



Is tawaki breeding success influenced negatively by the presence of stoats within a colony?

The West Coast Penguin Trust was established in 2006 and exists to conserve penguins, other seabirds and their habitat on New Zealand's West Coast through research, advocacy and practical projects.

In 2014, the Trust set out to establish which, if any, predators were contributing to the apparent decline of tawaki in South Westland using movement activated trail cameras at two colonies. During the first two seasons, stoats were occasionally present and a couple of predations of penguin chicks occurred. In the third season, 2017, nearly all eggs and chicks being monitored at the Jackson Head colony were predated by stoats.

Our conclusion was that the invasion of stoats had occurred as a result of a mast year in adjacent beech forest. A fourth study year was undertaken with an additional third site in an attempt to better understand the data. However, results were inconclusive, and the project was put on hold until both landscape predator control and a mast year occurred. A widespread and significant mast event occurred in summer/autumn 2019 and advice from the Department of Conservation (DOC) is that high numbers of stoats are more likely in the summer following a mast and leading into winter and spring.

1080 poison was applied aerially in an area that included our third study site in spring 2019. Conditions are therefore ideal for the Trust to test and develop our theory that stoats are a significant threat to tawaki when numbers are raised – generally in relation to mast events in or forest adjacent to their breeding habitat.

With a community trapping project at the Jackson Head colony and no predator control at the third site we will evaluate predator control methods, establish breeding success in relation to predation events and the presence of stoats, and determine whether further study is warranted. We will share our findings with DOC, the New Zealand Penguin Initiative, the wider New Zealand penguin community, and Birds NZ.



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