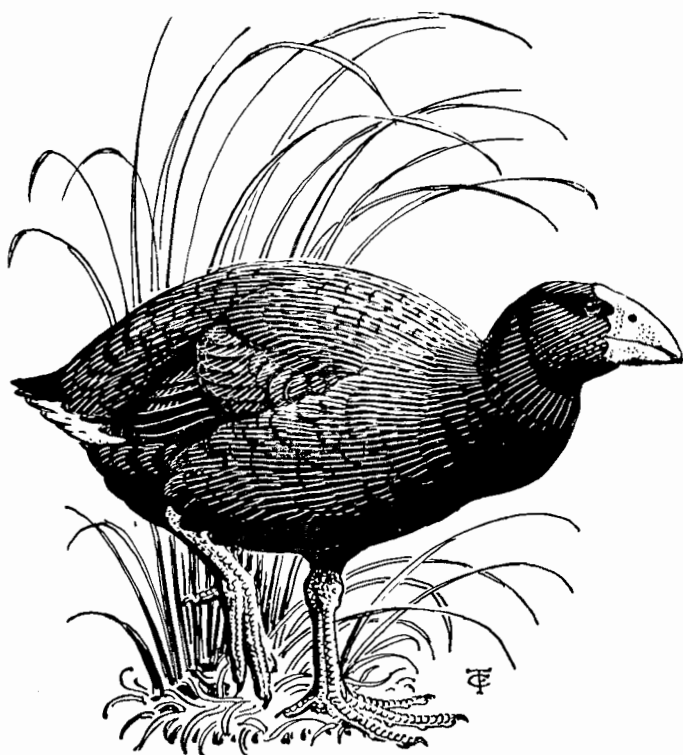


VOL. 6. No. 3.

JANUARY, 1955.

NOTORNIS



BULLETIN OF THE ORNITHOLOGICAL SOCIETY
OF NEW ZEALAND.

PUBLISHED QUARTERLY.

NOTORNIS

In continuation of New Zealand Bird Notes.

Bulletin of the Ornithological Society of New Zealand.

(Incorporated.)

Registered with the G.P.O., Wellington, as a Magazine.

Edited by R. H. D. STIDOLPH, 114 Cole Street, Masterton.

Annual Subscription, 7/6 (Juniors, 5/-); Endowment Membership, 10/-;
Life Membership, £6/6/-.

OFFICERS, 1954-1955.

President—MR. H. R. MCKENZIE, Clevedon.

North Island Vice-President—MR. P. C. BULL, Lower Hutt.

South Island Vice-President—MRS. L. E. WALKER, Dunedin.

Editor—MR. R. H. D. STIDOLPH, 114 Cole Street, Masterton.

Treasurer—MISS N. MACDONALD, "Keppoch Lodge," Sale St., Howick, Auckland.

Secretary—Mr F. M. Brookfield, 22 Benbow Street, St. Heliers, Auckland E1.

MR. L. GURR, Nelson; DR. R. A. FALLA, Wellington;

MR. E. G. TURBOTT, Auckland

Vol. 6 No. 3 Published Quarterly. JANUARY, 1955

CONTENTS.

	Page
Dispersal of N.Z. Gannets, by P. A. S. Stein and K. Wodzicki	58
Notes on the Birds of the Chatham Islands, by L. C. Bell	65
White-winged Black Terns at Waikanae, by C. A. Fleming	69
Observations on Diving of Australasian Gannet, by K. Wodzicki and F. H. Robertson	72
Little Egret near Auckland and in Far North, by H. R. McKenzie	77
The Birds of the Chatham Islands 1954 Expedition, by E. W. Dawson	78
A Colony of Buff-coloured Pukeko, by J. M. Cunningham	83
Classified Summarised Notes	85

ILLUSTRATIONS—Plate VI., Pyramid, Ohatham Is. 82

Plates VII. and VIII.—Buller's Mollymawk.

Plate IX.—Vegetation and Birds on Forty Fours.

NOTES.—Falcon in Chatham Is., 57; Regional Organisers, 64; Appointment of Officers, 64; Correspondence, 64; Late Shining Cuckoo Record, 76; Donations Acknowledged, 82; Birds Nesting in Gisborne Harb., 84; Birds in Northland Waters, 84.

FALCON IN CHATHAM ISLANDS.—The former existence of the falcon (*Falco novaeseelandiae* Gmelin) in the Chatham Islands does not seem to have been recorded. Neither our Society's recent Check List nor Oliver's N.Z. Birds, records it from the Chathams. In the collection of the Canterbury Museum are several bones which are indistinguishable from those of skeletons of the New Zealand falcon. They are: Av. 5423, r. femur (probably collected by H. O. Forbes); Av. 7594, cranium and pre-maxilla, from the Kinsey collection; Av. 9814, pelvis, from the Fougare collection; Av. 9930, l. tibia, from the Jefferson collection; and Av. 11.367, a l. ulna, collected from Owenga by Jim Eyles in 1952. The fact that so few falcon bones have been found among the thousands of bird bones from the Chathams that I have examined would show that it was probably not plentiful there.—Ron. J. Scarlett, Christchurch.

DISPERSAL OF NEW ZEALAND GANNETS.

By P. A. S. Stein and K. Wodzicki.

During the past four seasons, 1685 gannet chicks have been ringed in New Zealand—557 at the Plateau gannetry near Cape Kidnappers by F. H. Robertson and K. Wodzicki, and 1128 at Horuhoru, in the Hauraki Gulf, by P. A. S. Stein. The following notes are a preliminary account of 44 recoveries made up to the time of writing. The recovery data for these birds are recorded in Tables 1 and 2 and illustrated in figures 1 and 2.

Recoveries of ringed birds in Australia show that within a few weeks of leaving the nest many of the young birds reach New South Wales, while others find their way to Victoria and even to South Australia.

All the fledglings from the two breeding stations may not follow the same route to Australia. Seventeen of the chicks have been recovered in New Zealand during the period when their companions were making for Australia. The eight from Horuhoru have all been picked up on the east coast of the North Island, but of the nine Plateau recoveries, five have been on the west coast. Two of these, it is true, were north of Auckland, and one had been away from Kidnappers for over a year. The other two, however, were near Cook Strait, as if some birds on their journey to Australia first fly south and then west through Cook Strait.

RECOVERIES IN NEW ZEALAND.

The Plateau fledglings found on the east coast have all been between Cape Kidnappers and the Firth of Thames. The one nearest home was 19441, found at West Shore, Napier, only 20 miles away, a few days after its departure. Last year 15486 managed to travel 50 miles to Portland Island before it died, and 15351 reached Ohope Beach in the Bay of Plenty, 250 miles away. It was sick when found and died soon afterwards. This season there was a further report of a ringed gannet near Tauranga, but the finder buried the corpse without examining the ring. The other recovery was in 1951 when a sick chick was caught at Kereta in the Firth of Thames. It was 450 miles from home and had been ringed two months before it was found. This bird also died soon after it was picked up.

Only a few fledglings have been seen leaving the Plateau at Cape Kidnappers, but all of them have flown away to the north-east, and have continued in that direction until they were out of sight. Over a hundred have been seen departing from Horuhoru in their initial flight. The direction of the wind usually had little effect on the direction of flight. Once they were clear of the island, all but six have flown away on courses between north-west and north-north-west. Most of the birds flew for nearly a mile before they crash-landed in the water. A few, by accident, have landed nearer Horuhoru, while they were still clearly in sight. They have continued to paddle towards the north-west. None has been able to take completely to the air again, but several have been able to flap along for a few yards before sinking back on the water and resuming paddling. Several on the point of departure from Horuhoru, have fallen from the cliffs and, after hitting the water, have paddled away to the north-west without attempting to fly.

Thirteen miles east of Horuhoru, at the Coromandel colonies, four young birds were seen departing from Bush Island, twelve from Motutakapu and one was found paddling a short distance to the north. All 17 travelled north-west.

Some, however, must eventually have moved to the south. In the autumn of 1954, four to five-months-old gannets have been reported fishing near Miranda in the Firth of Thames, and one was seen in the Waiheke Passage, flying south-west. Three were recovered in the Firth. The first, No. 19734, was found on 19th January, 1954. The chick had been dead for some days. It was ringed on the 9th and would not have been far enough advanced to fly away before the 20th. We must assume that it fell from North Cliff, where it was reared, and drifted 20 miles across the Gulf

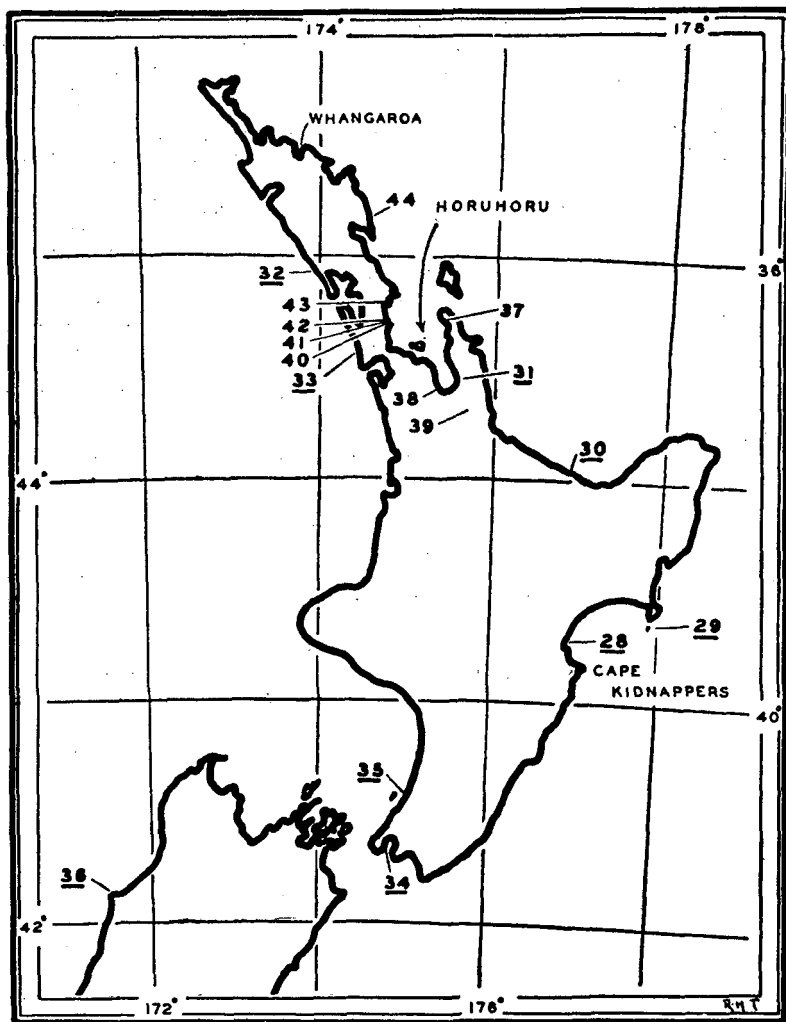


FIG. 1.

Recoveries of Gannets in New Zealand. Numerals underlined (28-36) indicate recoveries from Plateau, Cape Kidnappers, and other numerals (37-44) indicate recoveries from Horuhoru (Table 2).

to where it was found at Otautu, near Colville. At Whakatiwai, 20 miles south of Horuhoru, a chick was washed ashore, and only a dried leg with ring 19907 remained when it was found, 12 weeks after leaving the island. After a fierce northerly gale which had lasted for two days, 19877 was found at Onahu, half-way along the Thames-Paeroa highway, many miles inland. All the other recoveries of Horuhoru birds and sight records of fledglings in New Zealand have been north and west of Horuhoru.

On 4th April, 1954, at the Noises—a group of small islands about 12 miles west-north-west of Horuhoru—G. J. H. Moon and R. B. Sibson saw ten young gannets, making both deep and shallow dives for fish. Twenty miles further north-west, in the area between the Whangaparaoa Peninsula

and Kawau Island, there are two sight records and four recoveries, all within 35 miles of Horuhoru. An angler fishing at the mouth of the Matakana River on 18th February 1954, caught with his line gannet 19898, 11 days after it had left home. It was not very interested in flying, and when released simply paddled away again. A few days earlier, G. J. H. Moon had reported nine young gannets making shallow dives in this area. One of them was close enough for him to see that it had a ring on its leg.

After the fierce gale at the beginning of March, 1954, two chicks, 20092 and 19678, were picked up dead near Manly; and a week later 19918 was found at Orewa. These birds had left Horuhoru between four and seven weeks before they were recovered.

At Tutukaka Harbour, another 20 miles to the north, gannet 15704 took refuge on 28th February, 1953, having travelled the 80 miles from its home in five days. It had been shot in one wing and was cared for by R. S. Mackenzie. It stayed in Tutukaka Harbour throughout March, fishing by floating on the surface and dipping its head under water. It made many attempts to fly. It soon could travel along the surface of the water at nearly flying speed, but it did not succeed in becoming airborne. In early April it departed, and was last seen over a mile off-shore, flapping its way north.

The northernmost reports in New Zealand come from Whangaroa, which is 160 miles from Horuhoru. Here T. M. Roberts, who is engaged in deepsea fishing, has for some years recorded the numbers of young gannets passing north. They travel singly, or in twos, and never in the company of adults. On some days none are sighted. In 1954 the figures for February and March were:—

Date 1954	No. of young Gannets	Date 1954	No. of young Gannets
16 Feb.	1	8 Mar	3
20	2	10	1
22	1	13	4
23	1	14	1
25	2	15	1
28	2	20	1
1 Mar.	1	25	2
2	1	30	1
5	1	31	2

These birds may, of course, have come from any of the breeding stations on the east coast of the North Island. In previous years the birds have flown steadily without stopping to feed; this year a few of them have been seen catching piper on their way north.

These records suggest, therefore, that during the late summer and autumn many of the fledglings from both Kidnappers and Horuhoru make their way along the east coast towards North Cape.

Two of the Plateau birds found on the west coast were north of Auckland and may have travelled round the North Cape too. In May 1952, 15423 was found dead at Muriwai four months after it had been ringed, and in April 1953, 15892 was found near Dargaville three months after ringed.

Some young birds from the Plateau, however, make their way along the east coast south. On April 6, 1952, at the Pahaua River mouth, East Coast, about 150 miles south of Plateau, R. H. D. Stidolph observed young gannets flying south, some in company with adults—of six birds in one party, two were young; another of five had two young and in another instance three young were flying together. Three recoveries suggest that some birds travel through Cook Strait. In 1954, 19413 was found with a broken wing at Wellington, and in 1951, 15291 was picked up after a storm at Paekakariki. In each case the bird was recovered in April, three months after ringed. The third bird, 15364, was found at Cape Foulwind in September 1953, but it had been ringed in January 1952 and nothing is

known of its wanderings in the many months that followed its departure from the Plateau.

RECOVERIES IN AUSTRALIA.

Twenty-two birds have been recovered in New South Wales—11 from Kidnappers Plateau and 11 from the Hauraki Gulf. In addition, five Horuhoru chicks have found their way further south. When the recoveries are tabulated in geographical order from north to south, it becomes apparent that the Kidnappers birds are recovered in warmer seas than are the chicks from Horuhoru. The 27 recoveries are spread over 10 degrees of latitude, from 28° S. to 38° S. If this is divided into three zones, as follows: (1) north of 30°; (2) from 30° to 34°; (3) south of 34°; we find that there are four Kidnapper birds in the northern zone and seven in the central one. The Horuhoru birds have three in the central zone and 13 in the southern. While 11 birds ringed at Plateau (39°39'S) made landfalls from 28° S. to 34° S., 16 ringed at Horuhoru (36° 43' S.) spread over latitudes from 30° S. to 38° S.

In the northern zone, one bird was found on 29th May 1952 and this year three birds were found between 25th April and 29th May. All were recovered three or four months after being ringed. After it had been tangled in a fishing line, 19418 was released without the ring being removed.

It was in latitude 31° S. that the first two ringed gannets were recovered in March 1951, two months after they had been banded at

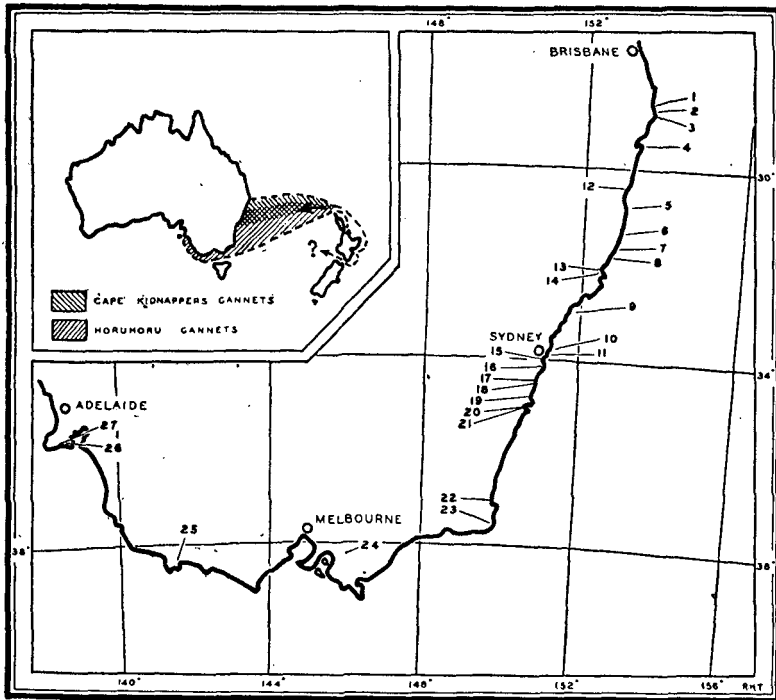


FIG. 2.

Recoveries of gannets in Australia. Numerals on seaward side (1-11) indicate recoveries from Plateau, Cape Kidnappers, and numerals on landward side (12-27) indicate recoveries from Horuhoru (Table 1). Inset: Diagram showing the northern trend of Plateau birds contrasted with the southern trend of Horuhoru recoveries.

Kidnappers. One, 15275, was dead near Port Macquarie, and the other, 15258, was exhausted and died soon afterwards at Harrington Beach. The following year another was washed up at Smoky Cape, and this year No. 19464 became tangled in a net in the river at Camden Haven. Its ring was not removed, so we may hear of it again. Further south, at Norah Head, 15460 was found late in March, 1953, not long after it had been ringed (2nd February) and 15491, ringed on the same day arrived two months behind its companion at La Perouse, which is 70 miles further south. In June 1954, 19422 was found dead at Kurnell five months after having been ringed.

The most northerly arrival from Horuhoru was 20083, which was found with a broken wing at Nambucca Heads, 240 miles north of Sydney, on 16th April 1954. It had left Horuhoru 10 days earlier, on 6th April. This is not the fastest crossing from Horuhoru to New South Wales (1,500 miles). In 1953, 15785 was washed up in bad weather at Forster, 100 miles to the south, on the eighth day after leaving Bush Island, which is 13 miles to the east of Horuhoru.

TABLE 1
AUSTRALIAN RECOVERIES
A. PLATEAU BIRDS, RECOVERED IN NEW SOUTH WALES

Map Ref.	Ring No.	Date		Locality 28°S. to 30°S.	Lat.S.	Long.W.	Dist- ance Miles	Time be- tween de- parture & recovery		
		At Gannetry	Recovered							
1	19418	18.1.54.	1.5.54.	Arararra	28°37'	153°37'	Approx. 1,800 miles round North Cape	No time recorded		
2	15484	23.1.52.	29.5.52.	S. of Cape Byron	28°43'	153°37'				
3	19404	18.1.54.	25.4.54.	Bollina	28°45'	153°35'				
4	19482	8.2.54.	29.5.54.	Cherwell River	29°25'	153°21'				
				<u>30°S. to 34°S.</u>						
5	15409	23.2.52.	-5.52.	Smoky Cape	31°4'	153°4'				
6	15275	15.1.51.	22.3.51.	Port Macquarie	31°25'	152°55'				
7	19464	18.1.54.	11.4.54.	Camden Haven	31°38'	152°49'				
8	15258	15.1.51.	20.3.51.	Harrington Beach	31°50'	152°42'				
9	15460	2.2.53.	28.3.53.	Norah Head	33°9'	151°37'				
10	19422	18.1.54.	16.6.54.	Kurnell	34°	151°15'				
11	15491	2.2.53.	19.5.53.	La Perouse	34°2'	151°12'				

B. HORUHORU BIRDS RECOVERED IN AUSTRALIA

IN N.S.W.

12	20083	4.4.54.	14.4.54.	Nambucca Heads	30°38'	153°02'	1500	10 days
13	15785	26.4.53.	4.5.53.	Forster	32°11'	152°32'	1500	8 "
14	19718	4.2.54.	30.7.54.	Sugarloaf Point	32°28'	152°31'	1500	179 "

34°S. to 38°S.

15	19948	21.2.54.	24.4.54.	Port Hacking	34°5'	151°10'	1500	62 "
16	20091	4.3.54.	19.4.54.	Coalcliff	34°16'	150°59'	1500	46 "
17	15674	25.2.53.	30.1.54.	Wollongong	34°26'	150°54'	1500	339 "
18	19652	2.2.54.	27.2.54.	Port Kembla	34°30'	150°54'	1500	25 "
19	19788	24.1.54.	8.7.54.	Werrri Beach	34°45'	150°50'	1500	165 "
20	15774	6.3.53.	23.3.53.	Wreck Bay	35°12'	150°40'	1500	17 "
21	19449	3.2.54.	25.7.54.	Jervis Bay	35°12'	150°40'	1500	172 "
22	19862	24.1.54.	4.3.54.	Twofold Bay	37°5'	149°55'	1500	39 "

IN VICTORIA

23	19719	4.2.54.	1.6.54.	Gabo Is.	37°35'	149°55'	1600	110 "
24	20086	4.2.54.	6.3.54.	Korumburra	38°26'	145°50'	1900	30 "
25	19686	20.1.54.	13.2.54.	Portland Bay	38°20'	141°50'	2200	24 "

IN SOUTH AUSTRALIA

26	19890	24.1.54.	18.2.54.	Port Elliot	35°32'	138°41'	2400	41 "
27	19847	24.1.54.	5.2.54.	Victor Harbour	35°33'	138°37'	2400	12 "

*Note: Date at gannetry gives the ringing date for Plateau birds and the estimated departure date for Horuhoru birds.

TABLE 2

NEW ZEALAND RECOVERIES

A. BIRDS RINGED AT THE PLATEAU, CAPE KIDNAPPERS

Map Ref.	Ring No.	Date		Locality	Lat.S.	Long.W.	Dist- ance Miles	Time between departure & recovery
		At Gannetry	Recovered					
28	19441	18.1.54.	6.3.54.	West Shore	39°29'	176°58'	20	No time recorded
29	15486	2.2.53.	17.5.53.	Portland Is.	39°16'	177°51'	50	
30	15351	2.2.53.	22.3.53.	Ohope	37°57'	177°02'	250	
31	15262	24.2.51.	22.4.51.	Kereta	36°52'	175°26'	450	
32	15892	2.2.53.	26.4.53.	Dargaville	35°57'	173°45'	770	
33	15423	19.1.52.	-5.52.	Muriwai	36°41'	174°20'	840	
34	19413	18.1.54.	13.4.54.	Wellington	41°16'	174°50'	230	
35	15291	15.1.51.	12.4.51.	Paekakariki	40°39'	174°56'	250	
36	15364	19.1.52.	8.9.53.	Foulwind	41°43'	171°28'	?	

B. BIRDS RINGED AT HORUHORU

37	19734	? #4.	19.1.54.	Colville	36°39'	175°26'	20	?
38	19907	26.1.54.	17.4.54.	Miranda	37°09'	175°18'	20	?
39	19877	20.1.54.	12.3.54.	Thames Paeroa	37°18'	175°39'	70	46 days
40	19678	20.1.54.	10.3.54.	Starmore Bay	36°37'	174°44'	30	49 "
41	20092	3.2.54.	5.3.54.	Red Beach	36°36'	174°43'	30	30 "
42	19918	7.2.54.	17.3.54.	Orewa	36°35'	174°42'	30	38 "
43	19898	7.2.54.	18.2.54.	Metakana	36°23'	174°44'	40	11 "
44	15704	23.2.54.	28.2.54.	Tutukaka	35°37'	174°32'	80	5 "

*Note: Date at gannetry gives the ringing date for Plateau birds and the estimated departure date for Horuhoru birds.

Two were found just south of Sydney, 19948 (a very old corpse) at Port Hacking two months after the bird had left Horuhoru, and 20091, found at Coalcliff Beach "a week or two" after it had died, may have taken a month on the journey. Then 15674, ringed over a year before, was recovered at Wollongong. It had been away from Horuhoru for eleven months. A detailed description of this bird would have been most valuable, as we are not sure how much change takes place in their plumage from year to year. In 1953, sixteen days after its departure, 15774 arrived at the Aboriginal Station in Jervis Bay. Exhausted and starving, it died the same day. The manager of the Station forwarded a photograph of the chick and a detailed account of its condition.

Two hundred and fifty miles to the south of Sydney, the trawler "Douglas Peter" was fishing four miles off Twofold Bay on 4th March 1954 when 19862 landed on the deck among the fish there. It was ravenous. Five weeks had elapsed since its departure from Horuhoru.

Three birds have reached Victoria. Two fishermen found 19719 on the beach four miles south of Gabo Island, near Cape Howe, and it seemed to have been dead for about a week. It had taken 15 or 16 weeks on the 1600-mile journey and it had died although it was in an area with abundant food. Very few gannets go far from the sea. Korumburra is 50 miles from Melbourne and 18 miles inland from Bass Strait. Here 20086, a month after leaving Horuhoru, 1900 miles away, flew into the telegraph wires and broke its neck. Portland Bay, in far-Western Victoria, is 2200 miles from Horuhoru. Here 19686 was swept up on the beach 24 days after it had left home. It was very much alive, but starving, and "nothing but a bundle of feathers."

The two young birds which reached South Australia were of the same age and had been brought up within a few yards of each other on Horuhoru. They left the gannetry on the same day, 24th January 1954, and, after travelling 2400 miles, died within four miles of each other about 50 miles south of Adelaide. But while 19890 took 25 days to reach Port

Elliot, 19847 was picked up dead at Victor Harbour only 12 days after leaving home.

From the records of these 44 birds, many things have been learned about their movements along the coast of New Zealand and about their journey to Australia; but more remains to be learned before a full picture of gannets' dispersal is unfolded. Every new recovery of a ring, together with a description of the appearance of the bird, its condition and locality, forwarded to the Dominion Museum, Wellington, will be of greatest assistance to this study.

ACKNOWLEDGMENTS.

We are greatly indebted to Mr. R. H. Taylor for drawing the maps.

REGIONAL ORGANISERS.

