Northeast Region Bycatch Reduction Action Items (FY10 and FY11) and Accomplishments (FY09)

The list below is a sample of the special activities underway in the Northeast Region that aim to improve our understanding and management of bycatch in the region's fisheries. The statutes governing the work of NOAA's National Marine Fisheries Service (NMFS) and the Fishery Management Councils require that bycatch be considered and addressed as part of every fishery management action. Consequently, much of what goes on related to bycatch, though very important, is rather routine and not easily presented in a table such as this. For example, every management action submitted by the Councils to NMFS is designed, pursuant to National Standard 9 of the MSFCMA, to minimize bycatch to the extent practicable. The management actions are also closely scrutinized with regard to the likelihood that fisheries will interact with marine mammals and endangered species, and measures are designed to avoid the interactions or render them harmless to the animals. In addition, the Northeast Region helps prepare a National Bycatch Report which defines, scores, and provides bycatch estimates for each fishery in the Region.

To fulfill these obligations, NMFS staff and the staff and members of the Fishery Management Councils engage in thousands of hours of data collection, analysis, issue identification, education/outreach, alternatives development, decision-making, and post-decision analysis. While most of the activities are not listed below, these more routine activities are constantly ongoing and critical to reducing discards in the region's fisheries.

Ref #	Action	Status/Accomplishments through 9/30/09	2010	2011	How Progress Will Be Measured and/or Monitored	Milestone	Milestone Completion Date
EDUCATION/OUTREACH							
EO6	Support education and outreach of gear modifications to reduce bycatch in NE fisheries	The NEFSC Cooperative Research Program published a Broad Agency Announcement (BAA) in late 2009 with one of the priorities focused on developing expanded conservation engineering studies to minimize bycatch. Studies were encouraged that will test an expanded use of gear modifications across different areas and vessel sizes, and assist the industry in adopting proven bycatch-reduction technology.	Funded projects under the BAA include six projects focused on gear modifications and technology transfer to reduce finfish bycatch in the groundfish, squid, whiting, and northern shrimp fisheries, as well as reducing turtle bycatch in Mid-Atlantic flounder fisheries.	Additional regional technology transfer activities will be coordinated so that highly rated gear modifications can receive more extensive testing under standard fishery operating procedures. Net lease and leveraged technology purchases will be coordinated with Sea Grant extension programs and collaborating fleets to expand technology transfer. Based on regional workshops and reviews of proposals submitted under various Cooperative Research grant or contract competitions, funding and technical support will be provided for conservation engineering projects.	Annual reports on projects funded, completed and implemented will inform the program as to the success and utility of new and expanded gear designs. Expanded use of proven technology in the industry will be assisted by technology transfer portions of the funded projects.	Reports on implementation activities. Presentation of successful project results for industry and management.	FY2011-12
EO7 (new)	Development of a more networked approach and broadened definition of conservation engineering to include additional aspects of bycatch reduction, such as temporal spatial information, fleet management, and socioeconomic factors.	Assess the incorporation of cooperative research project results into management actions. Determine that more involvement is needed by the management community throughout the research process to ensure awareness and utility of studies.	The NEFSC Cooperative Research Program held two workshops focused on developing a more networked approach to conservation engineering and bycatch reduction which included researchers, industry, and management entities. A second BAA was published in early 2010 requesting proposals for networked projects to address bycatch issues in small mesh fisheries such as those for squid and whiting and in Northeast groundfish fisheries. Proposals must include a multi-dimensional approach to solving bycatch issues. Projects will be awarded in FY10.	Continued support of projects selected in 2010. The Cooperative Research Program will facilitate communication and information sharing among the established conservation engineering network and continue to grow the network. The program will continue working with the NEFMC Research Steering Committee, the MAFMC Research Set Aside Committee, the Atlantic States Marine Fisheries Commission and collaborating industry and academic partners to identify priority conservation engineering projects.	Successfully solicit, select, and fund networked research projects that support the objectives of reducing bycatch in priority fisheries. Continue to grow the conservation engineering network in the Northeast and facilitate technology transfer within the industry.	Additional network meetings to facilitate the development of selected projects and implement bycatch reduction technologies.	Ongoing through FY11 and 12
