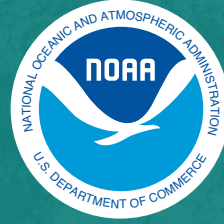




2018



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

# Marine Debris Program Accomplishments Report



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# Letter from the Director

The global issue of marine debris faces an equally exciting, yet critical time. Every day, more and more people are becoming aware of the sobering reality of the devastation of marine debris and are actively engaging in solutions. Unfortunately, the amount of debris entering our ocean is not slowing down. This demonstrates the need for and importance of the NOAA Marine Debris Program's work, and that of our national and international partners.

Every day we work to achieve our Program's vision of a global ocean and its coasts free from the impacts of marine debris through prevention, removal, research, emergency response, and regional coordination. Over the past year, our Program and partners have made progress on many fronts: developing innovative solutions; increasing outreach and educational efforts aimed at building awareness and affecting behavior change; removing abandoned and derelict vessels and fishing gear; carrying out various research projects; completing new marine debris emergency response plans; and convening worldwide stakeholders at the Sixth International Marine Debris Conference.

The collaborative partnerships and achievements that have taken place during the past year are truly inspiring. As we continue to investigate and prevent the adverse impacts of marine debris, I am encouraged by our accomplishments and lessons learned. It is clear that we have reached a turning point, and that marine debris is widely understood as a pervasive issue across the world. I am proud of the role the NOAA Marine Debris Program and our partners have played, and will continue to play, in addressing this global issue.

**Nancy Wallace**  
Director, NOAA Marine Debris Program





# 2018 By-the-Numbers



More than  
**2,400**  
metric tons of  
debris removed



**340**  
teachers  
reached

**17,000+**  
students reached



**7**  
marine debris  
action plans now  
available

**8**  
marine debris  
emergency  
response plans  
now available



**330+**  
Marine Debris  
Monitoring and  
Assessment  
Project survey  
sites



# Prevention

Prevention efforts are the ultimate solution to marine debris, working to stop the problem at its source. The NOAA Marine Debris Program supports prevention projects and works with partners around the country to create innovative solutions, inspire people of all ages, and create lasting changes in behaviors related to common marine debris items.



## Marine Debris Creative Advocacy Competition

Bow Seat Ocean Awareness Programs implemented a new Marine Debris Creative Advocacy Competition. The competition challenged teens across the nation to use their creative skills to design and implement a project that reduces or prevents marine debris at their school or in their neighborhood to create meaningful, measurable, and inspirational change.

**168**  
students  
participated  
in two  
competitions

Received  
entries from  
**14**  
U.S. states



## DON'T BREAK THE



### Breaking Down Barriers in Coastal Ohio

Through a community-based social marketing project, the City of Cleveland Mayor's Office of Sustainability worked with partners to identify barriers to proper disposal of common marine debris items found on Lake Erie beaches in Cleveland, including single-use plastic beverage bottles and bags. Work also involved the development of a social marketing campaign: [Don't Break the Lake](#). The ultimate goal of this project was to achieve lasting changes in behavior that will reduce littering and the use of plastics, and encouraged proper disposal.

### Engaging Students through STEM in the Gulf of Maine

In the Northeast, the Gulf of Maine Lobster Foundation implemented a multifaceted STEM program that focuses on ocean literacy and marine debris. Through this program, students carried out projects documenting the movement of debris in coastal waters and stormwater run-off, culminating in a Youth Summit where students shared their results and worked to create marine debris action plans for their communities.

40

students participated in the Youth Summit

More than 1,000 volunteers participated in cleanups

Threats → Opportunities (Solutions)

- lack of knowledge → education to public
- history of pollution affecting row → prevent history from repeating itself
- bacteria growth in water (E.coli) → frequent water tests - prevent possible outbreaks
- runoff into Braesic → encourage less chemical fertilizer use near water bodies
- toxic waste (superfund site) → transfer pressure on legislation to address these concerns
- invasive species → encourage removal programs within the community (natural predators)
- use of styrofoam/non-biodegradable materials in school lunch programs → search for alternative biodegradable products

taking advantage of opportunities (future impacts)

- large ecosystem → focusing efforts on existing ecosystem to prevent spread of future pollutants in surrounding areas
- reusing old plots → prevents further destruction of ecosystem/forests
- beach clean-ups of local lakes → prevent spread of pollutants in water - further spread to connected bodies of water
- active/writing community → create programs to make it possible to spread awareness and protect the ecosystem



# Prevention

## Student-Designed Campaign in Falmouth, MA

Sea Education Association, in partnership with the Falmouth Water Stewards' Skip the Straw initiative, supported a student-led effort to reduce consumption of single-use items in the Woods Hole community. After learning about marine debris and conducting social science research, the students created a campaign, "Trash Shouldn't Splash," designed to change ingrained habits and share messages with restaurants and their customers. The Trash Shouldn't Splash toolkit contains resources other businesses, schools, and towns may use to expand the program across the region.

