

**Southwest Region and Science Center Bycatch Implementation Plan Action Items and Accomplishments**

	Action Item	Status/Specific Accomplishments 2005	Status/Specific Accomplishments 2006	Status/Specific Accomplishments 2007	Plan Action Items 2008	How Progress Will Be Measured and/or monitored	Milestone (Outcome)	Milestone Completion Date
<b>A. Standardization and enhancement of bycatch reporting methodologies, including data collection and monitoring</b>								
A1a	The CPS FMP should be amended to explicitly establish a standardized reporting methodology.	Pilot at-sea-observer program was started in July 2004 to begin to establish ways to better assess bycatch in the fishery.	Continued at-sea-observer program.	Continued at-sea-observer program, standardized data fields and Field Manual, developed relational database.	Evaluate possibility of amending CPS FMP.	Review by Pacific Fishery Management Council and NMFS.	Establish standardized methodology in the FMP capable of reporting precise and accurate bycatch estimates.	
A1b	A pilot 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.	Pilot at-sea-observer program was started in July 2004. A report describing the program as well as compiled observed bycatch data was given to the Pacific Fishery Management Council at its November 2005 meeting.	Continued at-sea-observer program.	Continued at-sea-observer program.	Receive recommendations from the Pacific Fishery Management Council on developing a CPS sampling plan. Implement recommendations if any.	Evaluating bycatch data collected.	Enhance bycatch estimates.	

A2a	NMFS should continue its efforts, through its support of the IATTC and international agreements, to ensure that bycatch by U.S. and other Nations flag vessels is accurately reported.	A. Consolidated Resolution on Bycatch (extended until Jan. 2008). B. Resolution on the Conservation of Sharks Caught in Association with Fisheries in the Eastern Pacific Ocean. C. Resolution on Incidental Mortality of Seabirds.	A. Review at Bycatch Working Group in early 2006 and at next IATTC Annual Meeting 2006 B. Review at Bycatch Working Group in early 2006 and at next IATTC Annual Meeting 2006 C. Review at Bycatch Working Group in early 2006	A. Extends the requirements of the resolution until January 2008. B. and C. Review at Bycatch Working Group in early 2007 and at next IATTC Annual Meeting 2007 D. Resolution to Mitigate the Impact of Tuna Fishing Vessels on Sea Turtles	A. Extension ends January 2008. B. Review at next IATTC Annual Meeting in 2008. C. Review at next IATTC Annual Meeting in 2008. D. Review at next IATTC Annual Meeting in 2008.	A. Review of Annual Report. B. Review of Annual Report. C. Review of Annual Report. D. Review of Annual Report.	A. The resolution requires full retention of juvenile tunas and non-target species of fish, and provides for a review of compliance on the full retention measure (by flag state or entity). B. Resolution on the Conservation of Sharks (C-05-03), Resolution on Incidental Mortality of Seabirds (C-05-01), and Resolution to Mitigate the Impact of Tuna Fishing Vessels on Sea Turtles (C-07-03).	A. Resolution on Bycatch extended through January 2008. B. Resolution on the Conservation of Sharks (C-05-03), Resolution on Incidental Mortality of Seabirds (C-05-01), and Resolution to Mitigate the Impact of Tuna Fishing Vessels on Sea Turtles (C-07-03).
A3a	Drift gillnet observer coverage should be maintained at 20%.	Drift gillnet coverage maintained at 20%.	Drift gillnet coverage maintained at 20%.	Drift gillnet coverage maintained at 20%.	Maintain drift gillnet observer coverage at 20%	Maintain 20% observer coverage.	Accurate bycatch estimates.	

