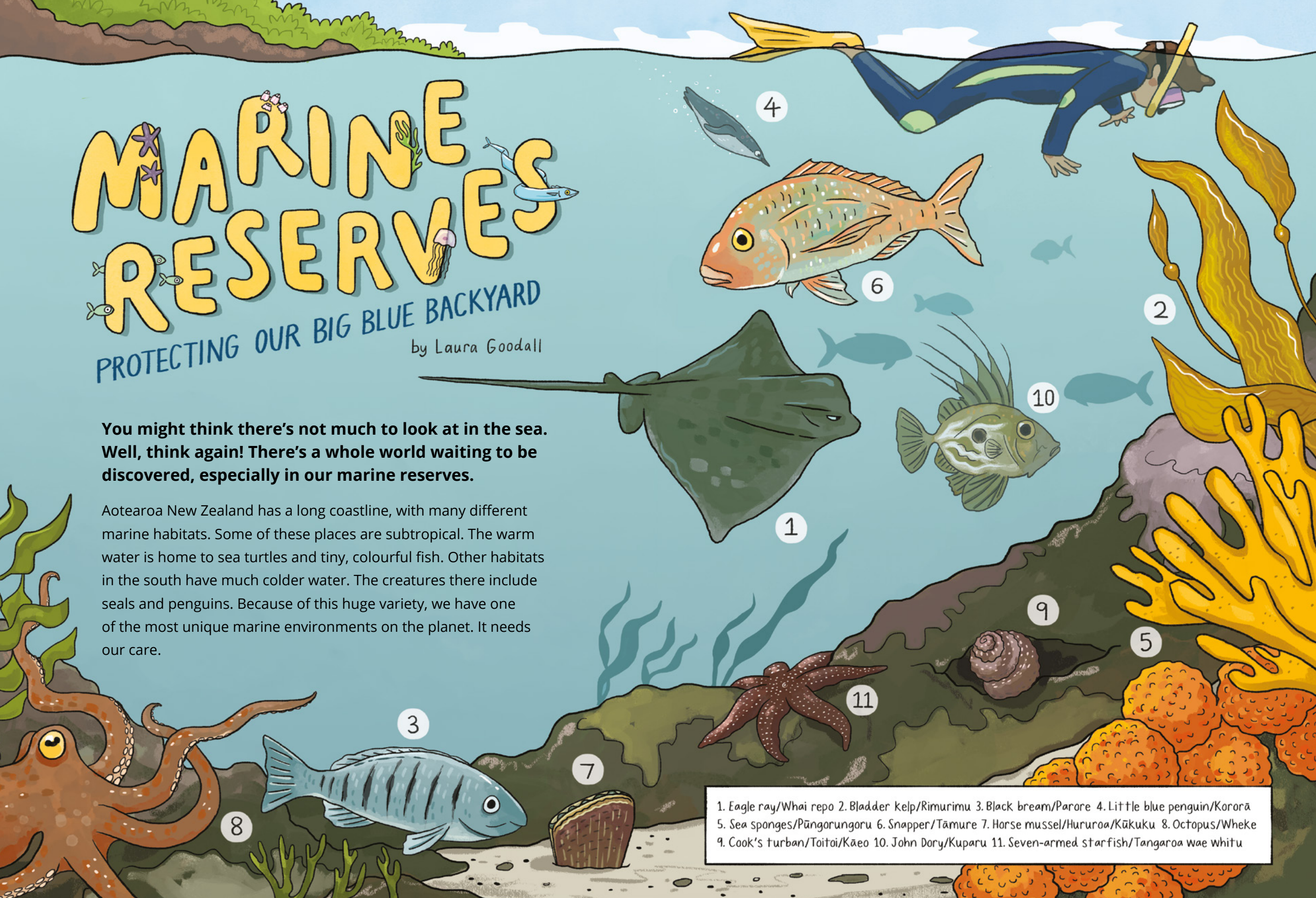


MARINE RESERVES

PROTECTING OUR BIG BLUE BACKYARD
by Laura Goodall

You might think there's not much to look at in the sea. Well, think again! There's a whole world waiting to be discovered, especially in our marine reserves.