MONITORING							
M5	Improve quantitative estimates of bycatch by gear and fishery	1) Continued to use algorithm to provide guidance for sea day coverage ; 2) Estimated fish, sea turtle, marine mammal, seal and seabird bycatch in those fisheries for which there is sufficient observer coverage including several published peer-reviewed papers; 3) Continued to develop methodology to estimate bycatch of fish, sea turtles, marine mammals, seals and seabirds.	Continue to provide guidance for sea day coverage and estimate bycatch of fish, sea turtles, marine mammals, seals, and sea birds in all observed fisheries.	Continue to provide guidance for sea day coverage and estimate bycatch of fish, sea turtles, marine mammals, seals, and sea birds in all observed fisheries.	1) Provide sea day schedules to NEFSC staff to monitor coverage of fisheries; 2) Provide estimates of precision when reporting discard estimates, when appropriate; 3) Provide annual marine mammal and seal bycatch estimates, including a measure of variability; 4) Provide annual estimates of fish bycatch, including a measure of variability when stock assessments are updated; and 5) Provide estimates or information on sea turtles and sea birds when appropriate.	1) Complete data analyses; 2) Update sea day schedule as needed; 3) Update Annual Marine Mammal Stock Assessments; 4) Update fish stock assessments as required; and 5) Update bycatch estimates of sea turtles and sea birds as required.	Annual or as required

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M9	Gear modifications to reduce bycatch in regional priority fisheries.	(A) [Also listed under M12] NEFSC awarded contracts for five new studies that focus on Sea Turtle issues which occurred in 2009; (1) TED testing in scallop trawl fishery; (2) TED testing in flounder trawl fishery;(3) TED testing in the whiting fishery; (4) TED testing in the longfin squid fishery and (5) development of a data logger to assess tow duration in the bottom trawl fishery. All projects were successfully completed and reports are available at http://www.nefsc.noaa.gov/read/protspp/PR_gear_research/ (B) The first half of a project to assess changes in the bycatch rate of harbor porpoise using gillnets with different hanging ratios was successfully completed. The second half of the project was awarded and will be completed in 2010. (C) A study, which used turtle carcasses as a proxy for live sea turtles, designed to ascertain the effectiveness of a modified scallop dredge to cause turtles to go over the dredge as opposed to under the dredge (where they are likely to be injured) was successfully completed. Nine turtle carcasses went over the dredge and none went under the dredge. (D) A contract to assess the scallop catch rates between a modified "turtle friendly" dredge design and the standard dredge design was completed and the report is available at http://www.nefsc.noaa.gov/read/protspp/PR_gear_research/. (E) Assisted scallop industry using ROV to track turtles. Work was accomplished under Center's ESA permit. Several hours of behavior were documented and some undocumented behaviors were recorded. Two turtles were tagged using satellite tags that record pressure (depth) as well as location. After over six months both tags are still transmitting data.	The NEFSC has funds to conduct two projects in the monkfish gillnet fishery. (1) Project to look at the effect of tie-downs on the bycatch of sturgeon and (2) funds were received to complete a study looking at the effectiveness of two hanging ratios (0.5 and 0.33) on the bycatch of harbor porpoise. Additionally the NEFSC has received funds for three new turtle related studies to occur in 2010 (Also listed in M12); (1) A workshop to discuss previous results and future plans to mitigate sea turtle bycatch in trawl fisheries; and (2) TED testing in the bottom otter trawl fishery to ascertain catch loss; (3) Funds to test the data logger to assess its effectiveness and robustness in the commercial fishery. In addition, the NEFSC is working on a project, funded by the 2010 BAA, which will assess the effectiveness of a topless trawl at excluding sea turtles and retaining the targeted catch. The NEFSC continues to work with the commercial scallop dredge fishery to understand turtle behavior and to develop dredge gear that reduces sea turtle injuries.	Additional work to support regional gear based solutions to bycatch is anticipated.	Reports from projects will be reviewed.	Reports from bycatch reduction projects.	Dates per the contract specifications.
M10	Study of animal behavior as it relates to development of gear to reduce bycatch in regional priority fisheries	Assisted scallop industry using ROV to track turtles. Work was accomplished under Center's ESA permit. Several hours of behavior were documented and some undocumented behaviors were recorded. Two proposal submitted to track turtles using satellite tags that record pressure (depth) as well as location.	Continue previous work, if appropriate	Continue previous work, if appropriate	Reports from projects will be reviewed.	Reports from bycatch reduction projects.	Dates per the contract specifications.
