

Action Item	Status/Specific Accomplishments 2009	Plan Action Items 2010	Plan Action Items 2011	How Progress Will Be Measured and/or monitored	Milestone (Outcome)	Milestone Completion Date
<b>Monitoring</b>						
Characterize habitat and spatial and temporal dynamics of different life stages of various bycatch species, so avoidance techniques or time/area management could be developed.	Continued observing drift gillnet and pelagic longline fisheries. Collected measurements from all Highly Migratory Species Fishery Management Plan species observed caught.	Continue observing drift gillnet and longline fisheries. Begin observer programs in set gillnet and small-mesh drift gillnet fisheries.	Continue observing gillnet and longline fisheries. Expand to other fisheries if funded.	Quarterly and Annual Reports to Southwest Fisheries Science Center (SWFSC) and Pacific Fishery Management Council (PFMC) management and advisory teams.	Reduced bycatch and bycatch mortality.	Ongoing
Determine the effects of removals by U.S. fishing vessels of adult and sub-adult leatherback and loggerhead turtles on the reproductive capacity of the respective populations in the Pacific Ocean.	Continued observing drift gillnet and pelagic longline fisheries.	Continue observing drift gillnet, longline, set gillnet, and small-mesh drift gillnet fisheries.	Continue observing gillnet and longline fisheries. Expand to other fisheries if funded.	Quarterly and Annual Reports to SWFSC and PFMC management and advisory teams.	Pacific Ocean fisheries do not jeopardize the continued existence of loggerhead and leatherback sea turtles.	Ongoing
A pilot Coastal Pelagic Species (CPS) at-sea observer program in California to supplement and confirm the bycatch assessments derived from dock-side sampling conducted by the State of California should be a component of a standardized reporting methodology.	The CPS fishery was not observed in 2009 due to a lack of funds.	Resume CPS observer program if funds are available.	Resume CPS observer program if funds are available.	Evaluating bycatch data collected.	Enhanced bycatch estimates.	To be determined
Drift gillnet (DGN) observer coverage should be maintained at 20%.	DGN observer coverage was approximately 14%.	Maintain DGN observer coverage at 20%.	Maintain DGN observer coverage at 20%.	Maintain 20% observer coverage.	Accurate bycatch estimates.	December, 2010

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Review the efficiency of DGN sampling rate (observer coverage) for estimating DGN finfish and other non-turtle and marine mammal bycatch to determine whether enough samples are being collected given the variability.	DGN observer coverage was approximately 14%.	Maintain at least 20% observer coverage in DGN fishery, and increase coverage if recommended and funding allows.	Maintain at least 20% observer coverage in DGN fishery, and increase coverage if recommended and funding allows.	Increased observer coverage if recommended.	Accurate bycatch estimates of rare and sensitive species.	September, 2010
Explore options for providing NMFS Enforcement with the means for unobtrusive monitoring of pinger compliance at sea (e.g., hydrophones).	Provided a hydrophone system and training to the U.S. Coast Guard for detecting pinger compliance at sea.	Continue development of pinger detection system for use by Enforcement and other agencies to spot check drift gillnets for pingers on the fishing grounds.	Continue development of pinger detection system for use by Enforcement and other agencies to spot check drift gillnets for pingers on the fishing grounds.	Successful deployment and use by Enforcement.	Deployment of pinger detection system in the field.	Ongoing
<b>Bycatch Reduction Engineering and Other Research</b>						
Continue research on the effects of purse seine encirclement on dolphin populations in the Eastern Tropical Pacific (ETP).	STAR (Stenella Abundance Research) cruises postponed until 2010.	Conduct STAR cruises.	Conduct STAR cruises.	Results of the research studies will be analyzed and reported.	Complete four month ETP monitoring cruise.	September, 2010
Conduct quantification and trend studies of finfish bycatch in the DGN fishery. Characterize size composition of fish bycatch species in DGN fishery.	Completed DGN section of National Bycatch Report. Continued collecting fish measurements in DGN observer program.	Publish first version of National Bycatch Report.	Include updated DGN bycatch estimates in future versions of National Bycatch Report.	Quarterly and Annual Reports to SWFSC and PFMC management and advisory teams.	Increased accuracy of bycatch reporting in the DGN fishery.	September, 2010

