



Plastic and ocean life

Background reading for teachers

This reading gives you the background for each slide, with sources you can check.

Species affected

A 2020 review of 747 studies found that marine debris, mostly plastic, had affected 914 species through entanglement or ingestion. Ingestion was recorded for 701 species and entanglement for 354. All seven sea turtle species have ingestion records.¹ The review notes that more recorded species partly reflects more research, not only more harm.

Fishing gear

In the Great Pacific Garbage Patch, at least 46% of the floating plastic by weight was fishing nets.² Lost and abandoned fishing gear, or ghost gear, keeps trapping animals long after it is lost.

Microplastics

Microplastics are usually defined as pieces smaller than 5 mm. They come from the breakdown of larger items, synthetic clothing fibres, and industrial pellets. They have been found in seafood, salt and water. Research on health effects is ongoing, so avoid presenting claims about harm to people as settled.

Cigarette filters

Most cigarette filters are made of cellulose acetate, a type of plastic, and they are one of the most common items found on beach clean-ups worldwide.

Sources

1. Kühn, S. and van Franeker, J.A. (2020). Quantitative overview of marine debris ingested by marine megafauna. Marine Pollution Bulletin.
2. Lebreton, L. and others (2018). Evidence that the Great Pacific Garbage Patch is rapidly accumulating plastic. Scientific Reports 8: 4666. doi.org/10.1038/s41598-018-22939-w
3. Marine Conservation Philippines. Organise a clean-up. marineconservationphilippines.org/organize-clean-up/

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