

## Northeast Region Bycatch Reduction Action Items (FY08 and FY09) and Accomplishments (FY07)

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 the NOAA Fisheries Service 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 NOAA Fisheries Service 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, NOAA Fisheries 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 9/30/07	2008	2009	How Progress Will Be Measured and/or Monitored	Milestone	Milestone Completion Date
	<b>EDUCATION/OUTREACH</b>						
<b>EO1</b>	Improve NEFSC communication with constituents concerning Observer Program	Attended various fisheries forums, industry conferences, fisheries management council meetings, etc. to speak about the NEFSC observer program.	Will continue outreach efforts.	Will continue outreach efforts.	1)The number of outreach for attended; 2)Comment card cleared for use.	1)Attend six or more outreach meetings per year;2) Comment cards received and program monitoring improved.	Annual.
<b>EO4</b>	Continuing outreach resulting from the January 2006 bycatch forum, in which the Cooperative Research Guide was developed	Printed over 10,000 Cooperative Research guides for fishermen interested in gear research to reduce bycatch. To date, over 5,000 copies of the guide have distributed to interested fishermen. Appendices to the guide have been posted on-line at <a href="http://www.nero.noaa.gov/StateFedOff/coopresearch/guidelines/">http://www.nero.noaa.gov/StateFedOff/coopresearch/guidelines/</a> .	Continue distribution of the guide	Continue distribution of the guide	Keep track of guide distribution.	Finish distribution of all remaining guides.	Complete distribution.
<b>EO5</b>	Gain feedback from observed vessel operators.	Fishermen's comment card implemented via postage-paid postcard and online at: <a href="http://www.nefsc.noaa.gov/femad/fishsamp/fsb/">http://www.nefsc.noaa.gov/femad/fishsamp/fsb/</a> . Completed first summary report on data received through comment card.	Continue to distribute comment cards and collect responses via mail and the internet. Continue to prepare reports on the feedback received.	Continue activity.	Feedback program will be measured by the number of comments received. The observer program will be assessed by the comments received.	Biennial reports on the feedback received on the observer program.	Second summary report to be completed by February 1, 2008.

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EO6	Support education and outreach of gear modifications to reduce bycatch in NE fisheries	NEFSC supported the "2007 Haddock Workshop: Recent Advances in Haddock Separation Technology" on April 3, 2007 and the "Haddock 2007: An International Symposium on Haddock Conservation, Harvesting, and Management" on October 25 & 26, 2007. Potential management implementation of separation systems was discussed.	The Northeast Cooperative Research Partners Program (NCRPP) will initiate reviews of related conservation engineering projects conducted between 2000 and 2007 with the NEFMC Research Steering Committee and the MAFMC Research Set Aside Committee. Additional regional facilitated workshops will be conducted to gather input from commercial fishing constituencies.	Based on the results of 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.	Successfully solicit, select, and fund research projects that support the objectives of reducing bycatch in priority fisheries. Annual reports on projects funded, completed and implemented.	Reports on implementation activities.	FY2009
	<b>MONITORING</b>						
M1	Explore the use of video monitoring of catch and discards	Project discontinued.	Activity discontinued.	Activity discontinued.	None.	None.	None.
M4	Conduct database review to identify additional existing data sources used to monitor catch and bycatch	The Standardized Bycatch Reporting Methodology (SBRM) omnibus FMP amendment, which analyzes catch and bycatch data sources, was adopted by both the Mid-Atlantic and New England Fishery Management Councils.	Activity complete.	Activity complete.	A final SBRM Amendment will be published in the Federal Register.	Publication of the final rule in the Federal Register.	Spring 2008.
M5	Improve quantitative estimates of bycatch by gear and fishery	1) Continued to use algorithm to provide guidance for sea day coverage ; 2) Estimated sea turtle, marine mammal, seal and seabird bycatch in those fisheries for which there is sufficient observer coverage; 3) Continued to develop methodology to estimate bycatch of sea turtles, marine mammals, seals and seabirds.	Continue to provide guidance for sea day coverage and estimate bycatch of sea turtles, marine mammals, seals, and sea birds in all observed fisheries.	Continue to provide guidance for sea day coverage and estimate bycatch of 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 sea turtle, marine mammal, seabird and seal bycatch estimates, including a measure of variability.	1) Complete data analyses; 2) Update sea day schedule as needed; 3) Annual Marine Mammal Stock Assessment updates.	Annual