**11**  
participating  
"Trash Shouldn't  
Splash"  
businesses

**104**  
skip the  
straw pledges  
gathered



## Engaging Communities in the U.S. Virgin Islands

The University of the Virgin Islands implemented a project to reduce land-based sources of marine debris on the islands of St. Thomas and St. Croix. The University partnered with Oregon Sea Grant to modify an existing marine debris curriculum to be locally relevant to the U.S. Virgin Islands, resulting in a targeted ridge-to-reef and watershed educational and outreach program that engaged partners, territorial educators, school children, and graduate students.

More than  
**2,600**  
K-12 students  
reached

Engaged  
**93**  
teachers





# Prevention

Nearly  
**1,600**  
K-12 students  
reached

**10**  
bilingual  
marine debris  
informational  
signs installed

## Bilingual Marine Debris Awareness in Texas

Sea Turtle, Inc. is working on South Padre Island to raise awareness of marine debris impacts to the five endangered sea turtle species in the Gulf of Mexico through a bilingual educational campaign and community cleanups. Sea Turtle, Inc. is installing signage and an interactive permanent marine debris display, which is available in both Spanish and English, to reach visitors, recreational fishers, and K-12 students in the Lower Laguna Madre.

## Reducing Waste in the Salinas River Watershed

In Central California, One Cool Earth worked with students and educators to implement recycling, composting, and waste reduction programs that allowed students to measure the difference they made in their schools. Through this project, students from 15 inland schools were able to connect with the ocean and understand their impact on the Salinas River watershed and the ocean. As a result of student-led outreach, the entire Atascadero Unified School District agreed to replace plastic foam trays with a recyclable alternative.

**7,000**  
K-12 students  
participated



**15**  
waste audits  
completed



# Removal

Once debris is in the marine environment, it's imperative that it is removed to minimize its damaging effects. The NOAA Marine Debris Program supports community-based debris removal efforts annually. Dedicated ocean stewards remove all types of marine debris, ranging from general debris found on beaches, to abandoned and derelict vessels.



Nearly  
**125**  
metric tons of  
debris removed

## Restoring Remote Alaskan Shorelines

The Sitka Sound Science Center worked with remote native communities in the Bering Sea to remove marine debris from isolated Alaskan coastlines. This multi-year effort restored critical habitat by removing derelict fishing gear and conducting local and regional outreach to increase the awareness of the impacts of marine debris. Further outreach focused on identifying new methods for transportation of debris to mainland Alaska using available space on shipping and fishing vessels.



