



NOAA Marine Debris Program 2007-2008 Accomplishments



Entangled hawksbill sea turtle. Photo by Jason Baker, NOAA Fisheries

www.MarineDebris.noaa.gov

The NOAA Marine Debris Program (MDP)



Established in 2005, the NOAA Marine Debris Program (MDP) supports national and international efforts to research, prevent, and reduce the impacts of marine debris. The Program's goal is to protect and conserve our nation's natural resources, oceans, and coastal waterways from the impacts of marine debris. The MDP serves as a centralized capability within NOAA, coordinating and supporting activities within NOAA and with other federal agencies, as well as using partnerships to support projects carried out by state and local agencies, tribes, non-governmental organizations, academia, and industry. The Program is headquartered in Silver Spring, Maryland, and has regional staff members around the country to support regional coordination efforts, participate in and track progress of projects, and conduct marine debris outreach to local audiences.

*The NOAA Marine Debris Program was the recipient of the **2007 Administrator's Award** for "successfully implementing an effective and nationally recognized program that supports NOAA's mission to keep the oceans free of marine debris."*

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INTRODUCTION

Marine debris is everyone's problem. It is a global problem affecting everything from the environment to the economy; from fishing and navigation to human health and safety; from the tiniest coral polyps to giant blue whales. Marine debris also comes in many forms, from a cigarette butt to a 4,000-pound derelict fishing net.

Marine debris is a problem we can solve together. Although marine debris is found worldwide, we can all help, with the smallest actions. Reduce, reuse, recycle, and participate in local beach or stream cleanups. If we each do a little, together we can make a big difference.



The National Oceanic and Atmospheric Administration (NOAA) Marine Debris Program helps protect and conserve our nation's natural resources, oceans, and coastal waterways for future generations through the research, prevention, identification, and reduction of marine debris on a national and international level.

In this **2007-2008** **Accomplishments Report** you will find...

Information on and accomplishments of the NOAA Marine Debris Program in three sections:

1. Coordination and Information Sharing
2. Research and Reduction
3. Outreach and Prevention

Threatened green sea turtle entangled in a derelict fishing net. Entanglement is a serious threat to marine wildlife. Photo: NOAA Pacific Islands Fisheries Science Center



COORDINATION & INFORMATION SHARING

Interagency Marine Debris Coordinating Committee Report

The passage of the Marine Debris Research, Prevention, and Reduction Act in late 2006 re-established the Interagency Marine Debris Coordinating Committee (IMDCC). This committee, chaired by NOAA and made up of 11 Federal agencies, is responsible for developing and recommending comprehensive and multidisciplinary approaches to reduce the sources and impacts of marine debris to the nation's marine environment, natural resources, public safety, and economy.

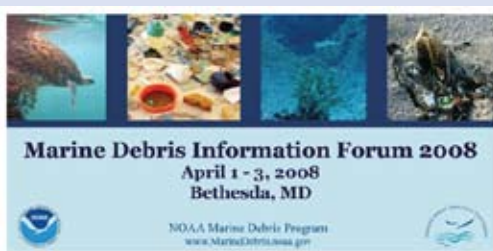
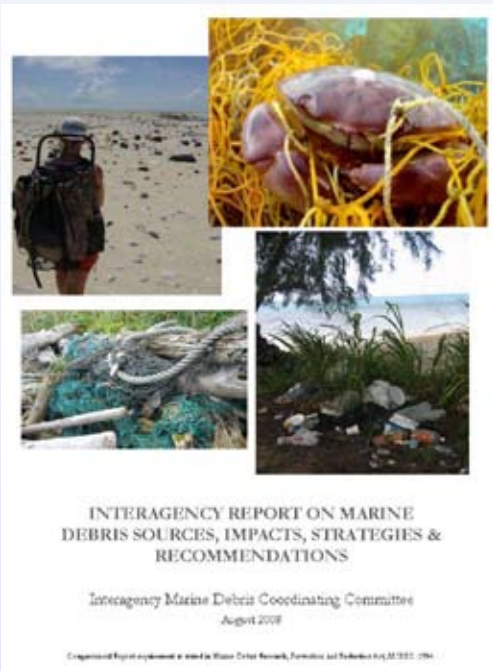
The IMDCC was tasked with developing a report to Congress that identifies sources of marine debris;; the ecological and economic impacts of marine debris;; and alternatives for preventing the harmful effects of marine debris; and it also includes 25 recommendations to on prevention of, response to, and research onf marine debris both domestically and internationally. This rReport was completed in August 2008. A full-color printed version is available upon request.

