

How do plastics affect us?

Ko te pāpātanga o ngā kirihou ki a tātou

Our health and environments are affected by plastics



Ngā kirihou me taiao

How plastics affect the environment?

Plastic waste and debris can affect the mauri, or life force, of the environment including cultural health and wellbeing. Plastic pollution may damage habitats and reduce biodiversity through introduction of new pests and diseases.

Corals snagged with plastic debris are much more likely to be diseased (89%) than corals without any plastic (4%).



Ngā kīrehe

What happens when wildlife encounter plastics?

Wildlife can get caught in discarded plastics and often die if they cannot escape. Animals can mistake plastics for food, often resulting in injury or death.

Ka raru ngā kararehe taketake

Are native animals affected?

In Aotearoa, plastics have been found in sharks, seals, seabirds, turtles, fish and mussels.

Hauora

How does plastic affect human health?

- **Benefits** - Plastics are important in protecting food and beverages from damage and microbial contamination. In healthcare, plastics provide sterile equipment and hypoallergenic medical devices.
- **Potential harm** - Plastics, microplastics and chemicals associated with plastics contaminate our food, water, and air but we don't yet know how harmful this is.

Take! Action Kia kaha te mahi

Look at the diagram that shows how plastics affect human and animal health. What concerns you most? Can you think of ways to reduce plastics causing harm?

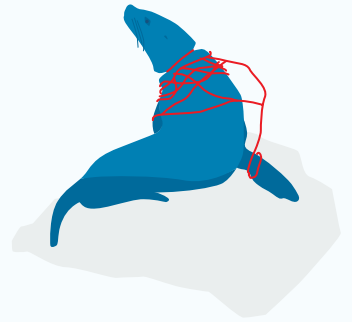
TOITŪ TE MARAE A TANE-MAHUTA, TOITŪ
TE MARAE A TANGAROA, TOITŪ TE TANGATA

If the land is well and the sea
is well, the people will thrive



How plastics affect human and animal health

Plastic pollution is not just an eyesore, but a problem that causes extensive harm to our environment and to the health and wellbeing of people and animals.



Animal health

Entanglement

Plastic pollution can cause harm to animals through entanglement. Many affected species are already rare and endangered.

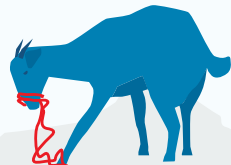
Inhibited movement can lead to:

Difficulty eating

Inhibited growth

Reproduction issues

Difficulty getting away from predators



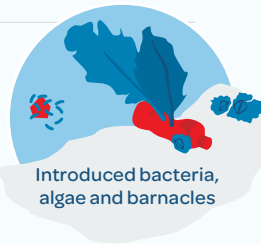
Biosecurity

Plastic debris can provide an artificial environment for foreign species to travel around the world's oceans, a process known as 'rafting', colonising new locations.

Invasion of foreign species can lead to:

Introduction of new pests and diseases

Reduction and loss of habitat



Introduced bacteria, algae and barnacles

Ingestion

Many animals ingest plastic debris by mistaking it for natural prey and food. The effects can be devastating, potentially resulting in death.

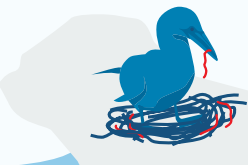
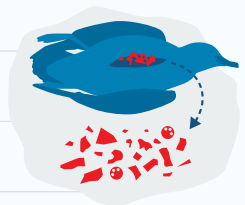
Ingested plastics can lead to:

Breathing issues

Difficulty eating

Impaired digestion

Accumulation of toxins



Areas of increased risk for our biosecurity



Where plastic is lost into the environment

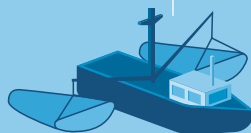
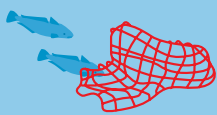
Physical structures accumulate debris

Currents concentrate floating debris



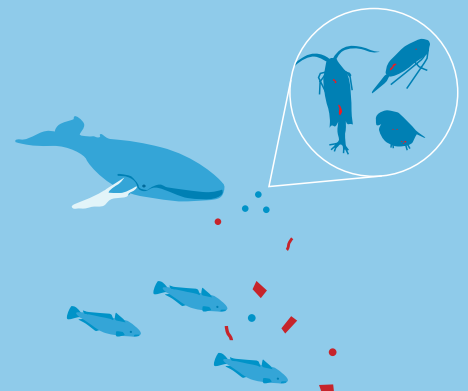
Ghostnets

Abandoned, discarded or lost fishing equipment does not degrade easily. A single net can entangle, capture and kill many marine species.



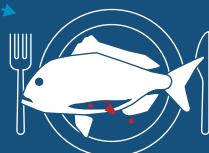
Food or plastic?

Plastic bags can resemble jellyfish in the water and be mistaken for food. Microplastics are ingested by marine animals, ranging from zooplankton to sharks and whales.



Human health

We are exposed to plastics and the chemicals associated with them through our diet and when breathing household dust, tyre dust and particles from burning plastics.



royalsociety.org.nz/plastics

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