## Removal

More than  
**155**  
metric tons of  
debris removed

More than  
**500**  
net and large  
debris patrols



### Net Patrols in Hawaii

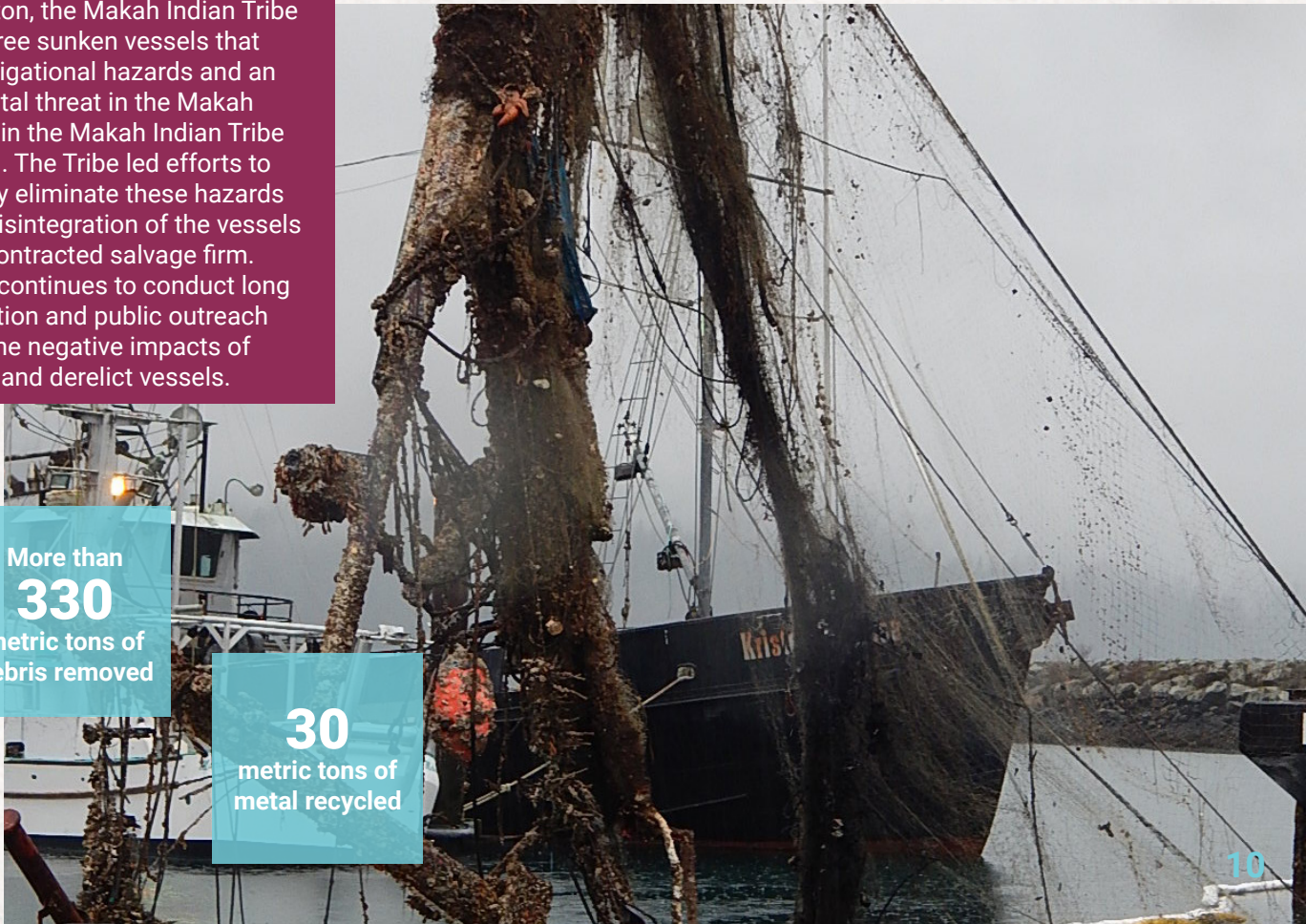
The Hawai'i Wildlife Fund (HWF) removed marine debris from coastlines on the islands of Hawai'i, Kaua'i, Maui, and Lāna'i. Through this project, HWF led cleanup activities and derelict fishing net and large debris patrols, while simultaneously engaging hundreds of community volunteers and various stakeholders around the state. Removed marine debris has been recycled, reused, and properly disposed of through different support programs, including the Hawai'i Nets-to-Energy Program.

### Removing Sunken Vessels in Neah Bay

In Washington, the Makah Indian Tribe removed three sunken vessels that created navigational hazards and an environmental threat in the Makah Marina within the Makah Indian Tribe Reservation. The Tribe led efforts to successfully eliminate these hazards and avoid disintegration of the vessels through a contracted salvage firm. Tribal staff continues to conduct long term education and public outreach efforts on the negative impacts of abandoned and derelict vessels.

More than  
**330**  
metric tons of  
debris removed

**30**  
metric tons of  
metal recycled





## Removal

More than  
**1,300**  
crab pots and  
lines removed

Created a  
Quinalt Indian  
Nation crab pot  
loss prevention  
program

### Removing Fishing Gear in Tribal Fishing Grounds

On Washington's outer coast, The Nature Conservancy worked with the Quinalt Indian Nation to remove derelict crab pots, lost crab pot lines, and buoys from 155 square miles of nearshore waters. In order to prevent further damage to these culturally and economically important areas, they created a derelict fishing gear reporting and recovery program and conducted education and outreach efforts on how to report and recover lost pots.



### Kayak Removal in Central California

Save Our Shores removed hard to access debris from the Pajaro River, Elkhorn Slough, and Salinas River, vital watersheds that feed into California's Monterey Bay National Marine Sanctuary and are known to be hotspots for trash, agricultural waste, and marine debris. Volunteers and community members participated in paddleboard- and kayak-based waterway cleanups, targeting areas where illegal dumping is common. Save Our Shores also conducted outreach to local schools, community events, and agricultural companies.