<http://marinedebris.noaa.gov/about/imdcc.html>

2008 Marine Debris Information Forum

The NOAA MDP held its first Information Forum in Bethesda, Maryland, in April 2008. This forum, attended by approximately 130 people, brought together principal investigators from projects funded by the MDP . This forum was the first of its kind, created to encourage information exchange among researchers and experts in removal, outreach, and prevention and to move the science of marine debris forward to address the persistent problem. The forum highlighted 31 presentations within six sessions and covered a wide range of activities: debris assessments in such habitats as open ocean, deep ocean floor, and coastal marshes; methods for assessing the impacts of derelict fishing gear; emergency response protocols; regional planning in Hawaii and Alaska; and approaches to prevention and outreach.

<http://marinedebris.noaa.gov/projects/mdforum.html>



COORDINATION & INFORMATION SHARING

Regional Marine Debris Workshops

The MDP has supported and participated in regional workshops on marine debris across the nation. For many, these workshops were the first opportunity to bring regional representatives together to focus on marine debris, bringing together representatives from federal, state, and local governments, industry, academia, non-governmental organizations, and private businesses. The goals of each workshop were to prioritize regional marine debris issues, discuss current projects, learn about marine debris legislation and the national program, and open lines of communication for this shared interest.

Marine Debris in Alaska-Coordinating Our Efforts

February 2008 | Anchorage, AK

Hawaii Marine Debris Action Plan Workshops

June 2007 through November 2008 | Honolulu, HI

Marine Debris and Restoration Grants Workshops

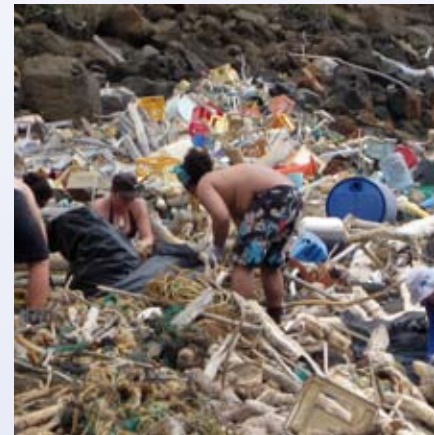
June and September 2008 | Guam, Saipan, and American Samoa

Marine Debris At-sea Detection and Removal Workshop

December 2008 | Honolulu, HI

New England Workshop on Derelict Fishing Gear

November 2008 | Boston, MA



Hawaii's Marine Debris Action Plan

The MDP is leading the coordination of the first statewide action plan to address marine debris in Hawaii. With support from NOAA Pacific Services Center, MDP hosted a series of six workshops in Honolulu from June 2007 to December 2008 to develop strategic actions to address marine debris across the Hawaiian Archipelago. Approximately 50 representatives of federal agencies, state and county governments, academia, and the private sector attended. Participants outlined previous and ongoing activities, developed focus areas and objectives, and refined or proposed new strategic actions in the five focus areas: research and assessment, in-water removal and prevention, land-based debris prevention, beach and coastal cleanups, and outreach and education. The completed Hawaii Marine Debris Action Plan will be rolled out to decision makers and potential funders in 2009.

<http://marinedebris.noaa.gov/projects/himdap.html>

COORDINATION & INFORMATION SHARING

Fishing for Energy Partnership

The Fishing for Energy project is a partnership between the NOAA Marine Debris Program, Covanta Energy Corporation, National Fish and Wildlife Foundation (NFWF), and Schnitzer Steel to reduce the amount of derelict fishing gear in the marine environment. The project provides a no-cost incentive for the fishing community to dispose of their old gear or derelict gear they pick up at sea. New Bedford, Massachusetts, was the first port on the eastern seaboard to launch this program, with eight ports in Massachusetts, Rhode Island, New York, and New Jersey joining in 2008. The Fishing for Energy project could significantly reduce the amount of derelict fishing gear in the waters around New England, lessening the impact of derelict gear on living marine resources and the fishing community. Projects with several other ports are in development for 2009.

<http://marinedebris.noaa.gov/projects/fishing4energy.html>

Locations

- Brookhaven, NY
- Gloucester, MA
- New Bedford, MA
- Scituate, MA
- Newport, RI
- Chatham, MA
- Provincetown, RI
- Wellfleet, MA
- Cape May Wildwood-Sea Isle, NJ

It is estimated that one ton of derelict nets create enough electricity to power one home for 25 days.