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SWFSC should prepare reports that include estimates of the total bycatch of finfish in the DGN fishery, as well as estimates of precision associated with measures of sea turtle and finfish bycatch.	Completed DGN section of National Bycatch Report.	Publish first version of National Bycatch Report.	Include updated DGN bycatch estimates in future versions of National Bycatch Report.	DGN fishery bycatch estimates included in National Bycatch Report.	Reporting of finfish and protected species bycatch estimates for the DGN fishery.	September, 2010
Characterize the migratory pathways of leatherback and loggerhead turtles in the Pacific Ocean, especially during El Niño years.	Completed LUTH (Leatherback Use of Temperate Habitat) cruise, documenting leatherback sea turtle distribution and abundance off of California. SWFSC also conducted satellite tagging studies of leatherbacks to determine their migratory pathways.	Continue LUTH cruises and leatherback tagging studies.	Continue LUTH cruises and leatherback tagging studies.	By completion of the survey annually.	Reduced bycatch and bycatch mortality of leatherback and loggerhead sea turtles in Pacific Ocean fisheries.	Ongoing
Determine the effects of removals by U.S. fishing operations on Pacific populations of blue and shortfin mako shark.	Conducted a fishery-independent longline survey for juvenile shortfin mako and blue sharks in the Southern California Bight.	Conduct a fishery-independent longline survey for juvenile shortfin mako and blue sharks in the Southern California Bight, if shiptime is available.	Conduct a fishery-independent longline survey for juvenile shortfin mako and blue sharks in the Southern California Bight, if shiptime is available.	By completion of the survey annually.	Database updated and cruise report produced detailing the survey results including a time series of the nominal catch-per-unit-effort for shortfin mako and blue sharks.	September, 2010
Evaluate the scope of pinniped depredation and identify/test potential solutions.	New item in 2010.	Conduct Bycatch Reduction Engineering Program (BREP)-funded research on harbor seal depredation in the California halibut trawl fishery.		Compliance with timeline established by BREP.	Completion of field tests and analysis of data.	December, 2010
Evaluate the scope of pinniped depredation and identify/test potential solutions.	New item in 2010.	Explore acoustic deterrence devices in various recreational and commercial fisheries.	Explore acoustic deterrence devices in various recreational and commercial fisheries.	Evaluation of the success of field trials conducted and assessment of viability for application in the real world.	Completion of field tests and analysis of data.	Ongoing

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Evaluate the scope of pinniped depredation and identify/test potential solutions.	New item in 2010.	Reconfigure and test pulsed power deterrence in recreational fisheries.	Reconfigure and test pulsed power deterrence in recreational fisheries.	Evaluation of the success of field trials conducted and assessment of viability for application in the real world.	Completion of field tests and analysis of data.	Ongoing
Evaluate the scope of pinniped depredation and identify/test potential solutions.	New item in 2010.	Evaluate the potential for using high frequency pingers in drift gillnet fishery to maintain reductions in cetacean bycatch and avoid pinniped depredation.	Evaluate the potential for using high frequency pingers in drift gillnet fishery to maintain reductions in cetacean bycatch and avoid pinniped depredation.	Development of research plan.	Fully developed plan with support from SWFSC and funds identified to conduct research.	Ongoing
Address green sturgeon bycatch in fisheries.	New item in 2010.	Identify fisheries where green sturgeon bycatch is an issue and evaluate the potential for reducing bycatch using gear modifications, operational changes, or some other mechanism.	Identify fisheries where green sturgeon bycatch is an issue and evaluate the potential for reducing bycatch using gear modifications, operational changes, or some other mechanism.	Development of research plan and initiation of research project.	Fully developed plan with cooperation of industry.	Ongoing
Improve understanding of marine mammals and sea turtle entanglements in fishing gear and develop mitigation plans.	New item in 2010.	Synthesize information related to commercial fishing off the U.S. west coast, including methods and gear types. Analyze the overlap in distribution of protected species and fishing effort.	Synthesize information related to commercial fishing off the U.S. west coast, including methods and gear types. Analyze the overlap in distribution of protected species and fishing effort.	Development and assessment of analytical methods and draft documents being prepared.	Published documents including Technical Memo and fishing gear catalog.	Ongoing
Mitigate sea turtle bycatch in coastal gillnet fisheries.	New item in 2010.	Test photo-luminescent gillnet gear.		Evaluation of the success of field trials conducted and assessment of viability for application in the real world.	Completion of field tests and analysis of data.	December, 2010
<b>Management</b>						