A3b	The SWFSC should prepare reports which 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.			Began developing CA/OR drift gillnet section of the National Bycatch Report.	Complete CA/OR drift gillnet section of National Bycatch Report.	CA/OR drift gillnet fishery included in next draft of National Bycatch Report.	Reporting of finfish and protected species bycatch estimates for CA/OR drift gillnet fishery.	
A3c	The preferred alternative for DGN management measures proposed in the HMS FMP should be implemented.	DGN management measures were implemented after HMS FMP was finalized.				Implement DGN management measures proposed in HMS FMP.	DGN fishery managed under HMS FMP.	2005
<b>B. Research needs</b>								
<b>Purse Seine</b>								

B1	Continue research on the effects of purse seine encirclement on dolphin populations in the ETP	Continuing research on fishery effects, stock structure, and gear for bycatch reduction. Updated abundance estimates for two stocks of ETP dolphins. Contract awarded to the IATTC to collect data on small vessel sets.	Given the 1.3M cut in funding enacted for FY06 (in relation to the President's request), a ship-board monitoring cruise will be conducted but little else will be possible this FY. There will be very limited follow-up to past research on cow-calf separation and stock structure, and the proposed re-initiation of life history sampling will not receive funding from NMFS. Further, it will not be possible to continue research on small vessel sets and gear for bycatch reduction.	STAR cruises conducted from October-December in FY2007 on NOAA ships David Starr Jordan and McArthur II.	STAR cruises planned October-December and Stenella habitat cruise scheduled August-September in FY2008	Results of the research studies will be analyzed and reported.	1. Complete planning for four-month ETP monitoring cruise 2. Complete first two months (Aug-Sept) of four-month monitoring cruise	1. Complete by July 1, 2008 2. Complete by Sept 30, 2008
B2	Develop technology, such as sorting grids, for releasing juvenile tunas in the purse seine fishery. Develop technologies and assess feasibility for the identification of species and size composition in schools of tuna prior to setting.	NMFS and IATTC staff convened a bycatch reduction workshop to discuss technological solutions to reducing bycatch.	A second workshop was planned but now will not be convened this FY. Several proposals identified at the 2005 workshop will await future funding to be further developed.	A workshop was held in October 2006 however proposals identified await future funding to be further developed.	Further work on this issue will be dependent on funding	There is nothing further planned in this item due to funding constraints.	No milestones possible as no work will be funded this FY	N/A

B3	<p>Conduct quantification and trend studies of finfish bycatch in the DGN fishery. Characterize size composition of fish bycatch species in DGN fishery; currently lengths are not taken of many species.</p>	<p>Finfish bycatch data collected by NMFS contracted fishery observers. 20% coverage of fleet. Database available for analysis. Discussing with SWFSC-La Jolla the need and logistics to obtain length measurements for target and bycatch. Observer funds for this fishery covered under MMPA funding through PRD.</p>	<p>MMPA funding secured for 2006 season to maintain 20% observer coverage in the fishery. EFP under consideration by PFMC that would open up previously closed leatherback sea turtle area north of Pt. Sur. 100% observer coverage mandatory for DGN trips in this EFP should it pass. Finfish records will be compiled and analyzed. Drift gillnet EFP for 2007 was approved at November, 2006 Pacific Fishery Management Council meeting.</p>	<p>Began developing CA/OR drift gillnet section of the National Bycatch Report to document fish and protected species bycatch in the fishery. DGN EFP for 2007 was disapproved by NMFS.</p>	<p>Complete CA/OR drift gillnet section of National Bycatch Report.</p>	<p>Quarterly and Annual Reports to SWFSC and PFMC mgmt and advisory teams.</p>	<p>Increased accuracy of bycatch reporting in the DGN fishery.</p>	
B4	<p>Characterize habitat and spatial and temporal dynamics of different life stages of various bycatch species, so avoidance techniques or possible area closures could be developed.</p>	<p>Pilot observer data collected in several HMS FMP gear types (e.g., albacore troll). No analysis to date.</p>	<p>HMS FMP Observer Protocol finalized, pilot observer data to be collected in the HMS CPFV (Rec Charter vessels). DGN, Albacore troll, and pelagic LL observer trips and data to be collected. Plan for taking lengths to be discussed and</p>	<p>Continued observing drift gillnet, set gillnet, pelagic longline, and coastal purse seine fisheries. Collecting measurements from all HMS FMP-managed species observed caught.</p>	<p>Ongoing.</p>	<p>Quarterly and Annual Reports to SWFSC and PFMC mgmt and advisory teams.</p>		

