

## SEABIRDS OFF RAOUL ISLAND

On 31 October 1979, *Marama* called at Raoul Island to embark three members of a Lands and Surveys party. The vessel was within three miles of the island for about two hours, during which the following birds were seen. Wedge-tailed Shearwater (*Puffinus pacificus*): in sight throughout, the highest number seen together 40+. Kermadec Little Shearwater (*Puffinus assimilis kermadecensis*): in sight throughout, the highest number seen together 11. Black-winged Petrel (*Pterodroma hypoleuca nigripennis*): one was seen near the island, with a total of five birds seen during the approach to and departure from Raoul. I had not seen any Black-winged Petrels in the South-west Pacific for some months and considered these birds to be the first returning migrants. Kermadec Storm Petrel (*Pelagodroma marina albiclunis*): one seen about one mile off Hutchison Bluff, when the very light rump of this subspecies was noted. Masked (Blue-faced) Booby (*Sula dactylatra personata*): four birds, all of which appeared to be in adult plumage, fishing between Raoul and the Meyer Islets. Sooty Tern (*Sterna fuscata*): nine birds seen. White-capped Noddy (*Anous tenuirostris minutus*): three seen. Grey Ternlet (*Procelsterna cerulea albivitta*): five seen.

On leaving, when 11.5 miles from Raoul towards Auckland, a Godwit thought to be *L. lapponica baueri* overtook the ship. It was flying at about 200 feet and appeared to be on the same course as we were.

## REFERENCE

MERTON, D. V. 1970. Kermadec Islands Expedition Reports: A General Account of the Birdlife. *Notornis* 17: 147-199.

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## RELAYING OF NEW ZEALAND PIGEON

In January 1979 I was spending some weeks on Maud Island. On 4 January, when working close to the old homestead, I noticed a New Zealand Pigeon (*Hemiphaga novaeseelandiae*) picking up fine sticks from the ground, flying up to a tree lucerne and then some 20 metres to an unkept hedge of taupata and mahoe. On inspecting the site, I discovered the start of a nest which as yet had no shape. It was about 3 m from the ground and 6 m from the house.

On the following day the pigeon was carrying sticks with some urgency. The sticks appeared to be carried only by the female. The male was nearby and chased any other pigeon which came into the vicinity.

On 6 January an egg was in the nest, but it was precariously positioned at the edge. Later in the morning the pigeon had put the egg back into the centre, but about midday it was found broken on

the ground below the nest. During the afternoon the pigeon added the odd stick. The following day it appeared to have deserted the nest.

On 8 January the pigeon was back on the nest and was adding the odd stick. This activity continued until the 18th when increased urgency began again with the pigeon active to and from the nest.

The following day the pigeon was covering the nest most of the time, but there was no egg when the nest was checked in the evening.

On 20 January the bird was sitting tightly all day. Although several visits were made to the nest, the bird was always present and it was not possible to confirm that the egg was present. The behaviour indicated that it was most probably present. The following morning it was definitely present and incubation was proceeding.

On 22 January the nest was tilted at a very dangerous angle and the egg was ready to fall out. I made the nest safe by fixing some old wire-netting under it. Unfortunately I left the island on 26 January and was not able to follow the nest to completion. When the nest was inspected about two months later, however, it appeared to have been successful.

As the pigeon takes some 28 days to hatch and a further 45 days to leave the nest (Oliver 1955, *New Zealand birds*, A. H. & A. W. Reed), it is unlikely that two broods would be raised in a season. However the above observation shows that relaying can occur some 14 days after an egg is lost early in incubation.

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#### AN OBSERVATION OF AGGRESSION AMONG N.I. KOKAKO IN PUKETI FOREST

During a wildlife survey of Puketi Forest, Northland, in November 1979 four North Island Kokako (*Callaeas cinerea wilsoni*) were attracted to a taped recording of local dialect. One pair of Kokako, which had been singing about 100 metres away, responded to the Kokako tape by quickly moving through the forest canopy to the source of the "new song." After observing this pair for about a minute in the upper understorey on this ridge site, I again played the tape. A third bird replied from an adjacent valley to the north and within a minute had joined the pair above me. All three birds were seen to perch close together. Although the dense upper understorey and canopy — predominantly kauri (*Agathis australis*) and tanekaha (*Phyllocladus trichomanoides*) at the site — made observation difficult, contactual behaviour was apparent. The birds were quietly mewing and chirring.

The tape was played for a third time and a fourth Kokako replied from the area to the north from where the third bird had