



Marine debris is everyone's problem.



It affects everything from our environment to our economy; from fishing and navigation to human health and safety; from the tiniest coral polyps to giant humpback whales. Marine debris also comes in many forms, from a small cigarette butt or bottle cap to car parts or a 4,000 pound derelict fishing net.



Marine debris is a problem we **can** solve together; we know how. Although marine debris is a problem worldwide we can all help, with even 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.



IN NATURE THERE ARE NEITHER REWARDS NOR PUNISHMENTS, THERE ARE CONSEQUENCES.

Robert G. Ingersoll

www.MarineDebris.noaa.gov



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 prevention, identification, and reduction of marine debris on a national and international level.



The University of Hawaii Sea Grant College Program supports an innovative program of research, education, and extension services directed to the improved understanding and stewardship of coastal and marine resources of the state, region, and nation. Science serving the people of Hawaii and the Pacific for over 40 years.

Q: What is Marine Debris?

A: Solid man-made material

Directly
(from a ship or ocean platform)



Indirectly
(from storm drains, etc.)



Intentionally disposed

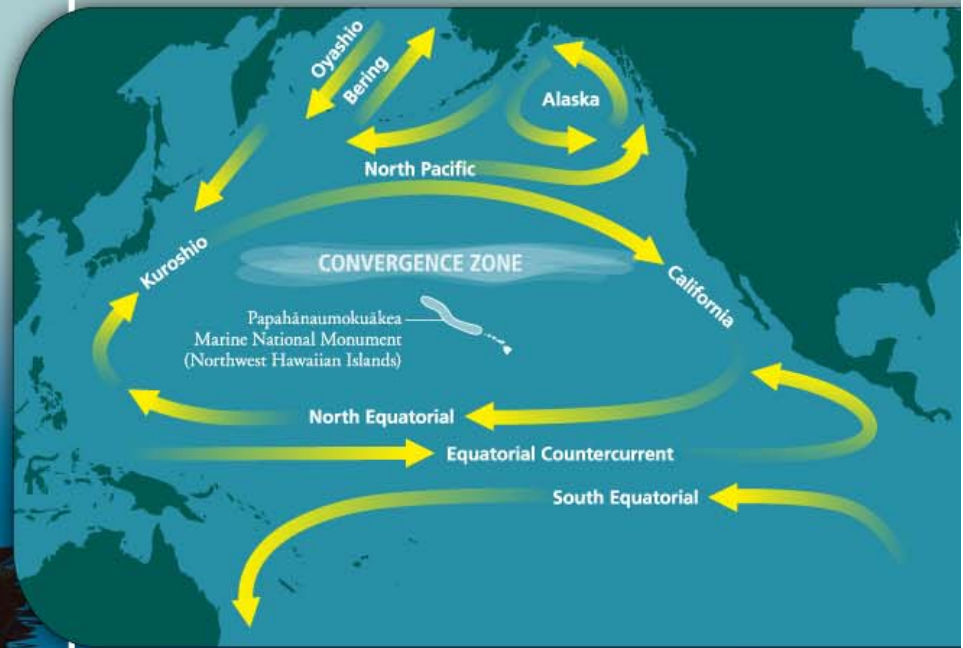


Unintentionally abandoned



into our marine environment

Marine debris moves with the winds and ocean currents, sometimes far from its origin.



In the north Pacific Ocean, a marine debris "hot spot" known as the **Subtropical Convergence Zone (STCZ)** concentrates debris. Debris accumulates in this area because surface waters come together, driven by winds. This "hot spot" shifts southward over the Hawaiian Archipelago during winter months, carrying with it marine debris from around the Pacific Ocean.

IMPACTS OF MARINE DEBRIS

Human health and safety

Habitat destruction

WILDLIFE ENTANGLEMENT

DEBRIS INGESTION

Vessel damage and navigational hazard

Alien species transport

Aesthetics or beauty of our environment

ENTANGLEMENT

Marine debris, such as ghostnets (derelict fishing nets), fishing line, and trap gear (crab pots), poses an entanglement threat to our wildlife. These entanglements can lead to serious injury and often death.



Humpback whales (*Megaptera novaeangliae*)

Each winter humpback whales come to Hawaii to mate, calve, and nurse their young. Though these creatures can grow up to 45 ft. long and weigh up to 45 tons (90,000 pounds), they are susceptible to entanglement in both marine debris and active fishing gear.

FOR MORE INFORMATION on Hawaii's humpback whales visit NOAA's Hawaiian Islands Humpback Whale National Marine Sanctuary at hawaiihumpbackwhale.noaa.gov.



Hawaiian monk seal (*Monachus schauinslandi*)

Monk seals are the most endangered seal species in the world, with both the Mediterranean and Hawaiian monk seals critically endangered. The Hawaiian monk seal is the only living tropical seal, with just over 1,000 individuals remaining. Almost all individual Hawaiian monk seals are known to the scientists studying them, making them one of the best understood large animals on the planet. Between 1982 and 2006, a total of 268 Hawaiian monk seal entanglements were documented; many of these seals were saved by the NOAA scientists studying their populations, and many of the seals have been seen in subsequent years. Given the poor status of their population, the death of even one monk seal from marine debris is a great loss.



INGESTION

Marine debris is often ingested by animals such as sea turtles, marine mammals, and seabirds. Items such as lighters and small plastic

pieces may look like food to an animal, or have an animal's natural food attached to it. Debris may also be ingested accidentally with actual food items. Sometimes debris ingested is regurgitated, but many times eating debris leads to illness, starvation and even death. Recently, plastic particles have been shown to concentrate toxic chemicals. More research is needed on the transfer of these toxins to the animals that ingest them.



Five species of sea turtle can be found in Hawaii. Worldwide, marine debris ingestion has been reported in six of the seven sea turtle species. Sea turtles have been found to have ingested marine debris ranging from plastic pieces and bags to aluminum foil.

WHAT TO DO

if you see an entangled animal:

ENTANGLEMENT REPORTING INFORMATION: NOAA Fisheries at 1-888-256-9840 or United States Coast Guard on VHF channel 16 (156.8 MHz)

NEVER APPROACH AN ENTANGLED ANIMAL. Entangled animals, whether dead or alive, pose risks to human health and safety.

HOW YOU CAN HELP

To learn more about marine debris and how you can help, visit

www.MarineDebris.noaa.gov

- GET INVOLVED!** Participate in local cleanups in your area.
- Remember that our lands and seas are connected.
- REDUCE** the amount of waste you produce.
- REUSE** items whenever possible! Choose reusable items over disposable ones.
- RECYCLE** as much as possible! Bottles, cans, cell phones, ink cartridges, and many other items can be recycled.