



Possible Solutions?

How Can Individuals Can Help?

- Reduce plastic use.
- Participate in beach clean-ups. This reduces waste being pulled out by tides.
- Ask your family to choose seafood that is sustainable. Look for the "Oceanwise" symbol.
- Don't purchase items from fragile ocean systems - coral jewelry, shark products, or tortoise shell accessories.
- Never flush cat litter. It contains pathogens that can harm marine life.
- Practice responsible boating, kayaking, and other recreational activities on the water. Never throw anything overboard.



Are There Bigger Clean Up Solutions?

The **Ocean Cleanup** is developing advanced technologies to rid the world's oceans of plastic. This company has a plan, test it, and is currently revising it to make it work. (theoceancleanup.com/about/)

The **Seabin Project** is installing floating rubbish bins (with a pump and filtration center) at harbors, marinas, and other major hotspots, cleaning up garbage and oil floating in the water.

Origin Materials plans to manufacture plastic bottles from completely renewable biomass materials, such as sawdust and cardboard.

Great ideas! Will they work?



THE GREAT PACIFIC GARBAGE PATCH





What Is The Great Pacific Garbage Patch?

In the middle of the Pacific Ocean, half way between Hawaii and San Francisco, is the world's largest collection of floating trash.

How Did It Get There?

Trash whirls together in this area because of a giant circular ocean current, called a gyre, that pulls in the trash we have dumped into our oceans or left on our beaches for the tide to take away.

The Patch is created in the gyre of the North Pacific Subtropical Convergence Zone.

What Is In It?

This swirling mass is mostly plastic items, including:

- tons of trash from fishing expeditions, including fish nets
- beach picnic supplies
- plastic bags
- straws
- bottles
- even toothbrushes and flip flops!!!

What Problems Does It Cause?

Many birds, turtles, and other sea animals go to Pacific Islands to lay their eggs and raise their young. Unfortunately, they eat the smaller pieces of plastic, thinking that they are food swimming in the ocean. They also get caught in the garbage.

For example, plastic from this patch has affected albatrosses, a bird that grabs food on the go, which leads to many of the birds ingesting -- and dying from -- plastic and other trash. On Midway Island, albatrosses give birth to 500 000 chicks every year. 200 000 of them die, many of them by consuming plastic fed to them by their parents, who confuse it for food.

The United Nations Environment Program estimates that the plastic soup causes the death of one million sea birds and 10 000 sea animals every year. Some micro-invertebrates have also been found to eat tiny pieces of plastic with similar results.

