



Electronic Monitoring and Reporting Program

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ABOUT NFWF

Chartered by Congress in 1984, the National Fish and Wildlife Foundation (NFWF) protects and restores the nation's fish, wildlife, plants and habitats. Working with federal, corporate and individual partners, NFWF has funded more than 5,000 organizations and generated a total conservation impact of \$6.1 billion.

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Fishing boats in New Bedford, Massachusetts

OVERVIEW

The National Fish and Wildlife Foundation (NFWF), the National Oceanic and Atmospheric Administration (NOAA), the Walton Family Foundation, and the Kingfisher Foundation, announced a 2020 round of funding for Electronic Monitoring and Reporting projects. Fifteen new fisheries conservation grants and continuing support for one grant totaling \$4.1 million were awarded. The 16 awards announced generated \$4.8 million in match from the grantees, providing a total conservation impact of more than \$8.9 million.

The Electronic Monitoring and Reporting Grant Program seeks to catalyze the implementation of electronic technologies in U.S. fisheries in order to systematically integrate technology into fisheries data collection and modernized data management systems for improved fisheries management. This year's grant slate funded projects to implement electronic technologies strategies and modernize data management systems.

The following 16 projects address two key strategies to advance electronic technology implementation in U.S. fisheries: 1) test and deploy e-technology in fishery data collection and 2) modernize data management systems. In many cases, projects address both strategic priorities.

(continued)



Dungeness crab

Testing Electronic Monitoring in the Columbia River Gillnet and Alternative Gear Fisheries (WA)

Grantee: Washington Department of Fish and Wildlife
 Grant Amount: \$85,000
 Matching Funds: \$85,000
 Total Project: \$170,000

Test the effectiveness of electronic monitoring to improve and automate monitoring and in-season reporting of the lower Columbia River, Washington gillnet, tangle net, and alternative gear fisheries necessary for determining fishery impacts on Endangered Species Act listed salmon stocks. Project will engage nine vessel in testing of electronic monitoring systems and enhance data available for management.

New York Fleet Wide Electronic Vessel Trip Reporting and Education Initiative

Grantee: Cornell Cooperative Extension of Suffolk County
 Grant Amount: \$98,087
 Matching Funds: \$98,223
 Total Project Amount: \$196,310

Execute an electronic reporting education program for New York commercial fishermen to raise awareness and knowledge of the existing “eTrips” and “Fish Online” electronic reporting programs. Project will engage 240 commercial fishermen through outreach and education to become proficient in the submission of electronic vessel trip reports, enhancing the speed and quality of fisheries dependent data.

Maximized Retention Electronic Monitoring the New England Groundfish Fishery (MA, ME, NH, RI)

Grantee: Gulf of Maine Research Institute
 Grant Amount: \$500,000
 Matching Funds: \$500,000
 Total Project Amount: \$1,000,000

Prepare the maximized retention electronic monitoring program for implementation in the New England groundfish fishery. Project will continue collecting data for fishing year 2021 with a focus on testing catch handling methods for high-volume fishing vessels and collaboratively identify and overcome steps necessary to implement this program through extensive outreach and stakeholder workshops.

Lite Electronic Monitoring Proof-of-Concept for the Washington Dungeness Crab Fishery

Grantee: Washington Department of Fish and Wildlife
 Grant Amount: \$95,294
 Matching Funds: \$103,114
 Total Project Amount: \$198,408

Evaluate the Archipelago Electronic Monitoring Lite system in the coastal Washington commercial Dungeness crab fishery which relies on state and tribal co-management of the resource. Project will engage 12 vessels to test whether this system can improve the precision, accuracy, and timeliness of fishing effort and location data information by validating fishers’ logbook submissions and allowing the transition to electronic reporting in the fishery.

RecFish: Engaging Recreational Anglers as Community Scientists Using a Mobile App (MD, VA)

Grantee: College of William and Mary, Virginia Institute of Marine Science

Grant Amount:\$323,163
 Matching Funds:\$407,623
 Total Project Amount:\$730,786

Develop a smartphone application, called RecFish, that allows recreational anglers in Maryland and Virginia to automatically identify, measure and log their catch to enhance their fishing experience while contributing data to the RecFish database as community scientists. Project will engage 10 vessels in testing the application along with relevant government entities and supplement existing data collected through fisheries surveys allowing for enhanced analysis.

Electronic Monitoring for the Caribbean Small Boat Highly Migratory Species Fishery (PR)

Grantee: The Ocean Foundation

Grant Amount:\$234,317
 Matching Funds:\$238,020
 Total Project Amount:\$472,337

Pilot electronic monitoring on small vessels operating in the Puerto Rico highly migratory species commercial fishery and convene a workshop to share lessons learned from a similar effort completed by the Quinault Indian Nation. Project will improve data collection in a fishery with no current reporting requirements and demonstrate a proven path towards small scale fishery electronic monitoring for US Caribbean fishermen.

Incentives for Electronic Reporting in the Massachusetts Recreational Atlantic Bluefin Tuna Fishery

Grantee: American Saltwater Guides Association

Grant Amount:\$45,210
 Matching Funds:\$46,694
 Total Project Amount:\$91,904

Survey Massachusetts recreational bluefin tuna anglers to identify barriers to and incentives for complying with the requirement to self-report bluefin tuna landings and dead discards. Project will provide information to National Oceanic and Atmospheric Administration Fisheries to increase reporting compliance and improve quota monitoring in this fishery and other recreational fisheries relying on self-reporting.

