

NOAA Marine Debris Program FY 2015 Accomplishments Report



Letter from the Director

Looking back on the 2015 Fiscal Year with the NOAA Marine Debris Program, I am proud of the work that we have achieved. We have removed significant amounts of debris from coastal waters, reached hundreds of students, brought together marine debris communities to help make tackling this issue a priority in coastal states, and funded research that has helped us to understand the science behind marine debris. We have made progress toward making our vision— an end to marine debris— a reality.

However, there is still a long way to go and we must continue to think about our future. Over the past year, I've had the opportunity to work with our team to chart the NOAA Marine Debris Program's coming years. I'm excited to announce we have developed a strategic plan that will lead us to be more resilient to natural disasters, increase our understanding of marine debris sources and impacts through research, expand our education and outreach efforts across the nation, and target marine debris removal from our coastal waters -- all through improved coordination with partners.

Looking to the future, I know the health of our ocean and coasts depends on us. Every action that we take, no matter how big or small, makes a difference. I'm proud of the efforts put forth by the Program and looking forward to its future achievements. I am pleased to present the NOAA Marine Debris Program's accomplishments from 2015.

Nancy Wallace, Director, NOAA Marine Debris Program

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The NOAA Marine Debris Program envisions the global ocean and its coasts free from the impacts of marine debris.

The mission of the NOAA Marine Debris Program is to investigate and prevent the adverse impacts of marine debris.

NOAA Marine Debris Program Strategic Plan

This year, the NOAA Marine Debris Program charted out a new multi-year strategic plan. The Program is poised to tackle marine debris challenges and to find solutions that help eliminate debris through proactive approaches through research, removal, prevention, emergency response, and coordination. Take a closer look at the Program's goals for 2016-2020.





REMOVAL

Marine debris comes in all sizes, from a large vessel to the smallest microbead. Over the past year, the NOAA Marine Debris Program has funded projects that mitigate impacts and address the damage marine debris has caused to critical habitats such as salt marshes, mudflats and coral reefs. Here are some examples from 2015:

Restoring Critical Habitat in Remote Alaska Communities

The Bering Sea Region of Alaska is very remote and sparsely populated; several of the communities there have populations numbering only in the hundreds. The Sitka Sound Science Center worked with some of these communities to remove shoreline debris: 10,000 pounds of mostly fishing nets and line over ten days at St. George Island, and 19,000 pounds of debris from roughly 45,000 yards of shoreline over 25 days at Savoonga on St. Lawrence Island.

Of the 11.94 tons of debris that were removed, **1**.12 tons were recycled or re-used.

> 6 major cleanups with **329** volunteers contributing 4,004 hours to help restore **2.65** acres of shoreline.

Marine Debris Removal from Kaho`olawe, Hawaii

Kaho`olawe is the smallest of the eight main Hawaiian Islands, located just seven miles southwest of Maui. The island's remoteness poses a challenge for marine debris removal. However, despite extremely difficult removal logistics, the Kaho`olawe Island Reserve Commission removed marine debris from three sites on the island.

All collected debris had to be helicoptered off Kaho'olawe Island for removal!

Northwestern Hawaiian Islands Marine Debris Removal

The Papahānaumokuākea Marine National Monument (PMNM), located around the mostly uninhabited Northwestern Hawaiian Islands, is a World Heritage Site and one of the largest marine conservation areas in the world. It is home to more than 7,000 marine species, many unique to Hawaii, including endangered or threatened species such the green sea turtle or Hawaiian monk seal. Centrally located within the North Pacific Gyre, the PMNM is prone to marine debris accumulation that presents potentially lethal threats to numerous marine and avian species.

After a 33-day removal mission conducted by 17 NOAA divers and additional crew including two Program staff aboard the NOAA Ship Oscar Elton Sette in October 2014, approximately 57 tons of derelict fishing nets and plastic debris were removed from the monument . NOAA has led this mission since 1996, removing a total of 904 tons of marine debris, including this year's haul. **465** smaller nets were also collected, making for a total of **57** tons of derelict fishing gear removed.

