



2018 NOAA Preserve America Internal Funding Program Recipients

Federal Marine Fisheries in Alaska: A Historical Perspective

\$12,000

Project Lead: Lisa Hiruki-Raring, Maggie Mooney-Seus – Seattle, Washington
NOAA Fisheries

NOAA and its predecessors, the Bureau of Commercial Fisheries and U.S. Bureau of Fisheries, have a long history of research and management of fisheries and marine resources in Alaska. This project will create an educational electronic resource (an iBook app) and exhibit documenting NOAA Fisheries' history of science, service, and stewardship in Alaska. The project will use two collections of material collated by the Alaska Fisheries Science Center (AFSC) to document the history of federal marine fisheries research and management in Alaska. One, a detailed historical collection on the AFSC website (<https://www.afsc.noaa.gov/History/>) traces the history of federal fishery and marine mammal management in Alaska back to 1867. The historical website will be archived as NOAA Fisheries migrates to a new web platform. The second collection focuses on NOAA's research and management of northern fur seals in the Pribilof Islands, and features a collection of photographs and historical field gear used in studying northern fur seals. The iBook and exhibit will be disseminated with the help of partners in the network of Alaska museums.

Herring Cam: Celebrating the Connection of the Marine Environment to the History of the United States” celebrating The 400th Anniversary of Plymouth, MA and the Annual River Herring Festival

\$12,000

Project Lead: Eric Hutchins – Gloucester, Massachusetts
NOAA Fisheries

This project will promote public awareness of the importance of fish stocks and other NOAA trust resources in the history of the settlement and development of the United States. In particular, this project will infuse the upcoming 400th anniversary of the founding of Plymouth, Massachusetts with the history of the town's interrelationship with migratory river herring (alewife and blueback herring). Town Brook in Plymouth was one of the first streams in North America to be heavily dammed in the early 1600s, eliminating access to most of the stream for migratory marine fish. The town of Plymouth has led the effort in the past 20 years to undertake a watershed-wide restoration of Town Brook with a focus on restoring the historic river that supported the survival of the Plymouth colony.

Funding will leverage the resources of the Jenney Grist Mill museum and fish ladder, located on the first (and soon to be only) full dam remaining on Town Brook. Funding will support the installation of a real-

time web-accessible underwater camera at the top of the historic Plymouth Grist Mill fish ladder. A webpage will be developed and shared, with public schools, visiting tourists, and other parties interested in these important migratory species of fish. Resource management scientists will use the webcam data in concert with data collected by local citizen scientists to help refine the population estimate of returning fish. The addition of the webcam will allow scientists to determine whether the increased access to spawning habitat restores the run to historic levels. Historical fisheries information about Town Brook will be showcased at the annual river herring festival and in a permanent interpretive display.

Depicting the Power of Weather on Lake Erie Ships - Preserving, protecting, and enhancing Pennsylvania's shipwrecks

\$12,000

Project Lead: Sarah Jamison - Cleveland, Ohio
NOAA National Weather Service

This project preserves, protects, and enhances historic heritage assets by using a wave tank to demonstrate the intense weather that can occur on Lake Erie, and how this has a historical effect on the ships that have sailed on Lake Erie. To enhance these heritage assets, an interactive educational exhibit in the research wing of the Tom Ridge Environmental Center (> 125,000 visitors; >25,000 students annually) depicting the impacts of extreme weather events on ships will be designed, fabricated, and installed. Interpretative signage, brochures, and preserved artifacts describing the importance of protecting historical heritage assets for a wave tank will be developed and focus on (1) three shipwrecks found in the PA waters of Lake Erie, (2) unique weather patterns in this area and how modern weather notifications differ from in the past, and (3) the historical culture of the waterfront community. This exhibit will display recovered preserved artifacts that were professionally preserved by the Pennsylvania Archaeological Shipwreck and Survey Team. The display will include a tablet playing videos taken of local shipwrecks providing the visitor an opportunity to gain a better understanding of the local maritime culture and the many shipwrecks that lie beneath the water and not in their immediate view. The tablet will also include interviews and real-time weather/wave data from the Regional Science Consortium at Presque Isle Lake Erie Nearshore Buoy.