M11	Improve habitat and ecosystem information relevant to bycatch	1) Habitat and bycatch analyses that were presented to the December 2007 Harbor Porpoise and Gillnet Take Reduction Team were published. 2) Several papers from the EMAX project (which incorporates bycatch and discards in an ecosystem analysis) are in press and published. 3) Continued updating Essential Fish Habitat reports (updated text and maps for clams, quahogs, squids, butterfish and mackerel). 4) Continued project that relates habitat and environmental factors to sea turtle bycatch and sightings from fishery independent and dependent data sources.	Continue previous work, as appropriate. In 2010, development of an EFH web-based mapping tool (including database and GIS layers) will be undertaken by NERO/NEFSC staff.	Continue previous work, as appropriate. EFH updates will include dogfish, scup, black sea bass, and fluke.	Reports from EMAX, Essential Fish Habitat investigation, habitat/bycatch investigations and from the success of Take Reduction Plans		Annual.

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M12	Gear modifications to reduce sea turtle bycatch in regional priority fisheries.	(A) NEFSC awarded contracts for five new studies that focus on Sea Turtle issues which occurred in 2009; (1) TED testing in scallop trawl fishery; (2) TED testing in flounder trawl fishery; (3) TED testing in the whiting fishery; (4) TED testing in the longfin squid fishery and (5) development of a data logger to assess tow duration in the bottom trawl fishery. All projects were successfully completed and reports are available at http://www.nefsc.noaa.gov/read/protspp/PR_gear_research/ (B) A modified flounder TED design was developed and certified for use in the summer flounder fishery. (C) A study, which used turtle carcasses as a proxy for live sea turtles, designed to ascertain the effectiveness of a modified scallop dredge to cause turtles to go over the dredge as opposed to under the dredge (where they are likely to be injured) was successfully completed. Nine turtle carcasses went over the dredge and none went under the dredge. (D) A contract to assess the scallop catch rates between a modified "turtle friendly" dredge design and the standard dredge design was completed and the report is available at http://www.nefsc.noaa.gov/read/protspp/PR_gear_research/. The NEFSC has been working with the BREPWG to establish regional gear based bycatch groups to address regional bycatch problems.	NEFSC has received funds for three new turtle related studies to occur in 2010; (1) A workshop to discuss previous results and future plans to mitigate sea turtle bycatch in trawl fisheries; and (2) TED testing in the bottom otter trawl fishery to ascertain catch loss; (3) Funds to test the data logger to assess its effectiveness and robustness in the commercial fishery. In addition, the NEFSC is working on a project, funded by the 2010 BAA, which will assess the effectiveness of a topless trawl at excluding sea turtles and retaining the targeted catch. The NEFSC continues to work with the commercial scallop dredge fishery to understand turtle behavior and to develop dredge gear that reduces sea turtle injuries.	Continue previous work, if appropriate	Reports from projects will be reviewed.	Reports from bycatch reduction projects.	Dates per the contract specifications.
M13	Establish long-term research funding program	The NEFSC has been working with the BREPWG to establish regional gear based bycatch groups to address regional bycatch problems.	Continuing activity.	Continuing activity.	Successfully solicit, select, and fund research projects that support the objectives of the NEFMC, including gear modifications to reduce bycatch.	CRPP projects selected for coming fishing year.	Projects selected by September of each year.