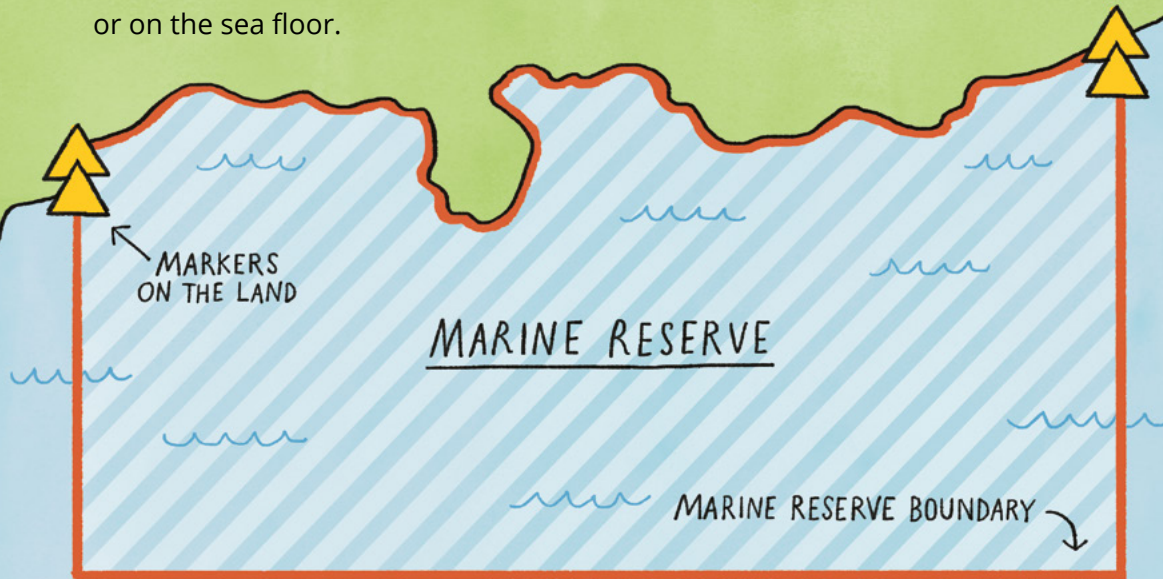
Aotearoa New Zealand has a long coastline, with many different marine habitats. Some of these places are subtropical. The warm water is home to sea turtles and tiny, colourful fish. Other habitats in the south have much colder water. The creatures there include seals and penguins. Because of this huge variety, we have one of the most unique marine environments on the planet. It needs our care.



- 1. Eagle ray/Whai repo
- 2. Bladder Kelp/Rimurimu
- 3. Black bream/Parore
- 4. Little blue penguin/Kororā
- 5. Sea sponges/Pūngorungoru
- 6. Snapper/Tāmure
- 7. Horse mussel/Hururoa/Kūkuuku
- 8. Octopus/Wheke
- 9. Cook's turban/Toitoi/Kāeo
- 10. John Dory/Kuparu
- 11. Seven-armed starfish/Tangaroa wae whitu

WHAT IS A MARINE RESERVE?

A marine reserve is any part of the sea or shore that's protected by law. People aren't allowed to take living things (fish, shellfish, seaweed, sponges) or non-living things (sand, rocks, shells, driftwood). Everything in a marine reserve is protected, whether it's on the beach, in the water, or on the sea floor.



WHAT'S IN OUR SEA?

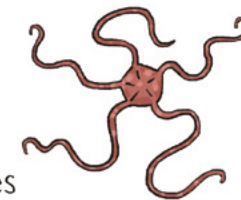
Our marine habitats are world famous because they contain so many kinds of animals and plants. This is called biodiversity. No one knows exactly how many marine species we have in Aotearoa New Zealand. So far, scientists have named around seventeen thousand. They think there are thousands more. People are finding new marine species all the time, but they need our care. Overfishing, climate change, and pollution are causing serious problems. Many of our marine habitats are no longer healthy places.

A DEEP DIVE

Most of the wildlife in Aotearoa (around 80 percent) is found in the ocean. If you explore our waters, you'll find:

600

different kinds of starfish and other creatures with spines



1,000

different kinds of seaweeds

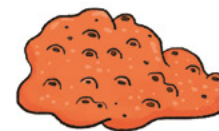


1,100

different kinds of jellyfish, anemones, and corals

1,400

different kinds of fish



1,500

different kinds of sea sponges



2,600

different kinds of crustaceans



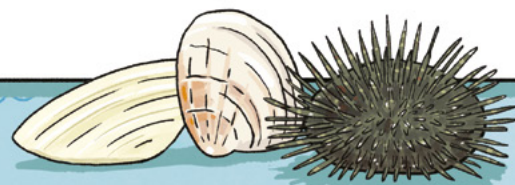
3,600

different kinds of molluscs

MAHINGA MĀTAITAI

Mahinga mātaimai are marine reserves that are managed by iwi and hapū. Many mahinga mātaimai are in places where Māori have always gathered kaimoana. People can still take fish and shellfish from mātaimai reserves, but big fishing boats are banned, and no one can sell kaimoana taken from the reserves. Mahinga mātaimai laws ensure that tangata whenua can protect the sea and its creatures for future generations.

