

Great Pacific Garbage Patch Facts sheet

- It was discovered in 1997 by Charles Moore. Moore was sailing his boat home to California after completing a yachting race when he saw that wrappers, bottles, bottle caps and other plastic debris were scattered across what ought to have been a clear piece of ocean. He was so shocked by this that he founded the [Algalita Marine Research and Education Institute](#) which aims to create a world in which plastic pollution is 'unthinkable'.
- The Great Pacific Garbage Patch measures an estimated area of 1.6 million square kilometres, making it roughly three times the size of France!
- It isn't an island, but rather an area of ocean made up of plastic garbage, often in the form of microplastics so small that they are invisible to the naked eye. Even satellites can't spot it from space as it's a bit like a cloudy soup of plastic. The currents around it keep the plastic in place and it becomes stuck, gradually breaking down into smaller and smaller particles.
- No one knows how much plastic is in the garbage patch as it is too large for scientists to trawl and measure. It is thought to contain anything between 1.1-3.6 trillion pieces of plastic.
- The sea floor is also likely to be covered in garbage with around 70% of marine debris thought to sink to the bottom of the ocean.
- Around 45% of the plastic in the Great Pacific Garbage Patch is thought to have come from fishing nets.



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- Some of the items of plastic in the Great Pacific Garbage Patch is very old. Plastic doesn't decay like fruit or vegetables do, rather it undergoes a process called 'Photodegradation', where the particles get smaller and smaller until they become 'microplastics' which can be so small that they are invisible to the human eye.
- The plastic in the Great Pacific Garbage Patch is very harmful to wildlife. For example, turtles can mistake plastic bags for jelly fish and eat them. Albatross mistake small pieces of plastic for food and feed them to their chicks, causing them to starve and seals and other large wildlife can become tangled in large plastics like fishing nets.
- The Great Pacific Garbage Patch is the largest of five garbage patches in the world.
- Because the garbage patch is so far away from any coastlines no country will take responsibility for cleaning it. The cost of doing so would be enormous and would potentially bankrupt any country funding it. There are many other problems associated with cleaning it too. The plastic debris are often so small that you couldn't catch them without also risking catching many marine wildlife too. The National Ocean and Atmospheric Administration's Marine Debris Program estimates that it would take 67 ships one year to clean up less than one percent of the North Pacific Ocean. During a 2014 expedition Moore and his team found that there was potentially 100 times more plastic than previously thought and that there were even solid structures, like islands, 15m long amongst the debris.

