

## Predation by mustelids is not a significant cause of breeding failure of blue penguins on the West Coast, South Island, New Zealand.

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Predation by introduced mustelids is a major cause of breeding failure in white-flipped penguins (*Eudyptula minor albosignata*) on Banks Peninsula and has either been shown to be, or assumed to be an important cause of breeding failure in blue penguins (*E. minor*) elsewhere in New Zealand. We have monitored breeding success in blue penguin colonies with, and colonies with no mustelid control near Charleston for three years and in South Westland for two years. We have found no significant differences in breeding success between colonies with or without mustelid control in any breeding season at either area. Breeding success has generally been high in all colonies in all study years with about half the pairs fledging two chicks. Breeding success was lower in one Charleston colony in 2010 with flooding of nesting burrows and other natural events contributing to the loss of eggs and chicks. Breeding success was also low in the predator trapped colony in South Westland apparently also due to natural mortality. Our Penguin Mortality Database has shown roadkills and dogs to be the most significant mortality factor for West Coast penguins, with most deaths apparently being of adult penguins, which has a greater impact on population viability than breeding failure.