More than  
**2**  
metric tons of  
debris removed  
by kayak

More than  
**220**  
community  
volunteers  
participated in  
cleanups





## Removal

More than  
**530**  
community  
volunteers  
participated in  
cleanups

### Stopping Bi-national Debris in California

In the Tijuana River Valley, the Southwest Wetlands Interpretive Association built off a previous successful project to capture, remove, and prevent trash at the border between the United States and Mexico by upgrading existing trash capture infrastructure, removing accumulated waste, and leading community-based cleanup events. The project targeted debris at its source by working with international partners in Mexico on marine debris education and outreach efforts.

Nearly  
**18.5**  
metric tons of  
debris removed  
from the river  
valley

### Tackling Derelict Vessels in Puerto Rico

Abandoned and derelict vessels (ADV) are a problem in Fajardo Bay, Puerto Rico, creating serious navigational, ecological, and economic threats. The Puerto Rico Department of Natural and Environmental Resources (DNER) helped to protect and restore coral reef and seagrass habitats by removing five ADVs in the nearshore waters of Fajardo Bay. In order to prevent further ADVs in Puerto Rico, DNER conducted stakeholder coordination meetings, as well as a cost-free nautical chart workshop to teach attendees how to interpret and use a nautical chart.

**17**  
metric tons of  
debris removed

Hosted  
**6**  
stakeholder  
coordination  
meetings





# Removal

More than  
**6.8**  
metric tons of  
debris removed

More than  
**240**  
community  
volunteers  
participated

## Restoring Turtle Habitat in Biscayne Bay

The Coastal Cleanup Corporation led a two-year effort in Biscayne National Park to remove marine debris from critical sea turtle nesting beaches and surrounding seagrass, and monitor sea turtle nesting activity. Preliminary sea turtle nesting data suggests that the reduction of debris in the Park may be correlated with an increase in the number of successful loggerhead sea turtle nests, a decrease in the number of false nesting attempts, and an increase in the percentage of hatchlings which emerged.



## Using UAS to Locate Debris in North Carolina

In remote North Carolina Coastal Reserves, finding and removing marine debris can be a challenge. Partnering with Duke University, the NC Coastal Reserve used unmanned aerial systems (UAS) to map the islands of the Rachel Carson Reserve for the purposes of identifying and prioritizing the removal of medium and large debris items. Habitat damage caused by the debris was monitored from the air and on the ground.



Mapped  
**2,300**  
acres for debris  
using UAS

Nearly  
**6.2**  
metric tons of  
debris removed



## Removal

Over  
**8,500**  
crab pots  
removed and  
recycled



### Building a Crab Pot Recovery Program in North Carolina

The North Carolina Coastal Federation partnered with North Carolina Marine Patrol and commercial watermen to create a derelict crab pot recovery program in the Albemarle and Pamlico Sounds during the annual fishery closure period. Due to the success of these efforts, the North Carolina General Assembly funded a state-wide expansion of the program in 2017 and 2018, strengthening partnerships with the watermen and engaging with volunteers across the state through annual shoreline cleanups.

### Taking on Lobster Traps in the Central Long Island Sound

Cornell University Cooperative Extension worked with local lobstermen in the Central Long Island Sound to remove abandoned and derelict lobster traps in commercial fishing areas during the first year of their project. Through this project, the lobstermen deployed a specialized longline grapple system to retrieve derelict pots, the species found inside were recorded, all live animals were immediately released, and the traps were recycled.