The list of Regional Organisers is now as follows:—

- Southland (including Stewart Island)—Mrs. C. A. B. Smith, Home Street, Winton.
- Otago—Mr. Brian Ellis, 145 Highcliff Road, Shiel Hill, Dunedin.
- Westland—Mr. J. R. Jackson, 49 Milton Road, Greymouth.
- Canterbury—Mr. E. W. Dawson, 271 Papanui Rd., Merivale, Christchurch.
- Marlborough—Mr. B. D. Bell, 6 Graham Street, Blenheim.
- Nelson—Mr. L. Gurr, c/o The Cawthron Institute, Nelson.
- Wellington—Mr. Kaj Westerskov, c/o Department of Internal Affairs (Wildlife Division), Wellington.
- Wairarapa—Mr. J. M. Cunningham, 39 Renall Street, Masterton.
- Manawatu—Mr. E. Dear, Kopane R.D., Palmerston North.
- Wanganui—Rev. H. W. Austin, c/o Collegiate School, Wanganui.
- Taranaki—Vacant.
- Hawke's Bay—Mr. D. H. Brathwaite, 11 May Avenue, Box 360, Napier.
- Gisborne—Mr. A. Blackburn, 10 Score Road, Gisborne.
- Rotorua-Taupo—Mr. M. J. S. Black, "Savernake," Tarewa Road, Rotorua.
- Bay of Plenty—Vacant.
- Waikato—Vacant.
- South Auckland—Mr. H. R. McKenzie, Clevedon.
- Auckland—Mr. J. C. Davenport, 718 Remuera Road, Remuera, Auckland.
- North Auckland—Vacant.
- Far North (from the Tronson Park northward)—Mr. D. G. McMillan, c/o D.H.S., Kawakawa.

APPOINTMENT OF OFFICERS—The following appointments have been made by the Council: South Island Vice-President, Mrs. L. E. Walker, of 15 Cornwall Street, Vauxhall, Dunedin. (in place of the late Mrs. Tily); North Island Vice-President: Mr. P. C. Bull, of 131 Waterloo Road, Lower Hutt (in place of Mr. H. R. McKenzie who held this position until his election as President); Council Member, Mr. L. Gurr, of the Cawthron Institute, Nelson (in place of Mrs. Walker).

CORRESPONDENCE.

(To the Editor.)

Sir,—I have received a request from Dr. Brina Kessel, University of Alaska, College, Alaska, for information on the starling (*Sturnus vulgaris*) in Australia and New Zealand. Dr. Kessel is concerned with the geographic distribution of the starling and requires some up-to-date information along the following lines: (1) Date and localities of introduction into Australia and New Zealand; (2) present distribution of the starling in Australia and New Zealand, especially in relation to major climatic and vegetational areas. I would be grateful to anyone who could assist me in meeting this request. Any such data may either be sent to me or direct to Dr. Kessel.—I am, etc., E. W. Dawson, Department of Zoology, Canterbury University College, Christchurch.

NOTES ON THE BIRDS OF THE CHATHAM ISLANDS.

By L. C. Bell, Wildlife Division, Department of Internal Affairs.

During the period 22 June to 27 July 1951 and December 16 1952 and 6 February 1953, I visited the Chatham Islands in the course of my duties as a Senior Field Officer of the Wildlife Division, Department of Internal Affairs, on work relating to the conservation of game birds and indigenous birds. The last account of the bird life was by C. A. Fleming (1939 *Emu*, Vo. 38).

The group was covered fairly fully in the course of my work. In addition to the main Chatham Island some of the smaller islands of the group (Pitt Island, South East Island, The Sisters and the Forty-fours) were visited on my second trip.

The natural plant covering on the main Chatham Island, Pitt Island and South East Island has been much modified by bush felling, firing of vegetation and pastoral farming. The bush areas left on the main island are dying out very rapidly except in the small southern corner. The bush does not regenerate as it is browsed by stock. The destruction of undergrowth by browsing stock has allowed the wind to get in among the taller trees and to dry out the forest floor. It was apparent that many trees get killed when the winds are especially strong. The dense coastal forest in the south has feral pigs, sheep and cattle in it, but the undergrowth in parts of this area is still undamaged; much supple-jack (*Rhipogonum scandens*) and the tree fern (*Dicksonia fibrosa*) survive there in places. On Pitt Island it was again evident that the forest was moribund. The island is used for pastoral farming; dead and dying bush stood over most of the southern half and it is not regenerating except in inaccessible gullies. As yet, however, native birds are more plentiful here than on the main island. There are no rats, mustelids, opossums or rabbits on Pitt Island, but wild cats and mice are common. I also visited the nearby South East Island, the last haunt of the shore plover (*Thinornis novaezeelandiae*) and saw the bush in a similar state.

The following is an account of the birds seen. Localities referred to may be found on the standard county map of the area (N.Z. MS 15).

Little Blue Penguin (*Eudyptula minor*).—On the main island of the group these birds are plentiful over all suitable coastline. Residents state that they are increasing to such an extent that they are displacing the sooty shearwater (*Puffinus griseus*). In my opinion, these penguins would withstand the impact of grazing better than this shearwater. I found thirteen penguins killed by dogs on the coast just west of Kaingaroa. Penguins were quite common round the coast of Pitt Island during January, 1953, and on South East Island about the same time, when they were in the moult.

Royal Albatross (*Diomedea epomophora sanfordi*).—On the smaller and more easterly of the two biggest islands of The Sisters on December 16, 1952, royal albatrosses were sitting on eggs. The population of breeding pairs of albatrosses on this island was assessed to be 1000. The islanders once took supplies of callow young for food from the eastern island and sometimes also from the west island, the other big island of this group. A very large number of albatrosses were nesting on top of the Forty-fours which I visited the next day. I could not get to the top, but judged by the area of the island and the density of the birds, the breeding population was similar to that on the Sisters Island mentioned, i.e., 1,000 pairs. The islanders also took unfledged young from this island for food before 1943. They state that three to four hundred birds were taken each trip and that sometimes more than one trip was made in a season.

Buller's Mollymawk (*Diomedea bulleri*).—Many Buller's mollymawks were sitting on eggs on the smaller of the two Sisters on December 16, occupying all the ledges and holes in the cliff faces as well as the steep faces at the top of the cliffs. Other Buller's mollymawks were seen from a distance nesting on a small stack at the north end of the biggest island of

the Sisters. According to the islanders only a few young were taken each year in June before birding ceased in 1943.

Giant Petrel (*Macronectes giganteus*).—I saw 100 young birds, both fledgeling and downy chicks, on the smaller of the Sisters on December 16.

Broad-billed Prion (*Pachyptila vittata*).—These birds breed on Pitt Island where the wild cats prey upon them.

Petrel (sp.).—On the north-west side of the most easterly of the two big islands of the Sisters Group some petrel burrows were found, but what species made them is unknown. The burrows were found in a patch of carex where there is a little soil. On the South East Island, where soil was consolidated by stock, breeding colonies of petrels have disappeared. In some places there were just one or two burrows remaining in use.

Storm Petrel (*Pelagodroma marina maoriana*).—These birds breed on Pitt Island and wild cats kill large numbers at nesting time.

Black Shag (*Phalacrocorax carbo novae-hollandiae*).—This bird was not so common as the Chatham Island shag on the Te Whanga Lagoon in 1951.

Chatham Island Shag (*Phalacrocorax carunculatus onslowi*).—This bird was plentiful on Te Whanga Lagoon in mid-winter, 1951.

Pitt Island Shag (*Stictocarbo punctatus featherstoni*).—A few of these birds were roosting on the most easterly of the four Sisters Islands on December 16, 1952. This island, which is very flat, is mostly awash at high water. They were present at Pitt Island when I went there a fortnight later.

White Heron (*Egretta alba*).—A white heron was shot by a duck-hunter in June 1951 at the south end of Te Whanga Lagoon near the mouth of the Te Awainanga River. This is the first recorded visit of this species to the Chathams as far as I could find out from the residents.

Black Swan (*Cygnus atratus*).—Residents told me that swans are increasing. They certainly are not decreasing though they are shot for food throughout the year and many eggs are taken for culinary purposes. They also said that they took an estimated 20,000 eggs in 1952. I spent some hours on 30 December 1952, walking about a large nesting area in Te Whanga Lagoon. Many swans were still sitting on clutches of up to seven eggs. At Motuhinahina Island a weka had eaten swan eggs and had also killed some cygnets. Swans are said to appear sometimes on the small lake near Trig F on Pitt Island.

Grey Teal (*Anas gibberifrons gracilis*).—An adult drake was shot at the north end of Te Whanga Lagoon on 1 July 1951 and the skin is now in the Dominion Museum. This appears to be the first record for the Chatham Group.

Brown Duck (*Anas castanea chlorotis*).—If this species survives in the Chatham Islands it will only be found on the lakes inland from the south-west coast of the main island.

Grey Duck (*Anas superciliosa superciliosa*).—According to local sportsmen the grey duck is abundant on the main island and is on the increase at present. They attribute the increase to less frequent burning off of the vegetation on the lake shores during the nesting season than practised a few years ago. The best place for ducks on the Te Whanga Lagoon is said to be on its north-eastern shore. I could not get along this shore line to make a count on either of my visits, but nevertheless I was disappointed in the numbers of ducks I saw. Two hundred were seen in winter 1951 near Awapatiki on Te Whanga Lagoon and seventy more along the shore just north of Te Kiato Point, mostly in pairs. It appeared to me that the many low-lying areas suitable for ducks to feed in are not being fully utilised so that there should have been more ducks about in view of the habitat available. A sportsman told me that he shot 157 ducks in 1951 from May 1 to July 16; however, others said they get less. This duck also inhabits the small lake at Pitt Island and I saw forty birds there

in January 1953. At South East Island an adult bird with two ducklings was seen at the end of January.

Mallard (*Anas platyrhynchos*).—I saw three mallards on Te Whanga Lagoon near Hapupu in December 1952. Mallards were evidently liberated on the Chathams many years ago by a resident, but there do not appear to have been any recent liberations. Some mallards were shot during the shooting season of 1952.

Harrier (*Circus approximans*).—There were odd harriers about in June-July 1951, all over the main island, and on Pitt Island, early in 1953; there were twenty on South East Island at this time.

Californian Quail (*Lophortyx californica*).—On the main island these birds appear to be confined to the northern parts, where I saw about thirty on the shore of Lake Koomutu. Probably most of the southern area (especially the peat lands) is too wet to suit them. There are a few birds on North Head of Pitt Island.

Pukeko (*Porphyrio melanotus*).—The residents say that pukeko are increasing and causing damage in places, particularly to crops of potatoes. However, they are not plentiful by mainland standards except in the small Porua Creek near Waitangi. A few were also present between the Air Base Lagoon and Wharekauri and at Pitt Island.

Weka (*Gallirallus australis hectori*).—Wekas are well distributed throughout the main island. Residents say they do damage and are increasing; they are hunted in June-July.

Spotless Crake (*Porzana tabuensis plumbea*).—One was caught by a dog at Moera in 1949.

Oystercatcher (*Haematopus unicolor chathamensis*).—On the main island I saw a few on the rocky south coast and on sandy beaches of the north coast also on South East Island.

Banded Dotterel (*Charadrius bicinctus*).—I saw a few pairs in June-July 1951 on the peat clears (moors) of the main island, where they breed.

Shore Plover (*Thinornis novaeseelandiae*).—There were several pairs with chicks on the shores of South East Island at the end of January 1953. The chicks varied in age from a few days to fledgling. Several additional pairs with chicks inhabited an area on top of the cliff on the island's western side.

Bush Snipe (*Coenocorypha zucklandica pusilla*).—This bird was once common on South East Island but I saw none there during my short stay of somewhat more than a day in January 1953. A man who helped to shear the island's sheep prior to my visit told me he saw only two snipe in a fortnight's stay. There is very little ground cover there now to support snipe and some of what is left has been periodically burnt. The shearer was quite certain that the snipe had declined in numbers in recent years.

Skua (*Stercorarius skua lonnbergi*).—There were fledglings and downy chicks of this species on the island of the Sisters group inspected on December 16.

Black-backed Gull (*Larus dominicanus*).—Common over the whole of the main island.

Silver Gull (*Larus novaehollandiae*).—Common on the main island. They sometimes come inland.

White-fronted Tern (*Sterna striata*).—A small colony was nesting on the eastern island of the Sisters Group on December 16.

Pigeon (*Hemiphaga novaeseelandiae chathamensis*).—During my first stay only six were seen, all south of Waitangi. It appears that they were quite plentiful in the northern areas of the main island a few years ago though now they are rarely seen there. The factor limiting their abundance is doubtless the disappearance of bush. I saw pigeons on Pitt Island on my second visit to the Chatham group.

Parakeets (*Cyanorhampus* sp.)—No parakeets were seen on the main island in my 1951 visit though one was definitely heard on the south-west coast. They are apparently decreasing. The red-fronted parakeet (*C. novaeseelandiae chathamensis*) survived on Pitt Island in early 1953. From my observations it is probably the most plentiful bird on South East Island where it went about in small flocks feeding on the seeds of the Chatham Island aster, *acaena* burrs, and some substance from the salt meadow on the island's shore.

Pied Fantail (*Rhipidura fuliginosa penitus*).—Few fantails were seen on my first visit, four in the bush between Te One and Te Whanga Lagoon, several near the Horns on the south-west coast and a few other places with a few more on Pitt Island. It was very disappointing to see so few when in the main islands of New Zealand, where vermin are more plentiful, they are holding their own.

Pied Tit (*Petroica macrocephala chathamensis*).—I did not see these birds on the main island in winter 1951, but at that time a lady at Owenga told me that she saw one the previous summer in a plantation. They did not appear to be present in the dense bush in the south of the island, and the total population must be small indeed. They were observed on Pitt Island early in 1953 and were common on South East Island.

Warbler (*Gerygone albofrontata*).—Warblers were not common on the main island during my 1951 visit, even in places resembling those favoured by the grey warbler (*G. igata*) on the mainland of New Zealand. They were recorded on Pitt Island in 1953 and were common on South East Island.

Song Thrush (*Turdus ericetorum*).—Present on the main island; seen on Pitt Island.

Blackbird (*Turdus merula*).—On main island, on Pitt Island and South East Island.

Hedge Sparrow (*Prunella modularis occidentalis*).—Distributed practically throughout the main island and seen on Pitt and South East Islands.

Pipit (*Anthus novaeseelandiae*).—On my first visit I found these birds over practically the whole main island, often in parties of up to 12. Several pairs were seen on the Sisters Island examined on 26 December 1952 and there were more on Pitt and South East Islands.

Tui (*Prothemadera novaeseelandiae chathamensis*).—The tui appears to be decreasing from what the residents told me. The few seen in my winter visit of 1951 were in the Nairn River Valley. I saw twelve on insignis pine trees on the south-west coast, feeding actively among the pine needles, either sipping water or eating insects off them. They also ate the berries of the hoho (*Pseudopanax chathamica*) at this time. Tuies were present on Pitt Island; rare on South East Island.

White-eye (*Zosterops lateralis*).—Numerous over the whole main island and in the bush on Pitt Island.

Greenfinch (*Chloris chloris*).—Seen on Pitt Island.

Goldfinch (*Carduelis carduelis*).—Throughout the main island; present on Pitt Island.

Lesser Redpoll (*Carduelis flammea*).—On the main island, on Pitt and South East Islands.

Chaffinch (*Fringilla coelebs gengleri*).—Seen on Pitt Island and South East Island and over the whole main island.

House Sparrow (*Passer domesticus*).—Main island and on Pitt Island.

Starling (*Sturnus vulgaris*).—Main island, South East and Pitt Islands; a flock of 100 birds near Glory Bay, Pitt Island, was feeding on the fleshy seed pods of the Muhlenbeckia vine.

WHITE-WINGED BLACK TERNS AT WAIKANAE.

By C. A. Fleming, Wellington.

On one or other of the sandspits at the mouth of Waikanae River a flock of roosting terns, varying in size and in specific composition, is a fairly regular feature from midsummer to early spring (see Wodzicki, 1946, for observations between 1941 and 1943). In late December, the flock is formed mainly of adult white-fronted terns, probably those that failed to rear chicks at nearby nesting places. Some show the receding foreheads of incipient post-nuptial moult, but others are still in breeding condition, judged by their plumage, their courtship feeding, posturing, "circular parades," and occasional attempts at coition as late as January 1. Flying young are added to the flock in January, querulously begging food and periodically receiving it from foraging parents who come and go continually, fishing in the strait between Kapiti and the mainland, harried by the Arctic skua. White-fronted terns increase to a maximum of several hundred in February or March, then dwindle to a score or less during the winter, when some of them probably migrate to Australia. Black-fronted terns, migrants from the South Island, trickle in during March, and are generally present in irregular numbers (maximum more than 100) during the winter. Such a tern flock is worth scanning carefully for rare migrant species that have been decoyed down to enjoy the companionship of the commoner species.

In the autumn of 1954, three white-winged black terns (*Chlidonias leucopterus*), migrants from the Northern Hemisphere, joined the flock of white-fronted terns at Waikanae. I first saw them, with Dr. R. A. Falla, on March 27, and spent several hours observing and sketching them under perfect conditions on the following morning, when four black-fronted terns were present for comparison. No terns were seen on visits to the estuary on April 11 and 17. On April 18, however, Dr. Falla and I found a single bird (probably one of the three) with the black-fronteds, then 42 strong. I saw it for the last time on April 25, with 103 black-fronteds. Most of the observations recorded below were made on March 28.

The three birds were in a pale non-breeding plumage that ill accorded with their vernacular name. Among a mob of white-fronted terns, they appeared midgets, and black-fronted terns standing near them were stocky by comparison, although about the same length. In the air, however, their large wings made them seem bigger than black-fronteds. My field notes record their tarsi to be "as long as or longer than those of *striata*," which agrees roughly with published measurements: *striata* 20, *leucopterus* 20, *albostriatus*, 15 mm. (from Oliver). On the ground they seemed more attenuated than *albostriatus* and when they rested with head under wing, their long axis was tilted either backwards (one observation) or forward (several observations), whereas *albostriatus* seems almost horizontal in the same position (see sketches). Several times a bird lay on its breast, either with beak under wing or with its neck and head stretched forward on the sand. Occasionally they preened their tails, displaying the rectrices well.

Their flight was swift and agile. On March 28 they spent most of the time in the air, gyrating round the flock of resting *striata* in circles about a chain in diameter, wheeling and swerving low and hawking, apparently for blowflies, in the air or on the sand surface. Most characteristic was their habit of hovering stationary, like a helicopter, with quickened wing beats, about 10 feet above the sand, before darting down for food.

The *leucopterus* often alighted and rested inside the margins of the white-fronted tern flock, unlike black-fronted terns, which prefer to roost just outside. All three *leucopterus* were present on March 27, but next day they were seldom all on shore at once. One of them would circle over the sand spit and make swiftly out to sea, returning in about five minutes, always hawking over the *striata* flock before alighting. One returned with a small fish and landed near one of its two fellows on the sand in the middle of the white-fronted flock. It strutted round its partner, who flew in a few seconds, closely followed by the fish-bearer. They chased

in a wide circle before landing again. The fish-bearer held its head high towards the other and postured, wings drooped to the ground. Another aerial chase followed and finally the fish-bearer ate its own fish. The third leucopterus, slightly darker than the others, stood a few yards away, completely unresponsive to these displays that so closely resembled courtship behaviour. The strangers were rather aggressive to the other terns, occasionally running up to them and jostling them, as if in play.

Although a river and several fresh-water ponds were available, the white-winged black terns were not seen fishing on them. Instead, they flew away from land, like a sea tern rather than a marsh tern.

The two somewhat paler birds were described more fully in my notes than the darker bird. In general appearance, they were similar to the bird photographed by N. Macdonald on February 22, 1953, at Miranda (Sibson, 1954). Bill black, slimmer and straighter than in *albostrriatus*. Head white, eye black with a small triangle of dark feathers increasing its apparent size; a most distinctive band of black across the head above the ears, joining a narrow club-shaped median black area on the nape. Breast and belly pure white. Back and rump pale grey (paler than in *albostrriatus*) with a dark band in front of the mantle. Wings (folded): often drooping in front to show a white re-entrant on the shoulder between wing and mantle; leading edge conspicuously margined with blackish for some distance on either side of the carpal flexure. Coverts pale grey (? slightly streaked), paler in front. Secondaries somewhat darker but pale-tipped. A dark patch below the rump. Wings spread in flight; leading edge white, broken at carpal flexure by a dark patch continuous with a dark band just behind humeral edge. Outer primaries and inner secondaries blackish, the former with pale shaft streaks (? and outer vanes), separated by a series of pale grey secondaries that broke the dark trailing edge conspicuously. My notes and sketches made on the spot show all the inner secondaries dark and I did not notice if the innermost ones were pale as in the winter adult described in the Handbook of British Birds (Witherby, 1944, p. 11), and as shown by N. Macdonald's photograph of the February Miranda bird (Sibson, 1954). Rest of upper wing pale grey. Underwing whitish, lower side of flight feathers greyer, dark secondaries showing through behind axillaries. Tail square, not forked (centre feathers even seemed longer than others during preening); pale grey except for white outermost feathers. Legs reddish brown, quite rosy in the sun, but very different from the orange of black-fronted terns' legs.

The third white-winged black tern had bolder and more distinct head pattern, a broader dark band on the upper mantle, and a darker trailing edge to the wings, but was not closely described. It certainly had no black on breast, wing coverts, neck, etc. The single bird seen on April 25 was like the paler birds described, showing no evidence of plumage change in the intervening month.

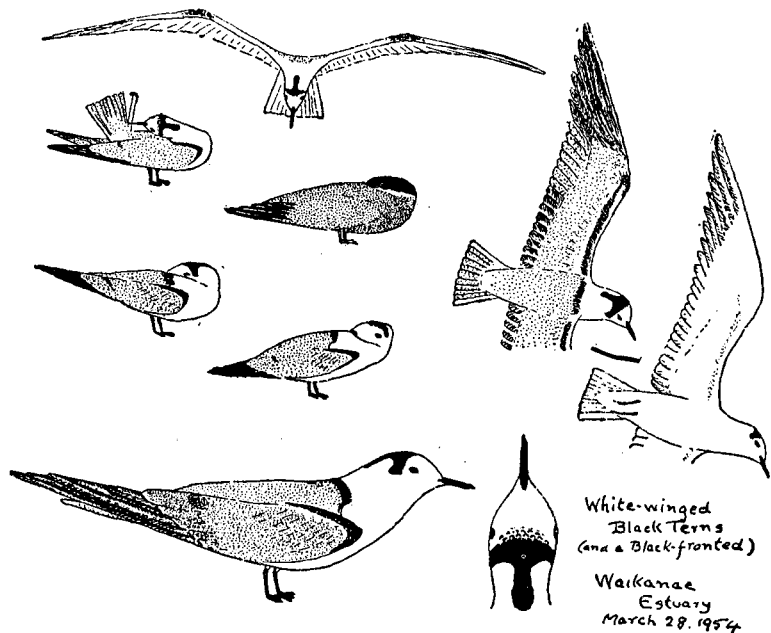
The Waikanae birds differed from Witherby's description of adults in winter chiefly in their better defined head patches, perhaps also in their square tails and the number of dark secondaries. Winter plumage is gained between June and December and normally gives way to the black and white breeding plumage by a moult that "commences sometimes December but usually later and (is) complete April-May or even June." An April adult showing no sign of black plumage would thus be anomalous. Young in their first winter are said to moult in January into a plumage "exactly like adult winter but occasionally considerable amount of plumage as adult summer is acquired." If so, the Waikanae birds could be first winter birds that had finished moulting out of their fledgling body plumage. But Alexander (1917) found that immature birds in Western Australia were still distinguished by brownish mottlings on head and wings, apparently in April-May. Van Rossem (1923) concluded that the black tern (*C. nigra*) has a variable first spring plumage, in which the palest birds resembled winter adults, have slightly enlarged gonads, and occasionally breed. Alexander (1917) suggested that *C. leucopterus* has a variable second-year immature plumage. It is apparently not certain when terns first breed.

The Waikanae leucopterus were post-juvenal, judged by their behaviour and clear head patterns, but probably not fully mature because they showed no black body plumage in March-April.

I have assumed that the white-winged black tern is a Northern Hemisphere breeder, migrating to the south in the northern winter. The ill-documented New Zealand records of birds in black plumage in the southern breeding season remain an unsolved mystery.

REFERENCES.

- Alexander, W. B., 1917. White-winged Black Terns in Western Australia: a Remarkable Visitation. *Emu*, 17:95-100.
Sibson, R. B., 1954. White-winged Black Terns near Auckland. *Notornis*, 6:43-47.
Van Rossem, A. J., 1923. A Study of some Plumages of the Black Tern. *The Condor*, 25 : 208-13.
Witherby, H. F. (and others), 1944. *The Handbook of British Birds*. (2nd impr.), Vol. 5.
Wodzicki, K. A., 1946. The Waikanae Estuary. *Emu*, 46 : 3-43.



The above are inked-in copies of field sketches. Since seeing a photograph of the Miranda February bird, I have slightly altered the wings of the flying birds, but have resisted the temptation to make further alterations (e.g., to secondaries) in the interest of objectivity.

Two members have copies of the "Emu" for sale: Mr. A. S. Wilkinson, 11 Princes St., Levin, Vols. XXV. to XXI. inclusive (1925-1932), and Mrs. C. W. McLatchie, 96 Shearman St., Waimate, from 1944 onwards. Mrs. McLatchie also has Stead's Life Histories. Mr. H. T. Wenham, 10 Durham St., Levin, has a number of bird books for disposal, including Stead's Life Histories, Guthrie Smith's, Mrs. Nice's and others. Inquiries should be made direct.

OBSERVATIONS ON DIVING OF THE AUSTRALASIAN GANNET (*Sula bassana serratator* Gray).*

By K. Wodzicki and F. H. Robertson.

INTRODUCTION.

In our work on the behaviour of the Australasian gannet, forty-three kinds of behaviour patterns have been found (Robertson and Wodzicki, unpublished data). Thirty-seven occur while the birds remain on land and six at sea. Of the latter, diving is the most spectacular and important, as gannets appear to feed solely by the well-known bomber-like dive.

The pattern of diving of the Australasian gannet appears to be similar to that of the North Atlantic gannet (*Sula bassana*) as described by Tucker (Witherby et al 1952) and by Gurney (1913) and Bent (1922).

According to Oliver (1930), the Australasian gannet has the same two kinds of dive—a vertical dive into deep water and a short oblique dive into shallow water near the shore. Oliver says gannets normally dive vertically in New Zealand waters from a height of 20 to 30 feet, while English observers state that North Atlantic gannets dive from usually 50 to 80 or 100 ft., and some may dive from as high as 140 ft. Except for Oliver's general statement there is no published record of any checked observation of diving height in New Zealand. Phillips (1947) gave an account of winter diving habits of gannets in Wellington Harbour.