B5	Conduct a feasibility study on implementing Performance Standards. This system would reward fishers for decreasing their bycatch and/or bycatch mortality.	No plan in 2005 to address this goal.	Longline EFP, if approved, has a stated goal of reducing bycatch vs. DGN fishing.	Continued developing longline EFP.	Conduct longline EFP if approved.	Quarterly and Annual Reports to SWFSC and PFMC mgmt and advisory teams.	Shift fishing effort to cleaner gear types.	
B6	In addition to conducting studies of the socio economic effects of effort reduction programs, the effects on bycatch should also be considered.	No plan in 2005 to address this goal.	LL EFP would investigate the above questions.	Continued developing longline EFP.	Conduct longline EFP if approved.	Quarterly and Annual Reports to SWFSC and PFMC mgmt and advisory teams.	Incorporate effects of effort reduction programs on bycatch into analysis of management actions for the DGN fishery.	
B7	Determine the effects of removals of 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.	No formal section 7 consultations completed by SWR under the ESA	Section 7 consultation completed on CA/OR drift gillnet exempted fishing permit - no jeopardy determination for leatherback sea turtles.	Section 7 completion completed on EFP for shallow set longline fishing (one vessel) in the U.S. EEZ -- no jeopardy determination for leatherbacks.		Section 7 consultations and informal consultations		
B10	Establish the degree of fisheries-related sea turtle mortality in coastal marine habitats of Latin and South America.	Currently undertaken by SWFSC.	Currently undertaken by SWFSC.	Currently undertaken by SWFSC.				

B11	Explore options for providing NMFS Enforcement with the means for unobtrusive monitoring of pinger compliance at sea (e.g., hydrophones).	No action taken	No action taken.	Contract with Archipelago Marine Research to research acoustic monitoring of pinger compliance at sea. SWR is also working in revising regulations to allow for dockside inspections				
B12	Characterize the migratory pathways of leatherback and loggerhead turtles in the Pacific Ocean, especially during El Niño years.	Currently undertaken by SWFSC.	Currently undertaken by SWFSC.	Currently undertaken by SWFSC.				
B13	Determine the effects of mitigation measures, such as funding and support of conservation, education, and protection programs aimed at protecting nesting females, their eggs, and nesting beach habitat, relative to the effects of fishery removals of adults and sub-adults.	Currently, effects of conservation efforts will not be seen until protected eggs, hatchlings, earlier life stages of sea turtles begin to return to nesting beaches and increasing trends are seen.	See 2005	See 2005				

B14	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.	Conducted a fishery-independent longline survey for juvenile shortfin mako and blue sharks in the Southern California Bight.	Conducted a fishery-independent longline survey for juvenile shortfin mako and blue sharks in the Southern California Bight.	Determine the effects of removals by U.S. fishing operations on Pacific populations of blue and shortfin mako shark, 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, annually.
B15	Determine post release mortality rates associated with DGN capture and the effects on west coast mola populations.	none	none	none	none			
B16	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 being collected given the variability.			Reviewed DGN sampling rate. Recommend increasing observer coverage above 20% to better document bycatch of rare and sensitive species.	Maintain at least 20% observer coverage in DGN fishery, increase coverage if funding allows.	Increased observer coverage if recommended.	Accurate bycatch estimates of rare and sensitive species.	
<b>D. Education and outreach efforts</b>								



D1	Increase efforts to educate the public about changes in the dolphin-safe designation for canned tuna, and NMFS' finding that the tuna purse seine industry practice of encircling dolphins to catch tuna has no significant adverse impact on dolphin populations in the ETP	A website is being developed by the SWR which will inform the public of the tuna tracking and verification process and highlight the activities conducted to verify the dolphin-safe status of labeled tuna.	The tuna tracking and verification website will be linked with the SWR webpage.	The website will continue to be updated with activities conducted by the tuna tracking and verification program.		Completion of the webpage.	New tuna tracking and verification website.	May-06
D1a	To educate the public about the new stand-alone URL (www.DolphinSafe.Gov) for the Tuna Tracking & Verification Program (TTVP). The site includes agency policy and documentary requirements for the industry.			A nation-wide press release was conducted by NOAA Public Affairs office in March 2007. In addition, hundreds of importers and customs brokers were individually telephoned to inform them of TTVP regulations and the DolphinSafe.Gov website address.	The TTVP plans to broaden outreach by contacting importer and customs broker associations and providing them with pertinent TTVP information. Also, every opportunity to promote TTVP details via the news media, related industry seminars, and public education events will be taken advantage of.	Noting how many association listserves or newsletters contain TTVP information as well as counting how many media outlets, trade seminars, or public education events were provided with TTVP information.	TTVP website press release and education outreach to the general public and trade industry.	

