

Pacific Islands Regional Office And Science Center Bycatch Implementation Plan Action Items (FY010 and FY11) and Accomplishments for FY09						
Action	Status/Specific Accomplishments as of 9/30/09	2010	2011	How Progress Will be Measured and/or Monitored	Milestone	Milestone Completion Date
Monitoring						
Vessel Electronic Monitoring	Contract awarded to Archipelago Marine Research to conduct the project in coordination with NMFS Pacific Islands Regional Office (PIRO) and Western Pacific Fishery Management Council (WPFMC) staff. Cameras and digital recording equipment installed on Hawaii longline fishing vessels (3 shallow-set and 1 deep-set). Images will be evaluated for quality and utility to monitor longline fisheries for effort and catch composition.	Cameras and digital recording equipment installed on Hawaii longline fishing vessels (3 shallow-set and 1 deep-set). Images will be evaluated for quality and utility to monitor longline fisheries for effort and catch composition. Report on findings due by end of FY 09.	Final report completed Apr-10	N/A	N/A	N/A
Bycatch Reduction Engineering and other Research						
Survey to understand false killer whale depredation in Hawaii pelagic longline fisheries	Contract awarded to TEC Inc. to conduct 22 Interviews of fishermen, captains, and owners in FY07 and FY08. Work was completed and final report submitted April 2009.	NA	N/A	NA	NA	NA
TurtleWatch (TW) Project to identify spatio-temporal areas of high sea turtle bycatch	Analyses produced a map that suggests avoidance of fishing in areas between 17.5-18.5 degrees SST would greatly reduce sea turtle bycatch in the shallow-set longline fishery. Manuscript detailing construction and application of TW product published in Endangered Species Research special Fisheries Bycatch issue in July 2008.	Dive behavior from loggerheads will be used to further refine the product where possible. Product will be distributed to Hawaii-based longline fishermen. Paper detailing refinement will be completed.	Continue to refine TW product using in-situ oceanographic data, updated bycatch data, and new methodology. Begin to look at possibility of leatherback TW product using similar techniques.	Maps detailing areas of high bycatch will be produced, as will paper detailing project results.	Distribution of completed maps to fishermen.	Jun-10
Shark bycatch reduction experiments using metals with various electronegativities as deterrents.	Completed an Environmental Assessment to fulfill the requirements of NEPA and NOAA Administrative Order NAO 216-6. Completed field based behavioral experiments that suggest sharks show aversive behaviors to electropositive (e+) metal. Organized Shark Deterrent and Incidental Capture Workshop.	Continue with experiments, analyze results, present findings at national meetings, and publish results. Continue with behavioral and field experiments. Publish NOAA Technical Memo based on 2008 shark bycatch deterrent workshop	Continue with field-based fishing trials, continue behavioral experiments, and write up results.	Experiments will be conducted and reported on, and manuscripts will be written for publication.	Analysis of 2009 field fishing experiments and submission of manuscript for publication.	Dec-10

