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Fishing for Energy Fund – Project Summaries

Removal of 'ghost' blue crab pots from known hotspots in VA, College of William and Mary, Virginia Institute of Marine Science

Virginia

Fishing for Energy Fund 2012 Grant: \$50,000 Partner Contributions: \$50,118

Project team will employ four commercial watermen to locate, document and remove lost or abandoned blue crab pots from hotspots across the Virginia portion of the Chesapeake Bay. The participants will mark with GPS all recovered pots, photograph and record pot condition and bycatch. The project will build upon efforts that began in 2008, where about 70 unemployed watermen were hired to remove lost and abandoned blue crab pots, resulting in the recovery of over 32,000 pots over four winters. Lost and abandoned blue crab pots continue to capture and kill both target and non-target species for several years. Trapped in those pots were not only crabs but also Atlantic croaker, white perch, catfish, spot, red drum, black drum, striped bass, flounder, diamondback terrapins, and even muskrats and ducks. The participants worked during the winter and utilized side scan sonar units that enabled obtaining GPS locations for all recovered pots. The GPS locations allowed the marking of particular "hotspots" of high density pot loss.

Testing biodegradable panels & O-rings for traps (MA, ME), College of William and Mary, Virginia Institute of Marine Science

Maine, Massachusetts

Fishing for Energy Fund 2012 Grant: \$78,872 Partner Contributions: \$78,874

Project team will collaborate with the Massachusetts Lobstermen's Association, Woods Hole Sea Grant, Woods Hole Oceanographic Institution, and the Gulf of Maine Lobster Foundation to test the efficacy of fully biodegradable panels in lobster pots and the rate of degradation of standard ferrous "O" rings. Participants at the 2012 New England Derelict Fishing Gear Workshop identified that existing methods to 'disarm' lost and abandoned lobster pots have proven to be ineffective, enabling lobster pots to continue to ghost fish for up to several years. There was significant interest in developing technologies or mechanisms to reduce the impact of pots when they are lost. Commercial lobstermen will test the catch rate of lobster pots outfitted with biodegradable panels compared with standard pots. Testing will also be conducted on the rate of degradation of standard "O" rings and the biodegradation rate of experimental panels. A successful outcome of the project would be the reduction of bycatch resulting from lost or abandoned lobster pots.



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Derelict Gear Assessment and Retrieval Program (MA), Provincetown Center for Coastal Studies

Massachusetts

Fishing for Energy Fund 2012 Grant: \$104,926 Partner Contributions: \$85,936

Project team will assess derelict fishing gear density in a portion of Cape Cod Bay to improve the understanding of the extent, longevity and impact of derelict gear. The assessment will inform issues related to gear interactions, modification, reporting and disposal. The project team will use two types of sonar to test the efficacy of these technologies for use in similar New England habitats and to help estimate the presence of derelict fishing gear in similar locations. The project team will compare project data with multidisciplinary data, including presence of eelgrass beds and right whales in the target area. The project will then remove an estimated 40 tons of lost gear located during the assessment, thus protecting sensitive resources and aiding in short- and long-term fisheries management. Fishermen employed for gear recovery efforts will use both lobster boats and draggers to extract the derelict gear from the seabed, and all removal will occur during reduced effort fishing seasons. All gear will be recycled and converted into renewable energy through the Fishing for Energy disposal program.

Gulf of Maine Derelict Fishing Gear and Industry Assessment, Gulf of Maine Lobster Foundation

Maine, Massachusetts, New Hampshire

Fishing for Energy Fund 2012 Grant: \$149,982 Partner Contributions: \$51,250

The project team will manage a two-part project to estimate the quantity of derelict fishing gear on the seabed of Northern New England. First, the project team will execute an at-sea derelict fishing gear assessment to determine the relative abundance of lost gear within state waters. Second, the project team will mail out a questionnaire to commercial fishermen in Maine, Massachusetts, and New Hampshire to quantify the occurrence, impact, and costs the fishermen encounter when interacting with derelict gear. The collective spatial data will be used to relate relative abundance estimates of derelict fishing gear in state waters, hotspots of gear clusters, and local trends of causes of derelict fishing gear. The results of this project will inform interested stakeholders in future derelict fishing gear mitigation and research measures.

