

**Northwest Region Bycatch Implementation Plan Action Items (FY09 and FY10) and Accomplishments (FY08)**

Action	Status/Specific Accomplishments as of 9/30/08	2008	2009	2010	How Programs will be Measured and/or Monitored	Milestone	Milestone Completion Date	Contributor
<b>Monitoring</b>								
<i>Expand West Coast Groundfish Observer Program (WCGOP) coverage to ancillary fleets making groundfish landings.</i>	Expanded data release to include California halibut fishery, pink shrimp fishery, and open access fixed-gear deep water fishery.	Complete data quality/data analysis checks, analysis and release of nearshore and open access data collected in 2007. Update sampling rate as necessary.	Further build upon lessons learned from 2008 coverage and continue to collect, analyze, and release observer data for use in management.	Further build upon lessons learned from 2009 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 07, Sep 08, Sep 09	
<i>Update NWFSC bycatch model with 2001-2007 WCGOP data to improve precision of bycatch rate estimates.</i>	Bycatch model updated with recent observer program data.	Annual update.	Annual update.	Annual update.	Annual update of bycatch model with most recent available observer data.	Bycatch model update and results incorporated into management process.	Jan 08, Jan 09	
<i>Aid in creating a comprehensive National Bycatch Report.</i>	Finalized data sets, formatted report, and reviewed content for release.	Finalize data sets, format report and review content for eventual release.	Release of public document.	To be determined.	Release of public report.	Release of public report.	Dec 08	
<b>Research</b>								
<i>Conduct further observer data analysis to refine the program's sampling design and fleet monitoring strategies.</i>	Conducted internal review of methods used to estimate total mortality from trawl data.		Based on internal review, review sampling design and fleet monitoring strategies and implement changes.	Further refine sampling design and fleet monitoring 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 07, Dec 08	
<i>Conduct testing of electronic monitoring (EM) equipment on small fixed gear vessels.</i>	Pilot EM data collected from small fixed gear vessels.	Testing and verification of EM vs. observer data on smaller fixed gear vessel.	Testing and verification of EM vs. observer data on smaller fixed gear vessel.	Complete report on success of EM project.	EM systems deployed and tested, and results compiled.		Oct 08	

Conduct testing of equipment to record trawl tracks to better represent areas trawled.

Prototype tested. Based upon testing, design improvements made.

Deploy prototype data logger and update design based upon input from field testing.

Refine data logger design and continue testing prototype.

Refine data logger design and expand to pilot coverage in trawl fleet.

Deployment of logger, further research and development.

Deploy global positioning system Oct 08 logger.

**NEW RESEARCH**

Conduct testing of bottom-typing equipment on trawler to determine habitat type.

Installed equipment and collected preliminary data. Made recommendations for further research.

Installed and tested equipment.

Continue experiment.

Report on results of experiment.

Release of report.

Release of report. To Be Determined.

Majewski

Refine estimation of Pacific halibut discard mortality in the groundfish trawl fishery.

Expand Pacific halibut discard analysis to include data collected on fish viability using International Pacific Halbut Commission protocols.

Conduct analysis of factors influencing the condition/viability of discarded Pacific halibut, as evaluated by observers.

Release of report.

Release of report. To Be Determined.

Hastie  
Wakefield

Regional discussions with West Coast fishing industry representatives on trawl modifications to reduce fish bycatch and habitat impacts from mobile fishing.

Initiate regional discussions with West Coast fishing industry representatives on trawl modifications to reduce fish bycatch and habitat impacts from mobile fishing.

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.

Review of emerging potential gear modifications by NMFS and other regional gear researchers.

To Be Determined. To Be Determined.

<p><i>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).</i></p>	<p><i>Successfully used the DIDSON ultrasonic camera to examine diel behavior differences in roundfish along a section of the footrope of the selective flatfish trawl.</i></p>	<p>Reported on results of diel behavioral studies on selective flatfish trawl.</p>	<p>Continue collaborations with gear research group at ODFW - - focused on observations of fish behavior in the vicinity of the bycatch reducing selective flatfish trawl and with the addition of other bottom trawl configurations.</p>	<p>Continue collaborations with gear research group at ODFW - - focused on observations of fish behavior.</p>	<p>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).</p>	<p>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).</p>	<p>Dec 07, Dec 08</p>	<p>Wakefield</p>
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<p><i>Initiate development of the NWFSC's conservation engineering group in support of bycatch reduction research and collaboration with other NMFS and regional gear researchers.</i></p>	<p><i>Completed a job search for a technician who will be stationed at the NWFSC's field station in Newport, Oregon, and focus on gear research</i></p>				<p>Increase in staffing.</p>	<p>Successful hire of gear technician.</p>	<p>Dec 08</p>	<p>Wakefield</p>
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**Education/Outreach**

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<p><i>Solicitation and discussion of bycatch data release format with constituents</i></p>	<p>Incorporated changes into discard and total mortality reports released in 2008, including discard trends of overfished species and length frequency information.</p>	<p>Hold additional meetings as needed.</p>	<p>Hold additional meetings as needed.</p>	<p>Hold additional meetings as needed.</p>	<p>Compiling of suggestions and requests to incorporate in observer data reports.</p>	<p>Additional changes will be incorporated into forthcoming total mortality report.</p>	<p>Feb 08</p>
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