# West Coast North Island Marine Mammal Sanctuary User Guide



For enquiries or feedback, please contact marine@doc.govt.nz

Cover: A Māui dolphin spotted by DOC staff during a 2010 alongshore survey from Kaipara Harbour to New Plymouth. *Photo: Martin Stanley* 

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# What is a marine mammal sanctuary?

Marine mammal sanctuaries are designed to protect marine mammals from harm caused by humans. New Zealand created the **West Coast North Island (WCNI) Marine Mammal Sanctuary** in 2008 to help protect the critically endangered Māui dolphin.

The sanctuary includes the coast between Maunganui Bluff and Oakura Beach, extending 12 nautical miles offshore and includes harbours.

There are protection measures in the sanctuary that affect seismic surveys, mining and fishing (details on page 8).

The sanctuary also contains two marine reserves where all marine life and the environment is legally protected (details on page 5).

#### Why do Māui dolphins need a sanctuary?

With less than 100 adults left and a slow reproduction rate, just one human-induced Māui death every 10–23 years could have devastating consequences for the entire population.

Humans like to fish and boat in the same shallow

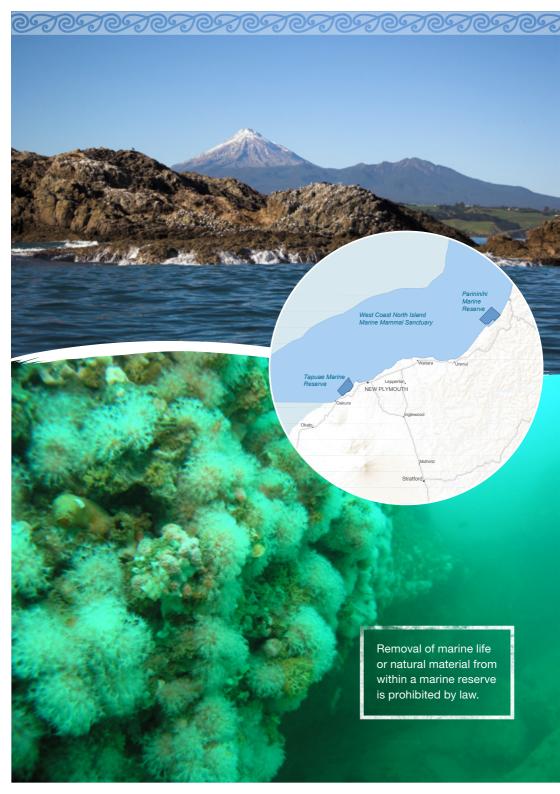
coastal waters frequented by Māui dolphins so it's important to be aware of what you

can do to help protect these dolphins. Find out how you can help their

population recover on page 7.



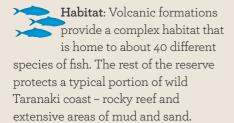




# Which marine reserves are in the WCNI Marine Mammal Sanctuary?

There are two marine reserves in the sanctuary:

#### Tapuae Marine Reserve Established 2008



Species: Invertebrates include sponges, shellfish, and colonies of bryozoans (tiny animals that build exoskeletons resembling coral). The reserve is home to many species of fish, including kingfish and kahawai.

New Zealand fur seals have established a breeding ground here, and over 19 species of seabirds can be seen in and around the reserve.

**TOP:** Tapuae Marine Reserve's Waikaranga (Seal Rocks). *Photo: Callum Lilley* 

BOTTOM: Sponges and hydroids cover the complex Pariokariwa Reef in Parininihi Marine Reserve. Photo: Callum Lilley

#### Parininihi Marine Reserve Established 2006



Habitat: This area is a classic example of the North Taranaki coastline. Pariokariwa Reef

provides a complex habitat that supports some of the highest biodiversity of marine sponges in the world, which spread across the reef in vividly coloured 'carpets'.

Species: A diverse array of sponges and hydroids (small predators related to jellyfish) cover 75% of the boulders on the sea bed. Many of these fantastic undersea gardens remain scientifically unexplored, although research is investigating whether sponge chemicals known as alkaloids have anti-cancer, antimalaria and anti-microbial applications.

Caves and overhangs provide a safe haven for numerous rock lobster. The shoreline has high numbers of black foot paua, and a wide variety of fish are found in the reserve.

Find out more about WCNI's marine reserves, including boundaries, at www.doc.govt.nz/marinereserves

### What's special about Māui dolphins?

#### **Ouick facts**

- Māui dolphins are the smallest and rarest dolphins in the world - baby Māui are the size of a rugby ball!
- Less than 100 Māui dolphins more than one-year-old are left.
- Māui dolphins are a subspecies of Hector's dolphin. Māui and Hector's look identical but Māui dolphins live only on the West Coast of the North Island, while Hector's are mainly found around the South Island.
- ➤ The West Coast of New Zealand's North Island is the only place in the world Māui dolphins can be found!



#### How do I spot one?

Māui have a rounded ('Mickey Mouse') dorsal fin, are small, and have black, grey and white markings.

They swim so close to shore they can often be seen from the beach.