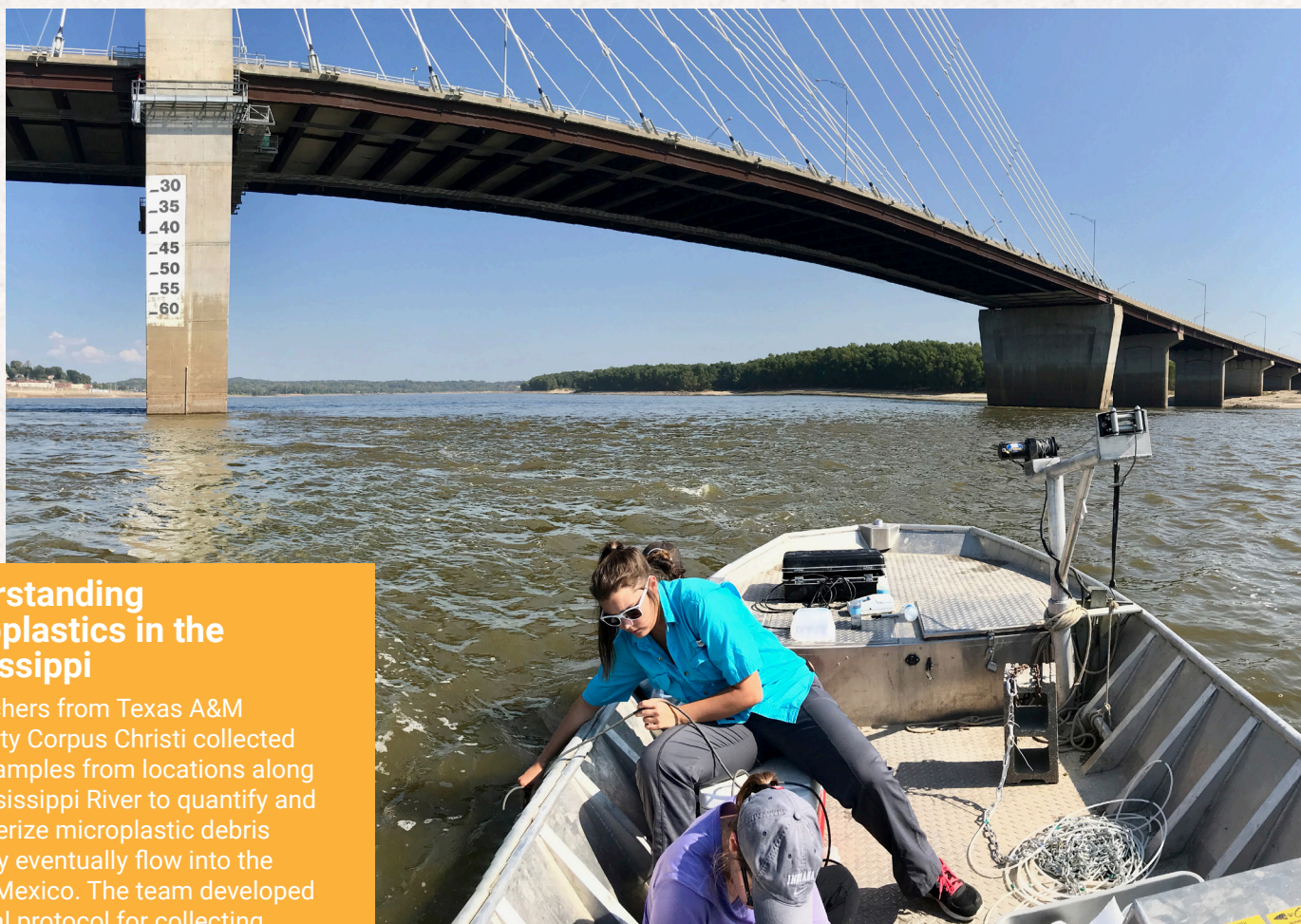
**8.6**  
metric tons of  
debris removed

**380**  
lobster traps  
removed and  
recycled



# Research

Although marine debris is a global issue, there are significant gaps in our understanding of the problem. The NOAA Marine Debris Program funds research projects across the country that work to fill these gaps and answer some of our greatest questions about marine debris, including movement and distribution, chemical impacts to wildlife, economic impacts, and more.



## Understanding Microplastics in the Mississippi

Researchers from Texas A&M University Corpus Christi collected water samples from locations along the Mississippi River to quantify and characterize microplastic debris that may eventually flow into the Gulf of Mexico. The team developed a special protocol for collecting microplastic samples from high flow rivers with high concentrations of sediment and large floating debris, which was published in the *Journal of Visualized Experiments*. The team is halfway through visual sorting and identification of microplastics from the samples. Preliminary analyses suggest that both water height (river stage) and areas where multiple rivers meet can influence the concentration of microplastics in the water.







# Regional Coordination

The NOAA Marine Debris Program recognizes the importance of collective impact when working towards effectively eliminating the adverse impacts of marine debris. Efforts to address marine debris are occurring at local, regional, national, and international levels. In order to coordinate these various efforts, the NOAA Marine Debris Program actively supports regional marine debris communication, strategy planning, and information sharing.

## Collaboration Portals

The NOAA Marine Debris Program created online Marine Debris Collaboration Portals to facilitate regional-level coordination among marine debris stakeholders. These portals provide a centralized hub for local organizations to share information related to marine debris, such as event announcements, resources, and data, to the public and with one another. Over the last year, Collaboration Portals have been created and are at various levels of implementation.

