

species, taking fewer invertebrates and less nectar than Bellbirds, and that Bellbirds are the most insectivorous of the three species. Future studies should be designed to show the conditions under which the species depart from this pattern.

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- P. D. GAZE, *Ecology Division, DSIR, Nelson*; B. M. FITZGERALD, *Ecology Division, DSIR, Private Bag, Lower Hutt*



#### SHORT NOTES

##### A DISTANT RECOVERY OF A BULLER'S MOLLYMAWK

Between 1961 and 1977 University of Canterbury Expedition members banded 833 adult Buller's Mollymawks *Diomedea bulleri* and 858 of their chicks at the Snares Islands (48°07'S, 166°36'E). In addition, Dr L. E. Richdale banded 159 breeding birds there in 1948 of which at least one was still ashore in the 1976/77 breeding season.

Recoveries away from the island have been few and all from around New Zealand, but M-19006, a chick banded by D. S. & C. J. Horning on 6 August 1972, has recently been reported as recovered at 12°25'S, 105°06'W on 13 October 1979, caught on a fishing vessel's longline. The bird was some 7460 km north-west of its birthplace and about 2000 km south-west of the Galapagos Islands and rather to the east of the Humboldt Current.

That some Buller's Mollymawks migrate to cold waters off western South America has long been known (cf. Murphy, 1936, *Oceanic birds of South America*: 525) but this appears to be the first report of a marked bird of this species outside New Zealand.

The bird's precise date of birth was not recorded but it would have been about 7 years 7 months old when it died. Age at first breeding has not been determined, but similar-sized petrels like *Diomedea immutabilis* are known to lay at about 8 to 9 years old (Fisher, 1975, *Auk* 92: 433-441) and other birds of the 1972 cohort were noted back on the island in June 1981 by C. J. R. Robertson but none was

seen to be tending a chick. Thus M-19006 would possibly have returned to The Snares as an advanced pre-breeder in the following January or February, had it survived.

JOHN WARHAM, *Zoology Department, University of Canterbury, Christchurch 1*



### FALCONS BREEDING IN THE WESTERN KING COUNTRY

Very little is known about the status of the New Zealand Falcon *Falco novaeseelandiae* in the North Island. Much of the data to be obtained from the literature is of scattered, individual sightings giving little indication if breeding is taking place. Fox (1978, *Notornis* 25: 317-331) gathered data from the literature and from local observers to produce national distribution maps for this species, but we consider that his estimate of the breeding range of falcons in the North Island is too limited.

We have seen falcons in the western King Country, north of Marokopa, for two years and our data show that this district still supports a viable breeding population. We have found pairs breeding successfully on Mt Pirongia and at Pirongia South, Te Toi, Taharoa, Marokopa, Waitomo and Ohakura, and unsuccessfully at Moerangi, Te Kauri and Hikurangi. Falcons occur throughout the western King Country in association with blocks of native forest but are uncommon in the north of the district, especially where forest canopies are greatly modified and the birds are likely to be shot. Further south, around Marokopa and Tawarau State Forest, falcons are more numerous with reports of multiple sightings and wandering juveniles relatively common. We have little data as yet from the very large forest area surrounding the Herangi Range between Marokopa and Awakino but the information we do have suggests the presence of a fairly substantial breeding population.

Fox estimated the breeding range of the falcon in the North Island to cover some 24 986 km<sup>2</sup> to which we would add approximately 923 km<sup>2</sup> from the western King Country, and as breeding has been confirmed south of Mokau, at Tapuiwahine, Okahukura, Otunui and Ohura (C. F. J. O'Donnell, pers. comm.), this extensive forest area could also be regarded as part of the falcons' breeding range. We are unsure of the extent of this latter area but suggest that if the western King Country and central Taranaki forest areas were included in Fox's estimate, and falcons are found to breed regularly in other districts such as the Coromandel and Kaimai Ranges, the total area of the North Island breeding range would be over 30 000 km<sup>2</sup>.

LEX and SANDRA HEDLEY, *61 Bailey Street, Huntly*