The first mātaimai reserve, Rāpaki Bay mātaimai reserve in Whakaraupō/Lyttelton Harbour, was established in 1999. There are now fifty mahinga mātaimai around the country.



WHY ARE MARINE RESERVES NEEDED?

HEALTHY POPULATIONS

Marine reserves are special places where marine species can live and grow and be safe from harm, especially overfishing. The Cape Rodney–Okakari Point marine reserve has become a safe haven for baby tāmure (snapper). And the Tonga Island marine reserve has seven times more kōura (crayfish) than it did in 1996, when it became a “no take” area.

UNIQUE SPECIES

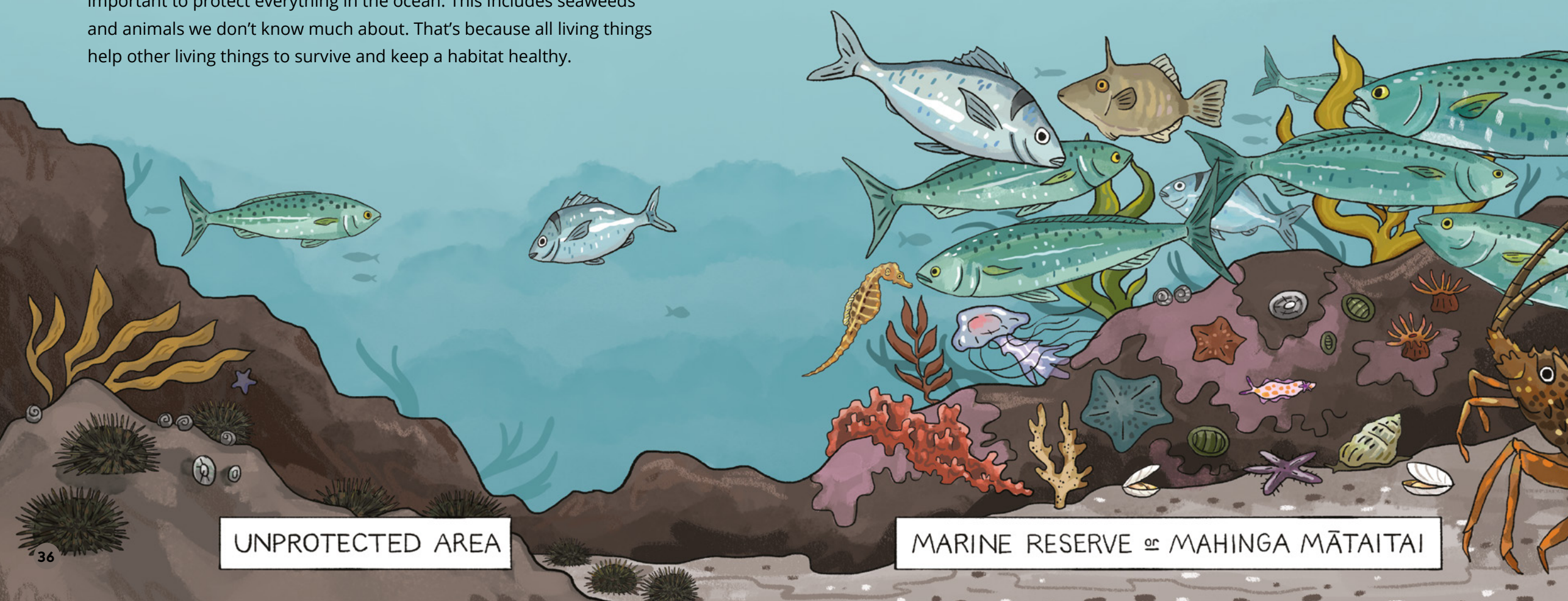
As well as everyday species like tāmure and kōura, marine reserves are home to unique species, including the ones only found here. We need to make sure these species survive – or they’ll be lost forever. But it’s important to protect everything in the ocean. This includes seaweeds and animals we don’t know much about. That’s because all living things help other living things to survive and keep a habitat healthy.

BIODIVERSITY

When a habitat is protected, it becomes more biodiverse. A biodiverse habitat is healthier than one with fewer species. It copes better with change and is more likely to survive challenging events, such as storms or heatwaves.

SCIENCE

Marine reserves are places where scientists can study what happens when a habitat isn’t disturbed by people. They can compare what they see in a marine reserve with what they see in unprotected areas. Scientists also study marine reserves over time. How do they change? What species do well and why? Answering questions like these helps us better understand sea life. The more we know, the more we can help.