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M6	Optimally allocate observer coverage to address regional priorities	1) Continued to use algorithm and/or other tools to provide guidance for sea day coverage; 2) Optimized coverage based on funding levels; 3) Continued to request number of sea days needed to achieve 20-30% CV for each bycaught species/fishery combination; 4) Improved achieved percentage of requested sea-days.	1) Continue to use algorithm or other tools to provide guidance for sea day coverage; 2) Optimize coverage based on funding levels; 3) Continue to request number of sea days needed to achieve 20-30% CV for each species/fishery combination.	1) Continue to use algorithm or other tools to provide guidance for sea day coverage; 2) Optimize coverage based on funding levels; 3) Continue to request number of sea days needed to achieve 20-30% CV for each species/fishery combination.	1) Reports of achieved sea days; 2) CV on reported bycatch estimates.	1) Quarterly reports of achieved sea days; 2) Bycatch reports for sea scallop fisheries; 3) summary memo for Coastal Virginia observer coverage; 4) Annual Marine Mammal Stock Assessments updates.	Annual, though generally within a year of when bycatch data becomes available from the Observer Program.
M9	Gear modifications to reduce bycatch in regional priority fisheries.	Workshop held in Dec 8-9, 2005 to discuss gear modifications to reduce cetacean and sea turtle bycatch in trawl fisheries. In April 2006, the Large Whale Take Reduction Team met ( <a href="http://www.nero.noaa.gov/whaletrp/">http://www.nero.noaa.gov/whaletrp/</a> ). In September 2006, the Atlantic Trawl Gear Take Reduction Team met to start the process of developing actions (including gear modifications) to reduce the bycatch of cetaceans in trawl gear. Study initiated and some data attained in a study to test a newly modified scallop dredge and compare the catch with a standard scallop dredge using a paired design. This information will be used to obtain targeted catch information as well as information to test the effectiveness of the new dredge design. Workshop held with fishing industry leaders, managers, environmentalists and fishermen in Ocean City, MD on 25-26 January 2007 to attain information on research ideas for reducing sea turtle bycatch in trawl nets. Preliminary studies to ascertain the loss of targeted catch in scallop trawl and flounder trawl nets equipped with TEDs was completed and final reports ac	Flume tank work planned to better understand TED performance in NE bottom otter trawl gear. Additional work with the fishing industry to improve catch retention when using TEDs in the summer flounder trawl fishery and a project to further evaluate the catch loss in the scallop trawl equipped with TEDs have been submitted. Project funded and awaiting funds to investigate the effectiveness of BaSO4 and thicker twine to reduce the bycatch of Harbor Porpoise south of the Cape Cod south management area.	Continue previous work, if appropriate	Reports from projects will be reviewed.	Reports from bycatch reduction projects.	Dates per the contract specifications.

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M10	Study of animal behavior as it relates to development of gear to reduce bycatch in regional priority fisheries	(1) Submitted request for ESA permit allowing depth tracking of loggerheads in stratified mid-Atlantic waters and currently seeking funding opportunities to collect tracking data. (2) Scallop dredge video final report received, (3) Four video systems purchased and tested for attaining protected species behavior around trawl nets. Video used successfully on a scallop trawl project.	We continue to seek funds to study depth tracking of loggerhead turtles. Video system used successfully in summer flounder trawl work to assess TED performance and will be utilized to collect video on modified scallop dredge project to reduce the likelihood of turtles going under the dredge and sustaining injury.	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) Presented habitat and bycatch analyses to the September 2006 Trawl Gear Take Reduction Team and to the May 2007 Coastal bottlenose dolphin Take Reduction Team. 2) Several papers from the EMAX project (which incorporates bycatch and discards in an ecosystem analysis) are in press and published.	1) Presented habitat and bycatch analyses to the December 2007 Harbor Porpoise and Gillnet Take Reduction Team; and 2) Continue previous work, as appropriate	Continue previous work, as appropriate	Reports from EMAX and from habitat/bycatch investigations and from the success of Take Reduction Plans	Reports from EMAX, habitat/bycatch investigations, and Take Reduction meetings (including updated Take Reduction Plans).	Annual.
M12	Gear modifications to reduce sea turtle bycatch in regional priority fisheries.	Study initiated and some data attained in a study to test a newly modified scallop dredge that is designed to force sea turtles over as opposed to under the dredge where they may sustain injury. Several trips comparing the catch of this dredge against a standard scallop dredge have been completed and will be used to obtain information on the effectiveness of the new dredge design. Workshop held with fishing industry leaders, managers, environmentalists and fishermen in Ocean City, MD on 25-26 January 2007 to attain information on research ideas for reducing sea turtle bycatch in trawl nets. Preliminary studies to ascertain the loss of targeted catch in scallop trawl and flounder trawl nets equipped with TEDs was completed and final reports generated and accepted <a href="http://www.nefsc.noaa.gov/read/protsp/PR_gear_research/">http://www.nefsc.noaa.gov/read/protsp/PR_gear_research/</a> .	Flume tank work planned to better understand TED performance in NE bottom otter trawl gear. Additional work with the fishing industry to improve catch retention when using TEDs in the summer flounder trawl fishery and a project to further evaluate the catch loss in the scallop trawl equipped with TEDs have been submitted. Study to assess the ability of the modified dredge to force turtles over the dredge as compared to turtles going under the dredge is planned for summer 2008.	Continue previous work, if appropriate	Reports from projects will be reviewed.	Reports from bycatch reduction projects.	Dates per the contract specifications.