The shallow diving of Australasian gannets was first described by Wilkinson (1927) who stated "if the sea is rough they will drop down to about 8 feet or less." Also he stated, "I have occasionally seen it dive in from about 3 feet at an angle of about 25 degrees and skip along the surface in and out like a flat stone thrown on the water."

FIELD OBSERVATIONS.

It is rather surprising that during our nine years' study of the Hawke's Bay gannetries, when over 60 visits were paid, on only three occasions were gannets observed fishing off the six miles of beach between the gannetries and Clifton (Wodzicki and McMeekan 1947, p. 231, see map), though this part of Hawke's Bay is reputed to abound in fish. On each of these three occasions the display was spectacular and lasted long enough to allow detailed observations to be made on this behaviour pattern of the gannet in New Zealand waters.

On 30th November 1953, at about 10.00 hours, a single gannet was observed fishing at a short distance from the shore in one of the bays between Black Reef and Clifton. The bird remained in sight for about a quarter of an hour, and there were 2-3 dives a minute from an altitude estimated at 15-20 feet. Despite this low altitude the bird managed to fold its wings and to assume the projectile-like position described by Bent (1922). However, when at times the bird found itself close to the shore in water probably not more than 6 to 8 ft. deep, it resorted to oblique dives as described by Wilkinson (1927). In both kinds of dives the bird disappeared and remained under the water for at least a couple of seconds.

On 4th and 22nd January 1954, one of us (K.W.) witnessed the remarkable spectacle of several hundred gannets fishing for two or three hours in the bay between Kidnappers and Black Reef. On both occasions the observer arrived when most of the birds were already congregated and fishing was in full progress. The following is an account based on field notes:

On 4th January at 17.00 a large formation of at least 500 gannets was fishing in the middle of the bay. There was intensive activity over a comparatively large area with several gannets diving like projectiles at the same time. Some black-backed gulls (*Larus dominicanus*) and perhaps

* Contributed from the Animal Ecology Section, Department of Scientific and Industrial Research.

a dozen white-fronted terns (*Sterna striata*) were also fishing with the gannets in the same area. The centre of most concentrated diving activities gradually shifted and the altered position suggested that the shoal of fish was moving. It was first located close to the Cape, then gradually shifted towards the Black Reef and eventually towards the centre of the bay. At this stage a few "flotillas"* were formed, the members of which seemed to remain inactive for quite a time.

The centre of the main fishing area comprised perhaps 25 to 30 square chains and presented a picture of an almost frenzied, though apparently organised activity. (Fig. 1.) A regular succession of activities involving several phases could be recognised in the behaviour of the fishing flock. A number of birds flew in an irregular row. A dozen or more in the front were in various phases of diving, some just turning downwards and others with wings already folded beginning their dive. All these activities happened in quick succession and about half a dozen plunges took place and the same number of splashes two to three feet high were constantly rising from the calm surface of the bay. Immediately behind the diving birds others were emerging from their dive. Behind this irregular row, several birds deep, was a large group of gannets swimming, at the rear of which about a score of birds was rising and joining the group in the air for their next dive. The majority of the swimming and rising birds were facing into the prevailing south-easterly breeze. Most of the birds were diving from an altitude estimated at 30 to 50 ft., but some, particularly when the fishing area moved towards the shore, changed to short, oblique dives.

The fishing activity remained at much the same intensity until 19.00 when the number of gannets engaged in feeding began to dwindle, and more and more birds were seen flying towards the gannetries. At that time there were about 300 birds still fishing and a similar number of birds resting on the water in a few large "flotillas." By 19.30 about 40 gannets were still fishing, though they were hard to see in the fading light. About 200 birds remained in "flotilla" formations which increased in size by additions from the fishing flock. At 19.45 in rapidly-fading light, there were still several gannets fishing. Fifteen minutes later when the birds could no longer be seen, the splashes of single gannets diving could still be heard.

On 22nd January at 08.45 another large formation of gannets was observed about three-quarters of a mile from the shore in Kidnappers Bay. The diving pattern, the arrangement of the flock, and the number of gannets present, were very similar to those observed on 4th January. There was, however, greater variation in the location of the fishing gannets, probably due to movements of the shoals of fish in the bay.

By 09.00 a flock of about 200 gannets was fishing in the vicinity of the eastern end of the Black Reef and another small group was operating further south. By 09.20 the school of fish had apparently moved towards the shore and the flock was diving south-east of rock No. 6 of the Black Reef (Wodzicki and McMeekan, 1947). At the same time, scattered gannets began to dive all over the bay while another large flock of at least 500 birds had been formed and had commenced fishing about ten chains north of the main gannetry. There was intense activity and ten or more gannets were diving simultaneously from an altitude estimated at 25 to 30 ft.; a number of other birds were making short, oblique dives. No other birds were associated with the gannets at the time.

At 09.30 only a few gannets remained fishing south of rock No. 6 and small scattered groups were diving all over the bay but the main flock was still operating in undiminished numbers north of the Cape. At about 09.40 this flock was reduced to 300-400 birds and single birds were observed

* A "flotilla" is another pattern of behaviour of the gannet while at sea (Robertson and Wodzicki, unpublished data). A varying number of birds ranging from a score to a couple of hundred congregate together at sea, swimming, basking and preening themselves. Flotillas are a common feature of gannet behaviour and can be observed at any time in fine weather during the breeding season, a few hundred yards from the nesting colony. The significance of this behaviour pattern of the gannet is not yet fully understood though these formations include both non-breeding birds and those "off duty."

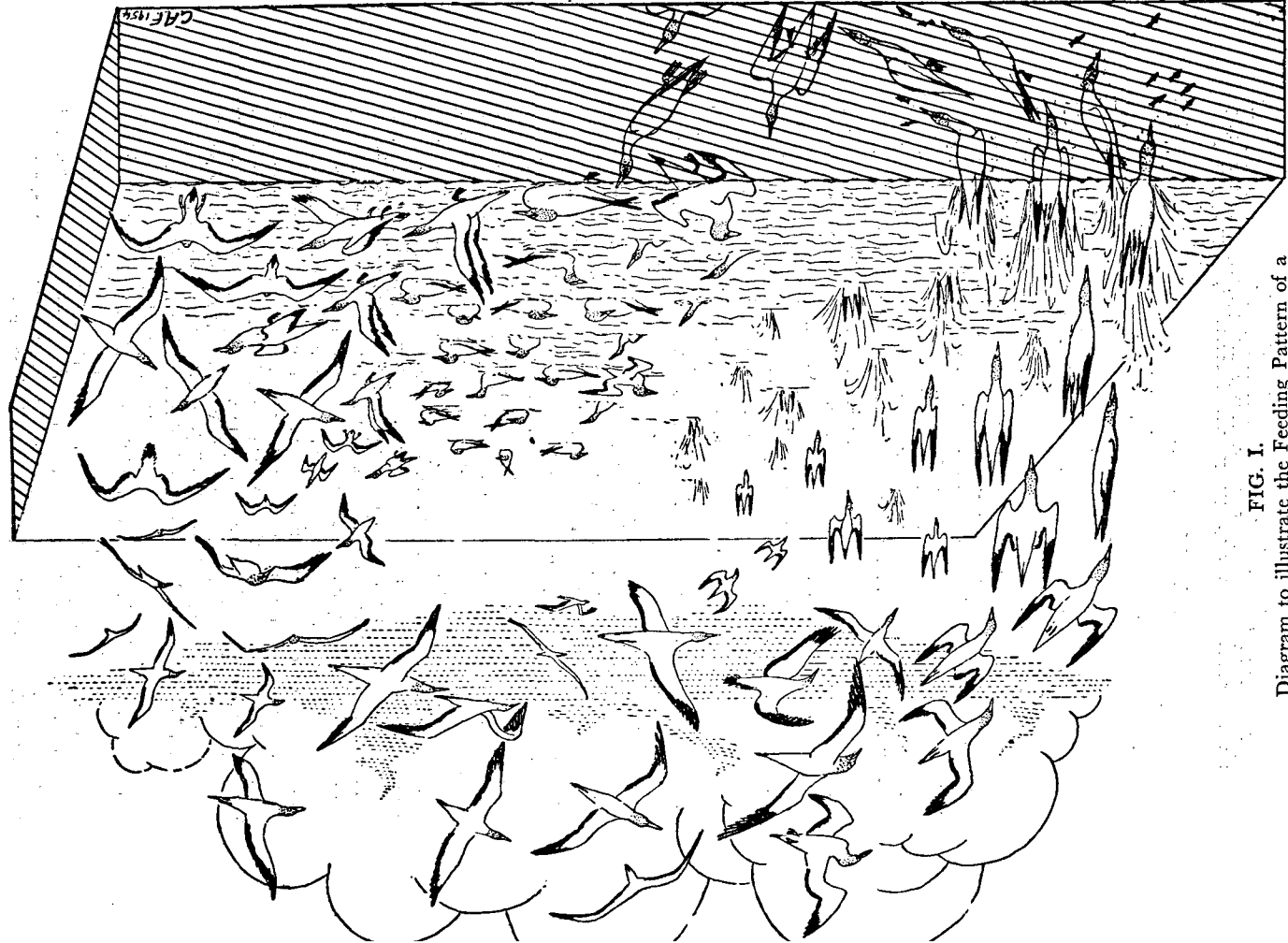


FIG. 1.
Diagram to illustrate the Feeding Pattern of a
large Flock of Gannets.

The vertical height is not to scale.

to join several "flotillas." While some birds were joining these congregations, others after a period of floating and basking were returning to the main fishing flock. No gannets at that time were to be seen in the middle of the bay, and the main flock fishing on an area of two to three square chains was gradually shifting eastwards toward the lone pinnacle. At 10.00 the large flock near the Cape had split into three concentrations: west and north of the pinnacle and a third one far out to the east. At this time there was still a high degree of fishing activity and about a dozen gannets were participating in each of the several phases of fishing behaviour. A few muttonbirds (*Puffinus* sp.) were feeding on the outer fringe of the gannet flock. By 10.30 the number of gannets fishing had dwindled to about a hundred, with 200-300 other birds congregated in a few "flotillas" nearby. At 10.40 the main centre of fishing involving some 50-100 birds had shifted eastwards, while the "flotillas" remained in similar strength. At 11.15 a new group of gannets associated with a dozen black-backed gulls was fishing in the bay close to the shore. By 11.30 the shoal or shoals of fish must have dispersed as gannets in small, scattered groups were diving over most of Kidnappers Bay and over a wide area beyond Black Reef towards Napier. There were now large numbers of black-backed gulls and close to the shore, some white-fronted terns. Farther at sea, hundreds of muttonbirds, many of them flying eastwards, could be seen.

DISCUSSION.

The congregation of gannets into large flocks for fishing has been known to New Zealand fishermen for a long time. Phillips (1929) reports that "gannet watchers" were stationed on certain high points around Queen Charlotte Sound to signal fishermen operating for "Picton herring" (pilchards) as gannets invariably collected and commenced diving when pilchard shoals became large.

Bartholomew (1942) has described the fishing habits of double-crested cormorants (*Phalacrocorax auritus*) in Californian waters, and concludes that small flocks hunt for individual fish and large ones pursue entire shoals of fish. According to Dice (1952) such a social band constitutes an efficient organization for feeding by the division of a fishing flock into three main components, viz. birds swimming on the surface, swimming beneath the water and flying from the rear to the front of the flock. The flock itself forms a long, narrow line at right angles to the direction of its movement.

The observations described above suggest the existence of similar social bands of gannets when fish appear in schools extending sometimes several square chains. The differences between the movements of a fishing flock of cormorants and those of gannets are mainly due to a different pattern of fishing. Cormorants secure fish by shallow dives of swimming birds, and fish are swallowed at emergence from water. Gannets secure fish usually at a greater depth owing to their perpendicular dive and swallow it under water. Otherwise, the similar three components may be also recognised in a social band of fishing gannets, i.e., birds flying from the rear to the front, diving in the front and emerging and swimming at the rear.

No abrupt stopping of fishing as described for cormorants was observed in gannets at Cape Kidnappers, suggesting that schools of fish at times dwindled but did not disappear altogether. Also the presence of three ganneries occupied by birds with chicks nearby with a population estimated at 2,800 pairs (Fleming and Wodzicki 1952) might have contributed to the extension of time spent on active fishing. Bartholomew's cormorants when replete, repaired to their usual roosts. Gannets in Kidnappers Bay returned to the ganneries or formed "flotillas," the size of which increased gradually.

The pattern of diving appeared to be in general similar to that described by previous authors. However, in comparison to descriptions given by British and American observers, it would appear that the Australasian gannet dives normally from a lesser height. This needs further confirmation as we have found it difficult to estimate accurately the height at which a gannet begins its projectile-like dive. Also, the fact observed on

4th January of gannets still diving at dusk is rather surprising and difficult to explain as it has been assumed that gannets spot their prey from the air. Mr. M. Cassie, Fisheries Laboratory, Marine Department, suggests however, that at dusk on moonless nights the phosphorescence of fish may be sufficient to assist gannets to spot their prey.

Only three species—black-backed gulls, white-fronted terns and mutton birds—seemed to be associated with gannet bands fishing at Cape Kidnappers. Of these, white-fronted terns were fishing close to the shore, and black-backed gulls out in deeper waters. The association of muttonbirds appears to be a very loose one as these birds did not come close to the shore. All these birds seemed to be ignored by the gannets though gulls and terns were at times close to fishing gannets.

ACKNOWLEDGMENTS.

We are grateful to Dr. C. A. Fleming for the preparation of the illustration, and Mr. M. Cassie kindly supplied information on movements of shoals of small fish.

SUMMARY.

Two behaviour patterns of the Australasian gannet at sea-diving and formation of "flotillas" are briefly described. On two occasions, social bands amounting to several hundred gannets were observed and a description of their feeding on large shoals of fish is given.

BIBLIOGRAPHY.

- Bartholomew, George A., Jr. (1943). The Daily Movements of Cormorants on San Francisco Bay. *Condor*, 45:1:3—
- Bent, A. C. (1922). Life Histories of North American Petrels and Pelicans and their Allies. U.S. National Mus. Bull. 121:216-229.
- Dice, Lee R. (1952). Natural Communities. University of Michigan Press. Ann Arbor.
- Fleming, C. A. and K. A. Wodzicki (1952). A Census of the Gannet (*Sula serrator*) in New Zealand. *Notornis*, 5,2:39-78.
- Gurney, J. H. (1913). The Gannet, a Bird with History. London.
- Oliver, W. R. B. (1930). The Birds of New Zealand. Wellington.
- Phillips, W. J. (1929). Notes on the Pilchard in Queen Charlotte Sound. *N.Z. J. Sci. Tech.* 10 : 343-345
- Phillips, W. J. (1947). Winter Diving of Gannets. *N.Z. Bird Notes*, 2 : 33.
- Wilkinson, A. S. (1927). Birds of Kapiti Island. *Emu* XXVI. : 237-258.
- Witherby, H. F. et al. (1952). The Handbook of British Birds. IV. : 15-25.
- Wodzicki, K. A. & C. P. McMeekan. (1947). The Gannet on Cape Kidnappers. *Trans. Roy. Soc. of N.Z.* 76.3 : 429-452.

LATE SHINING CUCKOO RECORD.—On May 24 and 25 a shining cuckoo was heard singing in our garden at Howick. Also on May 24 a neighbour, Mr. J. Gandy, reported that a plump shining cuckoo came to rest on a window sill of their home for a few minutes. This was probably a young bird which perhaps was not strong enough to make the migration and is wintering in New Zealand. The song consisted of the three long notes only and until the sight report came in it was thought that the notes had come from an imitating blackbird.—Noelle Macdonald, Howick.

LITTLE EGRET NEAR AUCKLAND AND IN FAR NORTH.

by H. R. McKenzie, Clevedon.

A little egret (*Egretta garzetta*) was found and identified on 11/10/53 at Karaka shellbank, on the east side of Manukau Harbour, by a party of O.S.N.Z. members, Misses N. Macdonald, D. N. Smith, A. B. Murray, H. M. Munro, and Messrs. F. Murray and the writer. The marks of identification as given by D. H. Brathwaite in the account of the first record of the species for New Zealand ("Notornis," Vol. 5, No. 2, p. 78) applied exactly. It was further noted that it seemed to have a less steep forehead than the large white heron (*Egretta alba*) and that its tail was shorter in proportion. Like the Napier bird, it carried no plumes. The bill was held somewhat downward and seemed very slightly decurved. It was alone on a shellbank when found. Later it was pursued to the south by two black-backed gulls until out of sight. Compared with the black-backed gulls it appeared a slim fragile bird, much lighter in body and shorter of wing.

It was again seen on the following occasions (presumably the same bird):—

14/10/53.—At Yates' Creek, south-west of Karaka shellbank, by R. B. Sibson, B. Chambers and S. Chambers. The tide was full and it was on a small weed-tufted islet in the company of c 40 stilts and 3 greenshanks. It preened industriously. In flight, it kept well up in the air.

25/10/53.—At Karaka shellbank and later at Weymouth by D. A. Urquhart and H. R. McKenzie. At each place is rested peacefully with black-backed gulls, among which it was not prominent.

28/10/53.—At Pike's Point, Onehunga, by R.B.S. It was first seen flying fairly high along the shore, then feeding without being molested among black-backed gulls in a dirty tidal creek.

1/3/54.—On a lava reef at the entrance to Tararata Creek, south-east of Onehunga Bridge by R.B.S. Seen standing on a rock at close range it was noted that the webs of its feet were a greenish yellow, considerably more coloured than when seen at Pike's Point on 28/10/53. It now carried pendent pectoral plumes but none were seen on the nape.

2/3/54.—At Tararata Creek, by J. Prickett. Close views obtained.

In 1953, at Rangaunu Bay, Northland, several observers reported two small white herons with ten or more large white herons. Mr. J. Prickett saw two small ones closely on July 17 (perhaps the same birds as those previously reported) and he is satisfied that they were the same species as the one he saw later at Tararata Creek, near Onehunga.

The Far North observation was made on 5/6/54 near the mouth of Rangaunu Bay, when a winter count of waders was being attempted by members J. Prickett, R. H. Michie, H. G. Warburton, D. G. McMillan and H.R.McK. The bird was espied by H. G. Warburton in a loose flock of blue heron on a sandy spit. The party advanced cautiously until the bill and legs were clearly visible so that identification was established. On 3rd and 4/6/54, seven large white herons were seen in the harbour but the little egret was not with them.

20/7/54.—One seen at Puhea Creek, near Onehunga Wharf, by R.B.S. Yellow soles of feet seen as it walked. It was also seen again by J.P. on 21/7/54.

These observations indicate that there is almost certainly more than one little egret in New Zealand. Should this species become established it will be a valuable addition to our avifauna.

Mr. B. Chambers, an Auckland member, writes: "I wish to make known to members of the society that I am in a position where I can obtain some good Japanese binoculars from an importing agent at wholesale prices. This agent has offered to obtain as many pairs as I require. I can place an order with this agent who would import them from Japan on the first ship. They normally take from 8 to 10 weeks to arrive. Replies should be made direct to me at Box 397, Auckland. The sizes are: 6x30, at £11/15/6; 8x30, £11/19/6; 7x50, £14/19/-; all plus sales tax.

THE BIRDS OF THE CHATHAM ISLANDS 1954 EXPEDITION.

By Elliot W. Dawson, Christchurch.

Recently, the New Zealand Oceanographic Committee sponsored an expedition to the Chatham Islands region. The objects were to make as complete a survey as possible of the physical oceanography, marine and terrestrial fauna and incidental biology of the seas east of Banks Peninsula to the Chathams. It was also hoped that some investigation could be made into the birds on these islands in general, and in particular, into the sea birds of the outliers of this group. This account is offered as a preliminary report on the ornithological work; material for a scientific report is being presented separately.

The scientific party and crew included five members of the Ornithological Society of New Zealand, Messrs. R. K. Dell, R. R. Forster, J. Moreland, J. C. Yaldwyn and E. W. Dawson, so it is not surprising that birds received considerable attention.

The expedition, in the former naval launch "Alert," left Lyttelton on the evening of January 23, 1954, bound for dredging stations on the Mernoo Bank, a seamount rising to 35 fathoms about 120 miles N.-E. of Lyttelton. It was proposed to spend some time on the crossing to the Chathams dredging and trawling over this bank and also along the Chatham Rise, another low bank connecting the Mernoo to the Chathams.

While the sea had a moderately heavy swell during most of the crossing the weather was favourable and provided good bird watching conditions. Two or three wandering albatrosses with various dark plumages were always with us, as were also many small petrels, including fluttering shearwaters, Buller's shearwater, grey-faced petrel, white-faced storm petrel and grey-backed storm petrel. In addition to these, we saw several other small dark petrels, the identification of which provided us with an ever-ready topic of conversation at breakfast. Among these birds were some considered to be black petrels, white-chinned petrels and black-bellied storm petrels.

Several mollymawks came in close to the "Alert" at this time. These included two stages of immature black-browed mollymawk and several Bounty Island shy mollymawks, skuas and nellies visited us on several occasions, and on one occasion a royal albatross was seen close by.

On the morning of the third day at sea we sighted the Pyramid, an unmistakable conical stack, some 600 feet high, lying to the south of the main Chathams group. With our entry into Chathams coastal waters, sea birds became more numerous and we saw nellies in good number, Chatham Island Fulmar prions, many more white-faced storm petrels, and mutton birds.

After passing close to the south coast of South East Island we anchored in Glory Bay, Pitt Island. Here we felt quite at home with numbers of white-fronted terns, red-billed gulls and black-backed gulls. However, strangers appeared in the form of Buller's mollymawks, Pitt Island shags and Chatham Island shags.

Three of us spent the night ashore a little to the south of Glory Bay. Here in the coastal bush, Chatham Island tits and warblers were common, and a few tuis and red-fronted parakeets were encountered. No sign of pigeons was evident, despite the fact that this part of Pitt Island was thought to be one of their haunts. On the sandy shore pipits were often seen, while on the rocky shore oystercatchers, white-fronted terns and red-billed gulls were seen. A few introduced passerines including two young chaffinches were also seen in this coastal bush. A grey duck was seen on a slow stream in Glory Bay.

From Pitt Island we set our course for Owenga, a fishing village on the east coast of the main Chatham Island. Together with several white-capped mollymawks and Chatham Island shags a single Chatham Island

mollymawk trailed us across Pitt Strait to Owenga. After a day here, during which few birds were seen, except black-backed gulls and an occasional mollymawk, the expedition sailed for Kaingaroa, trawling and dredging in rough seas on the way. Birds seen at Kaingaroa in coastal bush and dunes included harriers, fantails, pipits and redpolls. Five members of the party spent the next day ashore in the vicinity of Kaingaroa while others on the "Alert" occupied dredging stations between Kaingaroa and Waitangi West on the north-west coast. Mr. MacIntyre and I spent the day as the guests of Mr. Vallance, manager of the Barker Estate, to whom our thanks are due. We were provided with horses which enabled us to visit the shag colonies at Okawa described by C. A. Fleming. Here about 50 Chatham Island shags and some six or eight Pitt Island shags were seen roosting but we were unable to approach closer to these rocks due to the state of the tide. Wekas and pukekos were abundant in the swamps, so much so that they are locally regarded as a nuisance.

Early the next morning, January 29, the expedition left Kaingaroa for the Sisters, a group of two islets and a reef, lying about 12 miles north of the main Chatham Island and thus about 24 miles north-west of Kaingaroa. The whole party was landed safely by 8.18 a.m. and occupied themselves making acquaintances with royal albatrosses, Buller's mollymawks, nellies and fur seals. By 2.20 p.m. we were aboard the "Alert" once more, and after a few of us had landed on the low-lying reef and made an examination of the inter-tidal zone, a census of the seals and observations on the birds, we set course for Waitangi, the main township, carrying out dredging stations along the way.

On the eastern islet of the Sisters group, there were at the time of our visit about 500 pairs of royal albatrosses nesting among the low scrub of *Cotula renwicki* on the flat top. Most of these birds had eggs, some of which were just hatching, and others had chicks only a few days old. Though unable to land on the western islet, I estimated it to have a population of about 750 to 800 pairs of royal. There were approximately 250 breeding pairs of Buller's mollymawks on the eastern islet. Most of these, nesting among the rocks on the sloping sides away from the flat tops, had chicks up to a week or ten days old. Forty-four of the adult breeding birds were marked with Ornithological Society rings as also were 17 juvenile nellies. About 20 of these almost fully-fledged birds were seen with three adults on the eastern islet. Their unpleasant habits and careless regard for the clothing of those handling them quickly led us to refer to them by their alternative name of "Stinker."

A few downy chicks and adult mutton birds were found in burrows on the eastern Sister. In other burrows two almost fully-fledged young of the Chatham fulmar prion were found.

A pair of skuas with a flying youngster frequented the highest part of the eastern Sister and seemed to have a diet ranging from small storm petrels and prions to juvenile nellies and albatross chicks.

Pipits were abundant among the rocks and had numbers of flying young. An abandoned nest with an addled egg was found.

Judging by the large numbers of the season's young present, Pitt Island shags, white-fronted terns and red-billed gulls also appear to breed on the Sisters.

The next two days (January 30 to 31) were spent in the vicinity of Waitangi, where hydrographic work and inter-tidal collecting were carried out. The land party, of which I was a member, made invertebrate collections along the sand dunes and along the shores of Lake Huro and Te Whanga Lagoon, examined Mori'ori occupation sites, collected fossils and dredged and trawled in the lagoon. In the vicinity of Lake Huro were seen pukekos, grey duck and a few blackbirds. Along the shores of Te Whanga Lagoon, pukekos, fantails, including one albino, and warblers were common. Red-billed gulls and white-fronted terns were abundant with large numbers of black swan on the lagoon itself. The scene was reminiscent of Lake Ellesmere apart from the presence of red-billed gulls in place of black-billed gulls.

On February 1 we left Waitangi at 4.15 a.m. for the Forty Fours, a group consisting of an islet and a few stacks lying about 20 miles due east of the main Chatham Island. Due to the difficulties involved in landing on the main islet only two of the party were able to get ashore. They were greeted on landing by a solitary erect-crested penguin standing amongst a group of fur seals. While the shore party made notes on the birds and the other fauna, the rest of the expedition carried out a very successful dredging station east of the Forty Fours in 130 fathoms. After picking up the shore party at 4 p.m., the expedition cleared the Forty Fours for Pitt Island and anchored at 10.45 p.m. in Waihere Bay.

