

Northwest Region Bycatch Implementation Plan Action Items (FY10 and FY11) and Accomplishments (FY09)						
Action	Status/Specific Accomplishments as of 9/30/09	2010	2011	How Programs will be Measured and/or Monitored	Milestone	Milestone Completion Date
<b>Monitoring</b>						
Expand West Coast Groundfish Observer Program (WCGOP) coverage to ancillary fleets making groundfish landings.	Maintained coverage rates in ancillary fisheries and released observer data analyses on schedule.	Further build upon lessons learned from 2009 coverage and continue to collect, analyze, and release observer data for use in management.	Further build upon lessons learned from 2010 coverage and continue to collect, analyze, and release observer data for use in management.	Observer data analyses released as per the schedule arranged with management.	Observer report posted on Northwest Fisheries Science Center (NWFSC) website.	Nov. 2007, Sept. 2008, Sept. 2009
Update NWFSC bycatch model with 2001-2007 WCGOP data to improve precision of bycatch rate estimates.	Bycatch model updated with recent observer program data.	Annual update.	To be determined.	Annual update of bycatch model with most recent available observer data.	Bycatch model update and results incorporated into management process.	Jan. 2008, Jan. 2009, Apr. 2010
Aid in creating a comprehensive National Bycatch Report.	Completed final Region review of National Bycatch Report tables and text.	To be determined.	To be determined.	Release of public report.	Release of public report.	Dec. 2008
Develop observer monitoring program of catch shares fisheries.		Develop observer monitoring program of catch shares fisheries.	Implement observer monitoring program of catch shares fisheries.	Successful implementation of observer coverage in catch shares fisheries.	100% observer coverage for all rationalized fleets.	Jan. 2011, Dec. 2011

## Research

Conduct further observer data analysis to refine the program's sampling design and fleet monitoring strategies.	Sampling design reviewed and minor changes in sampling design made.	Further refine sampling design and fleet monitoring strategies.	Incorporate 100% observer coverage for West Coast trawl rationalized fleet. Continue reviewing and implementing modeling strategies.	Review of the sampling design will be completed, and any needed sampling plan changes will be incorporated.	Coverage rates improve and/or coverage becomes more representative of the fleet.	Dec. 2007, Dec. 2008
Conduct testing of electronic monitoring (EM) equipment on small fixed gear vessels.	On hold due to catch shares implementation.	On hold pending additional resources.	On hold pending additional resources.	EM systems deployed and tested, and results compiled.		Oct. 2008
Conduct testing of equipment to record trawl tracks to better represent areas trawled.	Examined feasibility of project and determined it could not be properly deployed.	Project no longer funded.	Project no longer funded.	Deployment of logger, further research and development.	Deploy global positioning system logger.	Oct. 2008
Conduct testing of bottom-typing equipment to determine habitat types impacted by trawling.	Installed upgraded bottom-typing system to complement newly installed echosounder on commercial fishing vessel.	Processing data acquired in fall 2009.		Regular updates to collaborators.	Release of report.	To be determined.
Refine estimation of Pacific halibut discard mortality in the groundfish trawl fishery.	Estimated Pacific halibut mortality in the West Coast trawl and fixed sectors. Both data summaries included information on size distribution, and the trawl estimates incorporated viability data.	Conduct analysis of factors influencing the condition/viability of discarded Pacific halibut, as evaluated by observers.	To be determined.	Release of report.	Release of report.	Sept. 2009
Regional discussions with West Coast fishing industry representatives on trawl modifications to reduce fish bycatch and habitat impacts from mobile fishing.	Developed prototype salmon and rockfish bycatch reduction device (BRD) for use in the West Coast hake midwater trawl fishery. The BRD received its initial field testing in Sep 09.	Continue collaborations with West Coast fishing industry on trawl modifications to reduce fish bycatch and habitat impacts from mobile fishing. Build on 2009 pilot projects to test gear modifications.	To be determined.	Review of emerging potential gear modifications by NMFS and other regional gear researchers.	Research papers presented; fishing industry using information on emerging gear modifications in regional fisheries.	Dec. 2009

Collaboration with Oregon Department of Fish and Wildlife (ODFW) gear research group focused on observations of fish behavior in the vicinity of the bycatch-reducing selective flatfish trawl, using a dual-frequency identification sonar (DIDSON).

Continue collaborations with gear research group at ODFW - - focused on observations of fish behavior.

Dissemination of information through scientific conferences and publications. Use of behavioral data by ODFW to consider potential modifications to the selective flatfish trawl (and other trawl types).

Research papers presented; data from this project are currently being used by ODFW to consider potential modifications to the selective flatfish trawl (and other trawl types).

Dec. 2007, Dec. 2008, Dec. 2009, Dec. 2010

Continue ongoing development of the NWFSC's conservation engineering group in support of bycatch reduction research, and collaboration with other NMFS and regional gear researchers.

Gear Technician engaged in collaboration with ODFW gear research group and regional fishing industry, and NMFS National Bycatch Reduction Engineering Program.

Increase in staffing.

Successful hire of gear technician.

Dec. 2008, Dec. 2009

## NEW RESEARCH

Construct autonomous video imaging systems and make those systems available to commercial fishermen and other sectors of the industry for use in evaluating industry-designed bycatch reduction devices.

Design and construction of video system and deployment in West Coast groundfish fishery.

If pilot loaner video project is successful, continue and potentially expand video loaner program.

Compile feedback from fishing industry on the efficacy of video loaner program.

Construction and deployment of prototype video systems.

Dec. 2010

Collaboration with Oregon Department of Fish and Wildlife (ODFW) gear research group, testing footrope modifications designed to reduce the bycatch of groundfish and megafaunal invertebrates, and reduce physical impacts on invertebrates in the ocean shrimp trawl fishery.

Conduct field work using paired tows to compare traditional and experimental footrope designs.

If pilot project is deemed successful and continued funding is available, continue field work in second year.

Statistically sound sampling design to compare control and experimental treatments.

Reporting of results.

Dec. 2010

**Education/Outreach**

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Solicitation and discussion of bycatch data release format with constituents.

Hold additional meetings as needed.

Compiling of suggestions and requests to incorporate in observer data reports.

Additional changes will be incorporated into forthcoming total mortality report.

Feb. 2008