



# NFWF

## Electronic Monitoring and Reporting Program

### NFWF CONTACTS

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### PARTNERS

- National Oceanic and Atmospheric Administration
- Walton Family Foundation

### 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 6,800 organizations and generated a total conservation impact of more than \$10 billion.

Learn more at [www.nfwf.org](http://www.nfwf.org)

### NATIONAL HEADQUARTERS

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Tribal fishers gillnetting for salmon on the Columbia River

### OVERVIEW

The National Fish and Wildlife Foundation (NFWF) and National Oceanic and Atmospheric Administration (NOAA), along with the Walton Family Foundation, announce the 2023-2024 slate of projects for the Electronic Monitoring and Reporting Grant Program. Seventeen new grants totaling more than \$4 million were awarded. The 17 awards announced generated \$7.5 million in match from the grantees, providing a total conservation impact of more than \$11.5 million.

The Electronic Monitoring and Reporting Program drives innovation and electronic technologies implementation in U.S. fisheries data collection and works to systematically modernize data management systems for improved fisheries management. This year's grant slate funds projects to develop artificial intelligence tools, continue large-scale implementation and expand the benefit of electronic technologies to new conservation communities and fisheries.

The following 17 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.

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### **Applying Artificial Intelligence in New England Groundfish Trawl Discard Accounting (MA, ME, RI)**

Grantee: Ai.Fish

Grant Amount:..... \$103,300  
 Matching Funds:..... \$105,400  
 Total Project Amount:..... \$208,700

Test the ability for artificial intelligence to detect and classify discards in electronic monitoring video collected in the New England groundfish trawl fishery. Project will examine the opportunity for artificial intelligence-assisted electronic monitoring review with an aim to reduce human reviewer time and cost.

### **Continued Testing of Electronic Monitoring on Rockfish Trawl Vessels in the Central Gulf of Alaska**

Grantee: Alaska Groundfish Data Bank

Grant Amount:..... \$181,500  
 Matching Funds:..... \$348,000  
 Total Project Amount:..... \$529,500

Update electronic monitoring video data review to quantify halibut and groundfish discards across all target species on trawl catcher vessels using both pelagic and non-pelagic gear in the Central Gulf of Alaska Rockfish fishery. Project will investigate shoreside monitoring enhancements including utilizing cameras for salmon sorting compliance and collecting shoreside observer data that will be compared to both at-sea observer samples and fish tickets in a separate research effort.

### **Development of a Data-Entry Tablet and Database for Sampling Recreational Fishers in Puerto Rico**

Grantee: University of Miami

Grant Amount:..... \$174,300  
 Matching Funds:..... \$188,700  
 Total Project Amount:..... \$363,000

Develop electronic data collection technologies to improve sampling of marine recreational fisheries in Puerto Rico. Project will develop a data-entry tablet for dockside fisher interviews, and will modernize the associated relational database to meet rigorous standards required for stock assessments.

### **Enhancing Electronic Monitoring in the Groundfish Fishery using Artificial Intelligence (MA, ME, RI)**

Grantee: Integrated Monitoring

Grant Amount:..... \$225,800  
 Matching Funds:..... \$228,500  
 Total Project Amount:..... \$454,300

Enhance electronic monitoring in the New England groundfish fishery using artificial intelligence built off of a comprehensive data library compiled in collaboration with NOAA research vessels and local fishermen. Project will assess the costs and benefits of these artificial intelligence tools and bolster transparency, sustainability, and compliance in the fishery, using New England's fishery as an example for other regions.

### **Enhancing Observer Efficiency in Alaska Processing Plants through Electronic Monitoring**

Grantee: Saltwater

Grant Amount:..... \$153,800  
 Matching Funds:..... \$225,000  
 Total Project Amount:..... \$378,800

Test the use of electronic monitoring systems in Gulf of Alaska fish processing plants to monitor the sorting line for salmon bycatch during offloads from vessels in the pollock fishery. Project will determine the ability of shoreside observers to collect sufficient data if aided by in-plant electronic monitoring systems, allowing more shoreside observer time to be focused on collecting the biological data that is critical to the conservation and management of Alaskan salmon and pollock fisheries.

### **Evaluating the Use of Electronic Monitoring in the Atlantic Sea Scallop Fishery (MA, NJ)**

Grantee: Coonamessett Farm Foundation

Grant Amount:..... \$358,000  
 Matching Funds:..... \$850,500  
 Total Project Amount:..... \$1,208,500

Systematically test the implementation of electronic monitoring in the Atlantic sea scallop fishery on six vessels located in Massachusetts and New Jersey. Project will monitor haul-level fishing activity, bycatch composition, collect fisheries-dependent data, more accurately estimate fishing efforts, inform the use of electronic monitoring in this fishery and train up to 20 full-time fishermen.

### **Expand Availability and Use of WaTix Commercial Catch Electronic Reporting Tool (WA)**

Grantee: Washington Department of Fish and Wildlife

Grant Amount:..... \$300,000  
 Matching Funds:..... \$395,000  
 Total Project Amount:..... \$695,000

Create and implement a complete commercial, sport and tribal harvest electronic reporting solution for Washington State. Project will build on previous successful pilot efforts already put in place by various regional stakeholders and develop a web interface in order to capture data from large commercial fisheries processors and automate data transfer to information systems.

### **Identifying Monitoring Solutions for the West Coast Deep-Set Buoy Gear Fishery for Swordfish (CA)**

Grantee: Pflieger Institute of Environmental Research

Grant Amount:..... \$185,400  
 Matching Funds:..... \$204,700  
 Total Project Amount:..... \$390,100

Refine and test an electronic monitoring platform for the newly authorized West Coast deep-set buoy gear fishery for swordfish. Project will test and identify a refined monitoring platform that is designed specifically for the West Coast fleet, cost effective and offers an electronic option for monitoring deep-set buoy gear fishing activities.