5 portals available for collaboration in the Great Lakes, Gulf of Mexico, Florida and the Caribbean, Mid-Atlantic, and Northeast

## Taking Action on Marine Debris

The NOAA Marine Debris Program supports the creation of strategic marine debris action plans across the United States, which include a wide range of activities, including cleanups, research, education, and outreach. These plans are supported by diverse stakeholders in government, industry, non-governmental organizations, and academic institutions. In 2018, the NOAA Marine Debris Program supported the creation of action plans for California and Washington State to address the specific debris challenges faced in these states.





# Emergency Response

Marine debris ends up on our coasts and in the ocean every day as a result of littering and poor waste management, but natural and man-made disasters have the potential to make the problem worse. In 2018, the NOAA Marine Debris Program worked with local, state, tribal, and federal partners around the country to improve preparedness for natural and man-made disasters through the development of marine debris response guides. These guides outline existing structures to facilitate coordinated, well-managed, and immediate responses to emergency marine debris events.

Completed  
**2**  
marine debris  
response plans  
for [Virginia](#) and  
[Louisiana](#)



## Hurricanes Harvey, Irma, and Maria Response

The 2017 hurricane season left a swath of destruction and significant amounts of marine debris over large areas of the Caribbean, Southeast, and Texas. The NOAA Marine Debris Program provided technical assistance to local, state, and federal partners with the responses to Hurricanes Harvey, Irma, and Maria. NOAA's Marine Debris Regional Coordinators for the Florida & Caribbean and the Southeast regions functioned as the statewide Natural Resource Advisor Coordinator during four separate rotations. In addition, NOAA's Florida Marine Debris Emergency Response Guide was utilized to determine agency jurisdiction for debris issues and determine necessary consultations with other agencies. NOAA received \$18 million in disaster relief funding to aid in coastal recovery efforts by supporting marine debris assessment, removal, and disposal in the impacted areas of Florida, Texas, South Carolina, Georgia, Puerto Rico, and the U.S. Virgin Islands.



# Sixth International Marine Debris Conference

In March 2018, the NOAA Marine Debris Program and the United Nations Environment Programme (UN Environment) co-hosted the [Sixth International Marine Debris Conference \(6IMDC\)](#) in San Diego, California. The conference brought together more than 700 participants from more than 50 countries to work towards a marine debris-free ocean. The conference aimed to celebrate and encourage further innovation, collaboration, and action around this far-reaching topic, highlighting innovative marine debris solutions, research, and technological advances since the last international marine debris conference held in 2011, and facilitating discussions around strategies to minimize the impacts and occurrence of marine debris. A major strength of the conference was its diversity of disciplines and expertise, including science, art, outreach, and education from individuals representing government, academia, private industry, community groups, and many more. Proceedings of the conference are now available on the [6IMDC website](#).



More than  
**700**  
participants

Participants  
from more than  
**50**  
countries

## Virtual Special Issue of Marine Pollution Bulletin

Staff from the NOAA Marine Debris Program served as Managing Guest Editors of a Virtual Special Issue of the Marine Pollution Bulletin devoted to papers stemming from the Sixth International Marine Debris Conference. Submissions were accepted on a rolling basis and the Virtual Special Issue will be finalized in early 2019.



# Ocean Plastics Lab

The NOAA Marine Debris Program, alongside other partners, sponsored the [Ocean Plastics Lab](#), an international outdoor, interactive, and free exhibit, composed of four shipping containers that highlight the global problem of ocean plastic pollution. This exhibit was created by the German Marine Research Consortium and is supported by Germany's Federal Ministry of Education and Research and the European Commission. It began its tour of marine debris outreach last year in Turin, Italy, and included a stop in Washington, DC on the National Mall. The Lab features NOAA's [Marine Debris Tracker App](#), which serves as an easy-to-use and simple tool for marine debris data collection. While in the nation's capital, thousands of people visited the exhibit, learning about marine debris and science-based solutions.



**20,000**  
people visited  
the Lab in  
Washington, DC



# Looking Ahead

The NOAA Marine Debris Program looks forward to launching newly-funded removal, prevention, research, and Fishing for Energy projects. Here is a look at the year ahead:

## Removal

**Southeastern Association of Fish and Wildlife Agencies** will remove a large swath of man-made and woody debris from the Pearl River and the nearby Bogue Chitto National Wildlife Refuge in Mississippi. The removal is key to restoring hydrologic functions to the river and providing passage for fish.

**Northwest Straits Marine Foundation** will build on previous efforts to remove at least 1,000 derelict crab pots from the the Salish Sea in Washington State. The project will include a robust outreach campaign targeting recreational fishers in order to prevent the reaccumulation of crab pots.

