

Sounds, Tasman Bay and Golden Bay, Gannets were seen diving regularly from September through to May where echo soundings indicated concentrations of pilchards. One bird was shot and found to contain several pilchards about 150 mm. in length but no other fishes. Normally Gannets occur in groups of from two to six birds but on 21/4/66 about 100 birds were seen diving in Golden Bay. On this occasion no bird was taken but several kahawai (*Arripis trutta*) which were feeding in the locality with the Gannets, were caught and found to have been feeding exclusively on pilchards."

The fish eaten by Gannets during their nesting season are mainly coastal, although many range out to the edge of the continental shelf in surface or subsurface water. Even the oceanic flying fish and saury may occur within a few miles of the coast. Anchovy, sardine and saury are abundant in spring and summer south to beyond Kaikoura and often enter bays and harbours. This dependence on coastal fish agrees with Norris' (1965) observations on gannet distribution: on two occasions when his ship passed 25 miles off Cape Kidnappers during November, the middle of the nesting season, no Gannets were observed. From these and other observations Norris concluded that Gannets appear to be "coastal rather than offshore in their distribution."

Collections of food from other gannetries and information on the species eaten in the non-breeding season and by different age groups would help to give a fuller picture.

#### REFERENCES

- NORRIS, A. Y., 1965: Observations of Seabirds in the Tasman Sea and in New Zealand Waters in October and November, 1962. *Notornis*, XII, 2: 80-105.  
OLIVER, W. R. B., 1955: New Zealand Birds, Second Edition. A. H. and A. W. Reed, 661 pp.  
WODZICKI, K., and ROBERTSON, F. H., 1959: Birds, with a Note on the Mammal *Rattus exulans* (Peale) in "White Island" comp. by W. M. Hamilton and I. L. Baumgart. N.Z.D.S.I.R. Bull. 127: 70-82.



## NOTES ON FOODS OF THE NORTH ISLAND KOKAKO AT MOUMOUKAI

By J. W. St. PAUL.

In and about the heavy bush of Moumoukai, near Clevedon and about twenty-four miles in a straight line from Auckland, I have lived and worked for over sixty years within sound of Kokako song. I have spent a great deal of time in the bush and have always watched birds while working and hunting. The Kokako (*Callaeas cinerea wilsoni*) has perhaps been particularly interesting because of the difficulty of studying it. There is no hope of following it to see what it does in the course of a day. It will hop quickly through the trees, glide across a gully and there is no more to be seen of it. Almost constantly on the move it seldom feeds long on any one thing. In its daily circuit it probably partakes of many kinds of food. Also its foods will vary from one area to another, so it is hoped that these notes will encourage others to bring forward more details of its food habits.

In the following table the figures in the column headed "Frequency Rating" express the proportions of observations made for each food, i.e., old leaves of raurekau were eaten approximately forty times as often as were the old leaves of tawa.

	Frequency Rating
LEAVES:	
Tawa ( <i>Beilschmiedia tawa</i> ) Old leaves	1
Young leaves, mainly in spring	20
Toro ( <i>Myrsine salicina</i> ) Older leaves	1
Leaf shoots, spring and summer	30
Pigeonwood ( <i>Hedycarya arborea</i> ) Old leaf. Much seen being collected and fed to young in nest, among other foods (McKenzie, Notornis IV, 73) but not on any other occasion.	
Raurekau ( <i>Coprosma australis</i> ) Old leaves. The main leaf food in winter when no fruit is available	40
Young leaves	10
Clover	Once
Puka ( <i>Griselinia lucida</i> ) Base of leaf stem and the stipule. These are sappy and somewhat juicy. The stalk and blade are not eaten	3
Phymatodes diversifolium (Family Polypodiaceae) The white end of the rhizome is eaten in the spring	10
Probing in moss on branches may be for an unknown food or for water.	

#### Reports from other areas:

Mangamange (*Lygodium articulatum*) Sporangia. Observation D. V. Merton, Great Barrier Is., Oct. 1963 (B. D. Bell and D. H. Braithwaite, Notornis X, 383).

Mapou (*Myrsine australis*) Young leaves. Observation D. V. Merton, Great Barrier Is., Oct. 1963 (B. D. Bell and D. H. Braithwaite, *ibid.*)

Weinmannia sp. Young leaves? Observation J. W., R. and R. B. St. Paul, Golden Cross, Waitekauri, near Waihi, 27/5/65.

White Rata Vine (*Metrosideros perforata*). Observation J. W., R. and R. B. St. Paul, Golden Cross, 27/5/65. The tender young leaves at tips of branches.

#### FRUIT:

Pigeonwood. Ripe	10
Green	5
Raurekau. Ripe	30
Green	5
(Some green fruit was fed to young in nest.)	
Miro ( <i>Podocarpus ferrugineus</i> ) Ripe	10
Not a staple food as with the N.Z. Pigeon.	
Wineberry ( <i>Aristotelia serrata</i> ) Ripe and partly ripe	4
Supplejack or Kareao ( <i>Rhipogonum scandens</i> ) Ripe	20
The main berry food in winter.	
Putaputaweta ( <i>Carpodetus serratus</i> ) Ripe	20
Throughout most of year.	