B. Haskell, NOAA



B. Haskell, NOAA



2009 Joint Project

Marine Debris Abatement Workshop:
Strategies and Activities for the Prevention of Nearshore Marine Debris

International Cooperation: South Korea

The most effective way to address this global problem is to work across country borders to share best practices and information to eradicate marine debris at its source. With the support of a joint project agreement in 2008, the NOAA Marine Debris Program and the Republic of Korea's Ministry of Land, Transportation, and Maritime Affairs engaged in preliminary discussions on critical needs and actions to address marine debris globally. The overall objective of this joint project was to transfer new technology and critical implementation information on marine debris removal practices, monitoring, and prevention techniques between South Korea and the United States in order to reduce the harmful impacts marine debris has on our coastal environment.

<http://marinedebris.noaa.gov/projects/koreaajpa.html>

RESEARCH & REDUCTION

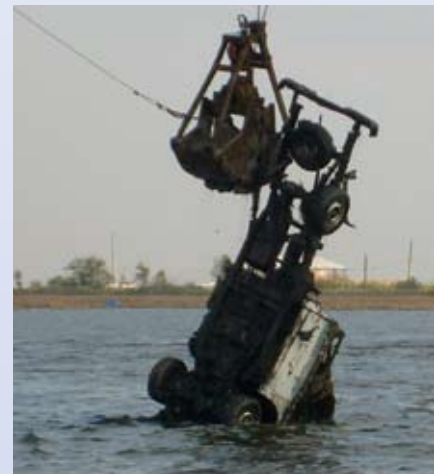
International Research Workshop on the Occurrence, Effects, and Fate of Microplastic Marine Debris

Over 30 scientists from the United States, Australia, Japan, the Netherlands, and the United Kingdom gathered at the University of Washington (UW) Tacoma September 9 and 10, 2008, for the first International Research Workshop on the Occurrence, Effects, and Fate of Microplastic Marine Debris. This workshop was a collaboration between UW Tacoma and the NOAA Marine Debris Program. Experts shared their research findings and knowledge on the varied topics of microplastic occurrence and movement in the oceans, direct effects of microplastics on marine organisms, the interaction of persistent organic pollutants with plastics, the potential for plastics to sorb these pollutants in the marine environment, and the effect plastics could have on the global cycling of persistent organic pollutants. Gaps in research were identified in order to discuss possible research initiatives to move the science of these fields forward.

<http://marinedebris.noaa.gov/projects/rschwshop.html>

Gulf of Mexico Marine Debris Project

To address marine debris impacts from Hurricanes Katrina and Rita and restore traditional fishing grounds, Congress funded NOAA's Office of Coast Survey and Office of Response and Restoration to conduct surveys for marine debris, map debris items found, and disseminate this information to facilitate debris removal and enhance boater safety. In 2006-2007, NOAA surveyed and mapped over 5,000 potential debris items in Alabama, Mississippi, and part of Louisiana. In 2008-2009, NOAA began surveying the coastline of Louisiana, finding nearly 1,000 items to date. Working with the US Coast Guard, Federal Emergency Management Agency, and state agencies, NOAA also coordinates the review of survey images to facilitate removal and provides a website with static and interactive maps of all the targets found as well as target analysis and outreach material. Staff are also working to educate the general public and fishing and boating communities through extensive outreach efforts.



RESEARCH & REDUCTION

Highlights from MDP-funded Projects



Marine Debris Removal from the Northwestern Hawaiian Islands

Marine debris removal efforts have been conducted in the Northwestern Hawaiian Islands (NWHI) since 1996. In 2006, these efforts switched to a "maintenance mode," in which more-targeted efforts focusing on high-density areas of derelict fishing gear are conducted. Since this highly visible project began, over 664 tons of derelict fishing net have been removed from reefs and shores across the NWHI. Derelict nets removed during this project are brought back to Honolulu and used to create electricity in Hawaii's Nets to Energy program. The MDP has contributed to this project since 2005.



Assessing Derelict Fishing Gear and Other Marine Debris in Deepwater Benthic Habitats Off California

Using video footage from a 15-year survey of groundfish habitats in deep water (20 to 365 meters), this project compared the distribution, abundance, type, and potential impacts of marine debris found at offshore banks in southern California, and in submarine canyons and on the continental shelf off central California. Results showed the density of debris much lower in southern California than farther north. Fishing was the primary source of debris at all three sites, with commercial fishing items more abundant to the south, while recreational monofilament line dominated at shelf and canyon sites off central California.