**Center for Coastal Studies, Inc.** will remove 16 tons of derelict fishing gear from Cape Cod Bay and the nearby Cape Cod National Seashore in Massachusetts. The project will engage commercial and recreational fishers, students, and other coastal interest groups in the removal activities.

**Stockton University** will work with crabbers to remove derelict crab pots using low-cost sonar in coastal New Jersey. This project builds on previous relationships within the commercial crabbing industry to engage the younger, next generation fishermen by incorporating best practices into their behaviors.

**Town of Beaufort** will remove over 46,000 pounds of debris, including abandoned moorings, derelict vessels, fishing gear, and other large debris from the waters adjacent to the Rachel Carson Reserve in North Carolina. The project builds on previous efforts in the reserve to map and prioritize debris for removal.

**Ocean Aid 360, Inc.** will mobilize a diverse group of stakeholders, such as boaters, anglers, and industry, to remove 15,000 pounds of derelict crab traps and other fishing gear from Florida's Tampa Bay estuary. Following the removal activities, the team will collect data on the species removed from the crab traps.

**Hawai'i Wildlife Fund** will remove 112 metric tons of derelict fishing gear and other medium- and large-scale debris from the shorelines of Hawai'i, Kaua'i, Maui, and Lāna'i islands through a derelict net patrol and community-based cleanup events. They will dispose of nets through the Nets-to-Energy program, which incinerates the nets for energy.

**Makah Indian Tribe of the Makah Indian Reservation** will build off of efforts in Washington State to remove derelict fishing gear from Washington's outer coast. This project aims to develop a sustainable tribal fisheries derelict pot reporting and recovery program within Makah Fisheries Management.

**Southwest Wetlands Interpretive Association** will implement land-based marine debris capture and removal efforts through mechanical and hand-removal methods within the Tijuana River National Estuarine Research Reserve in California. This project builds on previous efforts and will include continued engagement with the Mexican Government, industry leads, Mexican NGOs, and a broad section of the international community.

**National Audubon Society, Inc.** will remove marine debris, including derelict fishing gear and shoreline debris, from eight islands to benefit seabird nesting habitat in Maine. The project will also conduct outreach to coastal residents and engage volunteers in shoreline cleanups.

**Weeks Bay Foundation, Inc.** will remove five abandoned and derelict vessels from the Weeks Bay National Estuarine Research Reserve in Alabama. They will also perform outreach in the surrounding community on the damage these vessels cause, and how to properly report an abandoned vessel.

**Partners for Clean Streams, Inc.** will remove 30,000 pounds of marine debris from the Maumee River and other tributaries in the greater Toledo, Ohio metropolitan area, helping to prevent debris from impacting Western Lake Erie. Partners for Clean Streams will work closely with collaborators to detect, assess, and coordinate removal of this marine debris with volunteers through the "Clean Your Streams" program.



## Prevention

**Surfrider Foundation, Inc.** will utilize its existing network in Oregon to carry out a campaign to reduce the consumption of single-use plastic. This project addresses three actions identified by Oregon stakeholders in the Oregon Marine Debris Action Plan.

**Eckerd College, Inc.** will strive to reduce consumption of single-use plastics across the Eckerd College campus in St. Petersburg, Florida by educating students on marine debris, providing access to alternatives to common debris items, and working with the college administration to institute campus-wide initiatives.

**Coastal States Stewardship Foundation** will build on a pilot program to implement its Joyful Send-off community-based social marketing campaign. The project will target weddings and other celebratory events and encourage behavior change related to balloon releases in the Mid-Atlantic.

**University of North Carolina at Wilmington** will connect students to the issue of marine debris through sea turtles in North Carolina. Students will perform simulated dissections of sea turtles in their classrooms, learn to identify marine debris items, and earn Turtle Trash Collectors badges.

**The Ohio State University** will educate tourists visiting the island of Put-in-Bay on the impacts of cigarettes, straws, and single-use beverage containers on Lake Erie in Ohio. Visitors will be reached on ferries, shuttles, taxis, and at port terminals, as well as at well-known tourist sites.

**Alice Ferguson Foundation Inc.** will build on successes in previous community-based social marketing campaigns to reduce littering behaviors among high school students in Prince George's County, Maryland. As part of the project, students will lead community cleanups, pilot their own litter prevention strategies, and mentor younger students.

**Center for Alaskan Coastal Studies** will engage schools, businesses, and residents in zero waste campaigns focused on preventing marine debris in Alaska. The project will also work with students to explore solutions to the disposal of plastics in rural communities where recycling is not available.