M15	Implement an electronic data entry at sea.	Working towards a complete electronic data entry at sea system with DMS	Refining software to allow data entry at sea and electronic data submission.	Training and issuance of gear to observer corps in quota monitored fisheries.	Documentation of data collection, system updates, data processing	Issuance of rugged laptops to experienced observers in the groundfish fishery	FY2010
M16	Conservation engineering data archiving & retrieval system. Facilitation of bycatch reduction data through the Northeast conservation engineering network.	Expanded discussions of standardized data collection and database design within the cooperative research funding community. Further development of the Study Fleet FLDRS data recording system to add additional data elements required for conservation engineering studies.	Additional development and roll-out of expanded Study Fleet FLDRS software, and procurement of onboard computer and Fisheries Scientific Computer system (FSCS) equipment and software for at-sea data collection in cooperative research gear engineering studies. The use of these data capture systems will help support efficient and standardized data collection and processing..	Building upon progress in expanding use of standard data capture systems in conservation engineering, the NCRP will then develop data access and public display systems similar to the systems developed for web display of Industry Based Survey data.	Progress will be measured by the number of projects that will utilize standard data capture systems. Additionally, by the number of cooperative research projects that have archived their data in a system that will support greater scientific and management access and public dissemination of results.	Data capture and delivery systems will become operational.	FY2011-FY12
M17	Explore the use of video monitoring systems to view scallop dredge interactions with sea turtles.	A study that used video cameras and turtle carcasses as a proxy for live sea turtles was initiated to ascertain the effectiveness of a modified scallop dredge to cause turtles to go over the dredge as opposed to under the dredge (where they are likely to be injured) was successfully completed. Nine turtle carcasses went over the dredge and none went under the dredge. The NEFSC supported work with ROVs to ascertain sea turtle behavior is areas frequented by scallop dredge fishing activities. Many hours of video were attained that yielded some new information on sub-adult sea turtle behaviors.	Continue to work with fishing industry representatives to develop a sonar and video system that is capable of detecting and tracking sea turtles using a towed system that is also capable of operating as an ROV.	Continue previous work, if appropriate	Collection and inventory of video tapes (if funded)	Report summarizing study results completed (if funded)	December-07

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M18	Provide an annual discard report summarizing the Northeast Fisheries Observer Program (NEFOP) data.	As required by the Standardized Bycatch Reporting Methodology (SBRM) omnibus FMP amendment, the SBRM annual discard report was compiled and released.	Provide the SBRM annual discard report containing an annual summary of NEFOP data.	Continue to provide the SBRM annual discard report summarizing the NEFOP data.	The SBRM annual discard report will be presented to the NE and MA Councils and the public during the SBRM Prioritization/consultation process	1) Complete SBRM annual discard report; 2) Present the SBRM annual discard report at the NE and MA Council meetings during the SBRM Prioritization/ Consultation process	Annual
M19	Conduct analysis of the number of sea days needed to achieve a 30%CV with application of SBRM filters	1) Conduct analysis of the number of sea days needed to achieve a 30% CV with application of SBRM filters using the most recent 12 months of data; 2) compare the needed sea day with the funded sea days schedule; 3) Conduct analysis of the number of sea days needed to achieve a 30% CV of marine mammal bycatch in gillnet and bottom trawl fisheries (not using SBRM procedures).	1) Provide update of the number of sea days needed to achieve a 30% CV with application of SBRM filters; 2) Provide a comparison of the required sea days and the funded sea day schedule; 3) Expanded sea day analysis to include the expected achieved CV given the prioritized sea days; 4) Expanded sea day analysis to include industry-funded fleet coverage; 5) Conduct analysis of the number of sea days needed to achieve a 30% CV of marine mammal bycatch in gillnet and bottom trawl fisheries (not using SBRM procedures).	1) Continue to provide update of the number of sea days needed to achieve a 30% CV with application of SBRM filters; 2) Continue to provide a comparison of the required sea days and the funded sea day schedule; 3) Continue to provide the expected achieved CV given the prioritized sea days; 4) Continue to conduct analysis of the number of sea days needed to achieve a 30% CV of marine mammal bycatch in gillnet and bottom trawl fisheries (not using SBRM procedures)	The number of needed sea days and the funded sea day schedule (and associated analyses) will be presented to the NE and MA Councils and the public during the SBRM Prioritization/consultation process and during the various marine mammal Take Reduction Team meetings.	1) Complete sea day analysis using most recent 12 months of data; 2) Present sea day schedule comparison at NE and MA Council meetings during the SBRM Prioritization/Consultation process	Annual
M21	Support studies to collect information on abundance and distribution, movement, genetic origin, feeding ecology, and health assessments of sea turtles	Provided funding for tagging and health assessment studies in FY2009	If funding available, conduct health assessment and tagging studies in FY2010. Complete analysis of data collected in FY2009.	N/A	Review of status updates and interim reports	Receipt of final report	FY2009
M22 (new)	Develop a Dockside Monitoring Certification Program	Design and develop a training program to certify individuals wanting to become dockside monitors	Perform dockside monitoring training as needed		Meet the trainings needed to supply sufficient dockside monitors for Amendment 16 to the groundfish plan (50% in fishing year 2010, 20% in fishing year 2011)		
MANAGEMENT							
MG3	Harbor Porpoise Take Reduction Plan (HPTRP)	NMFS published a proposed rule on July 21, 2009 (74 FR 36058), to modify the HPTRP to implement additional measures for reducing harbor porpoise bycatch in New England and Mid-Atlantic gillnet fisheries. NMFS received and addressed public comments after a 30-day public comment period.	NMFS published a final rule amending the HPTRP on February 19, 2010 (75 FR 7383). New pinger measures were delayed until the fall through a final rule published on March 17, 2010 (75 FR 12698). Additionally, NMFS developed a HPTRP monitoring strategy to examine compliance and overall effectiveness of the plan and posted to the HPTRP website in April 2010.	Conduct evaluation of bycatch rates in management areas associated with consequence closure areas during first management season under the revised HPTRP (September 15, 2010 through May 31, 2011). Continue monitoring for compliance and overall effectiveness. Continue outreach efforts.	Use of observer data, enforcement updates, abundance and mortality estimates, etc. to determine bycatch and compliance levels, as well as estimated mortalities in relation to PBR, especially for those management areas associated with consequence closure areas.	Implementation the HPTRP amendment and monitoring the plan annually for overall effectiveness and compliance, especially to determine if target bycatch rates are exceeded during first full management season of expanded measures.	Determination of exceedance of target bycatch rates will be completed during the summer of 2011.
