



Photo: NOAA

What are Garbage Patches?

The term 'garbage patch' is a misleading nickname for areas of the open ocean where man-made litter and debris accumulate. Although many believe that garbage patches are "islands of trash" that are visible from afar, these areas are actually made up of small plastic pieces, called microplastics, that are easily missed at first glance, or bundles of derelict fishing gear. This debris is always moving due to winds and currents, causing the garbage patches to constantly change size and shape. The items making up the garbage patches can be found from the surface all the way to the ocean floor.

Garbage patches are created from rotating ocean currents called gyres. These currents pull debris into a centralized location, forming 'patches' where marine debris accumulates. Although these patches exist around the world, the most well-known is the 'Great Pacific Garbage Patch,' located between California and Hawaii in the North Pacific Subtropical High.

What are the impacts of garbage patches?

Large accumulations of marine debris can threaten wildlife through entanglement, ingestion, and ghost fishing, and can be a hazard to ocean vessels by clogging engines and propellers. More research is needed to fully understand the specific impacts of garbage patches on both humans and the environment.



Why don't we just clean up the garbage patches?

Cleaning up marine debris found in the open ocean is not as simple as it may sound. The NOAA Marine Debris Program instead focuses on the prevention of marine debris, as well as removal from coastlines where debris is more accessible. Cleaning the open ocean would be challenging for several reasons:

Things keep moving. The areas where debris accumulates move and change throughout the year as wind and water currents shift.

They're really big. These accumulations of debris are usually very large and debris is unevenly distributed from the surface of the water all the way to the ocean floor.

Most of the debris is tiny. The garbage patches are composed mainly of microplastics, bits of plastic that are five millimeters or less in size. Because of their small size, microplastics can't be easily removed from the water column.

It would cost a lot. Collecting and transporting marine debris from the open ocean to shore for disposal could be very costly. Resources can go much farther when removal is focused along the coast.

How YOU can help!

The best way to prevent large accumulations of debris from getting larger is to stop debris from entering the ocean in the first place.

GET INVOLVED

and participate in local cleanups in your area.

REMEMBER

that our land and sea are connected.

DISPOSE OF WASTE PROPERLY

no matter where you are.

REDUCE

the amount of waste you produce.

REUSE

items when you can. Choose reusable items over disposable ones.

RECYCLE

as much as possible! Bottles, cans, cell phones, ink cartridges, and many other items can be recycled.