Derelict Lobster Gear Assessment, Removal, and Prevention (NY) - II, Cornell Cooperative Extension

Association of Suffolk County

New York

Fishing for Energy Fund 2011 Grant: \$49,969 Partner Contributions: \$34,045

The Cornell Cooperative Extension Association of Suffolk County will accurately characterize the extent & distribution of derelict lobster gear in the adjacent waters to the ports of Mount Sinai and Mattituck within the Long Island Sound. The project also proposes to remove all such identified gear from the study sites by employing the experience and expertise of commercial lobstermen from the area. The condition of retrieved gear, lobsters & other ensnared by-catch will be monitored. Collected derelict gear will be recycled through the Fishing for Energy Partnership.



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Maine Derelict Trap Prevention and At-Sea Recovery, Gulf of Maine Lobster Foundation

Maine

Fishing for Energy Fund 2011 Grant: \$63,450 Partner Contributions: \$63,450

The Gulf of Maine Lobster Foundation will enlist twenty fishermen (lobstermen or draggers) to conduct at-sea derelict trap recovery efforts on four days in two areas of the Maine coast, for a total of eight boat-based derelict fishing gear clean-ups. Additionally, four land-based gear disposal opportunities will be offered, focusing the outreach in the same communities where the at-sea recovery effort takes place. The project will either be a stand-alone regional effort; or will be embedded into a larger coast-wide gear recovery initiative (federal award TBA). Project staff will document age, condition, and by-catch of each trap recovered at-sea. Good traps will be returned to the owners or held by enforcement for future distribution; non-fishable gear will be recycled at a waste-to-energy facility.

Derelict Gear Assessment and Clean-up in the Gulf of Maine, Blue Ocean Society for Marine

Conservation

Maine, Massachusetts, New Hampshire

Fishing for Energy Fund 2011 Grant: \$40,217 Partner Contributions: \$17,661

This project will work with fishermen and state agencies to identify and retrieve gear along the NH coast through a spring trap cleanup, on the Isles of Shoals and in surrounding waters, concentrate all project data into a web site and publicize project results. Specifically, this project will coordinate and fund annual spring lobster trap cleanups in April 2012 and 2013, assess the scope of marine debris at the Isles of Shoals, a known collecting point for debris, but an area that has never been cleaned, and organize a cleanup of the Isles of Shoals, focusing on removing as much derelict gear from shore and grappling for gear underwater in known concentration areas where possible. Anticipated outcomes include improvement of shoreline and underwater habitat for wildlife through removal of an estimated 40 tons of derelict gear. Partners include commercial and recreational fishermen (including the NH Commercial Fishermen's Association), NH Fish and Game (as the regulatory agency in charge of granting permission for gear removal), a local vessel that will be engaged in a survey cruise, staff and students at the Shoals Marine Lab on Appledore Island, Blue Ocean Society volunteers, and students and teachers from Winnacunnet High School.



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Marine Debris Identification and Removal in Biscayne Bay (FL), University of Florida

Florida

Fishing for Energy Fund 2011 Grant: \$14,775 Partner Contributions: \$0

UF/IFAS Florida Sea Grant and partners will assess and implement a marine debris removal program in Biscayne Bay, Florida. Phase I of the program will use NOAA Fisheries data to create a long-term database for marine debris along the Florida Keys reef tract. Phase II entails implementation of deep water and shallow-water marine debris removal events that will target the hotspot locations in Southeast Florida. Preliminary examination of the database indicates that approximately 50% of all debris is trap debris. As such, the cleanup events will correspond with the June-July, 2012 spiny lobster and stone crab closed seasons when, according to Florida Administrative Code 68B-55.004, any trap is considered to be derelict and may be retrieved as part of approved coastal cleanup events. During the course of this project, the applicants expect that: 1) sensitive habitat areas and hotspot marine debris locations will be identified; 2) commercial fishermen will participate in removal events by volunteering and/or by properly disposing of unwanted fishing gear; 3) all volunteers will increase their understanding of the impacts of marine debris and demonstrate their ability to properly identify and safely remove marine debris from sensitive habitats; 4) members of the marine recreational community will participate in the Florida Department of Environmental Protection's marine debris reporting system; and 5) impacts to coral habitats will be reduced as a result of removal events.

