



Marine Debris

Seas and oceans are home to thousands of species of marine life - so why do we use them as our dumping ground?

Marine debris is the name given to waste that finds its way into our seas and oceans. Plastics, rubber, metal, wood and glass can be found floating in our oceans or washed up on our beaches. Marine debris is not only a hazard to ships, divers and beach goers – it is a threat to marine life and consequently, human populations.

Did you know?

- Plastic kills up to 1 million sea birds, 100,000 sea mammals and countless fish each year.
- Ocean currents can distribute marine debris all over the world. In the North Pacific, in an area called the Pacific Ocean Gyre, prevailing currents have trapped millions of pieces of floating debris.
- Every day ships throughout the world throw 5.5 million items of waste overboard
- Annually, 3 times more waste is dumped into the world's oceans as the weight of fish caught.
- Mr Ian Kiernan AO Chairman and Founder of Clean Up the World, started the campaign after seeing vast amounts of plastic and litter floating in the ocean while sailing around the world.
- In the 1960's the port of Liverpool in the UK was choked with rubbish. A floating device called a 'Water Witch' was developed to combat the problem. There are now 'Water Witch' devices in ports in Hong Kong, New York, Singapore, Cape Town and London.
- A sperm whale found dead on a North American beach starved to death because a plastic bottle it had swallowed plugged its small intestine. The animal was full of debris ranging from plastic bottles to nylon rope.

The Issues

As the world's waterways become more polluted we begin to feel the increased impact of this on land. More fish and shellfish are contaminated; species become rare or extinct, our beaches are dirty and ships are being damaged by floating debris.

People commonly encounter marine debris on the beach, where anything from plastic bottles and bags, to shoes, fishing equipment and food containers are washed ashore.

Land

Marine debris is not caused solely by beachgoers and shipping. Although some waste is dumped intentionally, 60-80% of debris originates directly from land sources.

Waste washes into seas and oceans via stormwater drains, waterways and sewage outlets. It also blows in from landfill sites.

Ghost fishing

Abandoned fishing equipment or 'ghost nets' can affect marine life for many years, trapping and killing not only fish, but marine mammals, seabirds and turtles before finally sinking to the sea bed where it creates more problems with coral and other plants and animals.

Livelihood

Marine debris has the ability to affect the health and livelihood of coastal communities, both with problems caused to marine life used as food and with less viable tourism opportunities in debris-affected areas.

Plastic

Of all the waste dumped into our seas and oceans plastic is perhaps the most environmentally damaging.

According to the United Kingdom's Environment Agency about 111 of the world's 312 species of seabird are known to accidentally eat plastic debris. Susceptible species are surface-feeders such as albatrosses and seagulls, and plankton-feeders such as puffins and auklets.

As most plastics have a lifetime of up to 1000 years, an animal that dies after eating it will decompose before the plastic does, leaving the plastic to kill again.

Currents

In January 1992 a container containing 29,000 "rubber ducky" bath toys fell into the Pacific off a ship en route from Hong Kong to America.

11 years later, after floating up the western seaboard of America and across the waters of the North Pole, they were found making their way down the North Atlantic, washing up on the coasts of Iceland, Greenland and even Britain and Spain.

This incident shows just how far items can be carried by ocean currents. Waste and debris dropped into local waterways may eventually impact on a community across the other side of the globe.

Cleaner Seas and Oceans

Clean Up events are effective in removing debris from our seas and oceans. However, action also needs to be taken to reduce the volume of waste reaching beaches, coastal areas and waterways in the first instance.



What can you do?

Whether you live in a landlocked region or by the sea, there are many ways you can help reduce waste and its impact on marine environments. For example:

- Always put your waste into bins and don't drop litter on the street.
- Make sure your waste bin is securely fastened and nothing can be blown out by the wind.
- Never put oil or chemicals down the drain, as toxic materials will not only contaminate the rivers and waterways but also make their way to the sea.
- If you are boating or fishing bring all your waste back with you and dispose of it thoughtfully on land. Avoid taking disposable items on board or remove all plastic packaging and wrapping and dispose of it before you set off.
- Try and use biodegradable fishing equipment and bait bags.
- Take your waste items home from the beach with you.
- If you live on the coast, join a local environmental group and get involved in a beach clean up.

Law

Anyone dumping waste illegally can incur a large fine as part of the International Convention for the Prevention of Pollution from Ships (known as MARPOL).

Disposal of plastic in the sea is banned, and there are restrictions on other waste such as metals, glass and food being dumped less than 12 nautical miles away from the nearest land mass.

Although regulations like this have had a positive impact on the amount of marine debris, it is almost impossible to police them and unfortunately accidents do occur.

Preventative actions

Since 1999 the US Navy has installed compacters on their ships to compact plastic waste.

UNEP's Regional Seas Branch fosters cooperation for the protection and development of marine and coastal environments. Action Plans have been developed for regions including the Mediterranean, East Africa, Latin America and Caribbean and East Asian Seas.

Visit <http://www.unep.org/regionalseas/marinelitter/> for more information.

In 2004 the theme for World Environment Day was "Wanted: Seas and Oceans, Dead or Alive?" Information, resources and details of activities from around the world are still available on the website at <http://www.unep.org/wed/2008/english>.

Members Taking Action

Clean Up Greece organise regular beach clean ups each year. Past studies indicate collected waste typically comprises 50% plastic, 20% paper and 20% metal (mostly aluminium cans).

In Canada Ocean Net's mission is 'to instil an ocean conservation ethic'. It has facilitated 443 beach clean ups since 1997 and programs such as Adopt A Beach and Trash Ashore, targeted at recreational boats and fishermen. Each year it coordinates a Youth and the Oceans conference. Visit www.oceannet.ca for more information.

Further Information

Clean Up the World
www.cleanuptheworld.org
Clean Up Australia
www.cleanup.com.au
<http://marinedebris.cleanup.com.au>
Clean Beaches Council
www.cleanbeaches.org
earthdive
www.earthdive.com
Global Marine Litter Information Gateway
www.marine-litter.gpa.unep.org
High Seas Ghost Net
www.highseasghost.net
International Maritime Organisation
www.imo.org
UNEP - Marine & Coastal
<http://www.unep.org/regionalseas/marinelitter/>
<http://www.unep.org/wed/2008/english/>

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