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What is the Plastic Island in the Pacific Ocean?

What is the Great Pacific Garbage Patch and How Can We Slow Its Growth?

Approximate areas of

RUSSIA

EASTERN GARBAGE PATCH North Pacific

Gyre currents

HAWAB

ACIFIC OCEAN

EQUATOR

CANADA

WESTERN GARBAGE PATCH

rubbish soup'

JAPAN

By Maryruth Belsey Priebe

If you haven't yet heard about it, be prepared to be surprised. The Great Pacific Garbage Patch - also known as the floating plastic island or Garbage Island - is a horrific mess of plastic garbage collecting out in the pacific ocean and wreaking havoc on the environment. We're all responsible, but there are things you can do to help.

Basic facts about the Pacific Plastic Island

What is the plastic island in the pacific? These basic facts about the growing, floating garbage island will give you an idea of just how big the problem is:

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Guide: Recycling Plastic	
Plastic Recycling Numbers Overview	
PET (Plastic #1) Recycling Overview	
HDPE (Plastic #2) Recycling Overview	
PVC (Plastic #3) Recycling Overview	•





- Volume of seaborne plastic waste: 10% of the 100 million tonnes of plastic produced every year worldwide end up in the sea either as it falls off of ships and platforms or gets blow from land.[1] They estimate the plastic gyre in the Pacific Ocean to be close to the size of two Texas's combined. While there are some large pieces, most of it has been battered by waves, breaking it down into small pea-sized (eatable) pieces.
- Wildlife deaths: It is estimated that hundreds of leatherback turtles die because they swallow plastic trash[2] which is the same fate suffered by over 100,000 marine mammals annually.[3] Other animals are impacted - sea otters choke on polyethylene rings from six-packs, gulls and swans are strangled by fishing lines and nylon nets, and other sea creatures end up swallowing things like combs, tampon cases, and toys.[4]
- Nurdles, nurdles everywhere: Used as raw materials to make untold numbers of plastic products, nurdles are lentil-sized pellets of plastic that are transported by sea, with over 100s of millions of them spilled in the ocean every year.[5] When loosed into the ocean, persistent organic pollutants (POPs) like DDT and PCBs already in the oceans glom onto nurdles, which are then consumed by wildlife. These account for close to 10% of all marine plastic debris.[6]
- **Toxic emissions:** As plastics break down in the low temperatures of the ocean, they release chemicals not found in nature, including bisphenol-A (BPA), polystyrene-based oligomers, and others which are harmful to the growth and development of marine animals.[7]
- **Smothering hazard :**As plastic gets broken down into tiny pieces, it sinks to the bottom of the sea where it can smother small creatures that are important to ocean ecosystems.
- **Impossible clean up:** Unfortunately, trawling the ocean to clean up this mess would be nearly impossible and could potentially harm plankton and other marine life living in the affected areas. Since some of these plastics can last in the ocean for hundreds of years before breaking down, the problem will be with us for many generations to come.[8]





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What causes the build-up of plastics in the ocean?

But how does the plastic trash get to the ocean in the first place? There are many sources causing the Garbage Island, but these are the biggies:

- **Global influence:** Though the Great Pacific Garbage Patch is between Japan and Hawaii, the trash can come from Canada, Asia, and the US.
- **Sources:** An estimated 80% of the plastic in the garbage patch comes from landbased sources like landfills. The remaining 20% comes from ships at sea.[9]
- **City litter:** When you throw your gum wrapper or plastic cup onto the street, it can end up in the stormwater system and be washed out to sea.
- **Beach visitors:** Whether you're on a tropical vacation or just taking a walk by the beach near your home, any trash that you throw into waste bins or on the ground has the potential to blow into the ocean and be carried out to the Pacific Garbage Island.
- **Industry:** In some cases, industries and governments will dump plastic and other trash into the sea, either by accident or on purpose (illegally). It can also come from fishing ships, oil platforms, and shipping containers.

How you can help prevent garbage from floating in the ocean

Thankfully, there are many things you can do to prevent further environmental destruction from plastics that end up in our ocean ecosystems. These important steps are all of our responsibility:

- Pick up trash whenever you see it and properly dispose of it.
- When putting your recycling bins and trash cans to the curb, be sure that you secure your waste so that it doesn't blow away.
- Reduce the amount of plastic you use in your life.
- Ensure that you recycle as much plastic as possible.
- Participate in your local beach or stream clean-up projects to collect trash from wild spaces.

Learn more about Plastic Island with these videos and online resources to get an even grimmer

view of this shocking, disgusting unfolding story:



- Capt. Charles Moore on the seas of plastic TED video
- Polymers Are Forever by Alan Weisman Orion Magazine
- The Trash Vortex Greenpeace

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