

- HARRISON, P. 1987. Seabirds of the World - A Photographic Guide. Christopher Helm, London.
- HARRISON, P.; JEHL Jr, J.R. 1988. Notes on the seabirds of Sala y Gomez. *Condor* 90: 259-261.
- HOLYOAK, D.T.; THIBAUT, J.-C. 1984. Contribution a l'etude des oiseaux de Polynesie Orientale. *Memoirs du Museum National D'Histoire Naturelle, Zoology Series No. 127*, Paris.
- JOHNSON, A.W.; MILLIE, W.R. & MOFFETT, G. 1970. Notes on the birds of Easter Island. *Ibis* 112: 532-538.
- MARCHANT, S. & HIGGINS, P.J. (eds.). 1990. Handbook of Australian, New Zealand & Antarctic Birds. Vol. 1, Ratites to Ducks. Oxford University Press, Melbourne.
- PRATT, H.D.; BRUNER, P.L. & BERRETT, D.G. 1987. The Birds of Hawaii and the Tropical Pacific. Princeton University Press, New Jersey.
- SCHLATTER, R.P. 1984. The Status and Conservation of Seabirds in Chile. Pp. 261-269 in Croxall, J.P.; Evans, P.G.H. & Schreiber, R.W. (eds.) Status and Conservation of the World's Seabirds. ICBP Tech. Publ. No.2, International Council for Bird Preservation, Cambridge.
- SEITRE, R.; SEITRE, J. No date. Causes de disparition des oiseaux terrestres de Polynesie Francaise. SPREP Occ. Paper Series No.8, Noumea.
- WARD, R.A.; DOWNEY, J.C. 1973. Checklist of the mallophaga of Midway Atoll, Pacific Ocean. *J. Medical Entomology* 10: 391-396.
- WILLIAMS, G.R. 1960. The birds of the Pitcairn Islands, central South Pacific Ocean. *Ibis* 102: 58-70.
- WRAGG, G.M.; WEISLER, M.I. 1994. Extinctions and new records of birds from Henderson Island, Pitcairn Group, South Pacific Ocean. *Notornis* 41: 61-70.
- GRAEME A. TAYLOR, ALAN J.D. TENNYSON, *Threatened Species Unit, Department of Conservation, P.O. Box 10420, Wellington, New Zealand*



### Survey of North Island Robins on Moturua Island, Bay Of Islands

Sixteen North Island Robins *Petroica australis longipes* from Mamaku Plateau, Bay of Plenty, were liberated on 135 ha Moturua Island in February 1986 (S Anderson pers. comm.). Fourteen birds were found in June 1987 indicating that initial post-release survival and/or breeding success was high, but only seven birds were found in 1989 (R Parrish pers. comm.).

On 1-2 June 1994 a team comprising G Grant, I May, B Walsh, M Robinson (OSNZ, Northland), and M McGlynn and myself (Department of Conservation, Northland) surveyed the Moturua Robin population. Our methodology comprised playing taped Robin calls to attract birds and stationing one of our party to watch one or more birds as the rest of the party moved on. We also noted plumage variation to assist in distinguishing individuals. In 3 or 4 instances, however, we could not be certain of the identity of individuals. In these instances we regarded the individuals as having been counted before.

During our survey we found a minimum of 23 individual Robins. The birds were concentrated in the south-eastern half of the island where the vegetation (predominantly kanuka *Kunzea ericoides* and wattle *Acacia* sp.)

was tallest. Within this area Robins were found predominantly in south or south-eastern flowing catchments or slopes, including Waipao Bay Stream (9 birds), Western Waipao Bay (3 birds), Opunga Bay (3 birds), Western Otupoho Bay Stream (6 birds). One bird was in a western facing catchment (Eastern Otupoho Bay), 1 on the main ridge of the island, and 2 on the northern facing slopes of Otupoho Bay.

The bays on the south-eastern side of the island were surveyed in the middle of the day, so some birds could have been missed because of their lull in activity, especially singing, at that time. This, together with our conservative approach to counting birds, means that the total population could be close to 30. This is a very slow population increase compared to that on Mokoia Island in Lake Rotorua where Robins increased from the 13 introduced in June 1991 to over 100 in 1994 (P Jansen pers. comm.).

All except 2 birds were beneath a canopy dominated by kanuka and with varying amounts of ground cover, ranging from bare ground to extensive fern and segde grass cover. The exception was 1 pair found in the dry *Acacia*-dominated northern facing slopes of Otupoho Bay where the ground was strewn with fallen branches. No birds were seen in areas where the ground was covered in a dense sward of mistflower *Ageratina riparia*. The north-western half of the island contained mainly unsuitable vegetation of low (< 2 m) height. Much of the extreme south-east of the island, however, could potentially accommodate many more birds than found during our survey.

Considering that the Bay of Islands has experienced two very dry summers (especially 1993-1994), the Robins appear to be reasonably well established on Moturua Island. Stoats (*Mustela erminea*), kiore (*Rattus exulans*), and perhaps also Norway rats (*R. norvegicus*), occur on the island (King 1990). The neighbouring islands of Moturoa and Urupukapuka have extensive kanuka forest not unlike that on Moturua, and would appear suitable for accommodating translocated populations of Robins in the future.

#### LITERATURE CITED

- KING, C. 1990. *The Handbook of New Zealand Mammals*. Oxford University Press, Auckland.
- R. J. PIERCE, *Department of Conservation, P.O. Box 842, Whangarei, New Zealand*