Florida Keys National Marine Sanctuary Academic Archaeology Alliance: Creating a student alliance for historical resources management

\$12,000

Project Lead: John Katchenago, Brenda Altimeier, Marlies Tumolo - Key Largo, Florida
NOAA National Ocean Service

This project will develop an academic based stewardship alliance to cultivate community interest for historical resource preservation and expand national register listings in the sanctuary. The alliance program will engage University of Miami (UM) maritime archeology students in the development and implementation of a citizen science based stewardship program, where students share their knowledge of underwater archaeology and history with volunteer citizen scientists and provide practical oversight for monitoring, photogrammetry, and data collection. FKNMS will provide organizational oversight and assign resource targets in geographic areas. The student alliance will become sanctuary volunteers and NOAA vessel operators, maintain American Academy of Underwater Sciences reciprocity, and be able to sign out equipment field supplies. Students will conduct two field visits, fully monitor one site, create one three-D model, and at least one 360 virtual reality tour. The project will focus on the resources at Molasses Reef in Key Largo, Florida as it is easily accessible and there are 39 maritime heritage resources within the waters of the reef including six wreck sites and two historic artificial reefs.

Educating the 1.2 million annual visitors to the fish ladder at the Hiram M. Chittenden Ballard Locks about the cultural, environmental, and economic importance of salmon in the Pacific Northwest

\$10,000

Project Lead: Alicia Keefe – Seattle, Washington

NOAA Fisheries

The Hiram M. Chittenden Ballard Locks are a Seattle icon, National Historic Site, and a top tourist site that attracts over 1.2 million people every year. The Locks present a great opportunity to educate people about salmon, including 1) their incredible life cycle and migration, which can span thousands of miles; 2) their cultural, economic, and environmental importance to the region; 3) the ecological challenges that Pacific salmon are facing; and 4) what individuals can do to protect these important species. Funds will allow NOAA Fisheries to enhance existing educational video wall displays about the iconic West Coast salmon near the fish ladder, which currently lacks engaging educational materials. To capture the public's attention the signage will feature high-quality images, maps, and videos; narratives from local tribes, commercial fishers, and recreational fishers; and calendars that display the best times to view salmon runs. The information will be incorporated into the guided tours that are provided by the Locks' visitors' center as well as included on multiple portable touchscreens throughout the site.

Improving Stakeholder Access to NOAA Great Lakes Historic and Real-time Data through a Touch Screen Display

\$11,000

Project Lead: Margaret B. Lansing, Eric Anderson, Philip Chu - Ann Arbor, Michigan

NOAA Research

This project will develop an interactive display in the NOAA/OAR/GLERL lobby that will serve historical and real-time NOAA Great Lakes data and products. The objective is to make available a mosaic of historical data sets that can be explored and visualized by touch. Video clips and voice overlays of emeritus scientists telling their stories along with images of historic equipment and field operations will be included. The display system will highlight historical data sets as well as real-time products such as the High-Resolution Rapid Refresh model, the National Water Model, the GOES-16 near real-time satellite feed, and a suite of forecast products that cover everything from the physical to the ecological environment. The interactive touchscreen will engage users by inviting them to explore and access NOAA products, historic Great Lakes information, and real-time visualizations, at the touch of a finger.

It's Who We Are: Voices of Alaska Native women set-netters

\$12,000

Project Lead: Anna Lavoie, Kim Sparks, Sarah Wise – Seattle, Washington

NOAA Fisheries

This oral history project will further develop a project initiated in 2017 focused on Native Alaska women engaged in Bristol Bay fisheries. Women play a major role in maintaining set net permits and are critical to sustaining small-scale fisheries in Alaska and the communities who depend on them. Nine interviews were conducted in June 2017 with women of various ages who have participated in commercial and/ or subsistence salmon fisheries. Funds will 1) deliver video and media education products derived from the 2017 oral histories; 2) collect and archive oral histories specifically on female set net fishers and permit holders; and 3) develop additional outreach and educational material for Bristol Bay Native Association

(BBNA), a partner entity of this project, to disseminate. The documented oral histories will be added to NOAA's Voices from the Fisheries oral history collection, and short documentary film/media will contribute to BBNA's cultural education and outreach initiatives. The project will further support curriculum and product development for socioecological preservation, education, and community outreach.