Hawaii

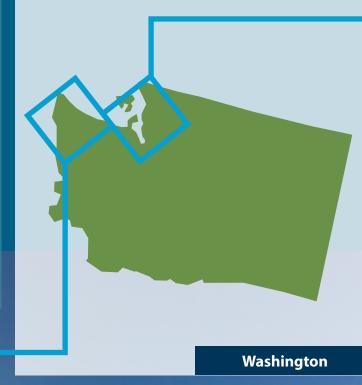
2, 30-foot derelict vessels, confirmed to be marine debris from the Japan tsunami were removed. The "monster net," **30** feet long - **8** feet wide - **16** feet deep, weighed in at **11.5** tons and took NOAA divers **4** days to cut into **4** parts in order to bring it on-board the ship.

語とこ

7,436 plastic fragments 3,758 bottle caps 1,469 plastic bottles 477 lighters

Marine Debris Removal for the **Olympic Coast in Northwest** Washington

Working with the Olympic National Park and the Olympic Coast National Marine Sanctuary, the Student Conservation Association removed marine debris from remote beaches not easily reached by volunteers during scheduled cleanups. Teams of local high school students and adult leaders covered 73 miles of the Olympic National Park coastline, removing over 5,200 pounds of debris of various types, which included food packaging, other consumer debris, and lost fishing lines and floats. With the help of the National Park Rangers, the teams hauled debris by foot to a collection point, sometimes miles away through rugged terrain. Additionally, students learned about marine debris and its impacts through hands-on lessons.



Volunteers camped for two weeks each near the beaches they cleaned and then carried all the debris they collected on their backs to a location accessible by vehicles for disposal.

15 acres of marine habitat were restored.

120 nets that contained nearly **18,100** entangled animals were removed.

2.1 tons of lead line were recycled.

8 Indian Tribes, and 750 scientists, resource managers, and policy makers were included in the effort to improve reporting and prevention of lost nets.

Large Derelict Fishing Net Removal in **Puget Sound, Washington**

During the height of the salmon fishery in the Puget Sound, thousands of nets were lost or abandoned in the region. For thirteen years, the Northwest Straits Foundation worked to remove derelict fishing gear that has posed a threat to navigation safety and damaged critical marine habitat. The NOAA Marine Debris Program supported this long-term effort since 2005. This year, we are proud to announce that the effort is complete.

> Since the project began in 2002, the Northwest Straits Foundation removed more than **5,660** derelict fishing nets and 3,800 shellfish pots from Puget Sound.

A video was produced by Oregon Sea Grant to highlight this net removal project operation: https:// vimeo.com/92878422

During a March 7, 2015 cleanup, **134** volunteers removed and prevented **5.5** metric tons of debris from entering the Pacific Ocean. California

SURFRIDER

This year, derelict traps were removed at a rate of over **76** traps per day.

Tijuana River National Estuarine Research Reserve Marine Debris Clean-up and Reduction Program

During storm events, high volumes of trash and larger debris washes downstream from Mexico, threatening and degrading the Tijuana River Valley's valuable ecological, cultural, recreational and economic resources. The Goat Canyon Sediment Basin, part of the Tijuana River Valley on the U.S. side of the Mexico Border, is a collection zone for sediment, trash and other pollutants carried in stormwater runoff. The Southwest Wetlands Interpretive Association and the Tijuana National Estuarine Research Reserve are working together to upgrade debris boom structures, educate students in Mexico about marine debris and its impacts on our coastal environment, and organize local volunteers to remove trash from the Tijuana River watershed.

New York

Jamaica Bay Marine Debris Removal and Data-driven Prevention Pilot Project

Jamaica Bay is surrounded by densely populated commercial and residential populations of New York City. The region is also home to salt marshes, salt meadows, mud flats and aquatic habitats where fish spawn, feed, and grow to maturity. This year, the American Littoral Society (ALS) engaged community volunteers to remove 28 metric tons of debris from the critical habitat. Volunteers were also educated about marine debris impacts after cleaning the area, which will help prevent future marine debris accumulation.

