



Photo: Heal the Bay

# Marine Debris and the Economy

Marine debris is an eyesore along shorelines around the world. It can be dangerous for wildlife, damage sensitive habitats, create safety and navigation hazards, and impact the economy.

In the United States, the tourism and recreation sector is the largest employer in the ocean and Great Lakes economy. Marine debris littered on beaches degrades the beauty of the environment and may even prevent tourists from spending their time and money in coastal communities that rely on tourism. Local governments and volunteer organizations also spend limited resources to clean up.

Lost and derelict fishing gear can impact commercial and recreational fisheries. Most modern gear is generally made of synthetic materials and metal, and can persist for a very long time in the environment. Once lost from the control of a fisher, derelict gear can degrade sensitive habitats, create hazards to safety and navigation, continue to capture wildlife, and compete with active gear. This can lead to injury or death for animals that become trapped or entangled in the derelict gear.

Plastics and other single-use items are a big part of our waste stream and a very visible part of the marine debris problem. In many communities, restaurants and food service businesses seek alternatives to single-use materials, but may need assistance in making the transition.

In order to reduce the economic impacts of marine debris, the NOAA Marine Debris Program (MDP) funds projects that benefit commercial and recreational fisheries, small businesses, and coastal communities by preventing marine debris from entering the marine environment in the first place and removing existing debris from shorelines and coastal areas.



Photo: NOAA



# The Benefits of Marine Debris Removal and Prevention

## Tourism and Recreation

Decreasing marine debris on our shorelines can increase tourism-related spending and jobs. A study funded by the MDP found that on coastal beaches in Ohio, reducing marine debris to almost zero was estimated to generate an additional **\$217 million tourism dollars** spent in communities and **over 3,700 jobs**. A project with **The Ohio State University** is tackling marine debris with visitors to a popular tourist destination - South Bass Island and the village of Put-in-Bay, Ohio. Tourists can generate a significant amount of single-use plastics that can enter Lake Erie. By preventing these items from entering the environment through a multi-faceted education campaign, tourists will benefit both the natural environment and the tourism industry by keeping island beaches and natural areas free from debris.

## Fishers and Fisheries

Efforts to remove derelict fishing gear can be designed to provide commercial fishers with additional income, while also benefiting the ecosystem. In Alaska, the **Island Trails Network** runs a Set-Net Bounty Program. Through this voluntary program, set-net fishers are paid to remove marine debris from coastlines near their respective fishing sites during fishing closures. Nearly 14 metric tons of debris have been removed to date. In North Carolina, the **North Carolina Coastal Federation** hired local fishers during the closed season to recover 12 tons of derelict crab pots. This project was sustained with funding from the North Carolina General Assembly that hired 72 fishermen and removed over 4,200 pots from state coastal waters. In New Jersey, **Stockton University** found that a one-time investment in a low-cost sonar and grapple system for a single crabber who remains active for 20 years may prevent more than 800 lost traps and 'return' 40,000 blue crabs to the fishery through avoided ghost fishing.

Removing derelict fishing gear can improve the efficiency of active gear by reducing competition from ghost fishing and increasing commercial landings. With an estimated 145,000 derelict crab pots currently in the Chesapeake Bay, a MDP-funded study found that the targeted removal of derelict crab pots in high-density fishing areas would increase the harvest of blue crabs by 38 million pounds, and result in an increase of **\$33.5 million in revenue** (in 2014 dollars).

## Small Businesses

A significant amount of marine debris comes from land-based sources, with food and beverage single-use packaging making up a large part. Providing alternatives to disposable food packaging can help prevent marine debris and can help restaurants and food service businesses save money. A past project with the **Clean Water Fund** worked with take-out food businesses in Santa Clara County, California to identify opportunities to voluntarily reduce the use of commonly littered food and beverage packaging, while reducing costs to the restaurants. These small, locally-owned businesses eliminated over 1.4 million single-use disposable items, prevented 24,265 pounds of waste, and saved an average of **\$6,000** a year. Organizations across the Gulf of Mexico are working for a **Plastic Free Gulf Coast**. Active in Alabama, Mississippi, and Louisiana, the Plastic Free Gulf Coast partners are working with communities, restaurants, and businesses to reduce and hopefully eliminate single-use plastics. Through their work they found that 60% of people are willing to spend an extra \$0.40 per meal to support plastic-free alternatives.

Photo: Elizabeth Zimmermann, Stockton University

