

Threatened species

A number of threatened species are found in the marine reserve. Orca (Nationally Critical) visit regularly, and humpback and southern right whales are often spotted further out in Cook Strait in winter. The black-billed gull (Nationally Critical) and the black-fronted tern (Nationally Endangered) nest almost exclusively on braided riverbeds in the South Island, but can be seen on the shores of the marine reserve at other times of year.



Orca photographed close to shore in Owhiro Bay. Photo: Adam & Tess

Shipwreck survivors

Many ships have run aground or been wrecked on rocks in what is now Taputeranga Marine Reserve. In 1982 the *Yung Pen*, a Taiwanese squid boat, sank in Owhiro Bay after hitting rocks. Its wreck lies 20 m offshore and is now almost indistinguishable from the surrounding reef.

DOC scientist Dr Shane Geange has dived at the wreck site many times, but says the most magical times have been at night. "The wreck has become an artificial reef and been colonised by lots of species, including pāua, jock stewart, marblefish, conger eels and blue cod. It's most impressive just after dusk, when hundreds of small rock lobsters emerge from the shelter of the wreck to look for food on the surrounding reef."

A local beauty

This curious little animal is the nudibranch ('nudeybrank') *Polycera maddoxi*. It was discovered in the marine reserve in 2005, which was the first time it had been reported in New Zealand. The nudibranch is a type of sea slug that begins life with a shell but sheds it during a larval stage. It eats other smaller marine animals and uses its bright, bold colours to ward off predators.



Photo: Vincent Zintzen

Year established: 2008

Coastal biogeographic region:
North Cook Strait

Area: 866 hectares

approx. 8.7 km²

Nearest city: Wellington

Sea temperature: 11–17°C



Location:
Wellington
south coast,
Cook Strait

Climate:
Mild and
temperate
with plenty
of wind

More information is online

If you'd like to know more about the health of this marine reserve and how we created this report card, go to www.doc.govt.nz/report-card.

You will find:

- report card rationale
- links to local education and care groups
- water-quality data and links to monitoring information
- a map of land use in the catchment
- more information about marine pests
- published research from this marine reserve
- monitoring reports.

Protected area

This marine reserve extends about 2.5 km from the shoreline. You may not take any fish or shellfish, or disturb the marine life in this area.

Find out more about what you can and can't do in a marine reserve on our website: www.doc.govt.nz.



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Photo: Vincent Zintzen

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How healthy is the marine reserve?



Taputeranga
Marine Reserve

Marine reserve report card



Department of
Conservation
Te Papa Atawhai

New Zealand Government

Marine reserve health

A marine reserve is an area of sea and shore protected from fishing, shellfish gathering, mining and other kinds of disturbance. Once a marine reserve is created, the ecosystems within it may change and become closer to how they were before human influences. Marine reserves may become important nursery grounds for fished species, and are valuable as places where scientists can study the environment in a more natural state.

The ecosystems within Taputeranga Marine Reserve are healthier and in a more natural state than those outside its boundaries. As the marine reserve matures, future studies could show more positive effects from protection, such as larger and more plentiful fish.

A range of measures is used to decide how healthy a New Zealand marine reserve is. These measures have been carefully chosen so that together they provide an indication of the health of any marine reserve. The status and trend (in the previous 5 years) is reported for each measure.

Measure	Status	Trend
Habitat	Good ○○○●	Undetermined*
Surrounding land	Fair ○●○○	Stable ➡
Water quality	Fair ○●○○	Stable ➡
Blue cod (pākirikiri)	Undetermined* ○○○○	Increasing ↗
Rock lobster (crayfish/kōura)	Undetermined* ○○○○	Undetermined
Marine pests	Fair ○●○○	Stable ➡

Monitoring the marine reserve

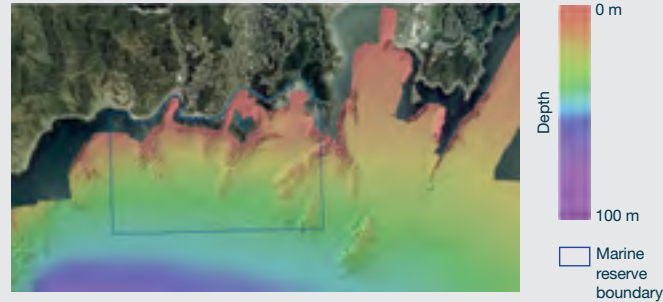
Taputeranga Marine Reserve was studied by marine scientists even before it was created in 2008. These studies created a valuable record against which to compare changes in the marine environment once protection was in place. Monitoring studies have continued, surveying fish, kina (sea urchin), pāua and rock lobster at the same eight sites (three inside and five control sites outside the marine reserve) used in the earlier studies.