Long Island Sound Deep Water Derelict Lobster Gear Assessment, Removal and Prevention

Historically, the Long Island Sound was a thriving commercial fishing ground for catching lobsters. Today, thousands of derelict traps clutter the Sound's floor, continuing to catch lobsters and other marine species, a process known as "ghost fishing." In an effort to clear the waterways, the Cornell Cooperative Extension worked with commercial lobstermen to remove derelict lobster traps from the New York waters of Long Island Sound. This year, they removed 1,752 traps during 23 days on the water.

> Since the beginning of the project in 2014, more than **34** metric tons of debris have been removed from Jamaica Bay. ALS is targeting to remove **59** metric tons by June 2016.

Marine Debris Removal and Restoration of Essential Fish Habitats in the Charleston Harbor Watershed

The Charleston Harbor watershed is comprised of salt marshes, tidal basins, and rivers that are critical habitat for fish breeding and nurseries. Human impacts, including those from marine debris, have affected these essential resources in the region. This year, the South Carolina Sea Grant Consortium removed nine derelict vessels based on their proximity to sensitive habitats and resources in the region.

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South Carolina

Environmental Action Initiative in Lake Worth, Florida

The Intracoastal Waterway in Palm Beach County, Florida is part of the Everglades watershed, an area encompassed with salt marshes, seagrass beds, mangroves and oyster beds. Abandoned and derelict vessels are a common type of debris in this region and can often lead to habitat damage. Over the past year, LagoonKeepers.org has removed a total of seven derelict and sunken vessels, weighting more than 145,000 pounds.



Volunteers from the Consortium collected and disposed of **10** tons of marine debris, primarily made up of unwanted fishing and boating gear, during a county-wide Clean Marine event this past April. 49 kayakers and volunteers have supported this project through water clean-up efforts to remove debris, and by participating in outreach events about the local sources and impacts of marine debris.

PREVENTION

Preventing marine debris is our first priority when it comes to finding solutions for this problem. For the past year, our education and outreach partners across the country have inspired thousands of people of all ages to become better ocean stewards. In 2015, the Program funded new curriculum development, outreach to teens, social marketing campaigns, teacher workshops, fisherman education, and hands-on cleanups to help stop debris at its source. Here are some examples from 2015:

Marine Debris Education and Action

With its sandy beaches, rocky headlands and sea stacks, the Olympic Coast boasts incredible scenery and abundant marine wildlife in the Pacific Northwest. Unfortunately, like many other beach landscapes, marine debris plagues this shoreline. To help raise awareness in the local community, Feiro Marine Life Center, collaborating with Washington CoastSavers and Olympic Coast National Marine Sanctuary, conducted a marine debris workshop for sixteen teachers from schools in the Port Angeles area and along the Olympic Peninsula's outer coast. They engaged additional teachers through beach cleanups reaching a total of 38 teachers and 886 fourth and fifth graders.

Students and teachers took a pre and post test to evaluate the program's effectiveness. Results showed a dramatic increase in the children's understanding of marine debris and its impacts.

Engaging Students in Marine Debris Efforts Utilizing a Comprehensive, Integrated STEAMSS Curriculum

Marine debris curriculum plays an important role in helping teachers and students understand human impacts to our coastal resources. Oregon State University developed a web-based curriculum for 4th - 12th grade students. Aligned to Science Technology, Engineering, Art, Math, and Social Studies (STEAMSS) standards, the curriculum covers four categories: marine debris composition and abundance, sources and transport, impacts, and solutions through hands-on experience.

Over the course of the project, 20 teachers attended the workshop and more than 1,600 students were reached.