An estimate of the breeding royal albatrosses on the Forty Fours revealed about 2,000 pairs. More than half the nests appeared to contain chicks. The breeding population of Buller's mollymawk here was estimated at nearly 4,000 pairs. Almost all the nests had chicks up to over a week old. Thus nesting activities were somewhat more advanced here than on the Sisters. Buller's mollymawk was commonly seen in Chatham coastal waters from the north to the south-west of the Chathams, but it was never seen west of the islands.

Additional evidence was gathered during the Chathams Expedition which may shed some light on the curious anomaly in breeding times between Buller's mollymawk on the Snarcs (estimated hatching mid-March to early May) and on the Chathams (hatching in late January to February).

Larger numbers of juvenile nellies were present on the Forty Fours. Remains of Chatham fulmar prions and broad-billed prions were found. Pipits and starlings were seen in abundance by the shore party. All the shags seen in the vicinity of the Forty Fours were Pitt Island shags.

The next day we moved past the ornithologically famous Mangare and Little Mangare islands towards South East Island, where we contemplated a landing in a very rough sea. Having decided against this we dredged at two stations and, after trying a number of anchorages in a heavy sea and a high wind, eventually anchored off the north shore of Pitt Island. Many Pitt Island shags were seen during the day but only one Chatham Island shag.

On the following morning a shore party was landed on South East Island for about two hours. Three of us spent the rest of the day and night ashore making invertebrate collections and bird observations while the rest of the party dredged south of South East Island down to 330 fathoms. During our evening ashore, we wandered through the bush with a lantern and were bombarded with innumerable white-faced storm petrels with a lesser number of broad-billed prions.

The chief attraction on South East Island is, of course, the shore plover. These birds were common on the rocky shore platforms and two juveniles of the year were seen here. Several shore plovers, belying their name, were seen on the grassy slopes near the summit of the island (678 feet). Near the landing place, Mr. MacIntyre found a nest with a clutch of three in a narrow crevice in the rocks. These plovers were an obvious and most interesting feature during our time ashore and provided fascinating material for observation by even the non-ornithologically minded among our party.

Also on the rock platforms were several Chatham Island oystercatchers—an interesting sight for comparison with the New Zealand forms of pied oystercatchers. Flights of starlings were often seen in the evening and other introduced birds present included house sparrows, hedge sparrows, redpolls, song thrushes and blackbirds.

In the bush, tuis were occasionally seen but more often heard. Chatham Island tits were abundant here with lesser numbers of warblers and a few fantails were seen. The commonest bush bird was undoubtedly the red-fronted parakeet which was everywhere abundant. Flocks of 10 or 12 birds were a frequent sight in the swampy higher parts of the island. Pipits were also common in the open tussock-covered areas.

Blue penguins were noisy in the evening on the bracken-covered slopes above the landing place and I came across a few during the night wandering through the grass.

The usual array of red-billed gulls and black-backed gulls was present on the rocky shore. A pair of adult skuas frequented the landing place. Towards dusk these and the black-backed gulls became increasingly vociferous—perhaps in anticipation of a supper of white-faced storm petrel!

No sign of pigeons was evident on South East Island.

The next day, February 4, was spent anchored in Whalers Bay, South East Island, and collections were sorted out while other members of the party went ashore for short periods.

Following this, on February 5, we plunged through a rough sea towards the Pyramid but changed our course towards the Star Keys, a group of reefs and an islet lying about 12 miles to the north of South East Island. Although conditions were not suitable for landing, we approached within 50 yards of the islet, Round Island, and noted large concentrations of Chatham Island shags with a large proportion of juveniles roosting on the cliffs. Pitt Island shags were also present but they were less than half as abundant as the other species. In the surrounding waters we saw several Buller's mollymawks, an odd royal albatross, Salvin's shy mollymawk and diving petrel. No sign of breeding albatrosses or mollymawks was seen on Round Island. From the Star Keys we proceeded to Owenga where we spent the afternoon shore collecting. The next day was spent in the vicinity of Owenga and we proceeded round the south coast as far as Cape L'Eveque and returned to anchor in Hanson Bay. At 4.00 a.m. the next day we left Owenga for Kaingaroa where we spent the day dredging and trawling. On the following day, February 8, we worked our way to Port Hutt on the west coast of the main island and spent the day shore collecting and re-organising. At dusk several flights of starlings were seen and weka calls were often heard. Pipits, redpolls, red-billed gulls, black-backed gulls and Pitt Island shags were common at times along the sandy beach and rocky shore. We finally left Port Hutt at 7.00 p.m. on February 9 bound for Lyttelton.

The crossing occupied the next three days (Feb. 10, 11, 12) during which full oceanographic stations were made every four hours, each station taking about three hours. The birds seen during the return were essentially of the same species as those seen when outward bound, except that relatively more cape pigeons and black petrels were seen. Our berth at Lyttelton was reached by 8.45 p.m. on February 12.

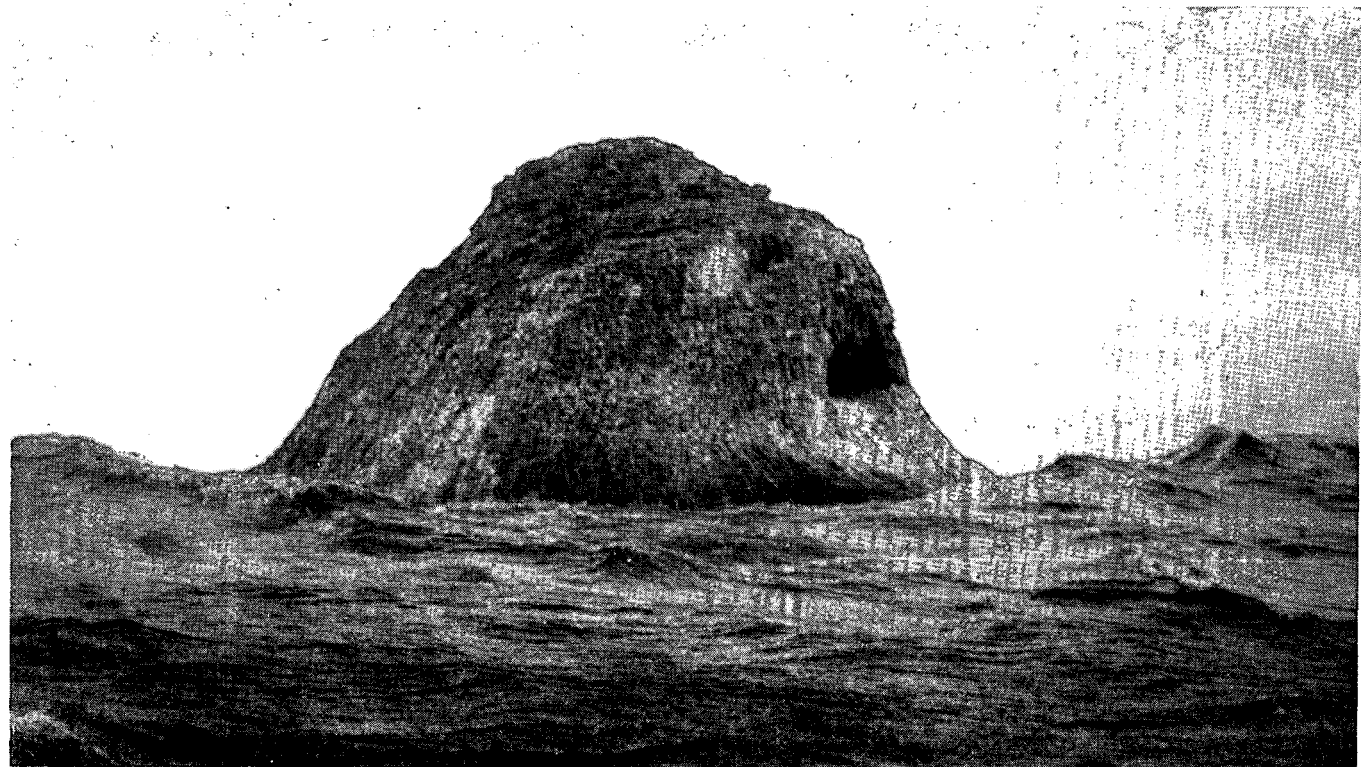
Our work on the outlying islands provided some definite data on the birds inhabiting them and their breedings. Being primarily concerned with marine matters we spent little time ashore on the main island but enough to find that several aspects of the avifauna have changed since Dr. C. A. Fleming's time (1937) in particular the increase of pukekos. South East Island is indeed a rare ornithological gem. There appear to be no vermin and both its bush birds and its breeding petrels seem tremendously abundant. The whole Chathams region is full of interest from an ornithological viewpoint and I must take this opportunity of thanking Mr. G. A. Knox, leader of the expedition, for his kindness in including me as a member.

SCIENTIFIC NAMES OF BIRDS MENTIONED.

- Southern Blue Penguin: *Eudyptula minor minor*.
Erect-crested Penguin: *Eudyptes pachyrhynchus sclateri*.
Wandering Albatross: *Diomedea exulans exulans*.
Northern Royal Albatross: *Diomedea epomophora sanfordi*.
N.Z. Black-browed Mollymawk: *Diomedea melanophris impavida*.
Buller's Mollymawk: *Diomedea bulleri*.
White-capped Mollymawk: *Diomedea cauta cauta*.
Chatham Island Mollymawk: *D. cauta eremita*.

Salvin's (Bounty Is.) Mollymawk: *D. cauta salvini*.
 Giant Petrel (Nelly): *Macronectes giganteus*.
 Cape Pigeon: *Daption capensis capensis*.
 Broad-billed Prion: *Pachyptila vittata vittata*.
 Chatham Fulmar Prion: *P. crassirostris pyramidalis*.
 Buller's Shearwater: *Puffinus bulleri*.
 N.Z. Muttonbird: *Puffinus griseus*.
 Fluttering Shearwater: *Puffinus gavia gavia*.
 Black Petrel: *Procellaria parkinsoni*.
 White-chinned Petrel: *Procellaria aequinoctialis steadi*.
 Grey-faced Petrel: *Pterodroma macroptera gouldi*.
 Grey-backed Storm Petrel: *Garrodia nereis*.
 White-faced Storm Petrel: *Pelagodroma marina maoriana*.
 Black-bellied Storm Petrel: *Fregetta tropica*.
 Southern Diving Petrel: *Pelecanoides urinatrix chathamensis*.
 Chatham Is. Shag: *Phalacrocorax (Leucocarbo) carunculatus onslowi*.
 Pitt Island Shag: *P. (Stictocarbo) punctatus featherstoni*.
 Black Swan: *Cygnus atratus*.
 Grey Duck: *Anas superciliosa superciliosa*.
 Harrier: *Circus approximans*.
 Eastern Weka: *Gallirallus australis hectori*.
 Pukeko: *Porphyrio porphyrio melanotus*.
 Chatham Island Oystercatcher: *Haematopus unicolor chathamensis*.
 Shore Plover: *Thinornis novaeseelandiae*.
 Southern Skua: *Stercorarius skua lonnbergi*.
 Black-backed Gull: *Larus dominicanus*.
 Red-billed Gull: *Larus novaehollandiae scopulinus*.
 White-fronted Tern: *Sterna striata*.
 Pigeon: *Hemiphaga novaeseelandiae chathamensis*.
 Chatham Island (Red-fronted) Parakeet: *Cyanoramphus novaeseelandiae chathamensis*.
 Chatham Island Fantail: *Rhipidura fuliginosa penitus*.
 Chatham Island Tit: *Petriocca macrocephala chathamensis*.
 Chatham Island Warbler: *Gerygone albofrontata*.
 Song Thrush: *Turdus ericetorum*.
 Blackbird: *Turdus merula*.
 Hedge Sparrow: *Prunella modularis occidentalis*.
 Pipit: *Anthus novaeseelandiae novaeseelandiae*.
 Chatham Is. Tui: *Prosthemadera novaeseelandiae chathamensis*.
 Lesser Redpoll: *Carduelis flammea cabaret*.
 Chaffinch: *Fringilla coelebs gengleri*.
 House Sparrow: *Passer domesticus*.
 Starling: *Sturnus vulgaris*.

DONATIONS ACKNOWLEDGED.—Grateful thanks are due to the following members for donations received:—General Fund: Mr. and Mrs. J. Prickett, £1 15s; Mr A. R. Annabel, £1 4s. 6d; Messrs. H. R. McKenzie, J. A. Fagan, £1 1s.; Messrs. J. Prickett, J. Edmond, A. A. Boulton, E. St. Paul £1; Mr. J. R. Jackson, 14s; Mr N. J. Crew, 13s. 6d; Messrs. A. H. Watson, A. B. Eden, 12s. 6d; Miss G. di Menna, Miss B. McDougall, 10s.; Mr. W. H. Watters 8s.; Mr J. Cunningham, 7s. 6d.; Mr B. Ellis, 5s. 9d.; Messrs. E. C. Worthington, R. V. Roberts, G. K. McKenzie, G. F. Penlington, F. Murray, E. Dear, Mrs M. S. Bragg, Anon., 5s.; Mr A. A. Savill, 3s 6d; Mr M. G. Gibson, 3s.; Mrs. C. R. Orum, Rev. F. H. Robertson, Mr and Mrs R. H. D. Stidolph, Mrs O. McCulloch, Mrs K. L. Spratt, Miss S. E. Kearns, Miss K. Blomfield, Miss M. L. Johnston, Messrs. M. G. Crawford, H. S. Munro, R. Ferguson, J. A. Martin, B. S. Chambers, W. F. I. Hunt, C. D. Blomfield, F. J. Cuming, C. G. Young, C. Tattersall, E. W. Dawson, J. Moreland, Anon, 2s 6d; Messrs. J. L. Moore, J. Barlee, 2s.; Miss P. Waymouth 1s. Illustrations Fund: Dr. C. A. Fleming, £3 10s.; Mr. B. Sladden, £2; Mr. J. A. Fagan, £1 1s.; Mr P. A. S. Stein, 10s.; Mr E. W. Dawson, 5s.



APPROACHING THE PYRAMID, CHATHAM ISLANDS, January 25, 1954.
The Nesting Area of the Chatham Islands Mollymawk.

Photo: G. A. Knox.



Photo: E. W. Dawson.

NESTING BULLERS' WITH EGGS AND CHICKS, THE SISTERS, January 29, 1954.



Photo: E. W. Dawson.
BULLER'S MOLLYMAWK ON EMPTY NEST, THE SISTERS, CHATHAM ISLANDS, January 29, 1954.



Showing Transition in Vegetation and Density of Birds between breeding areas of Buller's Mollymawk and Royal Albatross on the Forty-Fours. Mr. J. MacInyre, marine biologist on the expedition, is standing amongst the Buller's Mollymawks. In the foreground are the albatrosses in the scrub of *Cotula ranwickii*. February 1, 1954.

Photo: G. A. Knoss.

A COLONY OF BUFF-COLOURED PUKEKO.

By J. M. Cunningham, Masterton.

THE COLONY.

Oliver (N.Z. Birds 1930, p. 346) states "the pukeko seems particularly prone to albinism," and gives details of examples, all of which show the lack of blackness in the plumage. It is of interest to record the presence of three or four abnormally plumaged birds in a colony near Masterton, and to give details of the plumage of adults and of a downy chick, apparently the first chick so described.

My attention was first drawn to this colony by Mr. S. Geary, of Masterton, who, on May 10, 1953, shot one (of three or four) buff-coloured pukeko on the property of Mr. Donald Watson, Matahiwi. This bird I deposited with the Dominion Museum, Wellington. On October 18 I visited this property and found a normal pukeko feeding four chicks, three normal and one buff. Another normal and also a buff adult were nearby, watching, and appeared to have a parental interest in the chicks. I was informed by Miss Watson that these chicks hatched on October 15, when there were two buff and either three or four normal chicks. The adults had been seen for more than a year. There were at least three, one being reported shot (in addition to that shot by Mr. Geary), and Miss Watson stated she had seen similar birds in a swamp some 2½ miles away, though, of course, these may have been the same birds. In December, 1953, the buff chick survived and there was one buff adult still present nearby, the breeding swamp having in the meantime dried up. She also believed that there were three birds connected with the nest from which the chicks hatched.

DESCRIPTION OF BIRDS.

In the field, the bird appeared to behave normally, and fed quietly with the other blue bird. At a distance it was strongly reminiscent in colour of a khaki campbell duck. It was largely buff coloured, the primaries being whitish, and with a light mauve tinge on the breast. It was thus rather similar to the specimen described below by Dr. R. A. Falla.

ADULT.

"Dominion Museum. No. 892. Collected J. M. Cunningham, 11 May, 1953. Weight: 2lb. 3oz. Sex: Male. Iris: Reddish-brown. Bill: Coral-red. Tarsi and toes: Dull salmon-pink. The above data are all taken from the label. In regard to plumage, I should say that it is almost completely lacking in the normal black pigment, and that the areas which are jet glossy-black in a normal bird are in this specimen dull, pale Isabelline brown. This colour is fairly uniform on the crown, cheeks, hind-neck, and mantle, but is so bleached on the exposed parts of the primaries, secondaries and tail that these appear very pale Isabelline buff. However, it should be made clear that this is a matter of bleaching, because the hidden parts of the feathers are darker. The lower breast and belly feathers are also the dark, dull Isabelline shade, but less faded than anything on the back. The under-tail coverts are the normal pure-white. This leaves only the areas that are normally indigo-blue in the species, and in this specimen they are of the lavender-violet series (Ridgway). The Ridgway reference is Plate 25, and the shade varies between 61F and 51 B. It seems likely that the same dark factor is missing right through the plumage and that its restoration or presence would have resulted in normal plumage colour. There is no trace of the "white-spotting" or so-called partial albinism, as recorded by Buller and *not* uncommon in other recorded specimens."

CHICK THREE DAYS OLD.

The down was pale buff, browner on the back, with silvery hair-like tips on the head, neck, upper back and wings in the same positions as in the other three black chicks. The legs were the same pink, and the bill which was red at the base with a white tip, and with the egg-tooth still showing, was similar. The frontal plate was also similar, a pale majenta

pink, and the flesh on the crown and wings was perhaps a little pinker. The irides were mauve, the iris a pink majenta, and the pupil majenta. In these respects it differed from the three other chicks which were: irides mauve, iris dark brown, pupil dark blue.

I am indebted to Mr. Geary for first drawing my attention to these birds, to members of the Watson family for their courtesy in showing me the birds on their property, and to Dr. R. A. Falla for the description of the specimen.

BIRDS NESTING IN GISBORNE HARBOUR.—In 1950 there was a colony of about 300 white-fronted terns nesting on the cliffs of Tuahine Point, Gisborne. All went well until two vandals, having shot and driven away the adult birds, broke the eggs and strangled the young. Since then the terns have not attempted to nest in Gisborne until the summer of 1953-54, when a small colony of about 50 pairs nested successfully in the company of about the same number of black-billed gulls on an old groyne inside the Gisborne harbour. Boats were passing within yards of the groyne and a great number of people were fishing on the breakwater which was only 150 yards away. On January 17, 1954, nesting had passed its peak; there were then more young than eggs. The usual clutch for the gulls was two, although nests containing one or three eggs were noticed. The adults were very tame and would allow one to approach to less than two yards before they would stir from the nest. The terns laid one or two eggs on the bare concrete, in some cases, although they seemed to prefer a depression or the shelter of a plant. Some of the terns' nests were quite well made, of grass and stones. Most of the terns' nests had rings of small stones enclosing the egg or eggs. Young chicks, on the approach of danger, played "possum." The older chicks, which had left the nests, would flutter over the eight feet drop to the water, and as the danger passed would swim to a portion of the groyne which had fallen in and now sloped into the water. Here they could climb up to the nesting area again. On March 13 the nesting ground was deserted, except for an occasional resting bird.—Don Merton (15 years), Gisborne.

BIRDS IN NORTHLAND WATERS.—From Auckland to the North Cape in my cruise to the Three Kings, little bird life was observed. A few flocks of Buller's shearwater (*Puffinus bulleri*) and fluttering shearwater (*Puffinus gavia*) were seen. On reaching the North Cape large flocks of red-billed gulls (*Larus novaehollandiae*) were seen. This was new to me, as during the last ten years I have seen this gull in only small numbers at the Cape. On proceeding about a mile past the Cape I saw that a colony of red-billed gulls was nesting there. The nesting area extended over about a quarter of an acre. This is the first time in ten years that I have seen the red-billed gull nesting at the North Cape and the first time in many years that I have seen it feeding in any large numbers on the east coast between Auckland and the North Cape. On arriving at the Three Kings large flocks of the red-billed gull were feeding but the general impression was that they were in slightly lesser numbers than previously. On inspecting their nesting places it was obvious that this year it had been a very early nesting season as the usual nesting areas were almost deserted. The usual flocks of fluttering shearwater and a small number of Buller's shearwater were seen, besides quite a number of diving petrel (*Pelecanoides urinatrix*), but the bad weather prevented us from staying more than one day. On our return journey, when about nine miles north of Cape Brett, I observed a small light-coloured bird approaching the stern of the yacht. At first I thought it was a red-billed gull or a tern, but as it neared the yacht I saw that it was neither. It flew very close to the yacht several times and appeared to be quite friendly and interested in it. It was easy to note the bird's colouring in detail and there is no doubt in my mind that it was a grey noddy (*Procelsterna cerulea albivitta*). This bird has only previously been reported in New Zealand waters on three occasions.—M. E. Johnson, Auckland; 12/1/54.

CLASSIFIED SUMMARISED NOTES.

LIST OF CONTRIBUTORS.

- | | |
|--|-----------------------------------|
| I. G. Andrew, Palmerston North | H. Y. Litchfield, Gisborne. |
| H. W. Austin, Rev., Wanganui. | N. Macdonald, Miss, Howick. |
| G. E. Bailey, Miss, Christchurch.. | B. McDougall, Waikouaiti. |
| D. A. Bathgate, Dr., Hastings. | G. K. McKenzie, Clevedon. |
| M. Bayne, Miss, Dunedin. | H. R. McKenzie, Clevedon. |
| R. D. Bell, Blenheim. | C. W. McLatchie, Mrs., Waimate. |
| M. S. Black, Rotorua. | R. V. McLintock, Stirling. |
| A. Blackburn, Gisborne. | D. G. McMillan, Kawakawa. |
| K. O. Blamish-White, L. Okataina. | J. S. Martin, Kawhia. |
| C. D. Blomfield, Whakatane. | E. H. Matwig, Aratapu. |
| K. B. Blomfield, Miss, Whakatane | D. Merton, Gisborne. |
| D. H. Brathwaite, Napier. | P. Moore, Mrs., Dunedin. |
| F. M. Brookfield, Auckland. | P. H. Orum, Clevedon. |
| C. R. Buckeridge, Raglan. | J. T. Packer, Christchurch. |
| R. N. Buttle, Auckland. | C. H. Parkin, Little Barrier Is. |
| B. W. Campbell, Dunedin. | C. Peart, Raglan. |
| O. Cartwright, Miss, Dunedin. | A. C. Prentice, Mrs., Dunedin. |
| S. Chambers, Auckland. | A. Prickett, Mrs., Auckland. |
| W. C. Clark, Christchurch. | J. Prickett, Auckland. |
| R. S. Colegrove, Auckland. | D. Priest, Bulls. |
| A. C. Coutts, Auckland. | R. V. Roberts, Wellington. |
| J. Cown, Kawhia. | T. M. Roberts, Whangaroa. |
| G. C. Crawford, Napier. | R. M. Royds, Invercargill. |
| D. E. Crockett, Christchurch. | S. C. Rutherford, Awhitu. |
| I. M. Cunningham, Masterton. | V. M. Rutherford, Awhitu. |
| M. d'Auvergne, Mrs. Auckland. | E. St. Paul, Clevedon. |
| J. C. Davenport, Auckland. | J. W. St. Paul, Clevedon. |
| E. W. Dawson, Christchurch. | R. St. Paul, Minginui. |
| E. Dear, Kopane. | O. Sanson, Mrs., Invercargill. |
| D.N.F.C., Dunedin Nat. Field Club. | H. Secker, Wellington. |
| R. A. Evans, Christchurch. | R. Shanks, Miss, Cambridge. |
| R. J. Fenton, Rev., Kerikeri. | T. Shout, Raetihi. |
| R. E. W. Fordham, Ngongotaha. | R. B. Sibson, Auckland. |
| J. Gardner, Miss, Dunedin. | B. Sladden, Tauranga. |
| F. E. Gee, Rotorua. | N. S. Oliver Smith, Mrs., Winton. |
| A. J. Goodwin, Miss, Clevedon. | P. A. S. Stein, Auckland. |
| A. G. Gorby, Wellsford. | R. H. D. Stidolph, Masterton. |
| M. M. Gow, Dr., Dunedin. | F. W. Strumpel, Whangaruru. |
| L. Gurr, Nelson. | W. S. Sutherland, Kawhia. |
| G. Guy, Christchurch. | C. Tattersall, Rotorua. |
| A. R. Harris, Dunedin. | D. A. Urquhart, Karaka. |
| B. D. Heather, Hawera. | H. W. Walker, Raunangaunu. |
| A. C. Hipwell, Auckland. | P. Walker, Mrs., Dunedin. |
| M. Hodgkins, Tauranga. | L. E. Walker, Mrs. Dunedin. |
| B. Iorns, Masterton. | H. G. Warburton, Mairangi Bay. |
| R. Jenkins, Mrs., Dunedin. | A. H. Watson, Mt. Maunganui. |
| M. L. Johnston, Dunedin. | A. S. Wilkinson, Levin. |
| E. B. Jones, Wellington. | W. A. Williamson, Dunedin. |
| K.C.B.C., King's College Bird Club,
Auckland. | C. White, Miss, Dunedin. |
| D. N. Lilburne, Papakura. | K. J. Wyness-Mitchell, Christch. |

KIWI (*Apteryx* sp.).—Little Barrier Is., 10/11/53, J. Peart and G. Hadley found on track at 550ft., at night, a chick the size of a small hedgehog. (H.R.McK.)

STEWART ISLAND KIWI (*Apteryx australis lawryi*).—Foot of Mt. Rakiwha, Stewart Island, 19/1/54, two calling. (J.W.)

YELLOW-EYED PENGUIN (*Megadyptes antipodes*).—Highcliffe, Otago Peninsula, 3/4/54, five in moult on beach. (D.N.F.C.)

BLUE PENGUIN (*Eudyptula minor*).—Whangaroa, great increase noted, 1953-54. (T.M.R.) Occasionally one or two round rocks, Whanga-

ruru South. (F.W.S.). Mangawhai Beach, 24/9/54, five dead. (D.G.McM.) Pakiri, 11/7/54-21/8/54, always a few found dead on beach, greatest number counted 11 in one day. (A.G.G.) Auckland Harbour, 24/8/54, two near Mechanics Bay, diving and rolling on the surface flashing white underparts in the afternoon sun. (A.C.H.) Tuamotu Island, Poverty Bay, 28/8/54, several ashore brooding but no sign of eggs; nests in crevices on cliff rock-fall 70 to 80 feet above sea level. (A.B.) Near Pipitea Point, Wellington Harbour, 28/6/54, four; 3/9/54, one close to Jervis Quay. (E.B.J.)