MG4	Atlantic Large Whale Take Reduction Plan (ALWTRP)	NMFS published a proposed and final rule to delay the effective date of the sinking groundline provision for all trap/pot gear from October 5, 2008 to April 5, 2009. NMFS also reinstated the Dynamic Area Management (DAM) program north of the Seasonal Area Management (SAM) area from October 5, 2008 to April 5, 2009.	Sinking groundline requirements in effect. NMFS to investigate gear modifications to reduce the risk of entanglement that may occur from endlines associated with trap/pot and gillnet gear. ALWTRT meeting planned for fall of 2010 to focus discussions on reducing risks from endlines and continuing discussions on vertical line model for determining areas where whale/gear co-occurrence is highest. NMFS to develop a compliance plan and monitoring plan to evaluate the effectiveness of the gear modifications contained within the ALWTRP. NMFS to develop gear marking white paper containing options for the ALWTRT to consider for marking gear.	Continue development of products (vertical line model, compliance and monitoring plan, and gear marking white paper).	Consensus recommendations will be sought from the ALWTRT along with promising gear research results. Gear workshops may also be convened. Consensus recommendations will also be sought from the ALWTRT concerning the compliance and monitoring plans, and gear marking white paper.	Development of a product that contains ideas for reducing bycatch of large whale species from endlines associated with gillnet and trap/pot gear. Development of plan to monitor the effectiveness of the ALWTRP, including a plan to evaluate the compliance rate of the current ALWTRP gear modifications. Development of a plan on appropriate methods for marking gear.	The products produced from the ALWTRT will be used as part of NMFS scoping process for the development of an Amendment to the ALWTRP to address entanglement risks associated with endlines.

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MG5	Monitoring the Atlantic Trawl Gear Take Reduction Strategy	NMFS finalized the Atlantic Trawl Gear Take Reduction Strategy in December 2008. Additionally, NMFS finalized and distributed education and outreach materials to all Atlantic trawl gear vessels to help educate fishermen of the marine mammal bycatch issues regarding trawl fisheries.	NMFS continues to monitor the bycatch of the species covered by the Atlantic Trawl Gear Take Reduction Strategy (pilot whales, common dolphins, and Atlantic white-sided dolphins). Additionally, the NEFSC is working on completing genetic analyses to partition bycatch estimates of long-finned and short-finned pilot whales in trawl fisheries (currently a pooled estimate is used due to uncertain stock structure of bycaught animals). The NEFSC currently has established stock-specific abundance estimates and PBRs for both species which will be available in the 2010 SARs.	The Northeast and Southeast Fisheries Science Centers will be conducting a fall/winter biopsy cruise in the Mid-Atlantic in late 2010, the results of which should allow the Centers to partition the bycatch estimates amongst the two species, rather than using one pooled bycatch estimate for both species.	Biopsy data that are collected during the fall/winter 2010 biopsy cruise will allow Centers to partition bycatch estimates for pilot whale species and compare them to the stock-specific PBRs to determine if one or both stocks are strategic due to takes in trawl gear.	NMFS publishes stock-specific PBRs in 2010 SAR for pilot whales. NMFS determines if one or both species are strategic through calculation of stock-specific bycatch estimates. If needed, NMFS may reconvene Atlantic Trawl Gear Take Reduction Team.	Publication of 2010 SARs for stock-specific abundance estimates and PBRs. Calculation of stock-specific bycatch estimates contingent upon success of fall/winter 2010 biopsy cruise.