Port Angeles, WA

Download the finalized web-based marine debris curriculum online at: http://oregoncoaststem. oregonstate.edu/marinedebris-steamss



Newport, OR

Santa Barbara, CA

Marine Debris - The Ocean and Me

To develop ocean stewards, the Santa Barbara Museum of Natural History took a multi-step outreach approach to engage local elementary schools, middle schools, high schools and tourists with hands-on education, classroom presentations, and community outreach at local businesses, hotels and events.

The museum reached nearly 1,000 students through elementary school participation in "Marine Debris, the Ocean, and Me," and through high school students' presentations to middle school classrooms at 3 different area schools.

543 signatures were collected for the related "Pledge to Fight Trash," sponsored by Ocean Conservancy, which shows strong support for change.

As part of this servicelearning project, students analyzed data and determined which neighborhoods require a behavior changing "intervention."

Talking Trash for Clean Oceans

Understanding where marine debris comes from is essential to preventing trash in our waters. Salem Sound Coastwatch has put together a community-based campaign working with low income teens in Salem, Massachusetts to help raise awareness about how trash in their neighborhood trickles down the watershed and becomes marine debris. As part of this campaign, students participated in the "Talking Trash for Clean Oceans" Teen Leadership Project, a six-month-long servicelearning project, where they learned about marine debris and collected data in five local neighborhoods to determine quantity, sources and types of street trash.

Lake Superior, WI

Using Outreach and Education to Reduce Marine Debris and Fishing Net Loss in Lake Superior

Lake Superior, the largest of the Great Lakes, has a ghost net problem. Part of this problem are storms, wind, shifting ice and waves that cause fishers to lose gill nets, a type of durable fishing net commonly used in the Lake Superior fishery. Once lost, the nets continue to drift beneath the water's surface for years, impacting both the fishery and fishers' livelihoods. University of Wisconsin Sea Grant and marine debris stakeholders in Wisconsin formed a partnership to address this issue. They developed an education and outreach plan to prevent gill net loss and reduce this threat to the Lake Superior fishery through workshops and outreach products.

University of Wisconsin Sea Grant produced an educational video: Avoid the Trap: What Anglers Should Know about Commercial Fishing Nets.



Take control. Take care of your trash.





Reducing Marine Debris by Targeting Youth and Teenage Litterers

Youth and teenagers are more likely to litter. However, if they better understand the marine debris problem and their connection to creating it, they will be less likely to litter and more inclined to dispose of trash properly, ultimately preventing debris from entering our waterways. Using this philosophy, The Alice Ferguson Foundation (AFF) developed "Your Litter Hits Close to Home," a marine debris prevention campaign to reach youth in Maryland, the District of Columbia and Virginia. As a part of this project, AFF enlisted students, teachers, and schools in Trash Free Schools, a program that conducts cleanups, delivers marine debris lessons, and aligns with local green school standards to reduce waste.



Richmond, VA



Virginia Department of Environmental Quality staff is designing and testing a social marketing strategy for alternatives to balloon releases.

A Rising Concern: Reducing Balloon Release and Debris through a Social Marketing Campaign

People intentionally release balloons into the environment to celebrate events and commemorate special occasions. Unfortunately, balloon debris often ends up in streams, rivers and the ocean. Marine animals, such as sea turtles, frequently ingest these discarded balloons or become entangled by their strings, causing great injury and even death. The Virginia Department of Environmental Quality has developed a social marketing campaign to reduce balloon debris. Through formative research -- interviews, focus groups and surveys -- project staff will determine the underlying drivers of the balloon-release behavior and the barriers to using a different method of expressing emotions at important events.

Clean Community, Clean Coast

The University of South Florida and several other partners worked to change behaviors that contribute to the marine debris problem through their "Clean Community, Clean Coast" project. They engaged communities in St. Petersburg, Florida, where debris easily enters storm drains and releases out into local waterways, including beaches. The campaign was comprised of: 5 environmental awareness focus group forums with 47 middle schoolers, a professional development workshop for ten teachers, and community volunteers also used trash collected from debris cleanups to help create the 40-ft by 30-ft "Current Collections" art sculpture that reflects the movement of trash in our oceans.





