

# The Great Pacific Garbage Patch

## What is the Pacific Garbage Patch?

90% of the garbage floating in the Earth's oceans is plastic and less than 5% of all plastic is recycled. The patch mostly consists of pelagic plastics, formed from plastic bags, plastic water bottles, bottle caps and styrofoam. Plastic does not biodegrade, the sun breaks these down into smaller and smaller pieces through photodegradation, which is why it is so difficult to judge the size of the patches, since these pieces are not visible from satellites or planes.

Debris ranges in size from abandoned fishing nets to micro-pellets found in abrasive cleaners. Garbage from Asia's east coast takes about a year or less to enter the Pacific gyre, while trash from the west coast of North America can take up to 6 years.



Pacific Garbage Patch Diagram



**SOURCES:**  
 Scripps Research Institute  
 Wikipedia.org (Great Pacific Garbage Patch)  
 NOAA (National Oceanic and Atmospheric Administration)  
 SEAPLEX (Scripps Environmental Accumulation of Plastic Expedition)

The size of the patch is unknown and estimated to be anywhere from 0.41% to 8.1% of the size of the Pacific Ocean. Most scientists estimate it to be twice the size of Texas.

## What Effect Does the Garbage Patch have on Wildlife?

These patches also contain chemical sludge and other debris and the plastic can absorb organic pollutants from the seawater. Fish and birds eventually eat the plastic once it has broken down to small enough pieces, which humans then eat.

Water skater insects (Halobates Sericeus) lay their eggs on bird feathers, pumice and seashells and both insect and egg are important to the marine food chain. The accumulating microplastic has caused them to alter their mating habits and are now laying their eggs on the floating plastic carrying them out of their natural ecosystem.

## Sources

- [Scripps Research Institute](#)
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- [SEAPLEX \(Scripps Environmental Accumulation of Plastic Expedition\)](#)

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