**Mississippi State University** will work with restaurants in the five Gulf Coast states to reduce the use of single-use plastic, plastic foam, and plastic lined food and beverage containers at restaurants. The project will begin by building a pilot program in Mississippi and Alabama, aiming for long-term behavior changes across the Gulf Coast.

**University System of New Hampshire (Keene State)** will strive to reduce litter from cigarettes at Keene State College in New Hampshire. The project will reach college smokers through humorous video messages aimed at changing their attitudes and behaviors.

**Surfrider Foundation, Inc.** will aim to reduce cigarette butt debris entering the San Francisco Bay estuary by installing cigarette butt receptacles, conducting community-based campaigns, distributing pocket ashtrays, conducting cleanups, and monitoring smoker behaviors through surveys.

**Hawai'i Dept. of Land and Natural Resources** will install water bottle filling stations and carry out beach cleanups within 16 state parks on Hawai'i, Kaua'i, Maui, and O'ahu.

## Research

**The NOAA Marine Debris Program, the National Centers for Coastal Ocean Science, and Loyola University** initiated a pilot project to understand the distribution and abundance of microplastics in the Milwaukee Estuary by using invasive zebra and quagga mussels deployed in cages. The caged mussel method is similar to how the NOAA Great Lakes Mussel Watch Program monitors for chemical contaminants throughout the Great Lakes. The pilot will assess the feasibility of this method for monitoring microplastics as a tool to determine the success of efforts to reduce plastic pollution in the Great Lakes.

**University of Washington Coastal Observation and Seabird Survey Team** will use a variety of field scenarios and protocol iterations to evaluate the NOAA Marine Debris Monitoring and Assessment Project's standing stock shoreline monitoring survey method. This project will identify the ways observer bias, such as the number of observers and their sampling behavior, can contribute to differing survey results. Results are intended to inform potential modifications to protocols from both programs, with the ultimate goal of facilitating a more robust and coordinated network of monitoring efforts nationwide.



## Fishing for Energy

Fishing for Energy, a partnership between the NOAA Marine Debris Program, National Fish and Wildlife Foundation, Covanta Energy, and Schnitzer Steel Industries, will launch seven newly-funded projects to prevent and reduce the impacts of derelict fishing gear in the marine environment.

**The Ocean Foundation** will conduct a comprehensive removal effort of abandoned fishing traps in Puerto Rico and document the scale of unauthorized trap fishing in the territory in order to improve compliance with trap fishing regulations.

**Island Trails Network** will reduce entanglement and mortality of marine mammals and increase awareness impacts by engaging the general public and commercial fishing community in efforts to remove derelict fishing gear from prioritized locations in the Kodiak archipelago including Kodiak, Afognak, Shuyak, and minor outlying islands.

**College of William and Mary, Virginia Institute of Marine Science** will reduce ecological and economic impacts associated with lost gear in coastal Washington and Alaska by incorporating an innovative bio-hinge mechanism into Dungeness crab traps.

**University of Hawai'i - Mānoa** will remove 50 metric tons of derelict fishing gear from the remote islands and atolls within the Papahānaumokuākea Marine National Monument.

**Massachusetts Division of Marine Fisheries** will remove fixed gear from the Massachusetts Bay Restricted Area during closed season to reduce the entanglement risk to North Atlantic right whales.

**Natural Resources Consultants** will remove up to 30 derelict gillnets from areas of historically high concentration in marine waters in the Puget Sound, protecting critical habitats for listed species.

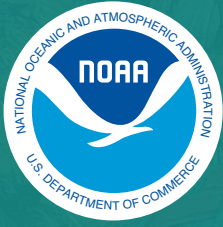
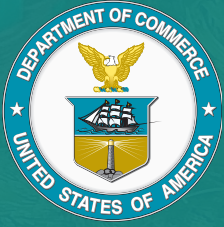
**Florida Fish and Wildlife Conservation Commission** will address the impacts of spiny lobster and stone crab traps lost during Hurricane Irma in coastal and inland areas of the Florida Keys, protecting sensitive habitats.



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# **NOAA Marine Debris Program**

## **Office of Response and Restoration**

### **National Ocean Service**

#### **October 2018**

Wilbur L. Ross, Jr.  
United States Secretary of Commerce

RDML Tim Gallaudet, Ph.D., USN Ret.  
Assistant Secretary of Commerce for Oceans and Atmosphere and  
Acting Under Secretary of Commerce for Oceans and Atmosphere

Nicole R. LeBoeuf  
Acting Assistant Administrator for Ocean Services  
and Coastal Zone Management

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