Guánica, Puerto Rico

"Think before you drop it": A Research-based Litter Reduction Campaign

In Puerto Rico, the Guánica-Río Loco Watershed filters down to nine beaches and feeds into one of the region's well known coral reef ecosystems. It is also home to the endangered Puerto Rican Crested Toad and several sea turtle species. Debris on these beaches poses a threat to this critical habitat and wildlife. Working with ten local students, Protectores Cuencas Inc. has developed strategic education campaigns that include a photography contest and beach cleanups to help raise awareness and reduce marine debris impacts in their local communities. This project includes a puppet show by students for their schools to show how marine debris affects sea turtles and the endangered Puerto Rican Crested Toad.

St. Petersburg, FL

The "Current Collections" sculpture reached more than **25,000** people at the Fourth Annual St. Petersburg, Florida Science Festival. The sculpture was also showcased in Atlanta's Centennial Park.

MARINE DEBRIS ON EXHIBIT

The NOAA Marine Debris Program has collaborated with various NOAA partners to raise awareness about marine debris at local visitor centers across the nation. We have worked closely with National Estuarine Research Reserves, National Marine Sanctuaries and Sea Grants to develop marine debris exhibits that highlight local issues and showcase the marine debris problem our ocean and Great Lakes face today. Take a look at where these exhibits are located:



VIDEO SERIES: TRASH TALK



The NOAA Marine Debris Program and NOAA Ocean Today partnered to produce Trash Talk, a sixpart educational video series and special feature that encourages audiences to take action through a fun, fast-paced, deep-dive on marine debris that will inspire solutions and grow a movement.



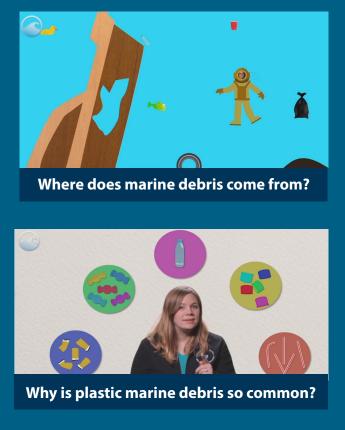
What is marine debris?



How does marine debris impact the animals?



What is the Great Pacific Garbage Patch?





What can we do about marine debris?

INTERNATIONAL PLANNING EFFORTS

Marine debris is a global problem and the NOAA Marine Debris Program has lent to international efforts to help find global solutions.



This past year, the NOAA Marine Debris Program contributed to international marine debris prevention, reduction and research efforts conducted through the G7 nations. Currently led by the German government, the G7 nations of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States are working together to address marine debris from land and sea sources. The leaders of G7 nations committed to specific and targeted actions within four major marine debris themes that address land-based sources, seabased sources, priority removal actions, and research/ education/outreach.

United Nations Environmental Programme

In 2015, the NOAA Marine Debris Program became the Chair of the United Nations Environment Programme's Global Partnership on Marine Litter. This partnership, made up of international agencies, governments, businesses, academia and nongovernmental organizations around the world, is committed to reducing the impacts of marine litter on economies and ecosystems worldwide.

This year, the partnership conducted several pilot projects in the South Pacific region, developed a Massive Open Online Course on marine debris, and facilitated a study to identify key sources of marine debris and the best available techniques to prevent the accumulation of microplastics in the marine environment.

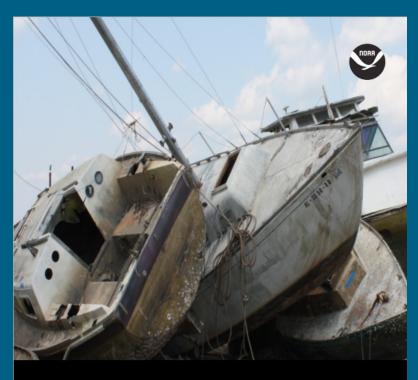
REGIONAL PLANNING EFFORTS

The Marine Debris Program continued efforts to implement actions outlined in the completed Great Lakes and Hawaii Marine Debris Action Plans, and to help support the state-developed Virginia plan. This year, advanced planning efforts began in Florida and the Mid-Atlantic regions.

