

YELLOW-EYED PENGUIN TRUST NEWS

STEWART ISLAND EDITION

November 2004

The Yellow-eyed Penguin Trust, A charity working to save our penguins forever for everyone!

The Yellow-eyed Penguin Trust's work largely revolves around a comprehensive conservation programme. Measures include establishing reserves, fencing and replanting breeding areas, reducing predators such as stoats and ferrets, funding research and advocacy, and providing information to schools and the public on penguin conservation.

NEVILLE PEAT



Our Mission

To work towards an increase in the number of yellow-eyed penguins on a self-sustaining basis within their natural coastal eco-system.

Our charitable Trust was formed in 1987 by local Otago conservationists in response to the observed decline in the number of yellow-eyed penguins. While the Trust is based in Dunedin, our work is wherever the yellow-eyed penguins are found - along the eastern coastline of the South Island from Banks Peninsula to Bluff, and on Stewart Island and the sub-Antarctic islands of Auckland and Campbell.

OUR WORK ON STEWART ISLAND

We work closely to the Department of Conservation's Recovery Plan (Threatened Species Recovery Plan 2000-2025 #35). The



Plan identified the need to obtain accurate population census and trend data on Stewart Island as a primary objective, with anecdotal evidence and occasional systematic observations indicating fewer numbers than previously recorded. The Trust undertook the



first full nest search in the breeding seasons from 1999 to 2002. The results showed an even lower number of nests than expected. Earlier population census work in 1992 had estimated numbers on the Island to be in the vicinity of 600 breeding pairs.

What the Trust found in their comprehensive census was a total of only 121 pairs. Of concern was the fact that previous breeding sites now showed no sign of penguin activity. There was obviously a need to try and determine the reason for the sharp decline.

MANY QUESTIONS

The nest census gave rise to many unanswered subsidiary questions. The most surprising was the census showed a considerable lower than originally estimated number despite the fact that there is more natural land habitat than the mainland. Why was there no sign of juvenile birds (the future



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breeding population) on Stewart Island? At what point were they dying - as chicks on the nest or as juveniles at sea?

Furthermore on adjacent Codfish Island (Whenua Hou) the penguin population

is much higher and juveniles were still found in abundance. This island is totally free of all predators – cats, mustelids, rats and wekas etc. Could predators be the reason for the decline?

FIVE YEAR PLAN



On Stewart Island there are no mustelids (ferrets, stoats and weasels) but cats are prolific throughout. The question was asked, is it these cats that are impacting on yellow-eyed penguin breeding success? It was obvious we needed to monitor penguins over several years in an effort to find out what was happening.

So in 2003 the Yellow-eyed Penguin Trust initiated a five-year project. The aim of the first year was to identify whether cat predation was a factor by comparing an area where cat control was carried out, with a non-control area.

The monitoring was carried out by local resident Sandy King and a number of volunteers. The Department of Conservation assisted with the design of the project, logistics, transport and other technical support including communication. The study programme ran from late October 2003 when breeding pairs were well settled into brooding and concluded early March 2004 when chicks were beginning to leave for sea.

Nest monitoring showed that hatching rates were high, but to our shock, very soon chicks began dying leaving only 26% of the chicks surviving to go to sea. However much to our surprise, the deaths were occurring even in the cat control area where elimination of cats (a number of which had been radio collared) had been effective. Furthermore examination indicated that the deaths were NOT due to



predation by cats but primarily due to chick starvation. This meant that other factors besides predation had to be considered in order to explain the poor breeding outcome this season, although predation cannot be ruled out as a factor long term in lowering fledging success.

Chick starvation suggested that there is a shortage of food in the vicinity of the penguins breeding sites. When prey is scarce, penguins have to compensate for this by increasing their foraging effort. This generally results in longer foraging trips and reduced food transfer to the chicks. We needed to compare weights of the almost fledged chicks and compare them with those in other areas.

BUT the weight of the surviving chicks in the study area was not markedly different from those on neighbouring offshore islands where chick deaths had not been reported. The weights of the Stewart Island and offshore island chicks were lower on average than those on the Otago Peninsula in the same season, but this trend had been apparent in previous years too.

SO, could there have been a biotoxin in the specific feeding areas used, or some unexplained disease resulting in adult deaths so that their chicks then died of starvation such as has been observed in at least two seasons on mainland New Zealand? We won't know that until the nest count this year, which should give an indication of whether the number of nesting adults has been substantially reduced. Without the birds being banded we cannot say if they are exactly the same penguins that nested last year, but because they tend to nest within 500m of their previous year's nest we should be able to pick up any marked loss in the number of nesting pairs.

If it wasn't a biotoxin, was there some disease affecting the chicks in the study area? This year the organs of all dead chicks will be autopsied as well as their carcasses being fully examined.





MORE QUESTIONS THAN ANSWERS AT THIS STAGE

Last season, Sandy King used her best friend Mac, a 'predator dog' trained to locate feral cats or their sign. Most of these predator dogs are trained by Department of Conservation staff to help track down predators such as mustelids, rodents and feral cats. DOC has set

standards for the behaviour and competence of the dog, and only dogs that meet those standards are given the certification required to allow them to work on conservation land. He wears a muzzle (one of the conditions of being allowed in the Rakiura National Park) so he can't actually catch any cats, but he can locate their sign (scats) and areas that cats are frequenting.



Year two of the project started again in October and ends in March 2005. The aim this year will be to monitor even more carefully what is going on at the individual nest level. This season will see Sandy and the team monitor the Anglem coast, and fuller monitoring will be carried out on two nearby offshore islands as well as Codfish Island.





TIPS FOR VIEWING YELLOW-EYED PENGUINS

- 1 Hide so the penguins can't see you
- 2 Talk quietly and move slowly
- 3 Don't bring your dog
- 4 Keep to the track

Everybody needs to be mindful of the need to vacate beaches especially when adult yellow-eyed penguins are feeding chicks during the breeding season (November to February) and adhere to the guidelines.

BECOME A MEMBER OF THE TRUST



The Yellow-eyed Penguin Trust

With your help, the Yellow-eyed Penguin Trust aims to save one of the rarest penguins in the world.

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Thank you for your support

Fill in this form and send, with your payment to:
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Thanks For Your Support

Year One of this 5-year project cost \$52,289 and was funded by the Yellow-eyed Penguin Trust with dedicated donations towards this work received from you our members, the Department of Conservation Stewart Island Field Centre (\$17,994 logistical support). Contact Energy Limited "Community Conservation Challenge 2003" (\$20,035) and The Community Trust of Southland (\$5,300).

Year Two will again be funded by the Yellow-eyed Penguin Trust with logistical support from DOC Stewart Island Field Centre, together with donations from the Bendigo Valley Foundation (\$5000), Community Trust of Southland (\$10,000) and Contact Energy Limited.

Thank you to local Stewart Island businesses who have assisted the Trust in this project. Donations in kind or discounted prices have been received from Dave's Place, Stewart Island Marine, Telecom, Rakiura Art, Ian Wilson's water taxis – our sincere thanks to you all.

Stewart Island residents have been very welcoming to Trust personnel visiting the Island, engaging them in informative discussions, offering assistance and advice and generally making them feel very welcome.