*Natural levels of blue cod and rock lobster in the marine reserve are uncertain, so a status and trend for this measure cannot currently be assessed. A habitat survey was carried out in 2013 (see website) but a trend for this measure cannot be given until another survey has been conducted.

Habitat

Taputeranga Marine Reserve lies along Wellington's south coast, exposed to the wild wind and pounding waves of Cook Strait. It also protects calmer waters around Taputeranga Island in Island Bay.

The diverse habitats in the marine reserve range from offshore rocky reefs to rock pools to sandy shores, and support a wide variety of marine life. Kelp forests provide places for rock lobster, pāua and kina to live, as well as many fish.



Depth map showing the rocky reefs that extend underwater from the coast. Map: NIWA, Victoria University of Wellington and DOC

Surrounding land

The land around Taputeranga Marine Reserve includes the seaside suburbs of Island Bay, Houghton Bay and Owhiro Bay, and areas of rural land and bush reserve. Wellington City's main landfill is situated in Happy Valley, to the north of the marine reserve.

Some of the habitats and species in the marine reserve are sensitive to human activities on surrounding land. This includes urban development when sediment is washed downstream by heavy rain, and rubbish is blown from the landfill or carried down drains and streams to the sea.

Water quality

Strong wind, waves and currents from Cook Strait move through Taputeranga Marine Reserve – it is a wild and dynamic environment.

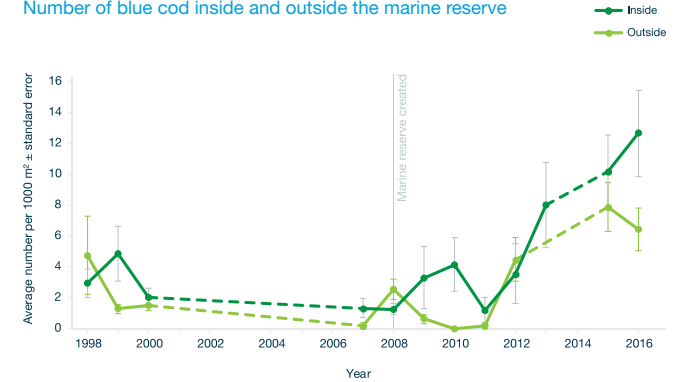
Greater Wellington Regional Council's recreational water quality monitoring programme rates its three sampling sites in Island Bay and one in Owhiro Bay as 'B or C: moderate to low risk of illness for swimming and other recreational activities'. The site in Princess Bay has a 'very good, very low risk of illness' rating. These monitoring results are based on the number of disease-causing *Enterococci* bacteria in water samples from the past three summers.

Owhiro Stream drains several landfills (Wellington Southern, T and T, and C and D landfills). Polluted water from these sites and the old Houghton Bay landfill site is carried into the marine reserve, particularly after heavy rain.

Blue cod

In 2016 there were more blue cod of all sizes inside the marine reserve than outside its boundaries. The number and average size of blue cod in Taputeranga Marine Reserve has increased in the past 5 years.

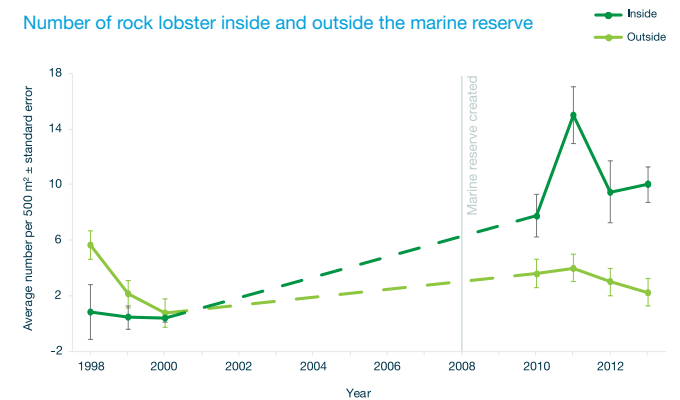
Number of blue cod inside and outside the marine reserve



Rock lobster

Since the creation of Taputeranga Marine Reserve, rock lobster have become larger, heavier and more plentiful inside the marine reserve than outside its boundaries. The number and average size of rock lobster in the marine reserve has increased and decreased in the past 5 years.

Number of rock lobster inside and outside the marine reserve



Marine pests

Marine pests are unwanted species that have been introduced to New Zealand. The Asian kelp *Undaria pinnatifida* is well established in the marine reserve. Other marine pests are found in Wellington Harbour (Port Nicholson) but it is not known if they would survive in the rougher sea conditions of the marine reserve.