N.Z. CRESTED PENGUIN (*Eudyptes pachyrhynchus pachyrhynchus*). Okains Bay, 10/1/54, corpse. (E.W.D., G.E.B.) Te Oka Bay, Bank's Peninsula, 23/2/54, one among boulders. (D.E.C.)

ERECT-CRESTED PENGUIN (*Eudyptes pachyrhynchus sclateri*).—Ward Is., Wellington Harb., 13/3/54, one; R. A. Falla reported some there a fortnight earlier. (E.B.J.)

SOUTHERN CRESTED GREBE (*Podiceps cristatus australis*).—Lake Sarah, Cass, 18/10/52, two pairs. (E.W.D.) South Fiord entrance, Lake Te Anau, 6/13/53, two. (M.M.G.) Te Anau, Dome Is., 15/1/54, 4; Te Anau Lake at 8-mile peg, 18/6/54, two. (N.S.)

DABCHICK (*Podiceps rufopectus*).—Okohukura Block (The Run), 4/9/54, 1 seen swimming in flooded paddock. (A.G.G., H.R.McK.) Ohine-mutu swamp, L. Rotorua, 13/5/54, a pair; L. Okareka, 14/5/54, a pair. (S.C.) Matata, 4/8/54, one feeding in canal on tractor demonstration area. (C.D.B.) Lake Rotoma, 18/9/54, six pairs seen from road. (M.d'A., C.D.B.) Lake Taupo (Roto-ngaio Lagoon), 22/4/54, four (F.M.B.) Ngatapa, Gisborne, 1/5/54, one shot by mistake on swamp. (A.B.)

WANDERING ALBATROSS (*Diomedea exulans*).—Coast south of Manukau Heads (birds killed and washed up by series of storms, 20/6/54-22/8/54), 4/7/54, 2. (V.M.R.) Waikato Heads, 19/9/54, one dried remains. (R.B.S., N.M.) Between Lambton Harbour, Wellington, and Tory Channel, 12/10/53, eight, three females in early maturity; 17/5/54, 12, including two in early maturity and an old female. (H.L.S.) Wellington Harb., 7/1/54, immature bird in brown plumage, first seen since 1948. (C.B.J.)

ROYAL ALBATROSS (*Diomedea epomophora*).—Port Waikato, 12/7/54, one newly dead on beach after storm. (A.J.G.) Between Wellington Harb. and Tory Channel, 12/10/54 and 17/5/54, two on each date. (H.L.S.) Queen Charlotte Sound, 10/7/54, at least three, one as far as Waikawa. (B.D.B.)

BLACK-BROWED MOLLYMAWK (*Diomedea melanophris*).—Coast south of Manukau Heads, 4/7/54, 1; 11/7/54, 1; 7/8/54, 1. (V.M.R.) Fanal Is., Leigh, 3/5/54, two; Kawau, 19/4/54, one, and Bethell's, 24/7/54, one corpse. (N.M.) Between Waiheke and Coromandel, one followed launch closely. (A.J.G.) Wellington Harb., 29/6/54, two. (E.B.J.) Diefenbach Pt. to Ship's Cove, Q. Charlotte Sd., 10/7/54, about six. (B.D.B.) Birdlings Flat, 23/2/54, corpse. (D.E.C.)

GREY-HEADED MOLLYMAWK (*Diomedea chrysostoma*).—Auckland west coast, at least 25 dead found between the Awhitu Pen. and Muriwai beach over July and August, 1954; most of these had immature bill colour. (N.M., A.C.C., R.S.C., J.C.D., S.C.R., V.M.R.; H.G.W. and R.B.S.) Coast south of Manukau Heads, 26/6/54, 1; 27/6/54, 1; 4/7/54, 3; 11/7/54, 1. (V.M.R.)

BULLER'S MOLLYMAWK (*Diomedea bulleri*).—Coast south of Manukau Heads, 4/7/54, 1. (V.M.R.) Otago Heads, 17/4/54, two landed on water. (L.E.W., D.B.)

WHITE-CAPPED MOLLYMAWK (*Diomedea cauta*).—Muriwai, 25/7/54, 1 dried corpse found. (J.C.D., H.G.W.) Coast south of Manukau Heads, 26/6/54, 1. (V.M.R.) Wellington Harb., 1954, one seen. (E.B.J.) 12/10/53, one seen between Wellington Heads and Tory Channel, Cook Strait; five seen on 17/5/54, one in plumage of *D. cauta cauta*. (H.L.S.)

LIGHT-MANTLED SOOTY ALBATROSS (*Phoebastria palpebrata*). Muriwai, 10/7/54, one ashore. (N.M.). Bethell's, 10/7/54, one dead. (R.B.S.) Awhitu Pen., 4/7/54, one fresh. (V.M.R.) Coast south of Manukau Heads, 26/6/54, one. (V.M.R.)

GIANT PETREL (*Macronectes giganteus*).—Muriwai, 25/7/54, among four birds ashore one was in white plumage. (J.C.D., H.G.W.) Auckland Harb., 1954, winter months, several off Queen's Wharf among the black-backed gulls. (P.A.S.S.) Waitemata Harb., 15/12/53, two seen from ferry; 22/8/54, 26 plus in Waitemata. (R.B.S.) Coast south of Manukau Heads, 4/7/54–22/8/54, four. (V.M.R.) Tarawera River, Bay of Plenty, 12/9/54, one feeding inside river mouth. (M.d'A., C.D.B.) Tangoio, 29/5/54, one seen flying offshore. (D.H.B.) Between Lambton Harb. (Wellington) and Tory Channel, 12/10/53, somewhat less than 200 birds; 17/5/54, about 40, mostly between Karori Rock and Tory Channel. (H.L.S.) Wellington Harb., 1/9/54, one white giant petrel near s.s. Corinthic at 12.30 p.m. (R.V.R.); 2/9/54, again seen off Ngauranga by friends; telescope revealed it towards Somes Island at 12.45 p.m. (R.V.R. E.B.J.). One brought into Museum uninjured from surf at north New Brighton, 9/1/54, released from New Brighton Pier, 11/1/54 (E.W.D.)

CAPE PIGEON (*Daption capensis*).—Corpses, Muriwai, 10/7/54, 1 (N.M.); 11/7/54, 1 (H.G.W.); 25/7/54, 1 old. (J.C.D.). Whatipu, 5/9/54, 1 fresh; Bethell's, 7/9/54, 2. (A.C.C., R.S.C.) Waikato Heads, 19/9/54, 1. (R.B.S., N.M.) Coast south of Manukau Heads, 26/6/54–11/7/54, 3. (V.M.R.) Between Wellington Heads and Tory Channel, Cook Strait, 12/10/53, not more than 10; 17/5/54, 20. (H.L.S.) Wellington Harb., near Queen's Wharf, 2/9/54, several; 3/9/54, c 9. (R.V.R., E.B.J.); 9/9/54, one near Tug Wharf and Lyttelton Ferry; 13/9/54, one near latter. (E.B.J.)

BLUE PETREL (*Halobaena caerulea*).—Auckland west coast, from late June to mid-September, 1954, 13 dead birds picked up between the Waikato Heads and Muriwai Beach. (R.B.S., S.C.R., V.M.R., D.A.U., R.S.C., H.G.W., A.C.C., N.M. and J.C.D.) Coast south of Manukau Heads, 4/7/54, 1. (V.M.R.) Waiuku outer coast, Waiuku Gap to Hamilton's Gap, 27/6/54, 1. (S.C.R.)

PRIONS (*Pachyptila* spp.).—Auckland, west coast, the mortality of prions was exceptionally heavy over the 1954 winter. First deposits at the end of June and early July consisted largely of *P. salvini* and *P. vittata*. viz., between June 27 and July 25, the following numbers were recorded between Karekare and the southern 14 miles of Muriwai; *vittata* 146, *salvini* 568, *desolata* 29, *belcheri* 25 and *turtur* 74. During August and early Sept. *turtur* continued to come ashore in fair numbers, but the other species were scarce, viz., between Aug. 21 and Sept. 19 over roughly the same area the numbers were: *vittata* 1, *salvini* 9, *desolata* 1, *belcheri* 5 and *turtur* 54. (R.B.S., J.C.D., N.M., H.G.W., A.C.C., R.S.C., S.C.R., V.M.R. & D.A.U.)

BROAD-BILLED PRION (*P. vittata*).—Coast south of Manukau Heads, 20/6/54–11/7/54, 65; 7th and 22/8/54, none. (V.M.R.) Waiuku, 13/3/54, 1. (S.C.R.)

LESSER BROAD-BILLED PRION (*P. salvini*).—Coast south of Manukau Heads, 20/6/54–11/7/54, 327; 7th and 22/8/54, none. (V.M.R.) Mt. Maunganui, 17/7/54, two quite recently dead ashore, the only prions picked up this winter. (M.H.) Rangitaiki River mouth, 11/7/54, one dead on beach. (C.D.B.)

ANTARCTIC PRION (*P. desolata*).—Coast south of Manukau Heads, 20/6/54–11/7/54, 13; 7th and 22/8/54, none. (V.M.R.)

NARROW-BILLED PRION (*P. belcheri*).—Coast south of Manukau Heads, 27/6/54–22/8/54, 19. (V.M.R.)

FAIRY PRION (*P. turtur*).—Coast south of Manukau Heads, 20/6/54–22/8/54, 21. (V.M.R.) Waiuku, January-May, 1953 (three trips), 2; March-June, 1954 (four trips), one. (S.C.R.) Mt. Maunganui coast, 2/2/54, one quite fresh came ashore alive the previous night. (M.H.)

Between Wellington Heads and Tory Channel, Cook Strait, 12/10/53, few; 17/5/54, none. (H.L.S.)

FLESH-FOOTED SHEARWATER (*Puffinus carneipes*).—Hauraki Gulf, several trips, Jan.-April, 1954, always seen, usually small numbers, but c 100 off Kirita Bay, 17/1/54, and many seen near Kawau, 1/1/54 and 16/4/54. Winter records: Waiheke-Kawau and back, 19-21/6/54, one; Waiheke-Coromandel and back, 2-4/7/54, one. (A.J.G.) Between Wellington Heads and Tory Channel, Cook Strait, 12/10/53, nearly 30; 17/5/54, one. (H.L.S.) Cook Strait, 12/11/53, one seen very close to Tamahine. (R.H.D.S.).

BULLER'S SHEARWATER (*Puffinus bulleri*).—Whangaparoa Pen., flocks of up to 20 on 3/1/54 and 10/1/54, and other times during strong northerlies at Manly. (S.C.) Hauraki Gulf, several trips, Jan. and Feb., 1954, always seen but usually singly except for c 40 with flesh-footed shearwater off Kirita Bay, 17/1/54; 19-21/6/54, Clevedon-Kawau Is. and back, one, a winter record. (A.J.G.) Pukerua Bay, Wellington, 17/4/54, one dead several days; culmen, 42 mm. (H.L.S.) Okain's Bay, 10/1/54, corpse. (E.W.D., G.E.B.) New Brighton, 30/4/54, three corpses. (D.E.C.)

SOOTY SHEARWATER (*Puffinus griseus*).—Muriwai, 23/5/54, one recently ashore. (R.S.C.); 25/7/54, one about two weeks ashore (J.C.D., H.G.W.) Waiuku, Jan.-May, 1953 (three trips), two; March-June, 1954 (four trips), two. (S.C.R.) Great Barrier (en route), 16/4/54, some seen. (N.M.) Mt. Maunganui, 1/11/53, nine fresh birds ashore. (M.H.) Corpses: Birdling's Flat, 27/3/54, one; New Brighton, 8/5/54, ten; Spencerville, 15/5/54, one. (D.E.C.) Te Anau, 13/2/54, one in flight on Lake (confirmed by J. H. Sorensen). (N.S.) Invercargill Estuary, Awarua, 3/4/54, thousands feeding close in shore on sardines. (R.M.R.) Mole, Otago Heads, 17/4/54, large flock flying north. (D.B., L.E.W.) West End, Ulva Is., Stewart Island, 16/5/54, one young on water, could fly only about six feet. (J.W.).

SHORT-TAILED SHEARWATER (*Puffinus tenuirostris*).—Waiuku coast, 7/6/54, one dead ashore some time. (R.B.S., J.C.D.).

FLUTTERING SHEARWATER (*Puffinus gavia*).—Hauraki Gulf, several trips, also one to Whangarei, Jan.-July, 1954, always seen, usually small groups up to 40 but occasionally several hundred. (A.J.G.) Waiuku, Jan.-May, 1953, three on 13/3/53; March-June, 1954 (four trips), none. (S.C.R.). Coast south of Manukau Heads, 27/6/54-22/8/54, 11 (V.M.R.) Auckland west coast, odd birds found ashore right throughout the 1954 winter, greater numbers in August and September. (N.M., A.C.C., R.S.C., J.C.D., R.B.S.) Rangitaiki River mouth, 1/9/54, six freshly dead. (R.B.S.) Between Wellington Heads and Tory Channel, Cook Strait, 12/10/53 and 17/5/54, nearly 40 birds on former date and 25 on latter. (H.L.S.) Wellington Harb., 30/6/54, 30. (R.V.R., E.B.J.) Wellington Harb., off Queen's Wharf, 2/9/54, c 20 (E.B.J.); near Somes Is., 8/7/54, seven (R.V.R.)

HUTTON'S SHEARWATER (*P. gavia huttoni*).—Whatipu, 5/9/54, one fresh corpse found, very dirty specked under wing coverts, axillaries not white-tipped, female, wing 219, tail 71.9, culm. 36.1, tarsus 40.7 mm. (A.C.G., R.S.C.)

ALLIED SHEARWATER (*Puffinus assimilis*).—Mt. Maunganui coast, 7/11/53, one dead, about a week ashore, wing 185, culmen 25.0, grey inner webs to primaries suggest *P. a. haurakiensis*. (M.H.)

GREY PETREL (*Procellaria cinerea*).—Muriwai, 15/11/53, one ashore, wing 325, tail 116, culmen 47.3, tarsus 58.9; immature female. (J.C.D., B.D.H.).

WHITE-CHINNED PETREL (*Procellaria aequinoctialis*).—Muriwai, 23/7/54, one dead, wing 373, tail 132, culmen 51.0, tarsus 62, toe and claw 89 mm. (J.C.D., H.G.W.)

GREY-FACED PETREL (*Pterodroma macroptera*).—Fanal Is., 26/4-3/5/54, many hundreds roosting at nights and cleaning burrows; several in

burrows in daytime; no eggs. (N.M.) Whale Island, 13/5/54, many hundreds arrived at dusk and landed at night; clearing burrows. 14/5/54, vast numbers arrived from seaward from 4 p.m. till dusk, resting on water or circling overhead till dusk. Reported by P. Carter, 31/10/53; 1080 young birds taken by Maoris being half the number of previous year; some nestlings drowned in burrows and nests with egg deserted. (B.S.)

WHITE-HEADED PETREL (*Pterodroma lessoni*).—Auckland west coast, greater numbers than usual ashore during the 1954 winter, 25 birds being recorded between June 27 and the end of August between the Waikato Heads and Muriwai Beach. (J.C.D., R.B.S., N.M., V.M.R., S.C.R., R.S.C., H.G.W., A.C.C.) Coast south of Manukau Heads, 20/6/54–11/7/54, 13. (V.M.R.)

KERGUELEN PETREL (*Pterodroma brevirostris*).—West coast Auckland, the eight birds recorded during the 1954 winter will be written separately. (J.C.D., et al.) Coast south of Manukau Heads, 11/7/54, one (V.M.R.) One live bird found in St. Alban's, Christchurch, brought into Museum on 8/6/54, but died on 10/6/54, checked by R. A. Falla. (E.W.D., W.C.C.)

COOK'S PETREL (*Pterodroma cooki*).—Whangaparapa Harbour, Great Barrier Is., 29/12/53, heard coming in until 9.30 p.m. Have also heard these calls at Port Fitzroy. Thought to be this species but not sure of identity. (A.J.G.) Whangaparaoa Pen., 28/12/53, one heard over east end of Manly. (S.C.) Te Arai, 15/11/53, one corpse; 4/1/54, one corpse. (N.M.)

GREY-BACKED STORM PETREL (*Garrodia nereis*).—Waingawa River bed, Nov., 1953, corpse found. (R.H.D.S.)

WHITE-FACED STORM PETREL (*Pelagodroma marina*).—Hauraki Gulf, several trips Clevedon-Coromandel-Great Barrier Is.-Kawau Is., Dec., 1953-Jan., 1954, but seen only on 29th and 31/12/53, large numbers. Off Kawau Is., 1/1/54, one; Clevedon-Kawau Is.-Whangarei-Coromandel, trips Feb., April, June and July, 1954, none seen. (A.J.G.) On 11/7/54, one was found exhausted, Wilson St., Cambridge. (R.S.) Mt. Maunganui, 1/11/53, one; 2/12/53, one; 13/12/53, three. (M.H.)

COMMON DIVING PETREL (*Pelecanoides urinatrix*).—Muriwai, 25/7/54, two ashore. (J.C.D., H.G.W.) Muriwai, 28/8/54, two; 12/9/54, three; Piha, 21/8/54, one. (A.C.C., R.S.C.) Mt. Maunganui coast, corpses, 1/11/53, four; 28/11/53, two; 13/12/53, 23 (1 alive, 21 recent), two were young birds with down still attached in patches; 9/1/54, six half-decayed. (M.H.)

GANNET (*Sula bassana serratator*).—Off Whangarua, 28 young birds seen flying north from one to four most days, but a few days none seen. Two of latest ones had more white than normal. Previously they had not been seen to feed but this season several fed on piper. Although in deep water they took the slanting dive which is used by the adult in very shallow water. None seen to dive steeply; 16/2/54 to 31/3/54. (T.M.R.) Diving off beach, Whangaruru South; small numbers but Aug. 1954 about 30 seen feeding. (F.W.S.) Whangaparaoa Pen., one immature bird seen amongst adults on 2/1/54 and 17/1/54. (S.C.) Hauraki Gulf, 4/4/54, four juv. seen near Noises. Piha, 24/7/54, one dead with a yellow ring of plastic covered wire on its left leg. Upper Manukau, 20/8/54, 20 plus fishing in Upper Manukau above the bridge. (R.B.S.) White Is., 16/5/54, c 300 feeding offshore and distributed in small groups on different points at night; three young birds remained ashore, still being fed, and a few on wing. (B.S.) Hauraki Gulf, Feb.-June, 1954, odd young birds seen many times but three together, Whangaparaoa Passage, 16/4/54 and 19/6/54. (A. J. G.) Waiheke, 7/9/54, after violent northerly gale, many diving in front of broaching dolphins, close inshore at Arran Bay. Horuhoru, 9/9/54, early season, already 1800 adults close, 1131 nests with 158 eggs. (P.A.S.S.) Oaia, 22/9/54, 295 nests, two eggs just laid. (T.W.) Waitemata Harb., 16/1/54, one immature heading north over Rocky Bay, Waiheke. (N.M.) Mt. Maunganui, 24/4/54, one quite fresh on open coast, in juvenile plum-

age. (M.H.) Pelorus Sound, 26/6/54, c 30 (B.D.B.) Pleasant River Est., Otago, 16/4/54, one dead on beach; immature. (D.B., L.E.W.) Mole, Otago Heads, 17/4/54, one seen in flight. (D.B., L.E.W.) Karitane, Otago, 26/8/53, two fishing along coast. (J.W.)

BLACK SHAG (*Phalacrocorax carbo*)—Kopane, Manawatu, 4/11/53, five in flight at 5 a.m., very windy, birds flew within 50ft. of where I stood. (E.D.)

PIED SHAG (*Phalacrocorax varius*). — Opopo Bay, Waiheke Is., 2/7/54, rookery of 20 occupied nests, 10 birds sitting or brooding, 16 young seen. (A.J.G.) Not uncommon in the Upper Manukau in the winter. (R.B.S.) Te Koutu Lake, Cambridge, 14/2/54, one seen, alongside black shag, also seen April, one seen May, 1952. (R.S.) Picton, 10/7/54; c 28; Wairau Bar, 13/2/54, 20. (B.D.B.) Waipara River mouth, 4/4/54, 12. (D.E.C.)

LITTLE BLACK SHAG (*Phalacrocorax sulcirostris*). — Whangaroa Harb., not uncommon, 1953-54. (T.M.R.) Maraetai, Auckland, 22/8/54, 15 in close party (M.d'A.) Auckland, pair in Ponsonby Boat Harbour throughout the winter; 3/9/54, one still present. (P.A.S.S.) Matata Lagoon, 1/9/54, one (R.B.S.); 1/6/54, 9 (M.d'A.) 20/7/54, Whakatane Heads, 5, the usual number; 8/8/54, c 20 in close party on a rock (C.D.B. K.B.) L. Rotomahana, 31/8/54, two. (R.B.S.) Lowry Bay, 13/3/54, one (E.B.J.)

WHITE-THROATED SHAG (*Phalacrocorax melanoleucos brevirostris*).—Parengarenga Harb., 7/6/54, off Te Hapua and on a shell-bank south of Te Pua Pt., c 50 and 40-50 pied phase. (H.R.McK. ea al.) Pakiri River, 18/7/54 to 24/8/54, one. (A.G.G.) Western Springs, Auckland, 2/5/54, 27 counted together with seven large piers and five large blacks. (S.G.) The Sisters, Waiheke Passage, 10/1/54, 18 nests counted in low coprosma bushes contained the following: one egg, three nests; two eggs, three nests; one chick, one nest; two chicks, six nests; three young, three nests. (P.A.S., N.M., G.J.H.M., J.C.D.) Raglan Harb., east side, c nine and one pied phase. (C.P. et al.) Aotea Harb., 19/4/54, c 20 and two pied phase, one of which had large areas of white on upper shoulders of wings. (C.R.B. et al.) Kawhia Harb., 23/7/54, 20 plus and three pied phase. Several had white down to lower neck. (H.R.McK. et al.) Tauranga: Omukaroa and Mutahoa Is., 28/4/54, estimate 800 to 1000 shags roost here at night, of which white-throated greatly predominate; count of 580 flying in from northern end of harbour shore. (B.S.)

SPOTTED SHAG (*Phalacrocorax (Stictocarbo) punctatus punctatus*). Whatarangi, Palliser Bay, 9/10/54, four immature. (R.H.D.S., J.M.C.) Wairau Bar, 13/2/54, c 80. (B.D.B.) Invercargill Est.; 29/5/54, Clifton, one. (R.M.R.) Pahia, Southland, 9/8/54, on a rocky bastion off coast, 35 birds, with groups of two and three flying in until there were 58. (O.S.)

BLUE SHAG (*Phalacrocorax (Stictocarbo) punctatus steadi*).—Ulva Island, Stewart Island, 31/12/53, nine on rocks; North Arm, Paterson Inlet, Stewart Is., 2/1/54, eight; Ulva Island, Stewart Is., 5/1/54, four. (J.W.)

STEWART ISLAND SHAG (*Phalacrocorax (Leucocarbo) carunculatus*).—Otago Heads, 17/4/54, five seen and four bronze phase. (D.B., L.E.W.)

WHITE HERON (*Egretta alba*).—Rangaunu Bay, 9/9/54, eight about lower reaches. (H.W.W.) Houhora, 4/6/54, two; Rangaunu Bay, 3-4/6/54, seven; Manganui, 3/6/54, one. (J.P. et al.) Rangaunu Harb., reported from Mr. E. Walker, 22/3/54, one; 29/5/54, five; 2/6/54, five; 4/6/54, seven; 1/7/54, eight; 13/7/54, nine; and 26/7/54, ten. Waipu Cove, 3/4/53 one reported. (H.G.W.) Whitford, near Auckland, 25/5/54, one by Whitford Bridge. (C.D.B., K.B.) Matata Lagoon, Bay of Plenty, 1/6/54, one. (M.d'A.); one from 20/6/54-1/10/54 (B.S.); 1/9/54, one. (R.B.S.) Waitohi, Bay of Plenty, 4/5/54, Mrs. H.R.McK. saw one near road. (H.R.McK.) Opotiki, local paper reported one seen on the banks of the Waitohi River during May, one was also seen there in early Septem-

ber. (K.C.B.C.). Lake Rotorua (Hamurana), 27/5/54; single bird reported; Ohinemutu, 5/6/54, one seen fishing near Sound Shell; flushed and flew lakewards towards Mokoia Island. (M.S.B.) Raglan Harb., 17/4/54, one, yellow bill and slate-grey legs. (C.P. et al.) Awapuni Lagoon, Gisborne, 23/4/54, one arrived and stayed until opening of duck season 1/5/54. (D.V.M.). Gisborne, 24/5/53, three on swamp at Glencoe Settlement. (A.B.) Karetu Lake, Wairoa, H.B., 1/5/54, two reported. (R.St.P.) Ahuriri Lagoon, 29/5/54, one (G.C.C.); 25/7/54, one (D.H.B.) Himatangi Beach, 6/4/53, one flying steadily southward. (I.G.A.) Foxton, 22/8/54, one on backwater. (R.H.D.S.) Merton, Otago, 1/4/54, one (R.J.); 30/7/54, one (W.A.W.). Louden's Gully, Milton, 9/5/54, one. (L.E.W.): Stirling, 23/5/54, two; 24/5/54, one; 25/5/54, two. (R.V.McL.) Lake Hawkins, 8/6/54, two. (O.S.)

LITTLE EGRET (*Egretta garzetta*).—Entrance to Awanui Harb., Ranganui Bay, 9/8/54, two seen on sandspit. (H.W.W.) Ranganui Harb., 21/8/54, two. (H.G.W.) Manukau Harb., seen near the Onehunga-Mangere Bridge on 1/3/54 and then on numerous occasions in July, August and September. (F.M.B., J.C.D., A.P., J.P., R.B.S.)

