

Bacteria responsible for the death of Maui's dolphins

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Evidence of a bacterial agent in a dead endangered Maui's dolphin found at the mouth of the Waikato River in November has prompted concerns for the future of the species.

A post mortem conducted by pathologist Dr Wendi Roe at Massey University revealed that the dolphin was born alive but never made it to the surface to take its first breath.

The bacterium *Brucella* was identified by DNA methods at the Biosecurity New Zealand Investigation and Diagnostic Centre. This laboratory has previously found evidence of marine strains of *Brucella* in Hector's dolphin.

"The test results cannot confirm if the dolphin died as a result of brucellosis, the disease caused by the bacterium. However *Brucella* does cause this type of problem in animals, and this finding in the Maui's dolphin population is of real concern for the future of the species," Dr Roe says.

Two other Maui's dolphins found dead this summer had been screened without detecting *Brucella* bacteria. Further screening would be required to determine the prevalence of the bacteria in the Maui's dolphin population and its associated impacts.

Nicola Vallance, spokesperson for the Department of Conservation, says the death in itself is bad news for the Maui's dolphin population.

“These dolphins are considered to be the rarest marine dolphin in the world, with only around 100 animals left - meaning that all individuals are crucial for the survival of the population. The possibility that Brucellosis was involved in the death of the baby dolphin is a cause for concern and requires further investigation.

“The effect of this disease in marine mammals is unknown. We do know that Brucellosis causes abortions and reproductive failure in livestock, and while we know very little about how the disease manifests in marine mammals there is some evidence from international examples that this too may be the case for dolphins.

DOC, Massey University and the Biosecurity New Zealand Investigation and Diagnostic Centre are working together on this issue and will continue to research the incidence of Brucella in Maui’s dolphin and their Southern cousins, the Hector’s dolphins.

DOC is appealing to the public to report any dead dolphins to their hotline 0800 DOC HOT (0800 362 468) and stresses that marine mammals should not be handled.

Although Brucella can be transferred from animal populations to humans in bodily fluids, although the incidence is rare. Brucellosis in humans causes fever, headache, arthritis and neurological symptoms and is treated intensively with antibiotics.

Source: Massey University

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