

Small isolated populations pose a threat to new dolphin species

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Victoria's iconic new dolphin species, the Burrunan dolphin, is at risk due to its small and isolated populations, according to the first study investigating the dolphin's population using DNA.

Researchers from Monash University and the Australian Marine Mammal Conservation Foundation (AMMCF) have been investigating the population genetic structure of the Burrunan from the two only known resident populations - Port Phillip Bay and the Gippsland Lakes,

as well as from across coastal Victoria and Tasmania.

In 2011 Dr Kate Charlton-Robb, from the School of Biological Sciences at Monash and AMMCF's principal researcher, discovered the [dolphins](#) were a new [species](#).

Dr Charlton-Robb said the new research published in *Conservation Genetics* found the Port Phillip Bay and Gippsland Lakes population were genetically very distinct and showed little genetic mixing.

"We had hypothesised that the Port Phillip and Gippsland Lakes dolphins would be more similar than the Tasmanian population, given the potential barrier of Bass Strait, but what we found was quite unexpected," Dr Charlton-Robb said.

"The results suggest the Gippsland Lakes dolphins showed more genetic similarity to those in Tasmania, whilst the Port Phillip population was more isolated."

Based on the dolphin's DNA, the effective population size - those that are contributing genes into the next generation, is estimated to be less than 100 dolphins in each region.

"This is concerning, conservation action is required to protect the species - the very small population size, lack of genetic diversity, the isolation of these populations and the effects that could have on the future of not only these resident populations, but on the entire species."

Dr Charlton-Robb identified the dolphins as a separate species and named them in 2011, her efforts have already seen the dolphin listed as threatened under Victoria Flora and Fauna Guarantee Act.

"For a species that lives so close to a major capital city like Melbourne,

we still know very little about them."

"It is crucial we understand more about this unique [population](#) and about the species as a whole. Applied research with real [conservation](#) and protection outcomes is my mission," she said.

Provided by Monash University

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