

saving Auckland's iconic whales

They're big, shy and seriously endangered – meet the magnificent Bryde's whale

They're the mysterious giants of Auckland's Hauraki Gulf; warm-blooded, bigger than buses, dark grey with ballooning pleated white bellies and huge mouths bristling with baleen. They're Bryde's whales, and about 60 of them live in the Hauraki Gulf year-round, hanging out just a few metres below the waves as they feed on great mouthfuls of fish and krill. If you've ever taken a ferry out to Waiheke Island or fished for a feed near Moutihe Island, you may well have passed close by or even right over one without realising it.

Bryde's whales are from the same family as blue and humpback whales, which are also known as rorquals, a name that refers to those pleated underbellies which expand to take in huge gulps of food. Weighing up to 25 tonnes, they're hungry beasts,

and can consume 600kg of small fish, krill and plankton in a day.

That's why they've made their home in the Hauraki Gulf, says Dr Rochelle Constantine, head of the Marine Mammal Ecology Group, director of the Joint Graduate School in Coastal and Marine Science, and a senior lecturer at the University of Auckland. "The Gulf is a highly productive ecosystem – there's a lot of mixing of waters. It's a really diverse place for marine mammals. It's a real gem and I don't think a lot of Aucklanders realise it. It's not just a place you go to get a snapper. It's a really important place for a lot of animals, a really crucial ecosystem."

The whales are fairly solitary creatures, noodling around by themselves or in pairs most of the time. Constantine says they can often be spotted working up 'bait balls' of small

fish, which attract pods of dolphins and diving seabirds. They can be identified when surfacing by a straight dorsal fin about three-quarters of the way along their backs, which often has a notched or ragged rear edge.

Where are the whales?

Not a lot is known about Bryde's whales as their preference for temperate subtropical waters means they don't store much blubber, so were unattractive to whalers in the 19th and 20th centuries. In fact, when Dr Constantine worked on a project just a few years back, where suction-cup tags were attached to seven Bryde's whales to record their activity, the project team were amazed to discover that even though the whales generally live in water 50-60m deep, they spend over 90 per cent of their

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time just six and a half metres below the surface. "That's less than one of their body lengths," says Dr Constantine. "And at night they're even closer, only five and a half metres below the surface. They're right there."

The team also discovered that the whales are very busy during the day, diving up and down, foraging and moving about, whereas at night, they're barely active at all – probably resting up after a hard day's work.

Unfortunately, this habit of staying close to the surface puts the whales at the often-fatal risk of being struck by ships. Auckland has the busiest port in the country, with well over 1000 visits from container ships every year. With hull draughts of up to 12m, these ships plough directly through the underwater zone that Bryde's whales spend most of their time in.

Ships versus whales

Dr Craig Pritchard, head of the New Zealand Centre for Conservation Medicine at Auckland Zoo, and a member of the forensic team that has been performing necropsies on all recent Bryde's whales found dead in the Gulf, says the captains of the ships have no way to tell when they strike a whale. "If you were travelling on the Fuller's ferry and you hit one, you'd know, but if you're in a 210m container ship, you wouldn't have a clue. Sometimes the ships will come into the port and they'll have a whale wrapped around the bow and they won't even know about it."

Ships may not even need to be unlucky enough to strike a whale directly, says Dr Constantine – if a big enough ship passes close enough to a whale, the force of the moving water can suck a whale into the ship's path.

"We've got a real problem here," she says. "We're losing about two whales a year to ship strike, which is probably not okay because of the replacement rate. Bryde's whales are long-lived, slow-breeding. And we don't really have a good measure of the impact of ship strike on the whale population because it takes a long time to accumulate the data. It's not until you've had 20 or 30 years of data collection that you can really see the magnitude of the problem."

Of the 18 whales that have been assessed for cause of death over the last 10 years, a significant majority appeared to have been killed by ship strike. Dr Pritchard says indicators like grazing, bruising, muscular damage and broken bones can show where a whale has been hit by a ship. The most recent necropsy of a 14m female whale also showed she had not reached sexual maturity, meaning that she was killed before having a chance to breed.

BRYDE'S IN BRIEF

GENUS: Balaenoptera.

SPECIES: B. brydei, B. edeni, B. omurai.

SIZE: 13-15m long, up to 25 tonnes.

FOUND: Around New Zealand, South Africa, Japan, California and Mexico between 40 degrees North and South (Whanganui in New Zealand, and Iwate in Japan, approximately).

EATS: Fish up to the size of a sardine, plus plankton and krill.

NUMBER IN NZ: Around 200, with a population of just under 60 in the Hauraki Gulf.

STATUS: Critically endangered – on NZ's national top 10 endangered list.

"Not many people know these whales exist," says Dr Pritchard. "They're beautiful creatures, big, gentle giants, and they're in our backyard." He's doing his bit to raise awareness of the whales with a photographic installation at the Centre for Conservation Medicine at Auckland Zoo, which shows the process of necropsying and burying a dead whale. "Where I think Auckland Zoo is good, is that we have 700,000 visitors through our doors a year," he says. "When we have Sea Week, we really push this. We're just trying to tell a story and get people involved." ➔