#### What's life like as a Māui dolphin?

Māui dolphins usually hang out in groups of 2–5. These groups are often sex-segregated, meaning males and females travel separately. Groups of Māui dolphins hunt and play together, and provide each other protection from predators.

Māui communicate with each other using clicks – these are at such a high frequency that humans can only hear them when they are slowed down to 1/20 of the original speed. Like other dolphins, Māui also use high frequency clicks for 'echolocation', a way to sense their environment using sound.

Although rare, they're certainly not shy! Māui dolphins are intelligent and curious, often approaching boats for a closer look.

### Can Māui dolphin numbers recover?

That's up to us!

Māui live to be about 20 years old – a short lifespan compared to other dolphins.

Females have their first baby between 7 and 9 years of age. They only have one calf at a time, and raise it for 2–4 years before it can fend for itself.

Because females have few young over their lifetime, they are particularly at risk of decline from human activities and the population will recover slowly – this means that minimising human threats is essential for Māui dolphins' recovery.

Human activities that can injure or kill Māui dolphins include:

- Setnet and trawl fishing setnets are likely the biggest human cause of death to Māui dolphins
- > Vessel strike/disturbance
- Underwater activity including marine construction, mining, seismic surveys
- Litter and pollution human pollution and land runoff may cause disease in Māui dolphins

Māui dolphin recovery is up to us! Check out what protection measures are in place (page 8) and what you can do to help (pages 10–11).



## How are Māui dolphins protected in the sanctuary?

The Ministry for Primary Industries (MPI) manages fishing related threats through the Fisheries Act 1996, while DOC mainly manages non-fishing related threats through the Marine Mammals Protection Act 1978.



#### Fishing

MPI has divided the region into two areas:

- Auckland-Kermadec Fishery
   Management Area
- > Central Fishery Management Area

Regulations for the protection of Māui dolphins within the sanctuary include restrictions on setnets, trawling, and drift nets.

Visit www.mpi.govt.nz/fishing-rules for details about all fishing regulations in these areas.

There are two marine reserves within the sanctuary, which have additional protection measures (see page 3).

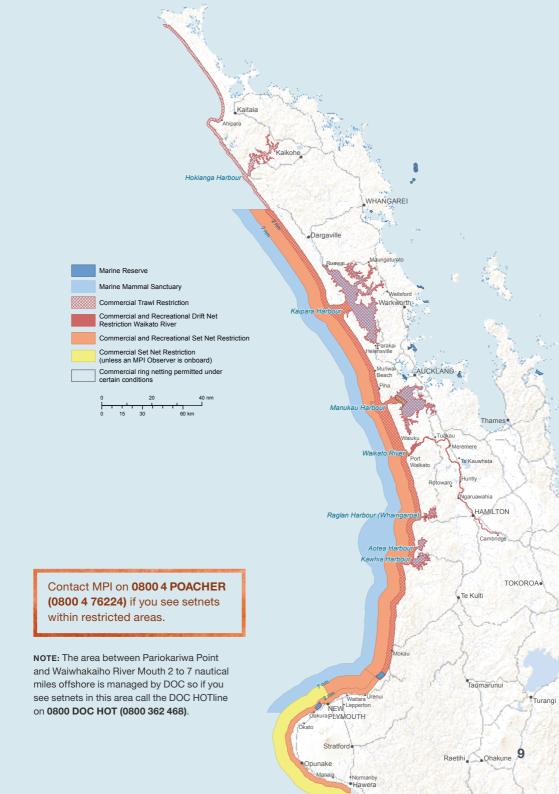
#### Seismic surveys

Seismic surveys use loud sounds to look for petroleum under the ocean floor. These are some of the ways that seismic surveys are regulated in the sanctuary:

- DOC is notified before surveys take place and a report about any dolphin interactions is given to the Department's Director-General
- Qualified marine mammal observers are present on all survey ships to make sure no whales or dolphins are too close to the ship. If visibility is poor, hydrophones are used to listen for whale and dolphin sounds

#### Seabed mining

- Prohibited out to 2 nautical miles along the full length of the sanctuary
- Prohibited out to 4 nautical miles from south of Raglan Harbour to north of Manakau Harbour



### How can I help?

The most important thing you can do is report sightings of Māui dolphins to DOC (0800 362 468) – see page 12 for details.

Other ways you can help:



#### **Fishers**

- Don't use setnets where dolphins may be found but restrictions aren't in place.
- > Stay with your net if you see dolphins, lift your net immediately.



#### **Boaties**

- > Use a 'no wake' speed within 300 m of dolphins.
- Don't swim with Māui dolphins or attempt to feed them - human food can make Māui sick or dependent on handouts.



#### Cat lovers

Don't dispose of cat litter or other animal faeces in toilets, drains or stormwater systems – this may contribute to the spread of the parasitic disease toxoplasmosis to Māui dolphins.



#### Everyone

- Recycle and don't litter Māui dolphins may swallow or get tangled in rubbish.
- Support community groups and NGOs that help Māui dolphins.
- ➤ Get involved in government decision making – there is lots of information on www.doc.govt.nz. The review of the Hector's and Māui dolphin Threat Management Plan, every 5 years, offers the chance to submit your views on protection measures.
- > Spread the word about Māui dolphins!