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M13	Establish long-term research funding program	Began the development of long-term cooperative research funding program through the integration of RSA and NCRPP. Funded the Northeast consortium (NEC) to support cooperative research. To date, both programs combined have funded over 121 fishing gear selectivity studies valued at approximately \$16 million.	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	Develop electronic data entry at sea.	Working towards a complete electronic data entry at sea system with DMS	Begin exploring avenues and equipment to allow data entry at sea.	Continue development	Documentation of concepts and systems.	Beta Testing of concept 2008-2009	December-08
M16	Conservation engineering data archiving & retrieval system.	Initiation of database design delayed because of other priorities and limited resources.	The NCRPP will work with State and University partners on training programs that will allow use of Study Fleet and Fisheries Scientific Computer system (FSCS) equipment and software for at-sea data collection, 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 NCRPP will then develop data access and public display systems similar to the systems developed for web display of Industry Based Survey data.	The number of projects that will utilize standard data capture systems. 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.	FY2010
<b>MANAGEMENT</b>							
MG1	Improve data available to the management process so that it can effectively address bycatch	Conversion to electronic data entry at sea via PDAs completed for OBSCON data.	Working towards a complete electronic data entry at sea system with DMS	Activity complete.	Evaluate error rate in digital data versus phoned in data	20% reduction in error rate in OBSCON reporting	Activity is complete.
MG3	Amendment to the Harbor Porpoise Take Reduction Plan	The Center completed preliminary harbor porpoise bycatch and abundance estimates. The NER completed a white paper highlighting the issue of increased harbor porpoise bycatch and options for mitigating the bycatch in New England and mid-Atlantic Waters.	The NER will convene a meeting of the Harbor Porpoise Take Reduction Team in December 2007 to develop strategies and options for reducing harbor porpoise bycatch in New England and Mid-Atlantic gillnet fisheries.	Activity complete.	NER will solicit recommendations from the HPTRT and develop a proposed rule and supporting analysis to reduce bycatch of harbor porpoise in gillnet fisheries in New England and the Mid-Atlantic.	NMFS to convene the HPTRT in Decemebr 2007; publish a proposed rule by March 2008; and publish a final rule by May 2008.	Final rule implementation by June 2008.

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MG4	Amendment to the Atlantic Large Whale Take Reduction Plan	NMFS published the final rule implementing changes to ALWTRP including the record of decision for the Final Environmental Impact Statement supporting the changes to the ALWTRP.	NMFS to investigate gear modifications to reduce the risk of entanglement that may occur from endlines associated with trap/pot and gillnet gear.	Continue development of product.	Consensus recommendations will be sought from the ALWTRT along with promising gear research results. Gear workshops may also be convened.	Development of a product that contains ideas for reducing bycatch of large whale species from endlines associated with gillnet and trap/pot gear.	The product produced from 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.
MG5	Convene Meetings of the Atlantic Trawl Gear Take Reduction Plan	NMFS convened a second meeting of the ATGTRT and learned that no development of a TRP was necessary since all marine mammal stocks interacting with Atlantic trawl gear were non-strategic. However, NMFS convened two subgroups comprised of TRT members to develop plans for education/outreach and research.	NMFS will convene subgroup meetings for both the education/outreach and research subgroups to finalize draft plans. The draft plans will be presented to the full TRT during FY 2008 for consideration. NMFS has also contracted for outreach materials to help educate fishermen of the marine mammal bycatch issues regarding trawl fisheries.	Activity complete.	NMFS will provide copies of the education/outreach material to the TRT and continue to monitor the fishery for marine mammal bycatch. NMFS will also investigate funding for additional gear research to help further reduce marine mammal bycatch in the Atlantic Trawl fisheries.	Finalize gear research and education/outreach plans. Develop plan for monitoring marine mammal takes in Atlantic trawl fisheries.	All products to be completed by the end of FY 2008.

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MG6	Investigate methods to reduce sea turtle bycatch in endlines of fixed gear and to improved disentanglement response	NMFS continued to work with the STDN to improve response to entangled turtles in fixed gear fisheries. The STDN was first established in 2002, and has steadily increased its response area and quality of reporting through 2007. In 2007, NMFS updated the data collection form used to report entanglements of sea turtles throughout the northeast region.	The workshp will be held in Spring 2008. Ideas generated from the workshop will be investigated further by the Northeast Region. NMFS will continue to work towards developing solutions to address sea turtle bycatch in fixed gear.	Activity complete.	Draft report from workshop submitted to NMFS and reviewed.	Finalized report from the workshop will be available to all interested parties.	Report completed summer of 2008.
MG7	Revision of North Atlantic Right Whale Critical Habitat	The Center is in the process of responding 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	NER will solicit recommendations from the HPTRT and develop a proposed rule and supporting analysis to reduce bycatch of harbor porpoise in gillnet fisheries in New England and the Mid-Atlantic.	The Center will complete its economic analysis by March 2008. The NER will complete the draft proposed rule by June 2008. NMFS to publish a proposed rule by July 2008; and publish a final rule by May 2008.	Final rule implementation by Septemebr 2009.
Mx	Explore the use of video monitoring systems to view scallop dredge interactions with sea turtles.	Continued to collect video of scallop dredges in 2006, including a test in Panama City assessing a newly modified dredge's ability to cause turtles to go over, as opposed to under, the dredge. Received the final report.	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