

Conservation of the Blue Penguin (*Eudyptula minor*) on the West Coast, South Island, New Zealand



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Blue Penguins

- Widely distributed throughout New Zealand and Australia.
- One of the few seabird species which still breed on New Zealand's mainland.
- Currently listed by DoC and the IUCN as near threatened/ lower risk.

Blue Penguins

- One of the most intensively studied seabirds in New Zealand.
- **BUT**
- Breeding biology, foraging ecology and other aspects of their biology varies place to place.
- West Coast likely to differ from sites of previous study.
- Differences along the length of the West Coast (450 km) possible.

West Coast Blue Penguins



Photo: M. J Van Rensburg

- Thought to be distributed throughout the South Island's West Coast.
- Anecdotal evidence of population decline.
- No prior knowledge of distribution, population numbers or local biology on West Coast.

West Coast Blue Penguins

- Many potential threats:
 - Introduced predators
 - Free-roaming dogs
 - Road kills
 - Land development
 - Coastal erosion
 - Fisheries By-catch
 - At-sea threats
- Which are the threats faced by West Coast penguins?

West Coast Blue Penguins

- Although there is a lot of information about Blue Penguins, for conservation in our patch, we need information on population dynamics, foraging ecology, breeding biology and abundance that is specific to the West Coast.





Photo: D Boulton

- Formed in 2004 by concerned local residents
- A community driven project with research carried out at Lincoln University

Community involvement

- Raised public awareness:
 - Census days,
 - Road shows,
 - Community involvement
 - Other activities.
-
- To be discussed in a 2nd presentation from our Trust



Distribution and abundance

- 310km of the 450km long coastline has been surveyed.

Surveyed Area



Survey methods

- Initially beaches were walked to locate areas where penguins appeared most common, areas from which they appear absent.
- Detailed follow up surveys in areas where penguins appeared most numerous.

Survey results

- Colonies are small, many less than 5 pairs, largest 20-40 pairs.
- Penguins absent from large areas of suitable coastline including areas remote from people.



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Distribution & abundance information

- Working document reporting all available information on West Coast penguin distribution and abundance nearing completion.
- To be distributed to Regional and district Councils, DOC other interested parties.
- A living document, updated annually.

Breeding biology

- Timing of the breeding season and breeding success has been documented in the Buller Area.
- Results from one season only – could be different in other years.



Breeding biology results

- Chicks fledged from 66% of eggs laid
- Mean 1.18 chicks fledged per breeding pair
- No evidence of second clutches or replacement laying

Mortality



- Cause of death recorded when ever dead birds found.
- At least 23 road kills of adult penguins in the Buller region between February 2006 and June 2007.
- Dogs a big problem at some beaches.

Colony monitoring and predator control

- Predator control at selected colonies.
- Annual monitoring of breeding success and mortality in colonies with and without predator control.
- So far at accessible colonies in Buller region only.

New research directions

- Extend research and colony monitoring to colonies near Okarito in South Westland and remote colonies. Work begins July 2008.
- Mark penguins to determine survival rates in both Buller and South Westland.
- Studies of foraging ecology planned for 2009.



- Without the WCBPT, we would know nothing about status or threats on the West Coast and no conservation measures would be in place.
- Thanks to our sponsors.

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