

*Science, Service, Stewardship*



# **Bycatch Reduction Engineering Program Council Consultation Session**

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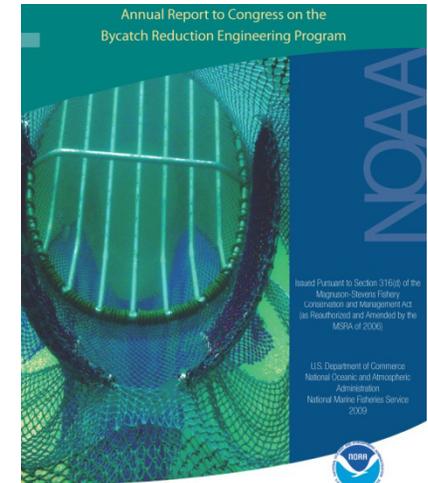


## **Bycatch Reduction Engineering Program (BREP)**

- The BREP was established by Section 316 of the Magnuson-Stevens Fishery Conservation and Management Act, as amended through January 12, 2007.
- Mission: To develop technological solutions and investigate changes in fishing practices designed to minimize bycatch of fish (including sponges and deep sea and shallow, tropical corals) and protected species (including marine mammals, seabirds, and sea turtles) as well as minimize bycatch injury and mortality (including post-release injury and mortality).
- “The program shall...provide for routine consultation with the Councils in order to maximize opportunities to incorporate results of the program in Council actions and provide incentives for adoption of methods developed under the program in fishery management plans developed by the Councils.”



## Criteria for BREP Funding



- Results could be incorporated into management systems in a reasonable timeframe and achieve strong benefits for \$\$ spent.
- This is an important problem in the Region, conforms with the BREP mission, and relates to Council and/or TRT priorities.
- The proposal's goals are clear, its methods are appropriate and/or innovative, and it builds on previous research.
- The project appropriately involves the fishing industry and/or other key partners.
- Transparent process involving all Regions and most HQ Offices as technical reviewers, with all funded project results reported annually in a Report to Congress



## **BREP Accomplishments and Priorities--NE**

- Assessing gillnet modifications designed to reduce Atlantic sturgeon bycatch and harbor porpoise takes
- Estimating seabird bycatch in Northeast commercial fisheries
- Assessing the potential of tow time data loggers in addressing sea turtle bycatch
- Reducing bycatch and increasing survivability of cusk (an ESA-candidate species) in New England fisheries
- Refining pingers used to reduce marine mammal takes in gillnets
- Developing devices to reduce the risk of large whale entanglements in fixed-gear buoy systems



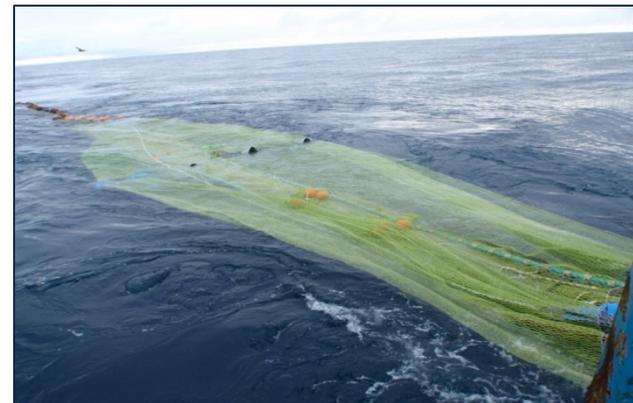
## **BREP Accomplishments and Priorities--SE**

- Examining the relation of bait soak time to turtle bycatch in the GOM bottom longline reef fish fishery
- Developing improved turtle excluder device and bycatch reduction device designs through collaborative efforts with the fishing industry
- Testing weak hooks to reduce bluefin tuna bycatch in the GOM yellowfin tuna longline fishery (which led to May 2011 requirement for weak hooks in this fishery)
- Testing the effectiveness of appendaged hooks in reducing post-release mortality of snapper-groupers
- Evaluating illuminated gillnets as a sea turtle bycatch mitigation measure.



## BREP Accomplishments and Priorities--NW

- Developing, testing, and demonstrating bycatch reduction devices in West Coast trawl fisheries, including Pacific halibut excluders
- Providing underwater video camera systems to fishermen for use in evaluating bycatch reduction
- Evaluating the potential of artificial light to enhance Chinook salmon escapement in the Pacific hake fishery





## **BREP Accomplishments and Priorities--SW**

- Developing methods to reduce post-release mortality in the S. California recreational thresher shark fishery
- Evaluating gear modifications to prevent marine mammal depredation in the California halibut trawl fishery
- Determining survival rates for deepwater rockfish species following recompression using weighted cages
- Testing experimental deep-set swordfish buoy gear



## BREP Accomplishments and Priorities--AK

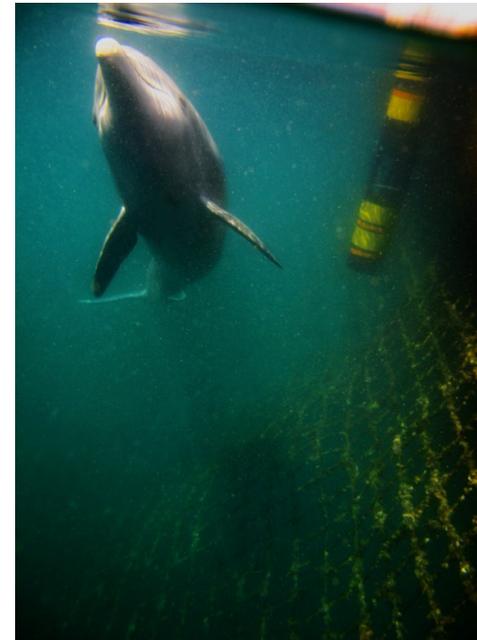
- Developing halibut and salmon excluder devices for the Alaska trawl fisheries
- Determining mortality rates for crab bycatch in trawls
- Developing trawl groundgears that produce less damage to bottom habitat
- National Seabird Program





## BREP Accomplishments and Priorities--PI

- Evaluating post-release survival of large Pacific blue marlin captured in the Pacific longline fisheries
- Acoustically observing false killer whales in the Hawaii-based tuna longline fishery
- Investigating pull strengths of target and non-target species to reduce longline bycatch





## **Questions? And thank you!**

1. What bycatch challenges facing the Councils (especially challenges not reflected in the previous slides) should be addressed through BREP research and outreach in 2012-2013?
2. How can the BREP help to maximize opportunities to incorporate the results of BREP projects in FMPs developed by the Councils?