components of the NWFSC observer program that each monitor a distinct group of West Coast vessels: the At-Sea Hake Observer Program monitors the at-sea hake processing vessels and the West Coast Groundfish Observer Program monitors catcher vessels that deliver their catch to a shore-based processor or a mothership.

The West Coast Groundfish Observer Program, or WCGOP, started in 2001. Implemented by NOAA Fisheries, the observer program began with the goal of gathering data necessary to manage shore-based groundfish fisheries off the Washington, Oregon, and California coasts. The first WCGOP observers were deployed in August 2001 in the limited entry fixed gear sablefish endorsed fleet. Coverage of the limited entry bottom trawl fleet began in September 2001. Coverage of additional West

Groundfish Monitoring **Sector Reporting Summaries**

West Coast Groundfish Observer Program

For each observed sector, annual summaries coverage rates, total and discarded catch of individual species.

Trawl_CatchTable_AllYears_Final [Read-Only] [Compatibility Mode]

		2010			2009			Total catch (mt)	
		Total catch (mt)	Discard (mt)	Total % discarded	Total catch (mt)	Discard (mt)	Total % discarded		
Limited Entry Trawl									
Rebuilding species									
6	Bocaccio	<i>Sebastes paucispinus</i>	1.90	1.67	88.1%	5.62	4.79	85.4%	1.68
7	Canary rockfish	<i>Sebastes pinniger</i>	0.49	0.07	13.7%	2.57	1.55	60.5%	2.83
8	Cowcod	<i>Sebastes levis</i>	0.07	0.07	100.0%	0.13	0.13	100.0%	0.05
9	Darkblotched rockfish	<i>Sebastes crameri</i>	49.41	23.48	47.5%	55.08	30.01	54.5%	45.24
10	Pacific ocean perch	<i>Sebastes alutus</i>	26.64	12.99	48.7%	36.44	18.38	50.4%	24.57
11	Widow rockfish	<i>Sebastes entomelas</i>	5.18	4.49	86.6%	7.08	6.18	87.2%	1.10
12	Yelloweye rockfish	<i>Sebastes ruberrimus</i>	0.02	0.02	75.0%	0.01	0.01	71.8%	0.02
Non-rebuilding species									
14	Arrowtooth flounder	<i>Atheresthes stomias</i>	733.29	121.14	16.5%	1307.40	361.43	27.6%	728.82
15	Big skate	<i>Raja binoculata</i>	10.54	6.12	58.0%	19.49	19.24	98.7%	11.40
16	Black-and-yellow rockfish	<i>Sebastes chrysomelas</i>	--	--	--	--	--	--	--
17	Black rockfish	<i>Sebastes melanops</i>	0.01	0.00	0.0%	0.19	0.06	32.8%	0.04
18	Blue rockfish	<i>Sebastes mystinus</i>	--	--	--	--	--	--	--
19	Bronzespotted rockfish	<i>Sebastes gilli</i>	--	--	--	0.00	0.00	100.0%	0.00
20	Cabezon	<i>Scorpaenichthys marmoratus</i>	--	--	--	0.01	0.00	43.7%	0.02
21	California scorpionfish	<i>Scorpaenia guttata</i>	--	--	--	--	--	--	--
22	California skate	<i>Raja inornata</i>	0.59	0.59	100.0%	1.10	1.10	100.0%	1.11
23	Chilipepper rockfish	<i>Sebastes goodei</i>	49.87	5.93	11.9%	81.54	22.56	27.7%	22.21
24	Dover sole	<i>Microstomus pacificus</i>	1949.87	100.97	5.2%	2802.04	177.61	6.3%	2353.23
25	English sole	<i>Pleuronectes vetulus</i>	41.92	15.37	36.7%	92.53	36.92	39.9%	72.90
26	Flatfish								
27	Butter Sole	<i>Pleuronectes isolepis</i>	0.66	0.66	100.0%	0.48	0.36	74.6%	0.06
28	C-O (C-O Turbot) Sole	<i>Pleuronichthys coenosus</i>	--	--	--	--	--	--	--
29	Curlfin Turbot	<i>Pleuronichthys decurrens</i>	0.03	0.02	75.1%	0.39	0.38	97.1%	0.15
30	Deepsea Sole	<i>Embassichthys bathybius</i>	8.04	8.04	100.0%	8.36	8.36	100.0%	7.36
31	Flatfish Unid	<i>Pleuronectes</i>	4.36	4.21	96.6%	3.18	2.75	86.5%	10.81

Observer Coverage Rates. Total trips, tows, vessels and groundfish landings observed in the limited entry groundfish bottom trawl fishery. Coverage rates are computed as the observed proportion of total FMP groundfish landings (excluding Pacific hake), summarized from fish ticket landing receipts.

Coastwide Total

Year	Observed				Fleet Total Groundfish landings (mt)	Coverage Rate % landings observed
	# of trips	# of tows	# of vessels	Groundfish landings (mt)		
2002	559	3127	131	2583.7	20231.6	13%
2003	461	2284	125	2592.0	18625.6	14%
2004	613	3433	103	4300.7	17796.8	24%
2005	522	3460	105	4243.2	19372.6	22%
2006	476	2972	87	3438.4	18786.8	19%
2007	371	2515	88	3442.1	20513.6	17%
2008	438	3185	100	4889.6	24212.4	20%
2009	568	4381	101	6044.9	26159.5	23%
2010	348	2616	84	4100.3	22410.2	18%

Management Area Stratified Total

Management Area	Year	Observed				Fleet Total Groundfish landings (mt)	Coverage Rate % landings observed
		# of trips	# of tows	# of vessels	Groundfish landings (mt)		
North of 40° 10' N Lat	2002	432	2567	93	1940.2	15369.9	13%
	2003	316	1791	95	2076.3	14185.9	15%

Observed total catch is summarized in each sector for individual species or to the appropriate level of taxonomic identification. Total catch is calculated as the sum of discarded catch weight plus the retained catch weight. Because both the discarded and the retained weights are estimates, the observed estimates of total catch contain some uncertainty. Click on the sector below for the total catch of individual species by sector.

NWFSC
Fishery Resource Analysis and Monitoring Division
Groundfish Monitoring Program
2725 Montlake Blvd. E.
Seattle, WA 98112

- Sector
- [Limited entry \(LE\) bottom trawl](#)
 - [Limited entry \(LE\) sablefish endorsed fixed gear](#)
 - [Limited entry \(LE\) non-sablefish endorsed fixed gear](#)
 - [Open access \(OA\) fixed gear](#)



[http://www.nwfsc.noaa.gov/
research/divisions/fram/
observer/index.cfm](http://www.nwfsc.noaa.gov/research/divisions/fram/observer/index.cfm)

Stakeholder Involvement – Efficiency Studies



- Outreach meetings on cost efficiencies:
 - Coastal communities meetings in the winter of 2012
 - Workshop at April Council meeting
 - Build on information from existing pilot studies

Off-Year Science



- Council requests
- Assessment improvements
- Catch-share related (econ and bio)
- Linking environmental conditions and stock status

Looking Ahead



- Hake season timing
- Comprehensive ecosystem surveys
 - Filling gaps in coverage
 - Ecosystem factors (physical and biological conditions)
- Catch shares
- Spatial analyses