MG6	Investigate methods to reduce sea turtle bycatch in endlines of fixed gear and to improve disentanglement response	Finalized report from NER workshop to better understand how and why turtles become entangled in vertical lines, to explore potential solutions and ideas to reduce entanglements, and to improve entanglement response and reporting.	Activity complete.	Activity complete.	Draft report from workshop submitted to NMFS and reviewed.	Finalized report from the workshop will be available to all interested parties.	Completed
MG7	Revision of North Atlantic Right Whale Critical Habitat	The Center responded to NER follow-up questions regarding a request for additional analysis for designation of critical habitat for North Atlantic right whales.	The NER will draft a proposed and final rule to revise the North Atlantic Right whale Critical Habitat for the Northeast feeding areas and Southeast calving areas. The Center will complete an economic analysis to support the proposed and final revision.	Continue development of product	Publication of proposed rule, response to public comments and publication of final rule	The Center will complete its economic analysis and the NER will complete the draft proposed rule by March 2009. NMFS to publish a proposed rule by August 2009; and publish a final rule by April 2010.	Final rule implementation in 2010.
MG8	Improve Landings data collection programs (VTR, VMS, Dealer) to allow the identification of trips participating in Special Access Programs (SAPs), trips using gear modifications to reduce bycatch, trips participating in Sectors, and the verification of VTR serial number to accurately link the VTR and Dealer data.	NEFSC staff participated in the Data Summit (March 2009) to discuss the improvements needed in data collection programs. NEFSC staff participated in Sector implementation workshops held to discuss data needs and catch estimation methods.	Participate in NERO/NEFSC meetings and workshops to develop the data infrastructure needed to support Amendment 16 (Sectors). The methods used to apportion VTR landings to support quota monitoring are documented in CRD 10-02. Vessel Trip Report submission time will be reduced to support quota monitoring.	Continue previous work, if appropriate	Modify the existing data collection programs (and data bases) to collect the necessary data elements in the VTR (or other databases) to accurately link VTR and Dealer data, identify fishing trips participating in SAPs (at a trip level), using gear modified to reduce bycatch and trips participating in Sector management	Obtain the necessary data elements in the VTR (or other databases) to accurately link VTR and Dealer data, identify fishing trips participating in SAPs (at a trip level), using gear modified to reduce bycatch and trips participating in Sector management	Implementation of A16 on 5/1/2010; modifications/revisions are on-going
MG9	Improve data collection to support Annual Catch Limits (ACLs), Accountability Measures (AM) and groundfish Sector measurement	Expand the data collection programs and develop the methodology to support the ACL, AM and groundfish Sector management	Expand the data collection programs and develop the methodology to support the ACL, AM and groundfish Sector management A Peer Review of Discard Estimation Methods is scheduled to review and discuss appropriate methods for discard estimation to support in-season quota monitoring. Evaluate the performance of various estimators via simulation; Derive assumed discard rates to used as basis in fishing year 2010.	Continue previous work, if appropriate	Modify the existing data collection programs (and data bases) to collect the necessary data elements to support ACL, AM and Sector management and develop and/or expand the current estimation methods.	Implement data collection programs and catch estimation methods to support A16. Continue to refine data collection and catch estimation methods	Implementation of A16 on 5/1/2010; modifications/revisions are on-going
MG10	Provide input into developing monitoring programs to measure the success of FMP's and TRT's in reducing bycatch and identifying bycatch trends	Review and provide support where needed to manage and develop at-sea and dock-side monitoring programs, industry funded scallop, and at-sea observer programs, and provide observer reports to locate time and areas of bycatch concerns	Will review and provide input during the development of Amendment 5 of the Herring Plan, Amendment 10 of the Squid, Mackerel, and Butterfish FMP, and Amendments and Frameworks to the Groundfish FMP, Scallop FMP, and Take Reduction Teams in the Northwest Atlantic.	Implement additional coverage, and perhaps new reporting and monitoring programs			FY11