Cooperative testing of turtle bycatch reduction methods with other nations as a means of exporting conservation engineering.	To varying degrees, NMFS has cooperated in studies in the longline fisheries of Japan, Korea, Indonesia, Philippines, Costa Rica, Vietnam, Ecuador, Guatemala, Brazil, Chinese-Taipei, Peru, Uruguay, Panama, Brazil, Italy and Spain. Experiments tested alternate hooks or bait. NMFS also has promoted turtle handling methods, as well as conducted workshops in Costa Rica, Brazil, and Ecuador from 2005 to 2009.	Continue projects and analyze and report on results of work with all collaborating countries.	Continue projects and initiate new projects, including data analysis based on results of prior studies.	The number of countries participating, and the number of countries reporting positive results for turtle bycatch reduction or continued fishery viability.	Participate in RFO meetings and provide scientific documentation of the efficacy of sea turtle bycatch reduction methods in RFMOs - WCPFC Scientific Committee and InterAmerican Convention on Sea Turtles.	WCPFC Aug. 2010
Set-net sea turtle bycatch reduction (coastal gillnet and pound net)	Published manuscript (Marine Ecology Progress Series) on initial testing of illuminating gillnets and using shark shapes in Baja California as a possible means to reduce the incidental capture of sea turtles in coastal gillnet fisheries. Experimental trials designed to identify potential mitigation measures to reduce turtle bycatch in coastal pound net fisheries in Japan.	Further refinements to set-net illumination will be made and tested in coastal fisheries. Experiments will continue in 2010 and 2011, and results reported. Refinements with the attachment of shark shapes and design of pound net excluder devices (PEDs) will also be examined and tested.	Experiments and in-situ trials in pound net fisheries will continue, and future activities will be assessed.	Experiments will be conducted, reported on, and published.	Continuation of publications and report findings at international meetings.	Dec. 2010 (gillnet), Dec . 2011 (pound nets)
Development of estimation models for the take of non-target sharks, wahoo, and mahimahi in the Hawaii-based tuna and swordfish longline fisheries	Published manuscript (Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science) describing observer catch data for sharks in this fishery given management resolutions of shark finning ban and adoption of circle hooks and fish bait in the swordfish longline fishery.	Publication of the observer catch data for sharks.	N/A	Preparation of papers relating to catches of mahimahi and wahoo from observer reports and logbooks.	Publication of papers relating to catches of mahimahi and wahoo from observer reports and logbooks	Dec. 2010
Estimation of fishery takes of sea turtles, seabirds, and marine mammals for the Hawaii-based deep-set longline fishery based on observer data and logbooks.	Historical takes estimated. Annual report of 2008 estimates for turtles, birds, and mammals in the tuna longline fishery.	Annual report of 2009 estimates for the tuna longline fleet.	Annual report of 2010 estimates for the longline fleet.	Timely submission of Pacific Island Fisheries Science Center (PIFSC) reports to PIRO.	Estimate protected species bycatch by Hawaii-based deep-set fishery.	1) Jun-10 - year 2009 seabird and sea turtle estimates and Nov-2010 -year 2009 marine mammal estimates

Conduct and update stock assessment of species that comprise a significant bycatch	North Pacific blue shark stock assessment completed. NOAA Technical Memorandum NMFS-PIFSC-17 published.	Compile fisheries catch, effort, and size data for Opah.	Conduct Opah stock assessment	Finalize and publish report.	Report on the Stock Assessment of Opah	June 2011
Analysis of observer data to characterize marine mammal interactions with pelagic longline vessels.	Analysis of observer data completed in FY07. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-412 published.	Results of analysis presented at various international fora. Continued analysis on oceanographic correlates and gear effects.	Will continue working on analysis incorporating ocean eddy dataset from Oregon State University and finer resolution bathymetric grids from sidescan surveys.	Completion of analyses and publication of results.	Presentation of results.	Nov. 2010
Experimental longline study with shallow hooks removed.	Published manuscript (Fisheries Research) on effects of eliminating shallow hooks from tuna longline sets on target and non-target species in the Hawaii-based pelagic tuna fishery.	Will continue with longline gear trials to reduce bycatch in the Hawaii-based pelagic tuna fishery.	N/A	Publication of results.	Participate in RFO meetings and provide scientific documentation of the efficacy of longline bycatch reduction methods.	Dec. 2011
Management						
Development of international seabird, sea turtle, and shark bycatch mitigation requirements in the Western Pacific.	PIRO in coordination with PIFSC worked within the context of the Western and Central Pacific Fisheries Commission (WCPFC) to implement seabird and sea turtle mitigation measures for pelagic longline vessels within the Convention Area and to implement restrictions on shark finning.	Will continue working within the context of WCPFC to modify and improve international seabird, sea turtle, and shark mitigation requirements.	Will continue working within the context of WCPFC to modify and improve international seabird, sea turtle, shark, and other bycatch mitigation requirements.	Evaluations of proposals from member nations and submission of suggested proposals.	Enactment of WCPFC binding measures to mitigate seabird bycatch.	Dec. 2010
Education/Outreach						
Protected species workshops (class room setting) for longline fishermen.	Workshops to deter/mitigate bycatch of sea turtles, seabirds, and marine mammals conducted in Hawaii, training 131 vessel owners (captains). Workshops conducted in American Samoa training 81 persons.	Conduct ongoing Protected Species Workshops in American Samoa and Hawaii.	Workshops are federally mandated and likely apply to longline fishery in Guam and CNMI in the future.	Number of persons trained and certified.	Completion of Workshops.	Ongoing
Hawaii and American Samoa web-based interactive protected species workshops for longline fishermen.	Hawaii (English) protected species workshop interactive version available; 78 persons completed course work online; contractor hired to complete American Samoa version.	Vietnamese, Korean, and American Samoa versions made available by Dec. 2010.	Evaluate success of program.	Number of persons trained online and certified.	Continue English coursework; make available Korean, American Samoa, and Vietnamese versions.	Ongoing