(continued)

### **Improving Real Time Electronic Logbook Data Collection and Reporting for Halibut and Groundfish (AK)**

Grantee: Real Time Data North America

Grant Amount:..... \$318,000  
 Matching Funds:..... \$512,500  
 Total Project Amount:..... \$830,500

Expand the number of vessels collecting electronic logbook data in real time to enable fine-scale spatial and temporal catch information allowing for more accurate catch accounting and stock assessment of halibut and sablefish. Project will demonstrate that vessels fishing for halibut and sablefish in Alaska can collect data as they are fishing, as well as how this technology can be scaled to accommodate electronic reporting and other fleet-wide data collection initiatives.

### **Improving Vessel Protocols to Address Electronic Monitoring Data Collection and Participation (AK)**

Grantee: North Pacific Fisheries Association

Grant Amount:..... \$127,000  
 Matching Funds:..... \$151,200  
 Total Project Amount:..... \$278,200

Test updates for an effective electronic monitoring catch handling protocol for Alaska's pot cod fisheries aiming to resolve persistent challenges that have negatively affected participation. Project will develop solutions for the fixed gear electronic monitoring pool of vessels that address handling challenges, allow for continued successful participation by pot vessels in the pool, and meet the data collection needs of fishery managers.

### **Modernizing Data Sharing of Klamath Basin Fisheries Collaborative Members (OR, CA)**

Grantee: Pacific States Marine Fisheries Commission

Grant Amount:..... \$218,700  
 Matching Funds:..... \$218,700  
 Total Project Amount:..... \$437,400

Modernize data management systems for Klamath Basin Fisheries Collaborative by improving capacity for electronic data collection and submission to a shared, standardized database. Project will develop an electronic form, provide electronic tablets and improve members' data flow processes to enhance data sharing and use.

### **Modernizing the Yakama Nation's Data Management System for the Tribal Harvest Program (OR, WA)**

Grantee: Confederated Tribes and Bands of the Yakama Nation

Grant Amount:..... \$50,000  
 Matching Funds:..... \$0  
 Total Project Amount:..... \$50,000

Build capacity and processes for integrating innovative electronic technology and data modernization solutions to address the Yakama Nation's Tribal Harvest Program's non-electronic information management processes for tribal fisher registration and Treaty harvest accounting. Project

will standardize the tribal fisher registration and harvest data to streamline internal and external data sharing, while improving consistency and reducing the costs of conducting business.

### **Paired Voluntary Electronic Reporting and Angler Surveys to Test Mark-Recapture Methods (CA, OR)**

Grantee: Angler's Atlas / MyCatch

Grant Amount:..... \$300,000  
 Matching Funds:..... \$1,035,600  
 Total Project Amount:..... \$1,335,600

Expand a mark-recapture technique developed by Riggers and Jones (2022) to determine if it can be successfully applied to fisheries through a voluntary electronic reporting method. Project will conduct paired voluntary reporting and angler follow-up surveys in six distinct fisheries in Oregon and California, with the expected outcome being a measure of the effectiveness of this method from three lakes, one river and two coastal regions.

### **Progressing to Regulated Electronic Monitoring for Compliance in the Gulf of Alaska Pollock Fishery**

Grantee: Aleutians East Borough

Grant Amount:..... \$576,900  
 Matching Funds:..... \$809,000  
 Total Project Amount:..... \$1,385,900

Refine electronic monitoring protocols and continue progress towards executing a monitoring program on Gulf of Alaska pelagic pollock trawl catcher vessels to aid in the accountability of fishermen in terms of fisheries retention management practices. Project will expand upon previous electronic monitoring grants to provide improved data quality, timeliness, and cost-efficiency for salmon bycatch accounting and detecting and quantifying groundfish discards.

### **Scaling Electronic Logbook Implementation for the Alaskan Troll Fishery**

Grantee: Alaska Trollers Association

Grant Amount:..... \$327,700  
 Matching Funds:..... \$1,800,000  
 Total Project Amount:..... \$2,127,700

Continue the cooperative data collection and analysis effort conducted by Alaska Trollers Association through an electronic logbook program. Project will collect a range of physical and biological information on the southeast Alaska marine ecosystem and expand the number of participants and length of time for the data collection by leveraging its position as a joint effort by fishermen, fishery management and scientists.



Longline fishing vessel in Alaska

**Sharing Knowledge and Experiences Across the Electronic Monitoring and Reporting Community (WA)**

Grantee: Fieldwork Communications

Grant Amount:..... \$124,000  
 Matching Funds:..... \$125,400  
 Total Project Amount:..... \$249,400

Support a growing network of United States electronic monitoring and reporting stakeholders, and encourage uptake in additional fisheries, by sharing knowledge, experiences, resources and connections across the EM4Fish “Community of Practice” platform. Project will advance electronic monitoring and reporting by publishing stories, conducting interviews, hosting online convenings and continuing to grow a rich resource library for the fishtech community.

**Transitioning For-Hire and Commercial Fishing Fleets to Electronic Vessel Trip Reporting (NY)**

Grantee: Cornell Cooperative Extension of Suffolk County

Grant Amount:..... \$307,000  
 Matching Funds:..... \$314,000  
 Total Project Amount:..... \$621,000

Engage fishermen to prepare the New York State for-hire fishing fleet for anticipated mandatory electronic vessel trip reporting projected to go into effect in 2025. Project will provide support, training, education and outreach, and distribute free tablets to fishermen to incentivize and support fisheries-dependent data reporting for improved fishery management and conservation.