In the southeastern states of North Carolina, South Carolina and Georgia, state and local stakeholders continued to make progress on local actions to reduce debris. In Florida, the Program hosted a second meeting with state and local decision makers including non-governmental organizations to refine a state-wide plan to reduce debris.

EMERGENCY RESPONSE PLANNING

Alabama Emergency Response Plan



ALABAMA INCIDENT WATERWAY DEBRIS RESPONSE comprehensive plan

NOAA Marine Debris Program National Oceanic and Atmospheric Administrati U.S. Department of Commerce May 2015

G7 Summit

Marine debris ends up in the ocean every day as a result of littering and poor waste management, but occasionally, large amounts enter nearshore coastal waterways all at once, especially during natural disasters. Abandoned and derelict vessels, construction and demolition debris, and household hazardous waste are just a few of the types of marine debris we find in waterways after a disaster. This debris can be a hazard to navigation, damage habitat, and pose pollution threats.

In an effort to increase preparedness for acute marine debris events in Alabama, the NOAA Marine Debris Program partnered with eight federal agencies, nine state agencies and two local counties to develop the Alabama Incident Waterway Debris Response Plan and Field Guide. As part of this project, NOAA worked with the Alabama Department of Conservation and Natural Resources to host a multi-agency workshop to identify existing response capabilities and receive feedback on what partner agencies would like to see in a response plan for marine debris. Alabama's plan is the first in a planned series of state plans intended to improve preparedness and facilitate a coordinated, well-managed and immediate response to this type of marine debris.

EMERGENCY RESPONSE

Marine debris is an everyday problem, but natural disasters have the potential to make it worse. In 2015 the NOAA Marine Debris Program continued response efforts to debris resulting from two recent natural disasters on record that impacts our coastlines: the 2011 tsunami that struck Japan and Superstorm Sandy.



Japan Tsunami Marine Debris Removal

More than four years have passed since the March 2011 earthquake and tsunami in Japan. Following this event, the Program worked with impacted states to determine where marine debris removal was needed. With a generous goodwill gift from the Government of Japan, NOAA worked with the five impacted states (HI, AK, WA, OR, CA) through formal agreements to remove and monitor debris. NOAA continues to work with states and local groups to address marine debris from the disaster that continues to wash up on U.S. shorelines.

In August, 3,400 super-sacks of marine debris, collected from remote and rugged beaches off of Alaska and British Columbia, arrived in Seattle, WA, to be sorted. This multi-year debris removal effort from across Alaska was coordinated by the Gulf of Alaska Keeper and funded in large part by a gift from the Government of Japan administered by NOAA and the State of Alaska. The debris, which was placed into large plastic bags called super-sacks and moved to a transport barge via helicopter, included everything from fishing nets, lines and buoys to consumer plastics and different kinds of foam. Over the course of three weeks, from the barge's first pickup to its arrival in Seattle, helicopters made 1,154 trips from shore to the boat. A diverse team collaborated to collect the debris including participants from the National Park Service, non-profit organizations, professional crews and volunteers from across the state.

Sandy Debris Removal by States

During the 2012 hurricane season, Sandy inflicted severe damage to communities and coastal resources over large areas of the Mid-Atlantic and Northeast states, leaving a swath of destruction and large amounts of debris in the waters and marshes of affected states. This debris still poses hazards to navigation, commercial fishing grounds and sensitive ecosystems.

NOAA has been leading efforts with federal, state, and local partners to collect data, assess the debris, and reduce possible impacts to our natural resources and coastal communities.