Identification, Mapping, and Assessment of Derelict Fishing Gear in the Chesapeake Bay

The NOAA Chesapeake Bay Office (NCBO) and Virginia Institute of Marine Science (VIMS) are quantifying and assessing the impact of derelict fishing gear (DFG) on the ecosystem of the Chesapeake Bay. NCBO's current project confirms protocols for identifying DFG in murky waters and provides valuable information on the impact that derelict gear has on various fish stocks in the Bay. VIMS is also researching escape mechanisms for lost pots. Accomplishments to date include ground-truthed pre- and post-season maps of derelict crab trap locations, and monitoring of the rate of ghostfishing and bycatch in approximately 700 derelict crab traps throughout the Bay.



For a full list and description of MDP projects, visit

<http://marinedebris.noaa.gov/projects/>

OUTREACH & PREVENTION

Keep Oceans Clean

NOAA MDP, NOAA Fisheries, and The Walt Disney Company, along with the Ad Council, National Marine Sanctuary Foundation, US Department of Interior, and Environmental Defense, renewed a partnership to enhance the Keep Oceans Clean Alliance through the release of the prequel to the popular Disney movie *The Little Mermaid*. The project utilizes the characters of the new movie, *Ariel's Beginnings*, to provide a central focus on the importance of keeping our oceans clean of marine debris by putting trash in its proper place, using reusable items, and recycling. The campaign includes DVD inserts with specially produced educational information; billboard, radio, and television public service announcements; and an updated website and video game.

<http://www.keeпоceansclean.org/>



Prevention through Partnership: Ocean Conservancy

The NOAA Marine Debris Program has valued Ocean Conservancy as a key partner since 2005, contributing annually to the International Coastal Cleanup (ICC) event and conference. The MDP has been directly involved in organizing NOAA-wide cleanups in conjunction with the ICC in the District of Columbia, Seattle, and Honolulu. At each event NOAA staff, their family, and friends have gotten involved in helping clean up our shores and waterways. The MDP also provides resources and products to help the ICC achieve its mission, "A Day at the Beach Becomes a Year-Round Movement." The MDP is developing further partnership opportunities with this organization, whose influence and impact continues to expand and grow.

<http://marinedebris.noaa.gov/projects/icc.html>



OUTREACH & PREVENTION

Marine Debris Web Education Campaign: Marine Debris 101

The NOAA Marine Debris Program worked with its partners to create a Web-based educational campaign for marine debris awareness and prevention. This campaign includes resources specifically designed for different interests such as boating, ocean recreation, education, and fishing. A special feature of this campaign is a marine debris curriculum designed for K-12 students that meets US standards and has been tested in the classroom.

This campaign was among several key marine debris abatement efforts highlighted by former First Lady Laura Bush during the 2007 dedication of a Coastal Ecosystem Learning Center in Ocean Springs, Mississippi. Mrs. Bush declared marine debris a cause that she was personally interested in. She participated in several marine debris events and made marine debris the focus of the 2008 White House Easter Egg Roll.

<http://marinedebris.noaa.gov/marinedebris101/>

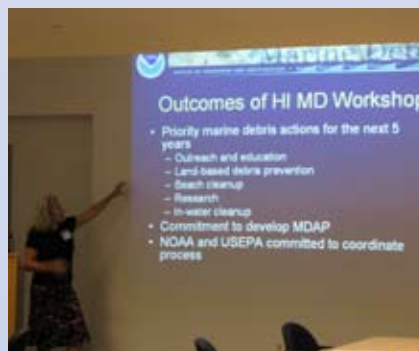
Partnerships

Marine debris is indeed a global problem that cannot be solved by one entity alone. It takes the combination of many focused individuals and groups to truly tackle the problem. The MDP would not be as successful without the support and collaboration of its partners – from government agencies, non-governmental organizations, and private businesses to industry and academia.

<http://marinedebris.noaa.gov/projects/partners.html>



Marine debris is a problem we can solve and by **working together** we can **make a difference.**



In the Community

Number of...

- Educational events = 63 nationwide
- Presentations/lectures = 71 nationwide
- Educational products = 15 nationwide and region-specific
- Visits to the Marine Debris Program website = 226,421
- "Marine Debris Weekly Report" recipients = 200+

<http://marinedebris.noaa.gov/outreach/>

In the News

- BBC World Service
- Bloomberg News
- Discovery Online
- Earth and Sky
- Environmental Science and Technology Magazine
- Forbes Magazine
- Good Morning America, ABC
- Jim Lehrer News-Hour, PBS
- New York Times Magazine
- San Francisco Chronicle
- Sea Technology Magazine
- Sierra Magazine
- Time Magazine
- Washington Post
- World News Tonight, ABC

<http://marinedebris.noaa.gov/publications/>





Marine debris litters the shores of Kanapou, Kaho'olawe, HI.



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