Improving Image Quality and Cost Effectiveness in Alaska's Fixed Gear Electronic Monitoring Program

Grantee: Alaska Longline Fishermen's Association

Grant Amount:\$185,104
 Matching Funds:\$213,500
 Total Project Amount:\$398,604

Develop lower cost electronic monitoring hardware, test automated real-time feedback to vessels on image quality, and support stakeholder engagement in fisheries management forums relevant to electronic monitoring in the Alaska fixed gear fishery. Project will explore methods to improve image



Gillnet fishing boat in Puget Sound

quality and cost effectiveness of electronic monitoring through the development of new electronic monitoring systems and deployment methods.

Kept Catch Data from Electronic Monitoring in the New England Groundfish Fishery (MA, ME, NH, RI)

Grantee: New England Marine Monitoring

Grant Amount:\$225,962
 Matching Funds:\$227,791
 Total Project Amount:\$453,753

Develop machine learning tools that use existing electronic monitoring data to collect information on kept catch in the New England groundfish fishery through testing three catch monitoring approaches across a variety of vessels. Project will derive kept catch data useful for science and management from video already being collected in the New England audit and maximum retention electronic monitoring programs and explore how this impacts program costs.

Electronic Monitoring Innovations in the New England Groundfish Fishery (MA, ME, NH, RI)

Grantee: Cape Cod Commercial Fishermen's Alliance

Grant Amount:\$275,437
 Matching Funds:\$275,642
 Total Project Amount:\$551,079

Support the implementation and advancement of electronic monitoring in the New England Groundfish fishery at an operational scale serving as a national example of the third party audit model. Project will reduce the cost of video review, increase fishermen compliance, and reduce barriers to entry for interested fishermen through on-deck innovations and advances in artificial intelligence.

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Remote Electronic Monitoring for the Gulf of Mexico For-Hire Reef Fish Fishery (AL, FL, TX)

Grantee: Gulf Fisheries Research Foundation

Grant Amount: \$396,343
 Matching Funds: \$404,400
 Total Project Amount:..... \$800,743

Develop remote electronic monitoring for the Gulf of Mexico for-hire reef fish fishery using wireless video and data transfer, onboard artificial intelligence, cloud data storage, and remote video review. Project will explore incentives specific to the for-hire industry, develop an image library for regulated species, explore artificial intelligence to minimize video review costs, and contribute information for science and management, including post-release mortality estimates.

Piloting Electronic Monitoring in the Northern Gulf of Maine Scallop Fleet- Year Three (MA, ME, NH)

Grantee: Maine Coast Fishermen's Association

Grant Amount: \$123,204
 Matching Funds: \$127,300
 Total Project Amount:..... \$250,504

Continue developing and piloting an electronic monitoring program for the northern Gulf of Maine scallop fleet to test feasibility on small scallop vessels and demonstrate the data it provides. Project will engage three new vessels, bringing the total to six, refine protocols and processes for electronic monitoring in scallop fisheries, and work closely with federal agencies to develop a viable monitoring option that works under new regulations which are expected to be implemented.

Setting Course for Success: Improving Catch Handling and Electronic Monitoring Data Use (CA, OR, WA)

Grantee: Midwater Trawlers Cooperative

Grant Amount: \$256,175
 Matching Funds: \$350,000
 Total Project Amount: \$606,175

Improve electronic monitoring catch handling requirements to be more operationally efficient while still supporting catch accountability and expand data use for science in the West Coast groundfish fishery. Project will result in electronic monitoring data being used to benefit stock assessment and management, and retain existing electronic monitoring users while addressing the concerns of prospective users.

Integrating Shellfish Industry Reporting into a Comprehensive Electronic Reporting System (MD)

Grantee: Oyster Recovery Partnership, Inc.

Grant Amount: \$233,888
 Matching Funds: \$245,000
 Total Project Amount: \$478,888

Integrate shellfish industry harvest reporting into an existing electronic harvest reporting and monitoring system using established methods and protocols for Maryland already serving more than 900 fishermen in other fisheries. Project will enhance data timeliness, quality, and usability of harvest



Fishing boat in New England

data and will bring the shellfish fleet into the 21st century with a comprehensive business tool.

Piloting a Rhode Island Volunteer Angler Reporting Application

Grantee: Harbor Light Software, LLC

Grant Amount: \$126,000
 Matching Funds: \$127,186
 Total Project Amount: \$253,186

Create a volunteer recreational angler logbook for use on tablets and smart phones to collect recreational data from the angling public, and promote its usage among recreational anglers in Rhode Island. Project will explore innovative approaches to encourage and retain fishermen participation in the use of the software to report their fishing efforts, with input from the recreational fishing community in the design of the software, and outreach activities to encourage its usage.

Scaling-up Compliance Based Electronic Monitoring in the Alaska Pollock Pelagic Trawl Fishery

Grantee: United Catcher Boats

Grant Amount:..... \$908,862
 Matching Funds: \$1,385,854
 Total Project Amount:..... \$2,294,716

Scale-up the existing effort to evaluate the feasibility and cost efficiency of using electronic monitoring systems on Bering Sea and Gulf of Alaska pollock pelagic trawl catcher vessels to monitor compliance with retention regulations. Project will demonstrate the feasibility of electronic monitoring at scale and improve data quality, timeliness, and cost-efficiency for salmon bycatch accounting and detecting and quantifying groundfish discards.