BLUE HERON (*Egretta sacra*).—One or two occasionally seen on rocks, Whangaruru South. (F.W.S.) Mangawhai, 24/9/54, one. (D.G.McM.) Kaipara Harb., 18/10/53, two nests containing three eggs and two chicks one egg respectively on Moturimu Is. (N.M.) Mouth of Pakiri River, 11/7/54, one. (A.G.G.) Auckland, not yet recorded in Upper Manukau above the bridge and scarce in the middle Manukau, but one at Puhia Bay on 20/7/54; two sometimes seen at Puketutu Causeway. (R.B.S.) Raglan Harb., 17/4/54, four, others known to be about (H.R.McK., C.P., J.C.D.). Aotea Harb., 19/4/54, 23 in flock and a few odd ones. (C.R.B. et al.) Kawhia Harb., c nine on south side, flock of twelve has been seen. (W.S.S. et al.) Whitianga Harb., 27/1/54, one darting at fish from rock; Whangamata, 29/1/54, three. (R.S.) Ohope Beach, 26/2/53, one flying eastwards. (M.S.B.) Pakarac River, East Coast, 19/1/54, two feeding on bar at river mouth. (A.B.) Ahuriri Lagoon, 29/5/54, one. (D.H.B.) Ship's Cove, Queen Charlotte Sound, 10/7/54, one. (B.D.B.) Heathcote Esty., 1954, the most previously recorded was three but this year up to seven birds were seen on several occasions in April and May. (G.G.) Waipara Mouth, 4/4/54, ten. (D.E.C.) Akaroa Harb., 28/8/54, two. (D.E.C.) Teanawaewae Point, Portobello, Otago, pair nested Sept.-Oct., 1935, two chicks hatched and reared; 6/11/53, four; 2/1/54, three; 16/4/54, two adults and one juvenile; 16/5/54, two; 27/6/54, three. (A.R.H.) Hayward's Point, Pounaweia, 2/1/54, five. (D.N.F.C.)

WHITE-FACED HERON (*Notophox novaehollandiae*).—Parengaranga Harb., 5/6/54, one off Te Hapua. (H.R.McK.) Waikopu Creek, Whitford, 18/7/54, three in party feeding on mudflat; not seen here since. (M.d'A.) Clevedon, 7/2/54, one. (H.R.McK.) Weymouth, Manukau Harb., 12/6/54, one. (H.R.McK.) Raglan Harbour, 17/4/54, two (H.R.McK.). Aotea Harb., one. (H.R.McK. et al.) Kawhia Harb., at Waipuna, six in flock. (H.R.McK. et al.) Porirua Harb., 5/8/54, two. (E.B.J.) Picton, 25/9/54, four; Blenheim, Oct. 1954, pair nesting in pine, High Street Bridge; Narrows, Wairau River, 26/10/53, three feeding in subsidiary streams; Kaikoura Pen., 5/12/53, three on south coast. (B.D.B.) Heathcote Esty., July, 1954, about 14 seen together. (E.W.D.) Tengawai River, Albury, South Canterbury, 8/5/54, five. (P.W.) Waitati, Otago, 25/3/54, nine on mudflats. (M.B.) Portobello, two to seven seen between 16/4/54 and 17/7/54. (A.R.H.) Golden Bay, Stewart Island, 15/5/54, one. (J.W.) Invercargill Estv., Awarua, 3/4/54, 23. (R.M.R.) Awarua Bay, 12/6/54, 15. (N.S., R.M.R.)

BITTERN (*Botaurus stellaris poiciloptilus*).—Kawakawa River, Taumarere, two pairs. (D.G.McM.) Clevedon, 16/1/54–24/2/54, seven reported from different areas mostly away from water; easily caught, so perhaps moulting or young birds driven from drought-shrunken swamps by older ones. (H.R.McK.) Lake Rotorua, 15/9/54, pair wading offshore in front of Queen Elizabeth Hospital, one usually seen here for greater

part of the year. (M.S.B.) Gisborne, 8/11/53, three on swamp at Glen-coe, Patutahi. (A.B.) Awapuni Stream, Gisborne, 24/4/54, one on roadside. (D.V.M.) Palmerston North, Hokowhitu Lagoon, 16/5/52, one flying; raupo since been much reduced. (I.G.A.) Te Moana, South Canterbury, 26/1/54, four young, one was caught and wing span measured 36 inches. (L.E.W.) Milford, South Canterbury, 5/1/54, one (L.E.W.) Oreti River, Mossburn, April, 1954, one in flight reported by Mr. Robb (P.W.D.)

GLOSSY IBIS (*Plegadis falcinellus*).—Berwick, Otago, 21/1/54, on north margin of Lake Waiholo, S.F. ranger, Mr. Cruttwell reported three birds. (O.S.) Lake Hawkins, Invercargill, 9/6/54, seven; 10/6/54, none. (O.S.)

ROYAL SPOONBILL (*Platalea leucorodia regia*).—Wharekea, opposite sandspit at entrance to Rangaunu Bay, one seen by Mr. C. Leith; seems to go about with shags (H.W.W.) Foxton Beach, June, 1954, seven reported to be present again (K.C.B.C.); 31/5/54, five. (H.W.A., M.F.G.S.)

CANADA GOOSE (*Branta canadensis*).—Castle Rock, Lumsden, May 1954, Mr. L. S. Gilkison reported a flock of twelve landing on his property for a short time. (N.S.) Cass, 22/10/53, two pairs, one with nest. (E.W.D.) Kaituna, abundant on lakeside, 15/8/54 (E.W.D., W.C.C., G.E.B.) Queens-town, 16/4/54, nine on Lake Wakatipu. (K.J.W.M.)

MUTE SWAN (*Cygnus olor*).—Lake Pupuke, 26/8/54, seven on lake. (D.M.) Near Matamau, 31/7/54 two; near Pukehou, nine. (E.B.J.) Tomahawk, Dunedin, 15/5/54, nine seen, eight in flight. (D.N.F.C.) Vauxhall, Dunedin, 24/12/53, six in flight over harbour. (L.E.W.)

BLACK SWAN (*Cygnus atratus*).—N. Wairoa River, Aratapu, pair seen. (E.H.M.) Lake Pupuke, 25/8/54, nest containing two eggs found while there were two family groups on the lake containing two and three cygnets respectively; on 26/8/54 22 black swans counted. (D.M.) Lake Rotorua, Sulphur Bay, 10/2/54, c. 240, a record for this locality; flock included c. 10 cygnets in down and c. 60 immature birds. (M.S.B. et al.) Muriwai, Gisborne, 26/6/54, c. 350 on lagoon, frequently seen in considerable numbers offshore beyond breakers. (A.B.) Kaituna, 15/8/54, extremely abundant. (E.W.D., W.C.C., G.E.B.) Timaru Lagoon, 8/8/54, several hundreds. (K.J.W.-M.) Lake Waiholo, 21/4/54, c. 30 seen; Timaru 23/10/54, c. 300 seen (K.J.M.-M.) TeAnau Downs, 8/1/54, three flew in and landed on harbour. (N.S.) Awarua Bay, 12/6/54, 200 plus. (N.S., R.M.R.) Caerhowel Arm, Paterson Inlet, Stewart Is., 19/1/54, six. (J.W.)

PARADISE DUCK (*Tadorna variegata*).—Matata Lagoon, 23/5/54, five, of which four were female. (B.S.) Matata, 1/6/54, nine. (M.d'A.); 26/6/54, five drakes and three ducks, some reliably reported shot here in 1947. (C.D.B.) Minginui, Sept.-Oct., 1953, a pair seen three times. (R.St.P.) Waimangu, 29/12/53, pair on brackish pond near tearooms. (D.P., M.S.B.) Waereanga-o-kuri, Gisborne, 2/5/54, flock of five including three drakes on H. Y. Litchfield's property; H.L.Y. has had his property declared a sanctuary and these ducks and all other birds are protected. (HY.L., M.S.B.) Muriwai, Gisborne, 24/1/54, c. 50 on swamp, Young Nick's Head; breeds freely on Hangaroa and Ruakituri rivers. (A.B.) Lake Taupo, Roto-ngaio Lagoon, 22/4/54, four pairs. (F.M.B.) Ahuriri Lagoon, 13/2/54, three pairs; 31/7/54, one pair (D.H.B.) Headwaters of Ngaruro-ro River, Jan., 1954, male, female and young. (D.A.B.) Te Anau, west shore, 25/12/53, pair with seven ducklings two or three days old; three weeks later only six ducklings; Eglinton Valley, 8/1/54, two pairs; Burwood Station, 12/3/54, forty; Lynwood Station, 12/3/54, 18; Lake Mintaro, Milford Track, 14/3/54, four; Arthur Valley, Milford Track, 15/3/54, several; Milford Sound, 17/3/54, four; Upper Hollyford, 18/3/54, one pair; Lake Hawkins, Invercargill, 29/4/54, 14. (N.S.)

GREY TEAL (*Anas gibberifrons*).—Lake Rotorua, near Golf Course, 1/3/54, flock of five, 8/6/54, one duck two drakes; Sulphur Bay, 15/4/54, pair, no evidence of breeding nor having bred. (M.S.B.) Waimangu, Crater Lake, near tearooms, 5/1/54, pair possibly breeding but not evident.

(M.S.B., D.P.). Lake Rotomahana, Estuary Waimangu Stream, 29/12/53, c 35. (D.P., M.S.B.) Lake Rotomahana, Estuary Waimangu Stream, 2/7/54, c 7. (F.E.G., M.S.B.) Picnic Point, Lake Rotorua, 21-27/1/54, 10 to 15 daily; 1-2/9/54, two pairs; Waimangu Stream, L. Rotomahana, 24/1/54, 7; 31/8/54, 6 pairs; small pool beside road to Waimangu, 31/8/54, pair. (R.B.S.)

BROWN DUCK (*Anas castanea chlorotis*)—Otaika River, Whangarei, 3/6/54, a pair and one thought to be a young male, seen from main road. (J.P., H.R.McK.). Waipu, 26/10/53, 15 adults, 7 ducklings. (N.M.)

GREY DUCK (*Anas superciliosa*).—Auckland, from 7/4/54 to 1/5/54 large flights of up to 50 birds seen flying over Seaview Road in an easterly direction each evening. (S.C.) Lake Rotorua, off Ngapuna shore, 1/3/54, estimated count of two large rafts, 100 and 150, disturbed by poachers and disappeared following day. (M.S.B. et al.). Te Koutu Lake, Cambridge, 28/2/54, 130; 13/3/54, 640, dabchick swimming close among them; 20/6/54, 100. (R.S.). Milford Sound, 16/3/54, 13. (N.S.) Awarua Bay, 12/6/54, 14. (N.S., R.M.R.)

MALLARD (*Anas platyrhynchos*).—Palmerston North, Hokowhitu Lagoon, many April-May, 14/5/54, c. 400, and Fitzroy Memorial Park, 16/5/54, c 250. (I.G.A.) Barry's Bay, Akaroa, 29/8/54, 12. (D.E.C.)

NEW ZEALAND SHOVELER (*Anas rhynchotis variegata*).—Miranda, 4/7/54, two pairs, the drakes not quite in full plumage. (H.R.McK. et al.). Matata, 4/8/54, 30 in flock in canal; 12/9/54, three drakes and two ducks. (M.d'A., C.D.B.). Matata Lagoon, 23/5/54, 44. (B.S.) Hanurana, Lake Rotorua, 24/6/54, c 30 feeding in weedy shallows; Whaka Stream Estuary, Rotorua, 15/3/54, pair. (M.S.B.) Invercargill Esty., at Clifton, 10/4/54, seven; 8/5/54, 35. (R.M.R.)

BLUE DUCK (*Hymenolaimus malacorhynchos*).—Minginui, via Rotorua, 19/4/54, one in the upper Whirinaki River; this area has been shot out. (R.St.P.). Rakauoa, Gisborne, Nov., 1953, three permanent residents on tributary of Waipaoa River but do not seem to increase; five seen in one party on upper Waioka River, Feb., 1953, plus two other pairs. (A.B.) Headwater of Ngaruroro River, Jan., 1954 (D.A.B.). Tutaekuri River, near track to Kaweka Hut, 1/8/54, reported by Mr. N. K. Flockton of Napier. (D.H.B.) Mingha River, 26/10/53, one. (R.A.E.) Olivine River, Otago, 22/2/54 and 23/2/54, two; 1/3/54, one; Routeburn Valley, Otago, 4/3/54, two; Orari Gorge, South Canterbury, 5/6/54, two. (B.W.C.) Pompolona Hut, Milford Track, Feb., 1954, three. (A.C.P.) Clinton River, Milford Track, 13/3/54, pair; Pompalona Huts, Milford Track, 14/3/54, pair preening beside stream running into Clinton River. (N.S.)

N.Z. SCAUP (*Aythya novaeseelandiae*).—Lake Rotorua, Sulphur Bay, 26/3/54, c nine, vanguard of usual winter flock that assembles near Ward Baths; 21/6/54, c 350 (maximum); 31/7/54, c 180; 19/9/54, c 45. By October 1st all breeding birds will have dispersed. A small coterie from 7 to 16 individuals, comprising mostly immatures and a few unmated adults, remain throughout the summer months. (M.S.B.) Queenstown, 18/12/53, 56. (T.S.) Queenstown, 16/4/54, 54, c 50 on Lake Wakatipu (K.J.W-M.) Te Anau, late Dec., 1953, and Jan., 1954, six to eight frequented lake shore at township; 18/6/54, thirty plus. (N.S.)

HARRIER (*Circus approximans*).—Minginui, 1953-54, one to four daily; none seen on high country. (R.St.P.)

N.Z. FALCON (*Falco novaeseelandiae*).—Rotorua, 3/4/54, large bird, probably female, flying over my property, Tarewa Road, towards Ngonotaha Mountain; 17/4/54, Clayton Road, sitting on power pole, probably same bird. (M.S.B.) Minginui, 1953-54, one or two frequently, punishing pigeons badly. (R.St.P.) Tutamoe Station, Tolaga Bay, 24/2/54, pair with young two or three weeks old; nest against log on hillside. (A.B.) Wellington, 10/5/54, a small young falcon on top of a Harbour Board shed being mobbed by yellowhammers. Pigeons were flying in alarm for no apparent reason and at great speed which attracted my attention. The

falcon looked no bigger than a morepork and was beautifully marked on the breast and tail. It yawned and flexed its left foot and claws but on being frightened by a passing motorist, it dropped over the far side of the shed. Body was found later by the same shed "D" and skeleton secured. (R.V.R.) Teme River, Avon Valley (Waihopi watershed), 7/5/54; one. (B.D.B.) Orari, 8/8/54, pair; The Gums, 9/3/54, one; Clinton, 21/4/54, one; Henley, 21/4/54, one; Gore-Invercargill, 9/6/54, three; Jollies, 14/4/54, one. (K.J.W.-M.)

BROWN QUAIL (*Synoicus ypsilophorus*)—Minginui, 1953-54, small numbers, being slowly killed out by cats, stoats and bush hawks, not so wary as the Californian quail. (R.St.P.)

PHEASANT (*Phasianus colchicus*)—Clevedon, 14/10/53, nest three eggs under dead gorse on roadside; 27/10/53, bird started sitting, 10 eggs; 14/11/53, nest deserted. (A.J.G.) Whakatane, 10/6/54, one all white cock bird with one ring-necked cock and four hens. (C.D.B.)

CALIFORNIAN QUAIL (*Lophortyx californica*).—Whangaruru South, occasionally heard or seen, small flock of 8 or so. (F.W.S.) Whangaparaoa Pen., 14/1/54, a pair of adults with 12 young seen east end of Manly. (S.C.) Rotorua, Government Gardens, 1953-54 season, 3 or 4 pairs breeding; tame and feral cats take heavy toll of chicks; rats and stoats also present; largest broods to reach adolescent stage of recent years, one of five and one of seven birds; average would be three or four. Atiamuri-Orakei Korako, 1/6/52, observed coveys of 20, 13 and 9 besides many singles, twos and threes. (M.S.B.) Minginui, 1953-54, quite plentiful and has had a very good breeding season here, many apparently bred twice. (R.St.P.) Whakatane, winter, 1954, flock of c 70 in borough area. (C.D.B.) Ashburton River, 9/1/54, pair with 9-10 young in willow thickets. (A.B.)

N.Z. BANDED RAIL (*Rallus philippensis*).—Three seen in swamp Taumarere, Kawa Kawa River, one on road near Kawa Kawa (D.G.McM.) Karaka shellbank, 14/10/53, one chick by drain; Clevedon, 1953-54; seen fairly often. (A.J.G.) Auckland, 19/11/53, nest six eggs in grounds of the Middlemore Hospital. (R.B.S.) Welcome Bay, Tauranga, 4/8/54, two feeding on mudflat. (C.D.B.) Gisborne, 24/5/53, one in raupo swamp at Glencoe, Patutahi. (A.B.)

NORTH ISLAND WEKA (*Gallirallus australis greyi*).—Gisborne, 1953-54, very common and apparently increasing in area bounded by Uawa River north, Muriwai south and Otoko west. Slight tendency to extend restricted area observed and reported recently, especially N.-W. and S.-W. limits. Following breeding table carefully noted and reported by Mr. C. B. Burland, Patutahi: June, 1953, 4 hatched, 3 reared. August, 1953, 2 hatched, 2 reared. November, 1953, 3 hatched, 3 reared. March, 1954, 2 hatched, 1 reared. June, 1954, 3 hatched, 2 reared. All from one pair near the house. Both birds feed young until adult brownish feathers appear and then both, especially male, attack young birds and drive them away. One young bird remained after maturity and assisted to feed the next clutch for about two weeks. (A.B.) Patutahi, Gisborne, 24/5/54, four young hatched today from pair which have brooded several times during year. (J.M.M.) Gisborne, 5/8/52, nest found with three eggs, also observed two chicks on 2/9/53, and another nest with two eggs reported by Mr. P. Benson, Ormond, on 10/9/54. (D.V.M.)

WESTERN WEKA (*Gallirallus australis australis*).—Milford Track, 13/3/54, pair fed by guide at Mid-way Hut, Clinton Valley; 14/3/54, bird heard near Lake Mintaro. These are the only wekas left in valley after an invasion of stoats last year. The guide reports killing large numbers of stoats. (N.S.) Glade House, Lake Te Anau, Feb., 1954, two seen and one heard calling. (A.C.P.)

STEWART ISLAND WEKA (*Gallirallus australis scotti*).—Ulva Is., Stewart Island, 16/1/54, three on beach. (J.W.)

EASTERN WEKA (*Gallirallus australis hectori*).—Commonly seen in bracken country, Chatham Is., Jan., 1954. (E.W.D.)

MARSH CRAKE (*Porzana pusilla*).—Tokaanu, 20/1/54, one walked across road near jetty. (R.B.S.) Hastings, early March, one caught by cat in Karamu Stream (F.R.R.) Birds seen during duck-shooting season by Mr. F. Robinson, of Taradale, on Te Roto Kare, a small lake between Taradale and Fernhill, identified as this species, and included both adults and and at least one half-grown young. (D.H.B.) Near Dunedin, 28/6/54, one watched for an hour (A.C.P., L.E.W.); 18/7/54, one seen again at same place (A.C.P.); 11/7/54, one seen near Dunedin (M.L.J.). Ohai, 6/5/54, one found dead below power pole; the taxidermist who mounted it said it had a "broken skull above beak." (O.S.)

PUKEKO (*Porphyrio melanotus*).—Aratapu, Dargaville, 20/9/54, plentiful. (E.H.M.) Fanal Island, 30/4/54, one corpse had been eaten by harrier. (N.M.) Moumoukai Valley, Hunua, rapid increase seems to coincide with decrease in wild ducks. (D.N.L.) Kaitoke Lake, Wanganui, 19/6/54, two with pure white wings (H.W.A.) Whakarono, Palmerston N., 8/1/54, c 30 in stagnant floodwater. (I.G.A.) New Brighton district, 1954, still abundant in swamps. (E.W.D.) Between Stirling and Lovell's Flat, Otago, 19/5/54, about 150 on tussock swamp-land by railway line. (J.W.) Greatly increased in numbers at the Chatham Islands, commonly seen, January, 1954. (E.W.D.)

PIED OYSTERCATCHER (*Haematopus ostralegus finschi*).—Wainui Inlet, Kaipara, 11/10/53, c 24 sunning. (R.B.S., D.A.U. J.C.D.). Upper Manukau, 22 summered; c 200 wintered between Tararata Creek and Puketutu Causeway; 22/8/54, c 110. (R.B.S., F.M.B.). Firth of Thames, 21 summered, 180 plus by 31/1/54, 400 plus wintered. (H.R.McK. R.B.S., et al.) Clevedon River mouth, 25/10/53, three; 24/1/54-30/5/54, four. (A.J.G.) Whakatane Heads, 1954, winter, one with party of black. (M.d'A., K.B., C.D.B.) Bay of Plenty, Bowentown Shellbank, 17/11/53, five; 4/12/53, six; 28/2/54, 15, and in addition 12 pied birds too distant for identification; 21/8/54, 22. (B.S.) Raglan Harb., 17/4/54, two. (C.P., J.C.D., H.R.McK.) Aotea Harb., 19/4/54, 38. (C.R.B. et al.) Kawhia Harb., 23/7/54, 98 plus. (H.R.McK. et al.) Heathcote Esty., reached a peak of about 6,000 birds, 17/4/54. (G.G.) Large numbers at the north Canterbury river mouths and scattered along the beaches, feeding on small bivalves, throughout 1953-54. (E.W.D.) Waipara Mouth, 4/4/54, five. (D.E.C.) Karitane, Otago, 23/8/53, 72 on spit. (J.M.) Otago Harb., flights of 10, 8 and 12 flying eastward from Otago Harbour to sea coast. Jan., Feb. and March, and groups of 10, 10 and 40 plus flying westward in May. Groups of 40 plus at Otakou and mid-harbour banks, in March and April. (A.R.H.) At mouth of Upukarora, Te Anau, 29/12/53, four; Eglinton Valley, 8/1/54, four pairs but none to be seen 14/2/54. (N.S.) Maitara Island Bridge, 16/1/54, twelve. (O.S.) At Moko Moko Spit, Invercargill Estuary, 3/4/54, 200 plus. (R.M.R.) Cow Island, Awarua Bay, 12/6/54, 60 plus and groups of four to eight at other parts of bay. (R.M.R., N.S.) Dipton, 17/7/54, pair about to nest; on shingle at Oreti River, Benmore, 17/7/54, pair about to nest. (R.M.R.)

NORTHERN OYSTERCATCHER (*Haematopus unicolor reischeki*). One or two occasionally seen, Whangaruru South. (F.W.S.) Manukau Harb., one seen at Tararata Creek in 13/10/53, and on 29/12/53, one at Puketutu on 5/6/54. (R.B.S.) Miranda coast, one throughout the summer; immature breeder? (R.B.S.) Whitianga, Buffalo Beach, 26/1/54, pair of black, pink legs; one pied, grey legs, a few flecks on upper breast; sitting on outer edge of flock of gulls. Cook's Beach, 27/1/54, several pairs, two pure pied, white on wing; one pied with a black having streakings on belly, no white on wings; one with streaky belly and chest but having white on wings, running along with another with streaky chest and thighs, but no white on wings; scraping to each other and chasing. All had pink legs; only the pure pied had white above the tail. Buffalo Beach, 28/1/54, four pure black, three pied, two with grey legs, one pink; digging sideways for shells. Whangamata, 30/1/54, pair of black on estuary, also one pied and one black, the black was not such a jet colour as the back view of the pied; three black along Ocean Beach. (R.S.) Whakatane Heads, 1954,

winter flock up to 35, 33 black phase and two pied phase. It has been noted that c 17, all black, feed on outer rocks, while the others feed on mudflats in harbour. (M.d'A., K.B., C.D.B.) Whakatane Harb. rocks, 1/9/54, 23, mostly black but at least two smudgily pied. (R.B.S.) Aotea Harb., 19/4/54, one, with 38 South Island pied. (C.R.B. et al.) Ship's Cove and vicinity, Queen Charlotte Sound, 10/7/54, two pairs. (B.D.B.)

BLACK OYSTERCATCHER (*Haematopus unicolor*).—Ohope Beach, 26/2/53, a pair feeding at low tide at water's edge, near camping ground. (M.S.B.) Rangitaiki River mouth, 1/4/54, one; Whakatane, 21/3/54, 10 on rocks at harbour entrance; Whangapoua River mouth, East Coast, 24/3/54, two; Hicks Bay, 25/3/54, nine; Tolaga Bay, 26/3/54, one. (A.J.G.) Muriwai, Gisborne, 24/1/54, pair with one young bird about three weeks old. (A.B.) Kawhia Harb., 23/7/54, two. (H.R.McK., et al.) Palliser Bay, 9/10/54, one at Hamenga, two at Pararaki. (R.H.D.S., J.M.C.) St. Leonard's, 12/3/54, 9 or 10 in flight; Katiki, 2/6/54, three. (K.J.W-M.) Heathcote Estuary, 17/4/54, two in flock of 600 pied. (G.G.) Brighton, Otago, 30/5/54, six (M.L.J.) Taieri Mouth, Otago, 20/4/54, five (D.B., L.E.W.) Ocean Beach, Stewart Island, 5/1/54, pair with two downy chicks; Butterfield's Beach, Stewart Island, pair nesting; Horseshoe Bay, Stewart Island, 14/1/54, pair with three almost fully fledged chicks. (J.W.) Pounaweia, Cannibal Bay, 31/1/54, two; Wiltshire Bay, 16/1/54, two; Hayward's Point, 20/1/54, three. (D.N.F.C.)

SPUR-WINGED PLOVER (*Lobibyx novaeollandiae*).—Mataura Is. Bridge, 16/1/54, two; Lake Hawkins, 16/1/54, five. (O.S.) Lake George, near Colac Bay, 7/6/54, eight in flight. (R.M.R.) Awarua Bay, 12/6/54, two in flight. (R.M.R., N.S.) Near Oreti River at Caroline, Dipton, 20/7/54, two. (W.F.C.) Fosbender's, New River Ferry, 20/7/54, 20; 30/7/54, 19. (O.S.) Estuary, Invercargill, 10/12/53, 17 on riverbank. (L.E.W.)

GOLDEN PLOVER (*Charadrius dominicus*).—Parengarenga Harb., 7/6/54, one seen closely flying; two others a little distant; other birds further away thought to be this species; very few recorded as wintering in New Zealand. (H.R.McK.) Manukau Harb., Puketutu Causeway, five on 12/3/54. (R.B.S.) Clevedon, 12/3/54, three with dotterel on my farm. (G.K.McK.) Ahuriri Lagoon, 24/1/54, several seen, about 12 thought to be present. (D.H.B., D.A.B.) Ahuriri Lagoon, 13/2/54, eleven. (D.H.B.)

