

Stuff

Orca researchers document barnacles' record-breaking ride

Denise Piper 16:32, Feb 09 2021



HEIKO GRIMM/ORCA RESEARCH TRUST

Māia the female orca holds the world record for the most tassel barnacles, some of which are visible along the trailing edge of her tail flukes.

New Zealand and German researchers have documented a number of world firsts [about orca](#), including the longest amount of time a barnacle has hitchhiked a ride on a whale.

It is hoped the research will help paint a clearer picture of the lives of open ocean orca, which rarely enter [New Zealand waters](#).

The study, by [Orca Research Trust](#), was done by photographing open ocean orca – called Pelagic orca – a month apart.

By focusing on the whales' barnacles, the study found tassel barnacles stay on the whales for at least 36 days and could give a biological marker on where the whales have been.

[Video]

Orca surprise viewers in Dunedin Harbour

A pod of orca, including one that was rescued eight years ago, have appeared in Dunedin Harbour.

Lead author Dr Ingrid Visser, based in Northland's Tutukaka, said the research was exciting because very little is known about the open ocean orca ecotype.

“They come in infrequently into the New Zealand coastline, with just a few sightings over a small period of time.



ROSA WOODS/STUFF

Orca researcher Dr Ingrid Visser says the study uncovers a number of world firsts and gives more information about the open ocean orca, which are rarely seen in New Zealand waters. (File photo)

“They come in and then they leave, and we have no idea about where they go and where they came from.”

Visser said the tassel barnacles (*Xenobalanus globicipitis*) found on the whales were picky about what they catch a ride with, and can be used like a short-term biological tag.

“They are like the ocean’s semi-permanent ‘bling’,” she said.

The study’s main subject, a female orca called Māia, had 80 tassel barnacles attached to her, the highest number documented on a whale, and nearly four times more than normally found.



INGRID VISSER

Coastal orca – such as this adult male who was entangled in a crayfish line – are likely to face different risks to the open ocean orca.

“The *Xenobalanus* found on Māia shows that the open ocean orca are completely different from the orca that live around our coastline.”

The research also found the open ocean orca carried scars on them from bites by cookie cutter sharks – a small shark species that glows in the dark and lives in very deep waters off the continental shelf.

The cookie cutter shark bite marks were documented to last more than 11 years, and could be used to identify individual whales, Visser said.

The study also recorded the longest duration of orca rake teeth marks to last on an orca: four years and two months.

“Every tiny little bit of information that we get helps us understand more about them [open ocean orca] and helps us understand if they’re facing a different type of risk than [the coastal orcas](#), for example.”

Co-author Tracy Cooper, based in Kaikoura, said the research helped build the story of the unique open ocean orca, while the tassel barnacles shared information about the impacts of climate change.

“They [tassel barnacles] were originally thought to favour warmer climates, but the 14C to 16C water temperatures during this study paint a different picture.

“With marine heatwaves hitting coastlines around the world, the spread, or loss, of tassel barnacles may be an early warning that other changes are afoot.”

Third co-author, Heiko Grimm, based in Germany, hopes to do more research into Māia, who was encountered a number of times.

“Each time I was impressed with her size and boldness – she would often approach the research boat, giving us the chance to photograph the barnacles and shark bites.”

The article was published in [*Biodiversity Journal*](#).

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<https://www.stuff.co.nz/environment/124187952/orca-researchers-document-barnacles-recordbreaking-ride>

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