Clean-up of Provincetown Harbor Seabed (MA), Provincetown Public Pier Corporation

Massachusetts

Fishing for Energy Fund 2009 Grant: \$33,104.78 Partner Contributions: \$7,700

This project comprises two integral parts; increasing our capacity to efficiently capture and transfer the debris and partnering with our commercial fishing fleet to bring in the material. Both parts utilize the lessons learned from our previous work and leverage the participation we have garnered within the fleet. The needed equipment was designed for the task by our fishers. They consist of multi-grapple drags adapted from existing fishing gear designs and a transfer platform with hydraulic winch system for transferring debris from vessels to multiple disposal containers. We avoid working in active fishing gear by timing of the project. The area fishing grounds are closed to lobster pots from January 15 to March 15. We are working in concert with Mass. Division of Marine Fisheries and the Environmental Police to alleviate those conflicts.

The direct outcome of this project is the removal of accumulated marine debris from the federal channel and other areas of Provincetown Harbor. This will lead to cleaner harbor floor, improved water quality and more viable habitat for vegetation, fin and shellfish. We anticipate several indirect outcomes. The equipment will be useful in future Fishing for Energy projects in Stellwagen Bank and Cape Cod Bay. The educational components of the project are two-fold. Utilizing our fishing fleet creates buy-in to proper disposal of outdated fishing gear. The press associated with this project engages public understanding.



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Marine Debris Removal in the Stellwagen Bank National Marine Sanctuary, Stellwagen Alive! Friends for our National Marine Sanctuary

Maine, Massachusetts, New Hampshire

Fishing for Energy Fund 2009 Grant: \$73,785 Partner Contributions: \$25,000

This proposal involves innovative industry-community collaboration. The continuation of these efforts has the strong support of the communities and the commercial fishing industry.

An ongoing marine debris program is critical to the Stellwagen Bank National Marine Sanctuary and adjacent waters given the intensity of a centuries old fishing industry, which is still in active operation. The project's geographic area is located in one of the most active fisheries in the world. 337 million of the 684 million pounds of seafood landed among New England states in 2006 came from Massachusetts alone (NMFS 2007). The intensity of fishing activity using gillnet, trap, and other static gear in this area, makes this a critical area for intensive derelict gear recovery efforts.

There are three primary long-term outcomes of this project. First is the improvement of the fishery and of the ecosystem in SBNMS and surrounding waters. Second is the greater awareness and documentation of the extent of the problem of marine debris through record keeping during identification and retrieval sweeps. Third is the economic benefit to the commercial fishing industry that will see fewer entanglement hazards and less time spent of disentangling, therefore reducing their replacement costs.

Derelict Lobster Gear Assessment, Removal, and Prevention (NY), Cornell Cooperative Extension of Suffolk County

New York

Fishing for Energy Fund 2009 Grant: \$52,785 Partner Contributions: \$27,890

The Cornell Cooperative Extension Association of Suffolk County will complete the first assessment and removal of derelict lobster gear in the Northport/Huntington complex within Western Long Island Sound. Abandoned, lost or discarded lobster pots and other marine debris are problems of increasing concern in Long Island Sound. The Northport/Huntington Complex has been identified as a well delineated area with a historically high density of lobster gear deployment. The project will characterize the extent and distribution of derelict lobster gear in NY waters of Western Long Island Sound. The project will then work with commercial lobstermen to remove gear from the study site. The project also proposes to remove all such identified gear from the study site by employing the experience and expertise of commercial lobstermen from the area. The condition of retrieved gear, lobsters, and other ensnared by-catch will be monitored.

The long-term goals of the project are to establish a precedent to begin to address the Long Island Sound derelict lobster gear problem; formulate an accurate evaluation of the quantity of derelict lobster gear currently impacting the study site; determine the biological impacts of derelict lobster gear on the living resources within the study site; and complete a controlled and precise removal program without disrupting the ongoing legal harvest and insuring that retrieved derelict lobster gear is managed in a manner consistent with New York State Department of Environmental Conservation. Furthermore, the project will provide a template for ongoing recycling, proper storage and disposal activities for inactive fishing gear across Long Island.