



NOAA FISHERIES

Sustainable
Fisheries

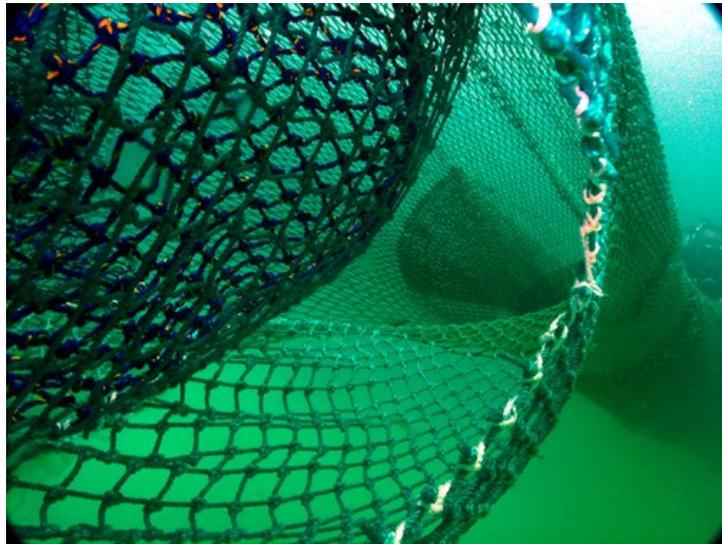
Reducing marine fisheries bycatch is an important challenge for NOAA Fisheries. The Bycatch Reduction Engineering Program helps identify and foster the development of innovative technological solutions to bycatch problems in our nation's fisheries.

Highlights

- NOAA allocated approximately \$2.5 million to implement the BREP in 2012.
- BREP funded projects are being implemented around the country and address a wide variety of topics—fish listed under the Endangered Species Act (ESA), marine fish, sea turtles, seabirds, and marine mammals.
- Research is focused on improving fishing practices and developing innovative gear technologies to reduce bycatch.

Bycatch Reduction Engineering Program

2012 Annual Report to Congress



Composite panel shrimp trawl bycatch reduction device.

NOAA Fisheries releases the 5th Annual Bycatch Reduction Engineering Program (BREP) Report to Congress, which outlines ongoing research and progress in 2012.

Importance of Bycatch Reduction

Bycatch occurs when fishing operations discard fish or interact with marine mammals, seabirds, or sea turtles. Bycatch can have significant biological, economic, and social impacts on fisheries. Excessive bycatch can prevent overfished stocks from rebuilding, and bycatch and gear interactions can prevent the recovery of endangered marine mammals, sea turtles, seabirds, and fish. Bycatch also impacts coastal communities where fishing interactions with certain species can potentially close fisheries. To help minimize these impacts, NOAA Fisheries has made bycatch reduction a key component in its efforts to maintain sustainable U.S. fisheries.

NOAA is required to address bycatch reduction under several federal laws—the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Marine Mammal Protection Act, and U.S. National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries. NOAA established the BREP in 2008 to meet this requirement.

Funding Innovation to Reduce Bycatch

In 2012, Congress directed NOAA to establish a competitive grant program for non-Federal researchers working with U.S. fishermen to develop improved fishing practices and innovative gear technologies to reduce bycatch. In response, NOAA issued a request for grant proposals. Researchers submitted 64 grant proposals totaling \$11.0 million, and NOAA funded 14 proposals totaling almost \$2.5 million. In addition, 9 of the 14 funded proposals included payments to charter commercial fishing vessels as collaborative research platforms.

In 2012, 14 BREP projects received funding to address bycatch challenges around the country.

Bycatch challenges addressed:

- Marine fish - \$1,545,426
- Marine mammals - \$615,085
- Sea turtles - \$150,272
- ESA-listed fish - \$130,043

Funding by region:

- Northeast - \$973,591
- Southeast - \$545,518
- Northwest - \$342,930
- Southwest - \$150,272
- Alaska - \$153,953
- Pacific Islands - \$274,562



Tagging of a thresher shark off California.

For more information:

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www.nmfs.noaa.gov/by_catch_BREP.htm



Construction of an experimental trawl net in Newport, Oregon.

Projects Address High-Priority U.S. Fisheries

BREP research is helping find innovative ways to reduce bycatch in some of the most important U.S. fisheries:

- Georges Bank large mesh groundfish fishery
- Atlantic herring/mackerel mid-water trawl fishery
- Atlantic pelagic longline fishery
- Gulf of Maine recreational hook-and-line fisheries
- Southeastern shrimp fishery
- U.S. Pacific hake fishery
- Hawaii-based longline fisheries



Groundfish catch aboard a trawler during bycatch reduction research off the US Pacific coast.

Looking Forward for Continued Results

BREP projects have and will continue to produce gear technologies that are used successfully by the fishing industry to reduce bycatch. For example, the BREP has funded development of weak hooks (now required in the Gulf of Mexico tuna longline fishery), salmon excluders (used widely in Alaska pollock fisheries), and modified sweeps in Bering Sea trawl fisheries (required to reduce damage to the sea bottom and organisms growing there).

NOAA's 2012 BREP investments in weak hooks, excluder devices for trawls, sophisticated underwater video technology systems, and acoustic recorders will help strengthen cooperation and collaboration between NOAA Fisheries and the fishing industry.