



## World's first whale camera shows minke 'feeding like a Pac-Man'

By Paul Bignell

A camera has been attached to the back of a minke whale in a world-first for scientists attempting to understand the behaviour of the elusive creatures.

Researchers in the Antarctic Peninsula performed the delicate manoeuvre last month. They now hope that by watching the footage they can better understand the most poorly documented of all the whale species as its habitat shrinks.

In a nail-biting moment, the camera began to slide down the back of the whale as it set off on a feeding journey, but fortunately stayed attached, offering scientists an even better view of the way it feeds.

Minke whales eat krill – tiny crustaceans – or small fish using special feeding plates known as baleen, a brush-like system made out of the same substance found in human hair and fingernails.

"What's amazing is how fast the

minke swims and how quickly it can feed," said Dr Ari Friedlaender, an associate professor at the University of California at Santa Cruz, who led the research.

Dr Friedlaender who is working with the World Wide Fund for Nature (WWF) on the project, described deploying the camera tag as "one of the most memorable moments of my scientific life" on the OneOcean Expeditions vessel, *Akademik Ioffe*. The video showed the tagged minke

moving at up to 24 kilometres per hour as it accelerated to feed.

The camera has a satellite transmitter which emails the scientists the location of the whale every four hours so they can track it. A trigger allows them to detach the tag from the whale at any time.

"We could see individual feeding lunges and the expansion of the throat pleats as they filled with prey-laden water," said Dr Friedlaender. "What was remarkable was the

frequency of the lunges and how quickly they could process water and feed again, repeating the task about every 10 seconds. He was like a Pac-Man, continuously feeding."

Sea ice is an important part of a minke's habitat, a place where they feed and hide from killer whales. But because of climate change, sea ice in the Antarctic Peninsula now advances two months later and retreats more than one month earlier.

Scientists are also worried that critical feeding areas are being depleted for baleen whales – and other krill predators such as penguins, seals and seabirds – as they overlap with commercial krill fishery areas. This region is primarily along the Antarctic Peninsula and Scotia Arc.



A minke (top) with a 'whale cam' in the Antarctic Peninsula; researchers (above) attach the camera to the whale JOHN DUDENEY/ONEOCEAN EXPEDITIONS



To watch a film of the whale, visit [bit.ly/2CpXoUR](http://bit.ly/2CpXoUR)