UNPROTECTED AREA

MARINE RESERVE or MAHINGA MĀTAITAI


WHERE ARE OUR MARINE RESERVES?

Aotearoa was one of the first countries to protect parts of its sea and coastline. There are now forty-four marine reserves, five of which are around our off-shore islands. Te Papa Atawhai/Department of Conservation looks after our marine reserves. Check out the map to find one close to you.



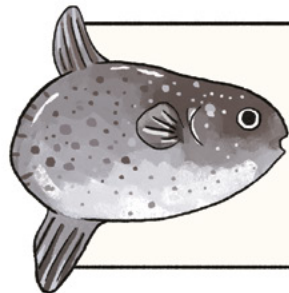
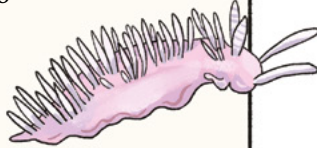
- 1** Oldest marine reserve: Cape Rodney-Okakari Point (created in 1975)
- 2** Biggest mainland marine reserve: Hikurangi
- 3** Most remote mainland marine reserve: Hautai
- 4** Smallest marine reserve: Te Awaatu Channel

MARINE RESERVE CURIOSITIES




MYCALE SEA SPONGE/PŪNGORUNGORU
The sea sponge *Mycale hentscheli* has a chemical scientists think might help to treat cancer. The sponge can grow up to fifteen times its original size in one year. *Found in Tāwharanui marine reserve, Auckland*

JASON'S NUDIBRANCH/KIRI TARATARA
This odd-looking, very large sea slug is only found in Aotearoa. It feeds on stinging hydroids – small creatures related to jellyfish. The sea slug is able to reuse some of its prey's stinging cells to defend itself. *Found in Parinihihi marine reserve, Taranaki*




SOUTHERN SUNFISH/RĀTĀHUIHUI
The rātāhuihui or southern sunfish can grow to be the size of a car. Scientists still have lots to learn about this species, which only lives in the southern hemisphere. *Found in Poor Knights Islands marine reserve, Northland*



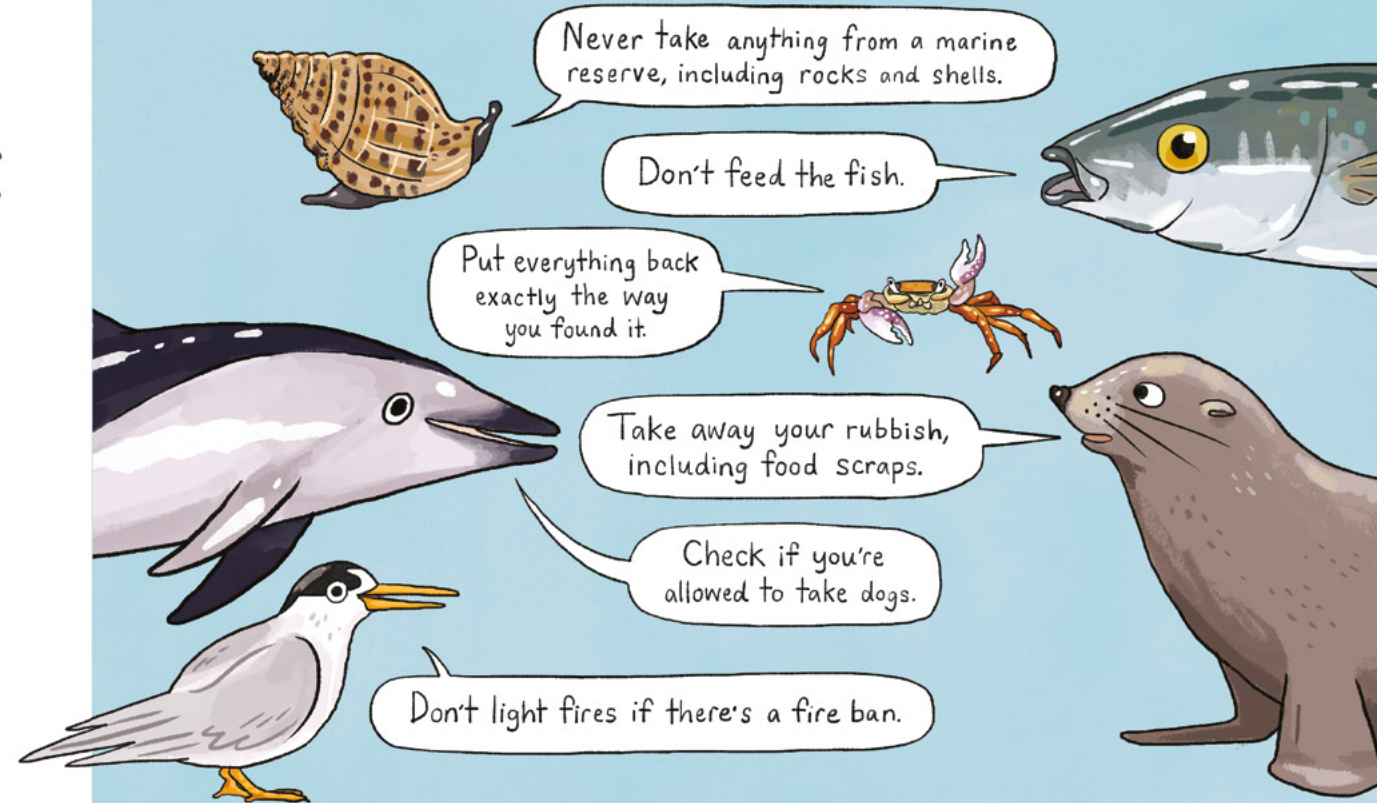
AMBUSH STARFISH/PEKAPEKA
This starfish has a clever way of catching food. It pulls its body away from a rock to create a kind of cave underneath. When prey passes through, it's ambushed by the starfish and eaten. *Found in Horoirangi marine reserve, Nelson–Tasman*