BANDED DOTTEREL (*Charadrius bicinctus*).—Ascot, Mangere, Auck., 7/4/54, 600 plus. (R.B.S.) Clevedon, 21/12/53, first seen c 60 on my farm; 10/1/54, 40 on neighbour's farm; 31/1/54, c 160 on my farm and two adjoining farms; 20/6/54, 60; 1/7/54, 120; 23/8/54, 40 on neighbour's farm and 20 on mine; 6/9/54, 12; 10/9/54, none. (G.K.McK.) Buffalo Beach, 28/1/54, nine by creek. (R.S.) Sulphur Bay, Lake Rotorua, 10/8/54, 4 or 5 pairs, full breeding plumage preparing to nest on silica flats. (M.S.B. et al.) Thornton, 1/9/54, two pairs on flooded paddock. (R.B.S.) Rangitaiki River mouth, 26/6/54, 50 plus in winter flock; 12/9/54, four nests found, three, three, three and two eggs. (M.d'A., C.D.B.) Tauranga, during Oct. and Nov., 1953, three or four pairs on territory and evidently breeding along the ocean beach. On the Matapihi mudflats, one seen for first time for some months on 28/12/53; 1/1/54, c 40; 17/1/54, 65; 27/2/54, 150-200; after this date only small irregular numbers right throughout the winter, viz., 3/4/54, one; 1/5/54, eight; 12/6/54, six; 12/7/54, 15; 24/7/54, one. (M.H.) Waiotahi River, Bay of Plenty, 22/3/54, two; Whangapoua River mouth, East Coast, 24/3/54, 18; Waiapu River mouth, 26/3/54, six. (A.J.G.) Muriwai, Gisborne, 1/11/53, one pair and one immature (no band) and three eggs scattered on mudflat below high water mark. (D.V.M.) Headwaters of Ngaruroro River, Jan., 1954, adults with young. (D.A.B.) Ahuriri Lagoon, 1/1/54, a number roughly estimated at 50, adults in breeding plumage and juvenile birds; 24/1/54, large numbers again seen, about 50% juvenile birds. (D.H.B.) Palmerston North, Manawatu River shingle bed, 26/9/53, five, and seen on every subsequent visit till 28/2/54, but only one most times after 29/1/54; returned between 17/5/54 and 11/7/54; not nesting; high-

est number seen, 24/7/54, 13. (I.G.A.) Extremely common and breeding, "Narrows," Wairau River, nest found 21/10/53. (B.D.B.) Lake Ellesmere, 27/12/53, 21 juveniles, one adult male. (E.W.D., W.C.C.) Kaituna, 10/1/54, one adult male. (E.W.D., G.E.B.) Te Anau, Upukarora River, 29/12/53, 20 plus. (N.S.) Invercargill Estuary, 16/1/54, ten; Lake Hawkins, 16/1/54, 40 plus in flight over ploughed field; Awarua Bay (Joey's Island), 5/6/54, 23 (O.S.).

LARGE SAND DOTTEREL (*Charadrius leschenaulti*). — Miranda, Firth of Thames, one seen 26/10/53, 29/11/53 and 24/1/54. (H.R.McK.)

NEW ZEALAND DOTTEREL (*Charadrius obscurus*). — Kaipara South Head, 11/10/53, four seen (D.A.U., J.C.D., R.B.S.) Pakiri Beach, 18/7/54-21/8/54, four pairs seen on sand dunes (A.G.G.) Te Arai Beach, 23/7/54, four pairs within first mile of beach, seen again on 5/8/54 keeping very close to territories. (A.G.G., H.R.McK.) Tamaki Estuary, Auckland, 10/7/54, one. (F.M.B.) Mataitai, Clevedon, 17-18/3/54, six seen after long absence from this old haunt; they did not stay; none had rings. (H.R.McK.) Kaiarau, Firth of Thames, 1953-54, found throughout in varying numbers up to nine; nest, three eggs hatched; chicks ringed; two survived to fly. (H.R.McK. et al.) Whitianga, 27/1/54, three, Cook's Beach, two flew calling inland towards inlet, later three or four on beach. (R.S.) Awarua Bay, 12/6/54, two (N.S., R.M.R.) Mt. Rakiapura, Stewart Island, 19/1/54, two with one chick on summit, Caerhowel Arm, Paterson Inlet, Stewart Is., 19/1/54, three feeding on flats. (J.W.)

N.Z. SHORE PLOVER (*Thinornis novaezealandiae*). — Nest with clutch of three; about 20 adults seen; South East Island, Chatham Islands, February 4, 1954. (E.W.D.)

WRYBILL PLOVER (*Anarhynchus frontalis*). — Muriwai Beach, 25/2/54, 14 counted feeding at the tide edge scattered along the 14 miles covered. (J.C.D., H.G.W.) Manukau Harb., Puketutu Causeway, 6/10/53, eight still present; 22/12/53, four; 6/1/54, c 130; 29/1/54, 400 plus; 12/3/54, 600 plus; 27/3/54, c 620; midwinter numbers apparently rather fewer but difficult to assess; 22/8/54, 306; 26/8/54, c 243. (R.B.S., F.M.B. and J.C.D.) Manukau Harb., Tararata Creek, 29/12/53, seven (R.B.S.) Miranda coast, Firth of Thames, c 33 summered; 30/12/53, c 96; 21/2/54, 1500-2000; 19/4/54, 2000 plus; 20/6/54, 1500 plus, others probably at Piako; 10/9/54, 400 plus (R.B.S., H.R.McK., et al.) Pakuranga, 29/9/53, flock of c 20 flew off ploughed paddock in direction of Manukau. (N.M.)

CURLEW (*Numenius madagascariensis*).—Firth of Thames, two, first seen on 6/6/53 were still present on 20/2/54, but have not been seen since. (R.B.S., F.M.B.)

WHIMBREL (*Numenius phaeopus*).—One at Karaka in the autumn. (D.A.U.) Lyall Bay, Wellington, 20/11/48, two seen, judged by plumage to be sub-species *variegatus*. The whimbrels were not disturbed by aeroplanes of the Moth type flying low overhead from Rongotai airfield, but one crouched as though frightened when a skylark sang. They were seen chasing amphipods about the beach, presumably for food. (H.L.S.)

BAR-TAILED GODWIT (*Limosa lapponica*).—Parengarenga Harb., 7/6/54, c 400, but tally uncertain as they were wild and shy owing to much shooting; Houhora, 4/6/54, 13; Rangaunu Bay, 400 plus, uncertain tally owing to much shooting; Mr. Kaka Wiki reported c 500 wintering here. (J.P. et al.) Rangaunu Harb., 21/8/54, 1,000 plus. (H.G.W.) Howick, at Cackle Bay, 21/3/54, 9.30 to 2.30, many groups of c 200 each flying towards Manukau Harb.; at Otahuhu, 6 p.m., one group of c 60 flying east to Cackle Bay; the full tide was 9 a.m. at Auckland, so they were not taking advantage of the tidal differences on the two coasts for feeding; 28/3/54, c 350 at Cackle Bay; 11/4/54, six, reported by R. J. Edwards. (H.R.McK.) Clevedon, 29/8/53, 84, all pale; owing to a high tide some settled in a wet grassed field and a few fed there by probing; 21/2/54, census of Mataitai, Duder's and the river by eight members was c 1,440; 30% bright red; most others colouring, and a few pale; 17/3/54, 1,000 plus, nearly half were fully red; 4/4/54, 100 plus; 3/7/54, 66.

(H.R.McK. et al.) Miranda, 4/7/54, several feeding seriously in wet grassed field. (H.R.McK. et al.) Puketutu Causeway, Manukau, 600-1,000 throughout the winter. (R.B.S.) Miranda coast, F. of Thames, 800 plus wintered. (R.B.S., H.R.McK.) Raglan Harb., 17/4/54, 19, considered to be total for the harbour, not shot here, but decreased, perhaps owing to extra mud on flats from hill erosion. (C.P., J.C.D., H.R.McK.) Aotea Harb., 19/4/54, 180 plus, perhaps a few still to migrate, some shot here. (C.R.B., J.P., A.P., J.C.D., H.R.McK.) Kawhia Harb., 23/7/54, c 110, thought to be winter total, reported to be several thousands in summer, not shot here. (W.S.S., J.C., J.S.M., H.R.McK.) Whitianga, Buffalo Beach, 3/3/54, 27 at mouth of creek; Tauranga. Bowentown Shellbank, 25/10/53, estimated from 3,500 to 4,000 birds; 3/12/53, c 2,000; 24/12/53, 2,500/3,000; 17/4/54, c 300; 27/4/54, 250/300 estimate; 18/8/54, 160 (B.S.) Tauranga, by 6/12/53 the wintering flock at the Sulphur Point roost had increased to c 350, remained the same until a sudden increase to c 600 on 6/1/54, on 28/1/54 had increased to c 1000, and this large flock was noticed regularly up till Feb. 24; 10/3/54, c 200; 20/4/54, still c 200; 19/6/54, c 70 largest count since the beginning of the winter. (M.H.) Gisborne, 1/11/53, 35 on Awapuni Lagoon and 11 at Muriwai Lagoon. (D.V.M.) Ahuriri Lagoon, 1/1/54, c 180; 24/1/54, flock of 100-200 seen in flight; 13/2/54, c 140 (D.H.B.) Foxton, 31/5/54, 40 wintering. (H.W.A.) Heathcote Estuary, Christchurch, wintering godwit have been seen frequently this year (G.G., E.W.D.); 17/5/54, c 600 birds, with none in nuptial plumage. (G.G.) Harrington Point, Otago Harb., 22/5/54, two (M.B.) Harwood Flats, Otago Harb., 28/11/53, 99. (D.N.F.C.) Ocean Beach, Stewart Island, 5/1/54, 800 plus. (J.W.) Moko Moko Spit, Invercargill Est., 3/4/54, 280 plus. (R.M.R.) Joey's Island, Awarua Bay, 5/6/54, three separate flocks of 21 plus, 8 plus and 80 plus, in all 109 birds, a conservative estimate. (R.M.R., O.S.) Awarua Bay, 12/6/54, three separate flocks of 30 plus, 30 plus and 120 plus. (N.S., R.M.R.).

HUDSONIAN GODWIT (*Limosa limosa haemastica*). — Manukau Harb., Karaka, 26/9/54, one, and one in mid-winter, 1954. (J.C.D., R.B.S., D.A.U.).

GREENSHANK (*Tringa nebularia*).—Manukau Harbour, Puketutu Causeway, 24/5/54, three flying high and repeatedly calling. (R.B.S.)

TEREK SANDPIPER (*Xenus cinereus*).— Miranda coast, 24/1/54, one feeding on mud among banded dotterel and wrybill. (H.R.McK. et al.); 21/2/54, one leading large flight of wrybill, trilling clearly. (R.B.S., F.M.B.); 20/6/54, one feeding on mud at edge of large flock of wrybill. (R.B.S., N.M., H.G.W.)

TURNSTONE (*Arenaria interpres*).—Te Arai, 24/10/53, two (N.M.) Manukau, (a) Puketutu, 6/1/54, six; 29/1/54, c 60; 6/5/54, nine (R.B.S.) (b) Karaka, 26/9/53, 60 plus; 7/6/54, 31 (R.B.S. and J.C.D.) Miranda coast, 10 on 29/11/53, the most so far recorded on F. of Thames; 23/5/54, four (H.R.McK., R.B.S., et al.) Tauranga, Bowentown Shellbanks, 25/10/53, one seen at close range. (B.S.) Ahuriri Lagoon, 1/1/54, three; 24/1/54, two (D.H.B.) Kawakawa, Palliser Bay, 9/10/54, one much black on breast. (R.H.D.S., J.M.C.) Lyall Bay, Wellington, 24/10/54, one seen (H.L.S.) Kaikoura, rock ledges, 4/11/53, 24. (R.H.D.S.) Invercargill Estuary, 3/4/54, several flocks of 15 to 20 birds each. (R.M.R.)

KNOT (*Calidris canutus*).—Parengarenga Harb., 7/6/54, six, two being very red, others thought to be present; Rangaunu Bay, 5/6/54, four. Mr. Lupis reports 20-30 present (J.P. et al.) Karaka, Manukau, c 60 wintering on 7/6/54, 13 showing colour. (R.B.S., J.S.D.) Miranda, Firth of Thames, 400 on 23/5/54. (R.B.S.) Clevedon, 20/12/53, one very red; not stay long here. (H.R.McK.) Aotea Harb., 19/4/54, 12, one very red; Raglan, 17/4/54, none; Kawhia, 23/7/54, none seen. (H.R.McK., et al.) Gisborne, 1/11/53, one with flock of godwits, Awapuni Lagoon. (A.B.) Ahuriri Lagoon, 24/1/54, four. (D.A.B., D.H.B.) Wairau Lagoon, 3/11/53, c 27. (B.D.B., R.H.D.S.)

SIBERIAN PECTORAL SANDPIPER (*Calidris acuminata*).— Karaka, Manukau, 26/9/53, one. (R.B.S.) Miranda Pools, 14/11/53, four;

24/11/53, 15 plus; 2/12/53, 17; 21/2/54, 12 plus; 19/4/54, one. (R.B.S., H.R.McK., R.N.B. et al.) Ahuriri Lagoon, 2/1/54, 18; 13/2/54, 11. (D.H.B.)

AMERICAN PECTORAL SANDPIPER (*Calidris melanotos*).—Miranda, Firth of Thames, one seen with *Calidris acuminata* on 24/11/53, 31/1/54 and 21/2/54. (R.B.S., H.R.McK., F.M.B.)

CURLEW SANDPIPER (*Calidris ferruginea*).—Miranda, Firth of Thames, one on 14/11/53; two on 24/11/53 and 29/11/53; one in fading red plumage on 10/9/54. (R.B.S.)

RED-NECKED STINT (*Calidris ruficollis*).—Karakā, Manukau Harb., two wintered in 1953 and were still present on 21/3/54. Miranda coast, seven on 24/11/53 and 30/12/53; four on 19/4/54; one on 20/6/54 and 10/9/54. (H.R.McK., J.C.D., R.B.S., R.N.B. et al.)

PIED STILT (*Himantopus himantopus leucocephalus*).—Pakiri Ocean Beach, 11/7/54 to 21/8/54, usually c nine, greatest number seen 16; Te Arai beach, 23/7/54, 15 in creek half way along beach. (A.G.G.) Moumoukai, Clevedon, 27/1/54, 9 p.m., a number calling as they flew overhead at about 1600ft. on a line from Manukau Harb. to Firth of Thames. (J.W.StP.). Thornton, 1/9/54, several pairs on flooded paddocks (R.B.S.) Matata-Whakatane, 1954, winter population 500 plus. (C.D.B., K.B.) Tauranga, 28/11/53, seven seen for first time since end of August on the Matapihi mudflats, however often heard passing over at night; 5/12/53, c 40, increasing to 95 during Jan., 60-70 during Feb., and then dropping to c 30 which seemed to be the usual winter count. On the open coast up to 17 seen on a number of occasions during June, July and August. (M.H.) Lake Rotorua, 10/8/54, c 60 along Whaka Stream and at the estuary. (M.S.B. et al.) Horsham Downs, Hamilton, 4-14/9/54, three pairs nesting with eggs, also several immature birds about. Tauhū, Morrinsville, early Sept., flock of c 50 birds scattered over peat swamp, some showing signs of holding territory but others definitely immature birds from last season. (S.C.) Cambridge, 30/6/53, many in lake formed by rain; October, two flew over Lake Te Kōutu (never seen here); December on, nesting finished, none at quarry at Roto-o-rangi, but 14 Feb. heard flying over; 19 March, two and two chicks flying over; pass through Cambridge at all times of the year; resident in spring for nesting. (R.S.) Kawhia Harb., at Waipuna, 23/7/54, 14 fully black stilts in close party with pied stilts, seen closely at rest on a rock and also flying. About one mile away was a mostly black bird with another flock of pied. Residents report odd blacks over the years but no party or flock seen. (W.S.S., J.C., J.S.M., H.R.McK.). Muriwai, Gisborne, 24/1/54, c 250 on salt swamp behind Young Nick's Head; there all winter. (A.B.) Lakes Whakaki and Keretu, 1-10/5/54, plus 100; best count 1,000 plus on L. Whakaki. (R.St.P.) Ahuriri Lagoon, 2/1/54, c 300 (est.); 24/1/54, 200-300 (est.). (D.H.B.) Karori, 21/2/52, c 10 calling at 2200, flying northward from south. (H.L.S.) Dillon's Point, Blenheim, 28/8/54, one black stilt among approx. 100 pied stilts. (B.D.B.) Ashley River, 24/10/53, clutch of four. (E.W.D.) Kaituna, 10/1/54, common. (E.W.D.) Portobello, three to four seen regularly January to July, 1954. (A.R.H.) Tomahawk, Dunedin, 15/5/54, eleven. (D.N.F.C.) Long Point, Pounaweia, 15/1/54, two adults and two young. (D.N.F.C.) Upukarora River, Te Anau, 29/12/53, one. (N.S.) Mātaura Island Bridge, 16/1/54, 32; Awarua Bay at Joey's Island, 5/6/54, 30. (O.S.) Awarua Bay, 12/6/54, eight (N.S., R.M.R.)

ARCTIC SKUA (*Stercorarius parasiticus*).—Hauraki Gulf, many trips, Nov., 1953-July, 1954, seen frequently, usually one or two, but highest count six, Rangitoto Channel, 19/4/54. (A.J.G.) Hauraki Gulf, 4/4/54, five or six near the Noises. (R.B.S.) Waitemata, 4/4/54, two. (N.M.) Rarimu-Whale Island area, 13/5/54, eight on wing in various phases of plumage but none very light. (B.S.)

BLACK-BACKED GULL (*Larus dominicanus*).—Ruakaka, 25/10/53, nesting colony, 40 plus nests, no eggs. (N.M.) Devonport Wharf, Auck., 2/7/54, seen sitting on pile below bright light at 7 p.m. and 10 p.m.;

16/7/54, 10 p.m., lone adult, sometimes darting to water to feed on fish attracted by the light. (H.G.W.) Lake Rotorua, 1/11/53, two pairs breeding (a) on rocks at approaches to Sulphur Bay and (b) mouth of Alum Creek, Ngapuna shore. One pair of this species has bred consistently for many years. They are a grave menace to all the lacustrine birds breeding here, especially the banded dotterels, ducks and stilts, by devouring eggs and chicks. A flock from 80-150 arriving from the coast assembles in this lake during February and March annually. (M.S.B.) Palmerston North, 14/5/54, c 400 flying along Manawatu River, 5 p.m. (I.G.A.) Colony at "Narrows," Wairau River, about 50 nests occupied 15/10/53; approx. 75 occupied and first eggs hatched, 21/10/53; breeding on rocks on south side of Kaikoura Pen. and on Riley's Rock, Goose Bay, no estimate of numbers made 5/12/53. (B.D.B.)

RED-BILLED GULL (*Larus novaehollandiae scopulinus*).—Whangaruru South, common; 1953 nested on isolated rock at end of beach, 23 nests; visited when young should have been active but only seven there; three eggs in nests. (F.W.S.) Cavalli Island, 5-10/2/54, thousands moving south, dying of starvation; Mrs. McDonald, of the island, tried to feed them—a hopeless task. They pressed right into the house, fear conquered by hunger. (T.M.R.) Lake Rotorua, Sulphur Bay, 10/9/54, large flock c. 300 assembled on site of usual breeding ground behind Ward Baths; much activity claiming territory. The comparatively small resident population has recently been reinforced in great strength by immigrants from the sea. (M.S.B.) Breeding south side of Kaikoura Peninsula and Riley's Rock, about 500 at peninsula, no estimate of Rileys, 5/12/53. (B.D.B.)

BLACK-BILLED GULL (*Larus bulleri*).—Clevedon, 21/2/54, one, immature; 3/7/54, 11, all adult. (H.R.McK. et al.) Miranda coast, Firth of Thames, 24/1/54, one; 19/4/54 on. 250 plus; 10/9/54, c 140. (R.B.S. et al.) Lake Rotorua, Sulphur Bay, 3/8/54, first contingent of the current season's breeding colony arrived, c. 30; gradual increase in numbers, the count to date, 20/9/54, being 200 plus. As the two species of "grey backs" share the same colony there is much rivalry for the choicest nesting sites. (M.S.B.) Gisborne, 19/1/54, c 80 birds nesting with white-fronted terns on broken isolated part of old groyne in harbour; many eggs, young in all stages, some nearly fledged; nests mostly ring of pebbles, some in danthonia on old woodwork. (A.B., D.V.M.) Mouth of Ngaruroro River, 9/1/54, nesting colony, mostly still with eggs, but chicks of all ages seen including a few almost fully fledged. One adult bird seen with bright scarlet bill and legs, bill with slight black tip ($\frac{1}{2}$ in. or less); slender bill and wing markings of typical bulleri adult. (D.H.B., G.C.C.) Foxton Beach, 12/1/54, c 12 immature, probably about a year old. (R.B.S.) "Narrows," Wairau River, 12 nests occupied, about 30 birds present 15 and 21/10/53; Kahutara River mouth, 5/12/53, about 100 present, possibly breeding but not investigated owing to the presence of picnickers in area. (B.D.B.) Tengawai River, 4/11/53, c 20 nests with one egg; 12 empty in process of being built; 8/11/53; 48 nests, five with two eggs, nine with one egg, rest empty. (N.M.) Lake Ellesmere, 27/12/53, three nests in tern colony. (E.W.D., W.C.C.) Te Anau and Manapouri, Dec., 1953, Jan., 1954, thousands of birds on and about lakes feeding on a golden white moth which was prolific this season and which, incidentally, appears to have destroyed large areas of beech forest. Not one bird was seen in this area by April. (N.S.) Dipton, Oreti River, 17/7/54, flock of 400-500 selecting resting site below Benmore Bridge; Mossburn, 24/7/54, 300-400 selecting resting site at Hamilton Burn. (R.M.R.)

BLACK-FRONTED TERN (*Chlidonias albostrata*).—Mayor Island, 28/2/54, one apparently of this species seen with a flock of white-fronted tern resting on a flat rock; smaller than the latter species; grey on back and breast; darker on the wings; white forehead, black round the eyes and extending backward but not right round, top of head mottled with black; bill shorter than white-fronted and warm yellow; legs bright orange. (A.H.W.) Bay of Plenty, Matata demonstration area, 23/5/54, 22 near woolshed; 18/7/54, reported by farm manager that 14 remained through

spring and summer 1953-54, and at this date they are about the south paddocks in fair numbers. (B.S.) Matata, 12/6/54, three; 26/6/54, 60 plus flying constantly and making sudden darts to pick up food from closely-grazed sheep pasture. Mr. Hird reported c 60 there for some time and that 14 stayed right through this year. Rangitaiki River mouth, 6/6/54, 20 plus, some fishing by trailing their beaks; 26/6/54, 25 plus, beaks fully coloured, except one; 11/7/54, three; 12/9/54, three. (M.d'A., C.D.B.) Rangitaiki River mouth, Bay of Plenty, 2/4/54, 32; Waiapu River mouth, Bay of Plenty, 23/3/54, one with white-fronted terns; Waiapu River mouth, 26/3/54, one with white-fronted terns. (A.J.G.) Rangitaiki River mouth; 1/9/54, two in adult plumage and 13 immature. (R.B.S.) Haumoana, 18/7/54, two adults in breeding plumage seen catching insects over a ploughed paddock by Black Bridge. (D.H.B.) Hokeo Beach, Levin, 4/4/54, 14 seen accompanying large numbers of red-billed and black-backed gulls at the stream mouth, seven had dark bills and yellow legs while the other seven had bright yellow bills as well as legs; heads grey speckled; next day only two present. (A.P.) About 12 pairs breeding, "Narrows," Wairau River, two nests found 15/10/54 on exposed shingle in widely scattered colony, one egg just hatching 21/10/53. (B.D.B.) Ashley River, 24/10/53, four nests with clutch of three; hatched 8/11/53. (E.W.D.)

WHITE-WINGED BLACK TERN (*Chlidonias leucopterus*).—Manukau Harbour, 30/5/54, one in black breeding plumage at Karaka, harried by godwits. (D.A.U.)

CASPIAN TERN (*Hydroprogne caspia*).—Rangaunu Harb., 21/8/54, 150. (H.G.W.) Whangaruru South, three or four always along the shore. (F.W.S.) Tauranga, Bowentown Shellbank, 20/10/53, 66 on nests, jostled by massed godwits; Matakana Is., 26/10/53, 85 and nests with eggs 72; 31/10/53, 101; 7/11/53, 40 nestlings in down. (B.S.) Tauranga, during Sept. and Oct., 1953, large body of c 50 birds on Matapihi mudflats, disappeared through Nov., Dec. and Jan., but a breeding colony was reported on Matakana Is.; 5/6/54, c 20 at Matapihi. (M.H.) Sulphur Bay, Rotorua, 15/3/54, c 11 resting on sandspit in brackish lagoon, seven adults and four immatures; all adults in summer plumage. (M.S.B.) Ahuriri Lagoon, 13/2/54, two; 31/7/54, two. (D.H.B.)

FAIRY TERN (*Sterna nereis*).—Pakiri, 5/8/54, one seen feeding on fresh water stream; later, hearing a commotion, saw two birds apparently being chased by a red-billed gull, chattering excitedly all the time they continued to fly close together for at least seven minutes after the gull had disappeared and after this commenced fishing operations again in the stream. (A. and J.P.) Te Arai, 5/8/54, a pair about a mile along beach flew in from the south, in breeding plumage, legs and bill a clean yellow. (A.G.G., H.R.McK.) Puketutu Causeway, Manukau, 1/3/54, one, ? fairy, flying with godwits and then fishing alone, watched for some time, no similar tern previously recorded here. (R.B.S.)

WHITE-FRONTED TERN (*Sterna striata*).—Gisborne, 19/1/54, c 100 nesting with black-billed gulls on old harbour groyne, eggs and young in all stages. (A.B., D.V.M.) Mouth of Ngaruroro River, 9/1/54, a few with eggs near the black-billed gull colony, two or three flying juveniles, but no chicks seen. (D.H.B., G.C.C.) Ahuriri Lagoon, 13/2/54, c 25. (D.H.B.) Wairau Bar, 13/2/54, approx. 800 resting on shingle; breeding on south side of Kaikoura Peninsula and Pinnacle Rock, Goose Bay, eggs and young in both colonies. High mortality (estimate 30%) of day-old chicks at peninsula. Estimate of breeding populations: Pinnacle Rock, 200 upwards; Kaikoura Peninsula, 1,000-1,500. Could not determine whether birds were breeding at Riley's Rock. (B.D.B.) Lake Ellesmere, c 1500 nests with 2,500 chicks hatched on 3/1/54; no eggs on 5/12/53, and eggs only on 27/12/53. (E.W.D., W.C.C.) Mole, Otago Harbour, 17/12/54, birds nesting on Mole; many young with pink on breast; no pink on adults; 27/12/54, many chicks now in flight; one kept trying out its wings and eventually jumped so high it landed over edge of mole and fell into sea below. (L.E.W.) Clutha River mouth, 16/1/54, large colony of breeding birds, many young noted. (D.N.F.C.)