Preserving and Sharing Historic Moving Images from the Pacific Islands Fisheries Science Center (PIFSC)

\$11,980

Project Lead: Allyson Ota - Honolulu, Hawaii
NOAA Fisheries

The PIFSC will preserve, protect, and enhance NOAA heritage assets by initializing a large-scale project to digitize over 56,000 feet of analog film footage discovered in storage, in urgent need of preservation. Over 200 reels of 16mm film with bulk dates ranging from the 1960s-1980s lie in boxes, with no way to view or playback these recordings. Some reels show signs of degradation with a vinegar odor and/or visible warping, which compels us to act quickly to preserve them. Due to age and format of these materials, the best way to preserve them and make them accessible is to digitize them. These films document the history of the PIFSC and its legacy of commitment towards communities served, marine life, environment, fishing techniques and fish behavior, and exploration activities carried out in the Pacific Islands region by local fishermen, scientists, researchers, and staff. The physical film will be preserved, cataloged, stored, and digitized by our partner, 'Ulu'ulu, who will further increase public access by hosting an online PIFSC collection of short video clips on their website with links to our own PIFSC online exhibition, which will feature full-length videos and descriptions available to the public.

Evolving Whale Watching Voices

\$11,934

Project Lead: Allison Rosner, Ben Haskell – Gloucester, Massachusetts
NOAA Fisheries

This project will focus on the preservation of whale watching stories related to the industry's history, connection to New England culture and community, and relationship to individual whales. This project will highlight how this industry has shaped our understanding of whales in this region, the contributions they continue to make to conservation, and how the industry has changed and expanded over the decades. Investigators will travel and meet with current and former whale watching owners, captains, and naturalists throughout the region – Maine, Massachusetts, New York, New Jersey, and Virginia. Interviews will be recorded via audio and video, and photos will be taken of whale watching operations in practice. Interviewing protocols developed by NOAA's Voices from the Fisheries will be used and interviews will be added to the oral history database for access by researchers and the public. A pictorial exhibit will accompany the interviews and displayed at NOAA Fisheries Greater Atlantic Regional Office, New Bedford Whaling Museum, and Audubon Society of Rhode Island. Offers will be made to allow the exhibit to "travel" to other high traffic government or informal learning and scientific institutions. The photos will be available electronically through other sources. Funding will be used to develop a public service announcement to target the recreational boating audience, to help address industry and management concerns, and inform a diverse audience about whale protection and conservation. This is timely as NOAA Fisheries is monitoring an unusual elevation of humpback whale deaths throughout the region, with nearly half of all these animals showing evidence of collisions with vessels.

Personal accounts told by commercial fishermen in the California Halibut trawl fishery: Who does your local seafood come from?

\$1,950

Project Lead: Susan Wang – Long Beach, California

NOAA Fisheries

Funding will be used to capture and share the history and stories of commercial California halibut trawl fishermen, providing a way for the public to connect with local fishermen and the source of their seafood. NOAA Fisheries and state biologists will collaborate to conduct interviews with California halibut trawl fishermen in the San Francisco and Half Moon Bay ports, focusing on the fishermen's fishing history, their family's fishing history, and their plans for the future. Recorded interviews will be transcribed and used to develop a public webpage featuring these fishermen. Interviews will be conducted following NOAA's Voices from the Fisheries protocols and added to the oral history database for access by researchers and the public. This project will preserve pieces of the history of the California halibut trawl fishermen, as well as build and strengthen relationships between NOAA, the state, local fishermen, and the community.

Visualization of Historical NOAA Hurricane Hunter Aircraft Data

\$12,000

Project Lead: Jonathan Zawislak - Miami, Florida

NOAA Research

The NOAA Hurricane Hunters have a long history of collecting unique data in tropical storms and hurricanes, through a close collaboration between the AOML/Hurricane Research Division (HRD), OMAO/Aircraft Operations Center (AOC), and NWS/National Hurricane Center (NHC) and Environmental Modeling Center (EMC). These data have contributed towards advancements in the monitoring and forecasting of hurricanes, an assessment of their risks, and a scientific understanding of their underlying processes. However, there has been considerably less effort towards customizing datasets for education and outreach to the public in a way that is visually engaging. This project will take historical information from past hurricanes to create visualizations (e.g., animations and static images of hurricane flights with data from the aircraft and satellite images overlaid) that highlight the NOAA Hurricane Hunter (P-3 and G-IV aircraft) assets and the data they collect. These visualizations will modernize and enhance outreach materials, including media targeted at educators and students, which in turn will be used to inform the public about the NOAA Hurricane Hunter mission and teach students fundamental hurricane concepts.