SOUTHERN BULL KELP/RIMURAPA
Southern bull kelp is very tough. It's sometimes used by Māori to make pōhā. These containers store food and hold water. *Found in Ulva Island–Te Wharawhara marine reserve, Rakiura*



MARINE RESERVES: WHAT CAN YOU DO?

Marine reserves are important for science, but they're also great places to be amazed and have fun. People can swim, snorkel, kayak, and scuba-dive – or just enjoy the beach. There's a good chance you'll see marine creatures up close. It could be a giant, sixty-year-old snapper, a rare Hector's dolphin, or a school of blue maomao. If you spend time in a marine reserve, you need to follow the rules. These help us to be good visitors and do no harm.



Never take anything from a marine reserve, including rocks and shells.

Don't feed the fish.

Put everything back exactly the way you found it.

Take away your rubbish, including food scraps.

Check if you're allowed to take dogs.

Don't light fires if there's a fire ban.

WHAT IS THE FUTURE OF MARINE RESERVES?

Every year, we discover new species that need our protection. Te Papa Atawhai plans to create more marine reserves. In the meantime, the reserves we already have mean our sea plants and creatures have a safer future. And Aotearoa will always be a good place to see and learn about our unique sea life.

illustrations by Giselle Clarkson

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by Laura Goodall

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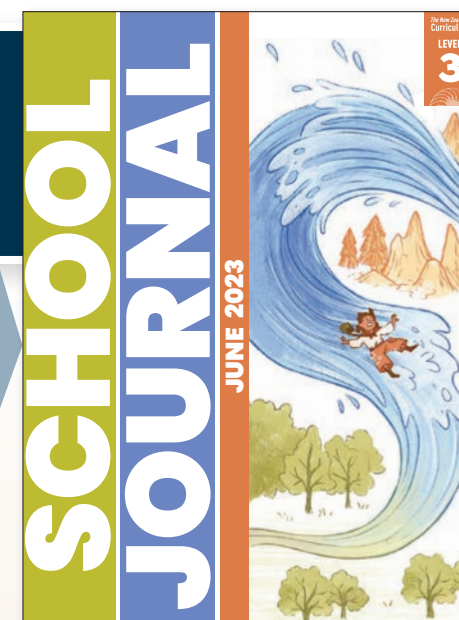
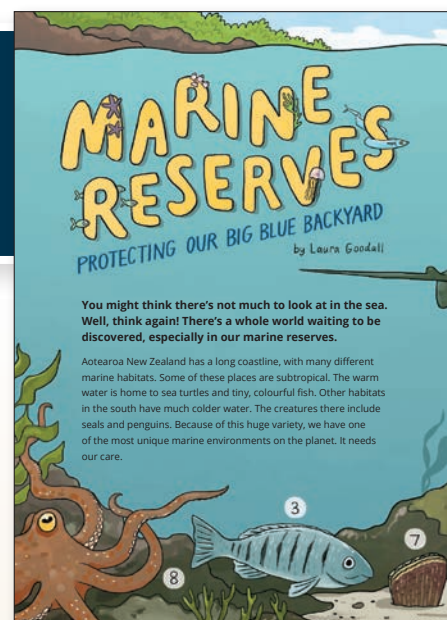
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