D2	Support formation and activities of the newly proposed Scientific Advisory Board (SAB) to the AIDCP.	The SAB met twice during 2005, and agreed to reinstate a life history sampling study and was supportive of a coastal spotted dolphin survey.	: The SAB will meet in June 2006 where progress on research items listed on the SAB work plan will be discussed.	The SAB met in June 2007, reviewed and agreed to maintain its work plan as is.	The SAB will convene at least one meeting.	Through the SAB work plan.	Report on research progress on ETP dolphins, especially regarding monitoring cruise and cow-calf separation.	Jun-08
D3	Continue skipper workshops for participants in the large vessel ETP purse seine fishery.	Two workshops were held at the SWR office to train ETP fishing captains on the current regulations and dolphin-safe techniques.	Workshops will be held as needed. Two workshops were offered but both were cancelled due to lack of interest.	One workshop completed at the SWR office in June to train ETP fishing captains on the current regulations and dolphin-safe techniques. One workshop scheduled for December. These workshops now fulfill the requirements for captains to be included on the AIDCP qualified captain's list.	Three workshops will be conducted (April, August and December). 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.	Workshops completed.	Conduct three workshops (April, August, and December).	31-Dec-08

D5	Develop and conduct skipper workshops as needed for West Coast HMS fisheries (e.g., surface hook-and-line fishery and small purse seine fishery).	Ten port meetings conducted in Westport, WA; Eureka, San Diego, Monterey, Santa Barbara, Morro Bay and Long Beach, CA; Newport, Astoria and Coos-Bay, OR	Five port meetings completed in Westport, WA; Astoria, Newport and Coos Bay, OR; and Eureka, CA. About 30 constituents attended including skippers, HMS fishermen, processors, buyers, academia, media, environmentalists, and general public.	Five port meetings conducted in Westport, WA; Astoria, OR; Half-Moon Bay, Monterey, and San Luis Obispo, CA. About 30 constituents attended including skippers, HMS fishermen, processors, buyers, academia, media, environmentalists, and general public.	Conduct port meetings in Westport, WA; Astoria, OR; Half-Moon Bay, CA, and a series of southern California meetings.			
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D6	<p>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).</p>	<p>A series of pre-season HMS FMP Port Meetings were planned and implemented at key west coast ports. The meetings were designed to keep the public abreast of current regulations, research, and conservation measures for HMS. The agenda included public comment periods where the issue of fishing impacts to HMS, including sharks, was raised as a concern.</p>	<p>The issue of post-release survivorship of sport-caught thresher shark was raised and discussed at the second season of HMS FMP port meetings. Awareness of the impact that foul-hooking may be having on pregnant and pupping female thresher sharks was brought up at HMS Management Team and Advisory Subpanel meetings. Preliminary plans were drawn to work cooperatively to conduct a pilot study to gather preliminary information.</p>	<p>A pilot study was designed and implemented to place 4 pop-up satellite tags on common thresher sharks captured in the southern California recreational fishery. Results of the pilot study, which indicated a potential 25% or higher mortality rate, were published in two leading recreational fishing media outlets (Pacific Coast Sportfishing Magazine and Western Outdoor News) along with recommendations on ways to increase post-release survivorship of thresher sharks.</p>	<p>A research proposal to conduct a comprehensive PSAT tagging project for sport-caught thresher sharks was submitted to the Bycatch and Reduction and Bycatch Reduction Engineering Program funding cycle. A third year of pre-season HMS FMP port meetings are scheduled to be held with 2008 focus on the thresher shark sport fishery proposal and to lay the groundwork for possible full scale development of an angler-based shark tagging program.</p>	<p>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 Mag and Western Outdoor News). Results and conservation measures, including best practices for successful catch-and-release angling, will be posted on the SWR website.</p>	<p>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.</p>	
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