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<p>NMFS should continue its efforts, through its support of the Inter-American Tropical Tuna Commission (IATTC) and international agreements, to ensure that bycatch by U.S. and other Nations' flag vessels is accurately reported.</p>	<p>A. Consolidated Resolution on Bycatch. B. Resolution on the Conservation of Sharks Caught in Association with Fisheries in the Eastern Pacific Ocean. C. Resolution on Incidental Mortality of Seabirds. D. Resolution to Mitigate the Impact of Tuna Fishing Vessels on Sea Turtles. B, C and D - Reviewed at the 2009 annual meeting of the IATTC. Alleged violations were compiled by the IATTC Secretariat and submitted to the IATTC Permanent Working Group on Compliance and referred to Nations for action. E. The United States also helped to negotiate Resolution C-09-01 for the Conservation of Tunas, which included a catch retention provision for juvenile tunas and a closure area to minimize catch of juvenile tunas.</p>	<p>B., C., D and E. Review at the next IATTC Annual Meeting in 2010 and the IATTC Permanent Working Group on Compliance. The U.S. plans to table at least two proposals at the 2010 Commission meeting, including a resolution to mitigate the impact on seabirds and a revised resolution for establishing the IUU Vessel List.</p>	<p>B., C., D and E. Review at the IATTC Annual Meeting in 2011 and the IATTC Permanent Working Group on Compliance. The United States will continue to research and develop new proposals to ensure that bycatch is being assessed and mitigated to the extent practicable.</p>	<p>A. Review of Annual Report. B. Review of Annual Report. C. Review of Annual Report. D. Report given by the Secretariat at the annual meetings regarding compliance. A, B, C, D and E are also reviewed at the IATTC Permanent Working Group on Compliance. Alleged violations are compiled by the IATTC Secretariat and submitted to the IATTC Permanent Working Group on Compliance and referred to Nations for action.</p>	<p>Resolutions A, B, C, D and E have high rates of compliance, and sufficient levels of data are available to scientists and managers to inform future decision making. In addition, the proposals tabled at the 2010 meeting are adopted by the Commission.</p>	<p>October, 2010</p>
<p>The Coastal Pelagic Species (CPS) Fishery Management Plan (FMP) should be amended to explicitly establish a standardized reporting methodology.</p>	<p>The CPS fishery was unobserved due to lack of funds. Observer program ended due to lack of funds.</p>	<p>Resume observer program if funds are available.</p>	<p>Incorporate a standardized reporting methodology into Annual Catch Limit amendment.</p>	<p>Review by Pacific Fishery Management Council and NMFS.</p>	<p>Establish standardized methodology in the FMP capable of reporting precise and accurate bycatch estimates.</p>	<p>To be determined</p>
<b>Education/Outreach</b>						
<p>Continue skipper workshops for participants in the large vessel Eastern Tropical Pacific (ETP) purse seine fishery.</p>	<p>Three workshops were conducted for a total of approximately fifteen participants.</p>	<p>Workshops will be conducted as needed. Continue with format that also fulfills the requirements for the U.S. ETP operator's permit and for captains to be included on the AIDCP qualified captain's list.</p>	<p>Workshops will be conducted as needed. Continue with format that also fulfills the requirements for the U.S. ETP operator's permit and for captains to be included on the AIDCP qualified captain's list.</p>	<p>Workshops completed.</p>	<p>Conduct three workshops (April, August, and December).</p>	<p>September, 2010</p>

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Develop and conduct skipper workshops as needed for West Coast Highly Migratory Species (HMS) fisheries (e.g., surface hook-and-line fishery and small purse seine fishery).	HMS port meetings were not conducted in 2009.	Conduct HMS port meetings in all three West Coast States pending sufficient funding allocation in budget.	Conduct HMS port meetings in all three West Coast States pending sufficient funding allocation in budget.	Workshops completed.	West Coast HMS fishers are kept informed of current fishery regulations and potential future management measures.	September, 2010
Increase efforts to educate the public about effective catch-and-release methodologies and gear innovations to increase post-release survivorship in HMS, including tunas, sharks, and billfish. With lead from SWFSC, assist with initiation of an angler-based shark tagging program encompassing, among other things, a strong outreach and education element to inform the public of the life history, population status, and conservation measures for HMS sharks (e.g., common thresher, short-fin mako, and blue sharks).	The research team from PIER and NMFS successfully deployed 7 PSAT tags on rod and reel captured thresher sharks during the 2009 field season, and conducted port meetings to promote best catch and release practices for increasing survivorship of released thresher sharks.	A manuscript is being developed with submission to a peer-reviewed journal slated for FY 2010. 2010 field research will focus on the effects of trailing gear on the post-release survivorship of thresher sharks. Additional port meetings will be held to continue with outreach and education elements underway such as best catch and release practices for increasing survivorship.	Continue education, outreach, and research efforts.	Results from the study will be published in a peer-reviewed journal(s) and will be disseminated via popular media outlets (e.g., Pacific Sportfishing Magazine and Western Outdoor News). Results and conservation measures, including best practices for successful catch-and-release angling, will be posted on the NMFS Southwest Region website.	A documented increase in the post-release survivorship of sport-caught thresher sharks. If warranted, development of additional conservation measures, including regulatory measures, to manage HMS in a sustainable manner.	Ongoing