

Marine Pollution

Beach and ocean litter

Imagine this...

It's your first visit to the beach. You dreamed of this moment and the white soft sand and salty sea breeze. You wiggle your toes in the sand and they get caught in an old cigarette packet. You scoop up a handful of shells to look at, but end up holding mostly cigarette butts and sweet wrappers.

You can't believe there's so much rubbish on the beach. Not only is it ugly and depressing, it's harming animals. Where did all this disgusting rubbish come from?

Beautiful beaches and oceans in Vietnam and around the world are being spoiled by more and more rubbish (debris). There is a lot of rubbish floating around out there and it is harming our wildlife and our food sources.

Marine Debris Survey, Australia

A Marine Debris Survey at Cape Arnhem in northern Australia counted, identified and collected all the rubbish washed up on the beach.

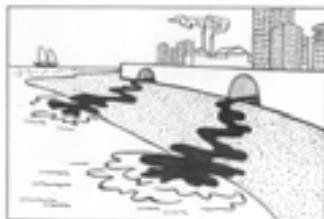
Ten people surveyed 8 km of beach over ten days. They collected a massive 7561 items (3880 kg) of marine debris!

Sources

Pollution enters our oceans from

1. Humans on land

- Rubbish dropped in the street washes into drains and streams and ends up in the ocean.
- Factory waste flows into the ocean.
- People leave rubbish on the beach.



2. Humans on the ocean

- Rubbish from boats, *e.g. kitchen waste, discarded or accidentally lost fishing nets and floats.*

Rubbish kills!

Seven billion tonnes of debris enters the world's oceans annually, most of it long-lasting plastic.

Plastics generally make up about 60% of rubbish, and are the worst killers in the ocean.

An estimated **100 000** marine mammals (dugong, dolphins, whales) and turtles are killed by plastic rubbish every year around the world.

Turtles, fish, birds, whales, seals and other marine animals are all killed or injured by rubbish.

Fishing line, nets, rope, packaging bands and so on trap and strangle animals.



Large marine animals such as seals, turtles and dolphins can starve to death when rubbish **traps** their mouths or limbs.

Plastic is also accidentally **eaten** by wildlife. Sea turtles mistake floating plastic bags for tasty jellyfish and swallow them – a dangerous mistake.



*Did you know - **Land-based sources** cause **80%** of the marine debris found on our beaches and in our waters.*

Rubbish lives a long time!

Plastic bags on the ocean floor take 10 to 20 years to decompose. Plastic bottles take much longer.

Because of this, **one piece of rubbish can kill many animals**. An animal killed by swallowing plastic will decompose long before the plastic does, leaving the plastic free to kill again.

Plastic-filled whale

An autopsy on a dead whale in Australia found its stomach was filled with 6 square metres of plastic rubbish! The whale's stomach contained no food, only plastic. Perhaps the whale thought the pieces of plastic were squid, its normal food.

Whose fault is it?

At least half of the litter on beaches near cities and towns comes from the land.

While some rubbish is left on the beach, much starts as street litter that has washed down to the ocean along stormwater drains.

Some people do not realise or care that stormwater drains are not rubbish receptacles and that materials discarded into them, whether plastic litter or dumped oil, flows to the sea.

Most of us use too much packaging, especially non-biodegradable plastics. Many products are wrapped in several layers of plastic and we often let even small purchases be put into plastic carry bags.

We are all responsible for keeping the oceans and beaches clean!



Ask yourself

- Apart from debris (rubbish), what other types of marine pollution are there?
- How many marine turtles and other wildlife do you think die from marine debris and pollution in the ocean near your home?
- Where does all the pollution come from?
- What are your responsibilities?
- What are the responsibilities of the government?
- What should happen to people or companies that pollute the marine environment?

What you can do!

1. Respect drains & don't litter.

Remember that stormwater drains flow straight to waterways. Don't throw rubbish in the street or gutter because it might end up in the ocean or on the beach.

2. Create less rubbish in the first place.

Don't buy products that are 'overpackaged'. Re-use your plastic shopping bags or take cloth bags to the shops or market.

3. Tell your friends and family

about the dangers of rubbish to marine animals. Encourage them to do the right thing with their rubbish.



5. Reduce water pollution.

Many of us pollute water unthinkingly. Do the right thing,

- Pick up rubbish from footpaths, gutters and stormwater drains before it enters waterways.
- Avoid putting solid wastes (tea leaves, coffee grounds, milk and oils) into drainpipes.
- Use compost rather than fertilisers on your garden so chemicals are not washed into stormwater drains after rain or heavy watering.
- Don't put chemicals, solvents, paints or poisons down stormwater drains, sinks or toilets.
- Use natural or environmentally friendly cleaning products.

Information and text sources

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Other information was sourced from;

<http://www.epa.gov/OWOW/oceans/debris/>

<http://www.ea.gov.au/coasts/pollution/index.html>

Kiessling, I. and Hamilton, C. (2001). Marine Debris at Cape Arnhem Northern Territory, Australia. WWF report Northeast Arnhem Land Marine Debris Survey 2000. WWF Tropical Wetlands of Oceania program. Darwin, Australia.

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