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MG11	Evaluated the effectiveness of management alternatives for Amendment 10 to the Squid, Mackerel and Butterfish FMP to reduce butterfish and other finfish bycatch in the small-mesh otter trawl fleets (*Loligo pealeii* otter trawl fleet).	NMFS review of FEIS for Amendment 10	Implementation of Amendment 10: 1) mesh increase in 'Loligo fleet'	Implementation of Amendment 10: 2) butterfish catch cap in 2011.	FMAT will regularly review effectiveness of bycatch reduction measures	Continued FMAT review until butterfish stock is rebuilt	
MG13	Conducted selectivity study to assess a codend mesh size increase in Loligo nets to reduce the butterfish bycatch	Analyzed selectivity study data and submitted report to funding source: Northeast Cooperative Research Partners Program (Fall 2009)	Presentation of study results to MAFMC	Activity complete.	Review of analysis by MAFMC for management purposes	Receipt of final report	
MG14	Implemented regulation to allow use of "Ruhle net" to reduce cod bycatch in the haddock fishery	Authorized Ruhle trawl through proposed and final rulemaking for use in the Regular B-DAS Program and in the Eastern U.S./Canada Haddock SAP. Published inseason action to allow temporary use in the Eastern Area under an A DAS. Extended authorization to use Ruhle Trawl in the Eastern Area through 2009 Interim Action.	Extend indefinitely authorization to use Ruhle Trawl in the Eastern Area through Amendment 16.	Activity complete.	Timely completion of each regulatory action.	Implementation of Amendment 16	
MG15 (new)	Project support of management needs to reduce butterfish bycatch in the *Loligo* squid fishery	Mid-Atlantic Research Set-Aside priorities related to butterfish bycatch in the Loligo squid fishery as necessary by Amendment 10 to the Squid, Mackerel, Butterfish FMP.	Research Set-A-Side funding of priority projects related to squid/ butterfish interactions	Continued fieldwork to analyze squid/butterfish interactions and develop Bycatch Reduction Device (BRD) targeted towards butterfish	Successful development of a BRD for butterfish in the *Loligo* squid fishery.	Proven technology to reduce butterfish bycatch in the squid fishery, incorporation into management plan, and technology transfer to industry.	FY 2012
MG16 (new)	Development of greater management participation in the Northeast Conservation Engineering Network. Greater consideration of management needs in cooperative research project development (Sustainable Fisheries & Protected Resources)	Develop approach to facilitate the integration of cooperative research data into management actions and consider multiple management needs in project development.	Familiarize state and federal managers and management bodies (Councils) with the development of the Northeast Conservation Engineering Network and encourage participation to increase awareness of cooperative research projects and utility of data. Ensure that project development keeps pace with current and upcoming management issues.	Greater participation by management entities in the network, and increased data flow into management avenues.	Level of participation of managers in Conservation Engineering Network workshops and meetings. Participation by managers in networked projects and feedback loops established to guide the development of projects.	Participation of managers in network meetings and workshops and network facilitation.	FY11 and FY12
MG17 (new)	Gear Research in Support of the Atlantic Large Whale Take Reduction Plan	New action in 2010.	Two fixed fishing gear projects funded by NMFS to industry for 1) examining trap gear fishing without use of vertical lines; and 2) testing of a reversing or "thwartable" link.	Both projects will be completed on 9/30/2011.	Ability of fishing to occur without use of vertical lines on this small, pilot scale and determination of concerns. Reliability of thwartable link technology when used on fixed fishing gear and comparisons made with standard gear fished without this technology.	Receipt of final reports	December 2011
MG18 (new)	Strategy for Sea Turtle Conservation and Recovery in Relation to Atlantic and Gulf of Mexico Fisheries	1) Continued to provide funding for development of bycatch reduction technologies in trawl fisheries. 2) NMFS published a NOI to prepare an Environmental Impact Statement to assess potential impacts resulting from the proposed implementation of new sea turtle regulations in Atlantic and Gulf of Mexico trawl fisheries.	1) Continue funding research and development to address sea turtle bycatch. 2) NMFS will publish a proposed rule regarding the Sea Turtle Strategy in trawl fisheries	1) Continue funding research and development to address sea turtle bycatch. 2) NMFS will publish a final rule implementing the Sea Turtle Strategy in trawl fisheries	Timely completion of each regulatory action.		