

are often referred to as volcanic 'plugs'. of the molten magma at the centre of the volcanoes - these Some of these islands, such as Castle Island, are remnants

seen on the islands and further down the coast. from lava, and is more dense and darker in colour; it can be Te Hoho Rock have formed over time. Rhyolite is formed prone to erosion, so structures such as Cathedral Cove and it is the light-coloured rock at Cathedral Cove. This rock is water. Ignimbrite is a mixture of volcanic ash and pumice; formed some amazing features both below and above the produced two kinds of rock: rhyolite and ignimbrite, which years ago from volcanic eruptions. These eruptions Te Whanganui-o-Hei were only formed about 8 million 150 million years old), the coastline and islands around of the oldest sedimentary rocks in New Zealand (around Although Coromandel Peninsula is formed from some

Geology

kayaking and diving. enjoy swimming, snorkelling, boating, ➤ are great places for recreation. Visitors can

conservation of marine environments visitors, helping to build awareness and promote the ▶ provide educational opportunities for schools and

life free from fishing pressures

➤ give scientists the unique opportunity to study marine

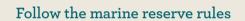
Marine reserves also:

fished species. neighbouring habitats and populations - including some the reserve as fish and larvae 'spill over', supporting ecosystem. Sometimes these benefits extend beyond can recover, which in turn supports the resilience of the Intensively fished species like snapper and koura/crayfish direct and indirect benefits for the whole ecosystem. As sanctuaries for all marine life, marine reserves create

The benefits of a marine reserve

of Conservation (DOC). 44 marine reserves, all managed by the Department the marine life to thrive. As of 2020, New Zealand has conservation and marine management tool, allowing all marine life is fully protected. They are an effective Marine reserves are areas of sea and shoreline where

What are marine reserves?



- - Protect birds and animals by leaving your dog at home.
 - Do not light fires anywhere in the reserve.

All marine life and habitat are protected within the reserve

Fishing, shellfish gathering and the removal, introduction, or disturbance of any marine life or habitat, including by feeding fish, is strictly prohibited. This includes all plants, animals and habitat, dead or alive. Breaking these rules could result in your vehicle, boat and equipment being seized, a fine of up to \$250,000 and/or up to 3 months imprisonment.

Keep your speed down

Exceeding 5 knots in a boat or jet ski within 200 m of the mainland, outer islands or a dive flag, or within 50 m of a boat or person on the water, is an offence under the Maritime Transport Act 1994.

How you can help

DOC manages the marine reserve. Its success depends on the care and vigilance of visitors like you. If you see people taking fish or other marine life within the reserve, report this to DOC at the DOC HOTline (0800 362 468) as soon as possible.

Te Whanganui-o-Hei (Cathedral Cove) Marine Reserve was established in 1992 to protect and restore the diversity of the marine environment. The reserve protects 9 km² of shore and sea on the eastern side of the Coromandel Peninsula between Hahei and Cooks Beach.

Reefs of hard rock, soft sediments, intricate caves and underwater arches provide habitat for plants, crustaceans, molluscs and fish, many of which can be seen on the snorkel trail at Gemstone Bay.

Getting there

You can visit the marine reserve via the Cathedral Cove walkway, which takes around 40 min. Gemstone Bay is 15 mins along this track and is one of the best snorkelling spots in the reserve. To reach the start of the walkway you can take the coastal track that starts at the northern end of Hahei Beach, or park at the start of the walkway up

From 1 October to 30 April, this car park is for drop-offs only. A shuttle bus operates from Hahei to the start of the track.

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New Zealand Government

Spotted a conservationrelated illegal activity? Call the 24-hour conservation

emergency helpline:

Report any safety hazards or conservation emergencies For Fire and Search and Rescue Call 111

The marine reserve is supported by The Friends of Te Whanganui-A-Hei on your donations. If you would like to donate go to: www.cathedralcove marinereserve.org.nz





Kina barren. Photo: Glass Bottom Boat Whitianga



Healthy kelp bed. Photo: Glass Bottom Boat Whitianga

Kina barrens

Kina (urchin) barrens are areas of rocky reef that lack natural kelp cover. Kina graze on kelp and their population increase leads to dramatic losses in kelp cover. Kelp, such as *Ecklonia* radiata, is an important habitat and food source for marine communities, so when kelp forests are lost it affects the diversity and productivity of the whole ecosystem.

These barrens have become an ecological indicator for the overfishing of species that graze on kina, such as snapper and kõura. Scientists have found that kina numbers increase when snapper and crayfish populations are reduced. Kina barrens are less common within marine reserves (including Te Whanganui-o-Hei), as the kina's natural predators such as snapper and koura have been able to recover.

Ngāti Hei iwi – guardians of the marine reserve

Te Whanganui-o-Hei Marine Reserve is part of the area first claimed by Hei, leader of Ngāti Hei, who arrived in 1350 AD on Arawa waka. Hei settled his people in the area around Mercury Bay, asserting ownership by referring to Motueka Island as 'Te Kuraetanga-o-taku-Ihu' (the outward curve of my nose). The area was named 'Te Whanganui-o-Hei' (the great bay of Hei). Hei's descendants, as tangata whenua, still retain a strong ancestral and spiritual attachment to the site, and continue their role as guardians, or kaitiaki, of their rohe moana (coastal area).

Māori have practiced kaitiakitanga (guardianship) of natural resources, such as kaimoana (seafood), for hundreds of years. The enablement of iwi guardianship over natural resources is central to DOC's conservation goals - DOC has therefore made iwi engagement and partnership integral to its management of marine reserves.

There is a great diversity of life to see in the marine reserve. Here are some locals to look out for while visiting the reserve



Meet the locals













Public conservation land



Snorkel trail



Parking



View point

Short walk Walking track



No fishing of any kind

No taking or disturbing any marine life,

including shellfish and seaweeds



No feeding the fish, as this disturbs their natural behaviour



No taking any part of the sea floor, including rocks and shells.