Report illegal setnets in protected areas by contacting MPI by calling 0800 4 POACHER (0800 476 224).



## I've seen a Māui – what information should I report?

Your help is needed to look for Māui dolphins around the North Island.

DOC uses public sightings to help understand exactly where Māui dolphins are found and where they go. This helps inform where protected areas should be.

Māui dolphins are easy to spot as they have a rounded ('Mickey Mouse') dorsal fin rather than a triangular or sickle-shaped fin like most dolphins.

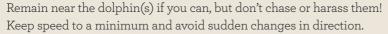
If you think you've spotted a Māui or Hector's dolphin phone 0800 362 468. If you're unable to call the hotline, you can report the sighting:

> Online: www.doc.govt.nz/helpmaui

With a smart phone app: Maui dolphin from WWF (free, available from the Apple App Store and Google Play)

It's helpful if you can tell/give us:

- ✓ number of dolphins
- date and time of sighting
- location of sighting
  - note landmarks, and include them in photos if possible
  - give GPS coordinates if possible (if you have a smartphone go into your camera settings and turn on 'geotagging' of photos)
- ✓ photographs/video.



DOC staff may try to make radio or phone contact with you, especially if you are south of Raglan, which is an area of special interest. DOC staff may try to take a genetic sample.



### Is anyone researching Māui dolphins?

Yes – scientists from, and in association with, DOC are researching Māui dolphins to answer key questions:

- > How many Māui dolphins are there?
- Where are they and where do they go?
- > How are Māui dolphins affected by human activities and disease?

To answer these questions researchers need to be able to tell them apart from one another.



RIGHT: A biopsy dart gathering a small sample of tissue.

#### How can you tell the dolphins apart?

Scientists tell the difference between individuals in two ways:

- > DNA Small biopsy darts remove a small amount of tissue (the size of a pencil rubber) that is used for genetic analysis. The dolphins heal over the mark in a few days.
- Nicks and notches on their rounded dorsal fins Photographs are taken of the dolphins' dorsal fin whenever possible. Many individuals have unique nicks and notches on their fin's trailing edge.

There is DNA and/or photographic information for many of the dolphins – but not all, so it is important that all sightings are reported and that you get clear photos if possible.

### Māui dolphin photo catalogue





















Here are photos of some of the Māui dolphins in the sanctuary with distinct, identifiable markings on their dorsal fins. Each dolphin has a unique ID number.

Do you think you could identify any of these dolphins?

The images have been contributed by researchers who do collaborative research on Māui dolphins.

Photos: DOC, University of Auckland, University of Otago, Oregon State University

# What other marine mammals might I see in the sanctuary?

#### Humpback whale/paikea

Humpback whales may be seen on their migration route to their Southern Ocean feeding grounds in spring and during their return to warmer waters in winter. Humpbacks are known for their spectacular breaching and complex songs.

#### New Zealand fur seal/kekeno

The rugged west coast of the North Island provides an excellent habitat for recolonising fur seals and is home to a number of growing and healthy breeding colonies.

#### Common dolphin/aihe

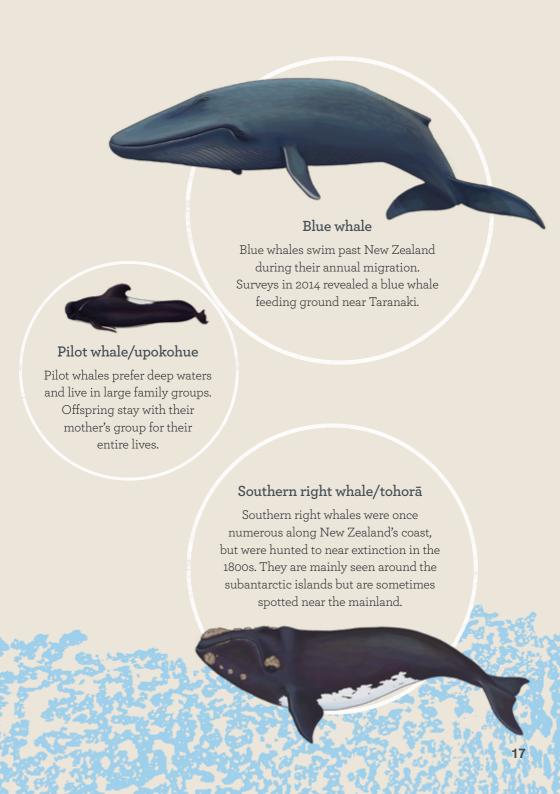
Along the WCNI, common dolphins are usually seen offshore in deep water.

There can be hundreds to thousands in a group.



#### Orca (killer whale)/maki

Although orca usually swim in deep waters, they also can also be found in shallow bays, estuaries, and harbours. There's thought to be 150–200 orca living in New Zealand's waters.



For enquiries or feedback, please contact marine@doc.govt.nz

www.doc.govt.nz

#### DOC HOTline 0800 362 468

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