Sandy-related debris removals are ongoing in New York City, Connecticut and Rhode Island. New York State completed the removal of large amounts of debris from parks, marshes and beaches on Long Island. New Jersey completed a large debris removal effort that removed seven vessels, including four houseboats, a submerged dock and other debris items from impacted wetlands.

15.3 metric tons removed from Connecticut

13.6 metric tons removed from **Rhode Island**

New Jersey



51 metric tons removed from New York City 272 tons removed from New Jersey

376 metric tons

removed to date

RESEARCH

Marine Debris Program-funded research allows us to identify, determine sources of, and assess the adverse impacts of debris so that we may forge ahead to find solutions through targeted prevention and reduction activities. This year, the Program supported a number of research projects that will help us answer questions surrounding the issue of microplastics, including developing methodologies for counting microplastic particles from surface water samples, identifying changes in the distribution of microplastics in water bodies over time, and determining how levels of land use within a watershed contribute to microplastic loadings. The Program also continued to add partners to our growing database of beach monitoring sites.



Laboratory Methods for the Analysis of Microplastics in the Marine Environment Manual

The "Laboratory Methods for the Analysis of Microplastics in the Marine Environment" manual outlines step-by-step instructions to measure microplastics in marine environmental samples. The project aimed to streamline terminology and techniques used to assess microplastic concentrations and to develop laboratory procedures to quantify microplastic particles in marine surface waters, bed sediments and personal care products.

Guidelines from this manual allow scientists and educators to follow simple, standardized techniques that are reproducible and robust without requiring extensive equipment. These methods can be easily adopted by groups around the world, and allow for comparison of results. The manual's techniques can be used to calculate concentrations of microplastics using a variety of metrics, including per mass and per volume. These protocols are currently being used by academics and other governmental agencies in the United States. Temporal Trend of Microplastics in the Gulf of Alaska

The NOAA Marine Debris Program partnered with the University of Washington through the Joint Institute for the Study of the Atmosphere and Ocean (JISAO) to analyze trawl samples collected by the Gulf of Alaska Integrated Ecosystem Research Program in the Gulf of Alaska in 2004, 2005, 2011 and 2013. This project aimed to use these samples to estimate the marine microplastic concentration in offshore areas and to investigate changes over time. Initial results show plastics in a majority of the analyzed samples.

The Effect of Wind-Driven Mixing on Observations of Plastic Marine Debris: Modeling, Verification and Reanalysis

Researchers from the University of Washington through JISAO and the University of Delaware re-analyzed surface microplastic data and previously-collected wind and wave datasets from Sea Education Association (SEA) voyages in the North Atlantic Ocean to model and predict the concentrations of microplastics submerged in the water column. Results from this modeling study suggest that total microplastic marine debris concentrations are significantly underestimated by surface measurements alone.

Analysis of Microplastics from Chesapeake Bay Samples

The University of Maryland published results of a lab analysis of NOAA-collected surface-water samples from Chesapeake Bay tributaries. The analysis showed that population densities and urban/suburban land uses within watersheds are linked to surface-water microplastic concentrations. Furthermore, microplastic concentrations appeared to peak shortly after major rain events. These results support prioritization of upstream prevention efforts in urban locations and provide baseline data for developing effective prevention and management options.

Marine Debris Monitoring

The NOAA Marine Debris Monitoring and Assessment Project is an initiative to collect information on types and amounts of debris in the environment. Since the project's inception in 2012, 176 shoreline sites have been monitored, 3,704 surveys have been entered into the database, and more than 40 partner organizations have been involved.

The program has partnered with two National Marine Sanctuaries on monitoring efforts with Sanctuary volunteers. The Greater Farallones National Marine Sanctuary has six shoreline sites and 140 completed surveys, and the Olympic Coast National Marine Sanctuary has eight shoreline survey sites with 528 surveys completed. We've made great advancements in FY2015 and are excited to see what the new year will bring. You can find our latest projects and ways to get connected with the program by visiting us online: www.MarineDebris.noaa.gov.

Photo credits

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