

- SEITRE, R.; SEITRE, J. 1992. Causes of land-bird extinctions in French Polynesia. *Oryx* 26:215-222.
- SCHIPPER, W. L. 1985. Observations of birds on Kwajalein Atoll, Marshall Islands, 1978-1983. *Elepaio* 46:27-32.
- TURBOTT, E. G. (convener) 1990. Checklist of the birds of New Zealand (3rd edition) Ornithological Society of New Zealand. Random Century, Auckland.
- WIENS, H. J. 1956. The geography of Kapingamarangi Atoll in the Eastern Carolines. *Atoll Research Bulletin* 48:1-86.
- WIENS, H. J. 1962. *Atoll Environment and Ecology*. Yale University Press, New Haven, Connecticut.

Manuscript received 17 March 1998, revised & accepted 30 May 1998



SHORT NOTE

Two seabird recoveries from Christchurch city: implications for *Classified Summarised Notes*

It is well known that storm events can blow pelagic seabirds substantial distances inland. Thus, the annual *Classified Summarised Notes* published in *Notornis*, plus *OSNZ News*, frequently report inland recoveries of seabirds. However, these recoveries are either reported without a context, or are reported as associated with storm events. We could find no reports in *Classified Summarised Notes* explicitly stating the absence of storm events in inland seabird recoveries. In this Note we report two inland recoveries which followed a period of calm weather. We will argue the need to report future inland seabird recoveries in a fuller context, including both presence and absence of storm events.

On 13 February 1995, a recently fledged, freshly-dead White-faced Storm Petrel (*Pelagodroma marina*) was handed to SP from a garden in the western suburb of Avonhead. On 30 January 1995, DJH found a freshly-dead Fairy Prion (*Pachyptila turtur*) in open country between the SE suburbs of Halswell and Hillmorton. While the bird had been run over by a vehicle, this may not have been the cause of death. Whether the bird was a recent fledgling was not recorded. The closest open sea for both recoveries is 15 km away, on the northern side of Banks Peninsula. Both recoveries followed a period of calm weather after c. 24 h of strong-gale NE winds on 21 January 1995.

Both White-faced Storm Petrels and Fairy Prions breed (Heather & Robertson 1996) on Motunau Island, 55 km NNE of Christchurch city; Fairy Prions also breed on rock stacks around Banks Peninsula. The most obvious explanation for the recoveries is that the birds were lured inland by the lights of Christchurch city (Imber 1975). City lights can confuse birds considerably, drawing them some distance inland. In December 1989 DJH saw two Turnstone (*Arenaria interpres*) behaving

in a disoriented fashion in floodlights at a school approximately 1.5 km inland in Miami (Florida).

As noted above, the storm petrel was recently fledged. Imber (1975) noted that recently-fledged birds are especially susceptible to artificial lights, thus supporting the artificial lights hypothesis. With respect to the prion, the timing of the recovery was consistent with a recently-fledged individual although the bird was not noted as such. Contrary to the artificial lights hypothesis, both birds were recovered from the opposite side of Christchurch city relative to Motunau Island. While birds attracted by city lights can wander considerable distances inland, it seems strange that both recoveries reported here were close to open country on the inland side of the city. The recoveries were also on the side of the city opposite to that of the presumed breeding area. This leads to an alternative explanation, that the birds were crossing land, perhaps before being attracted to the lights of Christchurch city. The distance between the northern and southern sides of Banks Peninsula is 40 km, while it is 160 km between the east and west coasts of the South Island.

Instances of seabirds crossing land have been previously reported. Fleming (1944) reported Cook's Petrels (*Pterodroma cookii*) crossing the North Island near Kaipara Harbour, while Dowding (1994) reported seabirds crossing Stewart Island. Both of these involved short distances (≤ 50 km). C.F.J. O'Donnell (pers. comm.) told DJH of a sighting on 16 December 1987) of a Broad-billed Prion (*Pachyptila vittata*) flying over the upper Rakaia River, 100 km from the east coast. The bird was behaving normally, with no obvious sign of distress. Crossing the Southern Alps does not necessarily pose a problem, given reports of trans-alpine movements of Blue Duck (*Hymenolaimus malacorhynchos*) (Harding 1994). In pre-European times, seabirds bred considerable distances inland in Canterbury (Worthy & Holdaway 1996) so that overland flight paths have certainly routinely occurred in the past. The land-crossing hypothesis is also supported by the observation that pre-reproductive individuals are generally more likely to stray from established routes (Baker 1978); this is an important part of colonisation (and more significantly for Canterbury, recolonisation) dynamics.

The final conclusion is that the mechanism for the demise of the Fairy Prion and White-faced Storm Petrel specimens is uncertain. However, the arguments we have summarised indicate three potential mechanisms for inland seabird recoveries (storms, artificial lights, and overland flight paths). We recommend that OSNZ members document the circumstances surrounding seabirds recovered inland, and that these circumstances are noted in *Classified Summarised Notes*.

ACKNOWLEDGEMENTS

Thanks to Peter Langlands, who identified the storm petrel. The paper was significantly improved by comments by P. Sagar, who also brought Imber (1975) to our attention.

LITERATURE CITED

- BAKER, R.R. 1978. The evolutionary ecology of animal migration. Hodder & Stoughton, London.
DOWDING, J.E. 1992. Seabirds crossing Stewart Island at night. Notornis 39:100.