N.Z. PIGEON (*Hemiphaga novaeseelandiae*).—Clevedon, c 1920, Mr. Holger Orum reported Mr. A. McKie having seen hundreds in a flock settling on trees on Otau hills, three miles east of Clevedon. They were so exhausted as to be easily approached within a few feet. They soon dispersed. 22/4/54 and 18/6/54, Mrs. Sladdin reported one feeding on leaves and shoots of arbutil on against verandah. (H.R.McK.) Moumoukai, Clevedon, 1954, increasing where protected; very scarce where shot. (J.W.St.P.) Minginui, 1953, winter and spring very scarce; small numbers through following summer. Feeding noted: Dec., lace-bark leaves; Jan., konini and winberry; Feb., tawa and rimu; March, tawa and miro; April, miro and rimu; 16/4/54, one killed by bush hawk by our camp. The pigeon was retrieved from the creek where the bush hawk was standing on it and it was found that the pigeon's head and neck had been almost pulped by the blows of the feet of the other bird. (R.St.P.) Whare Flat, Dunedin, 19/8/54, pigeon's nest about 30 feet up in a pine tree in a plantation. One broken egg shell on the ground and one fully fledged young one sitting beside the nest. The young one called and flapped its wings when the parent approached and kept flapping its wings during the feeding process which took several minutes. (B.J.M.) Waipori Gorge, Otago, 12/12/53, nine at camping ground and 29 seen in Gorge, eight in flight at one time. (D.N.F.C.) Opoho, Dunedin, two, November, 1953, and one on 2/3/54; first records for some years from this district. (J.W.) Milford Sound, February, 1954, eight seen feeding on wineberry. (A.C.P.)

ROCK PIGEON (*Columba livia*).—Queenstown, 16/4/54, pair seen and nest with one egg found under road bridge. (K.J.W-M.)

KAKAPO (*Strigops habroptilus*).—Seen at the headwaters of the Ngaruroro River 50 years or so ago by Mr. Scott, a former rabbit inspector. (D.A.B.)

KAKA (*Nestor meridionalis*).—Maractai, Auckland, 21/1/53, one on kauri tree in my bush back in township; 16/10/53, 10.30 p.m., several calling; 30/10/53, 5 a.m., one calling (M.d'A.) Koponui, 8 miles N.W. of Pirongia Mt., 27/6/54, two heard by my son (C.R.B.) Minginui, Aug., 1953—July, 1954, a few seen, but more heard, each month (R.St.P.). Opotiki, 2/7/54, two shot by Maoris were found in sack by ranger. (C.D.B.) Te Puke, May, 1954, one reported feeding on fruits of arbutus. (K.C.B.C.) Haumoana, about 4/7/54, bird seen by Mrs C. Scott (N.B.—Not connected with above of that name); described as being like a parrot in build, with parrot-like bill, colour brown with some suggestion of greenish, voice a harsh "cawing," seen climbing bamboos with aid of bill. (D.H.B.) Milford Sound, 16/3/54, three in flight. (N.S.) Golden Bay, Stewart Is., 31/12/53, five; Thule, 1/1/54, seven; 9/1/54, eight; 20/1/54, three; Price's Peak, 4/1/54, one near track; Observation Rock, 17/3/54, three. (J.W.)

KEA (*Nestor notabilis*).—Arthur Pass, 21/8/54, three, Mt. Aicken and four, Bealey Valley. (D.E.C.) Lake Gunn, Eglinton Valley, 14/2/54, three in flight; Milford Track, 14/3/54, three fed by party on top of McKinnon Pass. (N.S.)

EASTERN ROSELLA (*Platycercus eximius*).—Manly, Whangaparaoa, recorded for first time in mid-Nov., 1953, again seen on 27/12/53. (S.C.) Clevedon, 1/10/53, one flying, not seen again. (H.R.McK.) Michie's Crossing, Otago, 24/7/54, nine seen. (C.W., D.N.F.C.) Waipori, Otago, 12/12/53, one seen in Gorge. (D.N.F.C.)

N.Z. PARAKEET (*Cyanoramphus novaezelandiae novaezelandiae*).—Fanal Island, 26/4—3/5/54, c six seen. (N.M.) Thule, Stewart Island, 2/1/54 and 21/1/54, one feeding on muttonbird scrub seeds. (J.W.)

YELLOW CROWNED PARAKEET (*Cyanoramphus auriceps*).—Little Barrier Is., 11/11/53, one seen at 900ft. by C. Hadley; 12/11/53, 200ft. two seen closely and carefully noted by M. Breen and J. Peart. (H.R.McK.) Minginui, April, 1954, returned after long absence; in edge of rimu bush. (R.St.P.) Reported to be present in Burns Range, H.B., by Mr. D. H. Neil, Omakahi Station, Glenross Rd. (D.H.B.)

SHINING CUCKOO (*Chalcites lucidus*).—Whangaruru South, first heard Oct. 16, 1953 and Oct. 3, 1954; largest number seen at one time; three. (F.W.S.) Little Barrier Is., 25/9/53, first heard. (C.H.P.) Puhoi, 2-8/1/54, a pair of grey warblers seen feeding two young cuckoos each day between dates given. (J.C.D.) Birkenhead, Auck., 2/11/53, two seen on kawkawa, one giving usual call. This one was more excitable and appeared sleeker than the other fatter dull-coloured bird. First bird seen to catch a caterpillar and feed it to the other; second bird was making quiet cheeping noises which after a while attracted a grey warbler. This feeding performance was seen later in the day, the sleeker bird making a great fuss and swaying its tail from side to side. (A.P.) Clevedon, first calls: 19/9/53, Miss D. Browne; 25/9/53, Miss M. Waters, and an hour later, half-mile south, heard by Miss D. Browne. These are reliable observers (H.R.McK.) Clevedon, 25/9/53, first song, incomplete; 30/9/53, full song; 11/1/54, last song. (A.J.G.) Mounoukai, Clevedon, 22/9/53, first song; 19/1/54, last song. (E.St.P.) Mounoukai, Clevedon, first song 27/9/53, last song, 8/1/54. (J.W.St.P.) Mounoukai Valley, Hunua, arrivals never known before early October. (D.N.L.) Minginui, 3/10/53, first seen and heard; 22/1/54, last song; 6/7/2/54, last seen. (R.St.P.) Lake Okataina, 6/10/53, first call heard (K.O.B-W). (N.B.: Both *Eudynamis* and *Chalcites* are rare visitors to Rotorua and its immediate environs, although common enough in the nearby exotic forest.) (M.S.B.) Tauranga, 10/3/54, two seen in garden feeding on pear slug on a plum tree. (M.H.) Mt. Maunganui, 11/2/54, seen in garden, last seen on 20/2/54 (A.H.W.) Taihape, 14/1/54 one in full song (R.B.S.) Blenheim, 26/3/54, two. (B.D.B.) Christchurch Oct. 16-17, 1953, heard in garden; full song on Oct. 31. (G.G.) Wai-kouaiti, 29/10/53, one dead in garden; 16/3/54, one seen. (B.McD.) Winton, 11/3/54, one feeding in tree in garden. (N.S.) Thule, Stewart Is., 30/12/53 and 3/1/54, one heard; 1/1/54, one seen. (J.W.)

LONG-TAILED CUCKOO (*Eudynamis taitensis*).—Little Barrier Is., 18/10/53, first heard. (C.H.P.) Howick, 2/2/54, one heard in garden. (N.M.) Clevedon, 9, 13, 14/2/54, calls heard; presumed migrating. (H.R.McK.) Lake Okataina, 5/10/53, first call heard. (K.O.B-W.) Minginui, 18/9/53, first call, apparently an odd bird; they do not usually arrive until Oct. 11 to 13; 10/2/54, last seen and heard. (R.St.P.) Ruakituri River, Nov.-Dec., 1953, plentiful in bush on riverflats upstream; also in considerable numbers upper reaches of Waimana River, Bay of Plenty, every summer; calling all day and night. (A.B.) Headwaters of Ngaruroro River, Jan., 1954. (D.A.B.) Chateau Tongariro, 11-20/1/54, only one heard in the beech forest where whiteheads are scarce. (R.B.S.) Catlins Lake, Pounaweia, one seen on 14/1/54 (D.N.F.C.) Halfmoon Bay, Stewart Is., 30/12/53 to 22/1/54, one around every day. (J.W.)

MOREPORK (*Ninox novaeseelandiae*).—One or two frequently heard at dusk at Whangaruru South. (F.W.S.) Clevedon, 22/9/54, 7.45 a.m., in full flight, one flew past me and settled in grass on edge of road through bush. So intent was it on a live starling held in its feet that I was able to pick it up. I had to kill the injured starling and released the morepork. (D.J.S.) Te Puke, 1953, heard. (J.G.) Palmerston North Esplanade Bush, 28/6/53, two birds and 4/12/53, one. (I.G.A.) Teme River, Avon Valley, 5/5/54, one calling. (B.D.B.) Cass, Oct., 1952, heard commonly. (E.W.D.) Vauxhall, Dunedin, 8/3/54, one heard (L.E.W.) Gibbs Hill, Pounaweia, 15/1/54, three seen. (D.N.F.C.) Thule, Stewart Island, 30/12/53-22/1/54, one heard almost every night. (J.W.)

LITTLE OWL (*Athene noctua*).—Abundant in Hagley Park and gardens, Christchurch, 1954. (E.W.D.) Opoho, Dunedin, 24/2/54, 15-23-27/3/54, one heard. (J.W.) Vauxhall, Dunedin, 13-14/2/54, 22-31/5/54, call heard. (L.E.W.)

KINGFISHER (*Halcyon sancta vagans*).—Whangaruru South, always present in one and twos. (F.W.S.) Aratapu, Dargaville, seen occasionally. (E.H.M.) Fanal Is., April-May, 1954, several seen but not plentiful. (N.M.) Seaview Road, Auckland, during Sept. a pair seen determinedly excavating a hole in an old willow. (S.C.) Clevedon, 22/1/54, nest in low

bank foot high on grassy hillside; well-grown chicks. (A.J.G.) Clevedon, 31/3/54, one on power wire dropped skink while killing it, swooped and caught it only six feet below wire, continuing flight to a tree at same height. (H.R.McK.) Minginui, Aug., 1953, none seen; Sept., came back in force for nesting; Jan., 1954, exodus begun; May, the last ones seen for the season; calling continued from Sept. to April. (R.St.P.) Rotorua area: Uncommon winter visitor, present from March until September, widely distributed; non-breeding; abundant Rotoehu-Rotoma Lakes area. Rotoehu 26/4/54, c 21 on power wires in stretch of c. half-mile. (M.S.B.) Thames coast, 25/1/54, two on rocks; May, 1952, dozens; Cambridge, late March, kingfisher back in town again, away all summer. (R.S.) Abundant in outer settled areas near Christchurch and Heathcote Estuary. (E.W.D.) Rangitata Island, 7/8/54, one; Orari, 8/8/54, one; Winslow, 8/8/54, one (K.J.W.-M.) Akaroa Harbour, 28-29/8/54, common. (D.E.C.) Portobello, Otago, vanishes in August and normally reappears February, three to four seen March to May. (A.R.H.)

RIFLEMAN (*Acanthisitta chloris*).—Headwaters of Ngaruroro River, Jan., 1954, numerous (D.A.B.) Woodville Domain, 24/8/52, one pair and one female. (I.G.A.) Few seen and heard but not as common as might be expected, Teme River, Avon Valley, 19/4 and 5-7/5/54. (B.D.B.) Takamatua Bay, Akaroa, 29/8/54, two. (D.E.C.) Pigeon Flat, Otago, 17/4/54, two seen. (D.N.F.C.) Piano Flat, 21/2/54, eight; Clinton Valley, 14/3/54, several seen. (N.S.)

ROCK WREN (*Xenicus gilviventris*).—Milford Track, 14/3/54, four seen at about 4,000 ft. on the Arthur Valley side of McKinnon Pass. (N.S.)

SKYLARK (*Alauda arvensis*).—Clevedon, 3/11/53, nest two eggs; 5/12/53, nest, four eggs in fairly short grass. (A.J.G.)

FANTAIL (*Rhipidura fuliginosa*).—Rotorua, 15/7/53, c 90 pied feeding along the warm scrub-fringed Whaka Creek from the mouth to approx. 500 yards upstream. The prey was apparently a small gnatlike fly (M.S.B., R.E.W.F.) Gisborne, 10/9/54, two black observed at Hospital Hill, one in same area last year. (D.V.M.) Teme River, Avon Valley, 19/4 and 5-7/5/54, very common, both phases present. (B.D.B.) Reservoir Reserve, Dunedin, 7/2/54, two young seen, tails not fully grown. (P.M.) Fernhill, Dunedin, 1/5/54, nine pied and one black. (D.N.F.C.) Seen at Kaingaroa and Titirangi, Chatham Islands, 1954, including one albino. (E.W.D.)

PIED TIT (*Petroica macrocephala toitoi*).—Dome Hills, Warkworth, 21/2/54, seven plus. (N.M.) Moumoukai Valley, Hunua, 4/9/54, one, the first seen in this part of the valley for a long time. (D.N.L.) Nat. Mill, Tarawera River, 27/6/54, four plus (C.D.B., M.d'A.) Minginui, 1953-54, always one to five near mill; 23/8/53, a pair catching spiders on wall of hut and trying to catch flies through glass of window; 22/9/53, female building nest under eave of old hut beside mine, using mostly moss, straw and spider webs. When it was nearly completed a gale blew it a foot along the ledge. It was returned to the original spot and secured. On Oct. 3 she was sitting and the male feeding her. The nest was later robbed by rats. 11/11/53, nest found two feet from ground in an old uprooted totara stump; female feeding young; they apparently survived to fly. (R.St.P.) Headwaters of Ngaruroro River, Jan., 1954. (D.A.B.)

YELLOW-BREASTED TIT (*Petroica macrocephala macrocephala*).—Fairly common Teme River, Avon Valley, 19/4 and 5-7/5/54. (B.D.B.) Howden, Cass, 21/10/52, pair (E.W.D.) Opoho, Dunedin, 3/10/53, pair; 20/4/54, male, first record for about 20 years for this area. (J.W.) Sandy Bay, Pounaweia, 12/1/54, two pairs; Nuggets, 18/1/54, three pairs; Reserve, Pounaweia, 16/1/54, two pairs. (D.N.F.C.)

ROBIN (*Miro australis*).—Mamaku Bush, 20/5/53, one singing strongly on a very frosty morning, 8.25 a.m.; 3/9/54, one singing 30ft. up in a tree. (R.B.S.) Rotorua, 1st-5th April, 1954, one strongly singing male seen each day in a small plantation of young pines in the gardens of the Forestry Research Institute at Whakarewarewa. Whiteheads and pied tits seen frequently in the exotic forests proper about half a mile away. (J.C.D.)

Headwaters of Ngaruroro River, Jan., 1954 (D.A.B.) Teme River, Avon Valley, numerous on first visit, 19/4/54, but only one heard on second, 5-7/5/54. (B.D.B.) Powder Creek, Otago, calls heard, 11/4/54 (D.B. and L.E.W.). Eglington Valley, 8/1/54, one took crumbs from lunch basket; 14/2/54, three; Piano Flat, 21/2/54, four; Cascade, Eglington Valley, 19/3/54, one. (N.S.)

FERNBIRD (*Bowdleria punctata*).—Common in swamps about Kawakawa. (D.G.McM.) Chateau Tongariro, 19/1/54, one calling among the Scotch heather two miles below the chateau. (R.B.S.) Tongariro Nat. Park, 23/2/53, 8 or 10 in patch of gorse and flax. (T.S.) On top of the Blowhard, near Kuripapanga, 1/12/53, a good view of a single bird in bracken fern near the road. (D.H.B.) Westport, 31/12/53, three pairs. (J.T.P.) Otatara, June, 1954, on Henderson's farm one bird was seen and two more heard. Mr. Henderson says that a pair nested there last season and reared three chicks. He gave me the old nest from low down in rushes, where a "tunnel" led into it; Mataura Road East, 19/7/54, one. (O.S.)

BROWN CREEPER (*Finschia novaeseelandiae*).—Teme River and Avon Valley, 19/4 and 5-7/5/54, about six flocks seen on each visit ranging from 8 to 30; mostly working through tree tops but three flocks were coming through at ground level. (B.D.B.) Howdon, Cass, 21/10/52, two pairs. (E.W.D.)

WHITEHEAD (*Mohoua ochrocephala albicilla*).—Minginui, 1953-54, a few in cut-out country, many in main bush. (R.St.P.) Waioeka River, 2/4/53, female (minus tail) observed feeding four fledged young, male looking on; considerable numbers seen in this area. (A.B.) Headwaters of Ngaruroro River, Jan., 1954. (D.A.B.)

YELLOWHEAD (*Mohoua ochrocephala ochrocephala*).—Howdon. Cass, 21/10/53, one pair. (E.W.D.)

GREY WARBLER (*Gerygone igata*).—Queen's Park, Invercargill, 17/7/54, a mating flight seen. (O.S.)

SONG THRUSH (*Turdus ericetorum*).—Mairangi Bay, 18/4/54, four-note song several times repeated; 28/4/54, first sub-song; 23/5/54, full song, two birds; 21/6/54, two major songsters for last three weeks suddenly finished. (H.G.W.) Clevedon, 30/9/53, one imitating the call of a nearby shining cuckoo, upward notes only; 27/4/54, first song. (A.J.G.) Minginui, 1953-54, Aug., song became fuller from 3rd, faded out end of Jan. May 16, song began. (R.St.P.) Rotorua, 5/5/53, first full song; 28/12/53, last song; 15/5/54, first full song. (M.S.B.) Palmerston North, 1/5/54, first song. (I.G.A.) Nelson, 7/3/54, first song for year, quite long burst of full-song early morning; 17/3/54, morning song is now general. (L.G.) Longwood, four young thrushes were found in a nest on Mr. J. A. Matheson's farm, Longwood. They were hatched on 15/7/54. (O.S.) South-East Island, Chatham Is., Feb. 1954. (E.W.D.)

BLACKBIRD (*Turdus merula*).—Mairangi Bay, 15/6/54, first song. (H.G.W.) Little Barrier Is., 12/11/53, one pecking nikau berries. Mrs. Larkin reports this to be usual. (H.R.McK.) Minginui, 16/9/54, song began; Feb., declined; mid-March, ceased. From May to Sept. most go into heavy bush, returning to the self-sown hawthorn on the flats to nest in spring. (R.St.P.) Rotorua, 16/7/53, first full song; 12/12/53, last song; 2/8/54, first full song. (M.S.B.) Palmerston North, 1952, first song on Aug. 16; 1953, first song on July 7, then on Aug. 3; 1954, one single full song on June 18, then July 27 and Aug. 4 (I.G.A.) Karori, Wellington, snail *Wainuia urnula* occasionally believed to be eaten by blackbirds judged by the broken shells which are found occasionally on the track and forest floor of a small bush reserve. (H.J.S.) Nelson, 6/1/54, last full-song for season, single phase, twice repeated, midday; 29/5/54-14/6/54, same bird gave incomplete full-song in morning when flying out from and returning to roost in the evening. No more song heard until 18/7/54 and thereafter normal full-song. Singing although heard at extremities of day in many places in Nelson was not general throughout the day until second week in August. (L.G.) Waimate, small-fruit growers offer 6d. per dozen for heads

and eggs, £5 bonus to one who collects most (also for thrushes). (C.W.McL.) Dunedin, 31/7/54, first full song heard. (O.C.) South-East Island, Chathams, Feb., 1954. (E.W.D.)

HEDGE SPARROW (*Prunella modularis*).—Whangaruru, 1954, one seen about lawn. (F.W.S.) Clevedon, 20/11/53, abandoned nest, three eggs, in jasmine. (A.J.G.) Nelson, 5/4/54, short burst of full-song, early morning; 17/6/54, short bursts of full-song heard; by 26/6/54 singing throughout day and general in district. (L.G.) Flocks seen on South East Island, Chathams, February, 1954. (E.W.D.)

N.Z. PIPIT (*Anthus novaeseelandiae*).—One or two frequently on beach, Whangaruru South (F.W.S.) Fanal Island, 26/4-3/5/54, one seen. (N.M.) Minginui, 16/8/53, ceased to come for daily ration of huhu; river shingle beds are a favourite haunt. (R.St.P.) Westport Reservoir, near Mt. Rochfort, 28/12/53, 12 and two immature. (T.J.P.)

BELLBIRD (*Anthornis melanura*).—Leigh Harb., 7/11/53, several singing. (H.R.McK.) Kawau Is., at Bostaquet Bay, 17/4/54, one heard. (A.J.G.) Moumoukai, Clevedon, 1954, about the same as last year; failure to increase here is difficult to understand. (J.W.St.P.) Minginui, Aug., 1953-July, 1954, plentiful; sings all year, but best in Feb. and March; in April, found up to 4,000ft. (R.St.P.) Aotea Harb., 19/4/54, several seen and heard. (J.P., A.P., J.C.D., H.R.McK.) Kawhia, 23/7/54, seven miles towards Raglan, one seen, several heard. (H.R.McK.) Headwaters of Ngaurororo River, Jan., 1954. (D.A.B.) Palmerston North Esplanade, 26/8/51, c five, first time ever seen there; then annually, May-September, feeding from flowering gums. (I.G.A.) Common in bush on eastern side of Akaroa Harbour, 27-29/8/54. (D.E.C.) Waimate, seen at long intervals (C.W.McL.) Near top of Mackinnon Pass, Milford Sound Track, Feb., 1954, three singing. (A.C.P.) Piano Flat, 21/2/54, several seen; Milford Track, 13/3/54, very numerous at Glade House and in lower Clinton Valley. Odd birds were seen in the moss covered forest in the upper Clinton, that is beyond the Pompalona Huts. Two birds were seen at bush line 3,800ft. on the McKinnon Pass. (N.S.)

TUI (*Prosthemadera novaeseelandiae*).—Whangaruru South, when kowhai and pohutukawa in flower up to six about; rest of year one or two present. (F.W.S.) Clevedon, 10/11/53, one feeding in grapefruit tree; 13/11/53, nest about 35ft. up in a macrocarpa tree near house, two chicks and one added egg; 27/11/53, one chick left nest; 15/11/53, young bird with adult in flax, called incessantly but fed itself mostly and was only fed once by parent; 4/1/54, bird carried straw or sticks into tall pine. (A.J.G.) Tarawera Buried Village, 29/8/54, c 12 in tall gum. (R.B.S.) Minginui, Oct., 1953, song, 4.30 a.m. to 7.30 p.m.; 13/12/53, 3.20 a.m. to 8 p.m. (R.St.P.) Palmerston North Esplanade, annually from 1950, feeding mainly on flowering gums, all months except March and October. (I.G.A.) Eglinton Valley, 8/1/54, one alighted from some trees to a piece of driftwood on a river beach then attempted to retrieve something unknown from the gravel but was disturbed. However, it immediately repeated the performance with apparent success; Milford Track, 13/3/54, one only in Clinton Valley, but Guide reported three fighting at Glade House same morning. (N.S.) Pitt Island, South-East Island, Chathams, Jan.-Feb. 1954, occasionally seen and heard. (E.W.D.)

WHITE-EYE (*Zosterops lateralis*).—Kaimaumu, Awanui Harbour. 7/6/54, large flocks feeding on wattle blossom. (J.P. et al.) Clevedon, 9/11/53, first young birds being fed by parents from dishes; 25/12/53, three chicks being fed. (A.J.G.) Ngongotaha (Rotorua), 16/9/54, small flock in plum tree taking either nectar or minute insects from blossom. (R.E.W.F.) Rotorua, Tarewa Rd., May to September, 1954, flocks from 10-40 plus have been present intermittently, attracted by Chinese gooseberries, privet berries and later by scraps from kitchen; partial to meat and fat. (M.S.B.) Minginui, 1953-54, song started late Oct., April, numerous from high beech country to lower levels; faded in June, July. (R.St.P.) Invercargill, 24/7/54, twenty-four in garden, the first arrivals this winter. (R.M.R.)

GREENFINCH (*Chloris chloris*).—Clevedon, 7/2/54, last song. (A.J.G.) Near Lake Rotokawau, Rotorua, 20/3/54, small flock by road. (A.J.G.) Minginui, Aug., 1953 to March, 1954, only a few, though good numbers on 7-mile hill above Murupara; April-May-June, flocks up to 400, July, none seen. (R.St.P.)

GOLDFINCH (*Carduelis carduelis*).—Clevedon, 27/10/53, first song; 27/1/54, last song. (A.J.G.) Moumoukai, Clevedon, 1954, good numbers early winter here (1,500ft.) but decreased in August. (J.W.St.P.) Minginui, Aug., 1953 to April, 1954, rare, often absent; May-June, flocks up to 300; July, small lots. It appears that the finches may work in a cycle and that this area is only a part of it. (R.St.P.) Whakatane, 20/7/54-7/9/54, several flocks up to 70. (C.D.B.) Opotiki-Gisborne, via East Cape, 22/3/54-3/4/54, plentiful, flocks all the way. (A.J.G.) Nelson, 4/3/54, still singing vigorously. (L.G.) Dunsandel, 9/3/54, 30-40; Rakaia, 9/3/54, c 150 (K.J.W-M.)

REDPOLL (*Carduelis flammea*).—Mt. Albert, Auckland, 1/5/54, one flying. (R.B.S.) Moumoukai, Clevedon, 1954, winter, greatest number yet seen; one flock of 80-100 resident for some weeks. (J.W.St.P.) Kaiaua 4/10/53, c. 30; Otau, 3/10/54, c 20. (N.M.) Rotorua, Tarewa Road, 2/6/54, two feeding on *Poa annua* on back lawn; July, Aug., and Sept., numbers from 2 to 12 observed daily, feeding on *Poa annua* on paths, garden plots and lawns. Difficult to distinguish sex as all birds showed red front and smudgy black chin. Males of these coteries had not attained roseate breasts on completion of this note, 19/9/54. (M.S.B.) Minginui, 1953-54, difficult to understand as usual; Aug-Sept., none; Oct-Nov., flocks up to 450 (this is what should be the nesting season); Dec-April, very few; May-June, flocks up to 200; July, none seen. (R.St.P.) Tauwharepara, Tolaga Bay, several small flocks on high country in October, 1953; numerous old nests 6ft. to 8ft. up; first new nest found 22/11/53. (A.B.) Gisborne, 1/11/53, several near Awapuni Swamp. (D.V.M.) Palmerston North, Awatea Terrace Reserve, 15 and 18/12/52, adults feeding young in silver birches. (I.G.A.)

CHAFFINCH (*Fringilla coelebs*).—Mairangi Bay, 14/3/54, few notes of song heard regularly; 28/7, first sub-song heard here and at Brown's Bay, 6 birds; 6/8/54, first full song. (H.G.W.) Clevedon, 25/1/54, last song; 3/8/54, first song incomplete; 8/8/54, full song. (A.J.G.) Kawhia, 23/7/54, very large population; one flock of c 200 (H.R.McK.) Minginui, 23/8/54, song began. Up to Sept. some came for their huhu ration. After breeding formed large flocks up to 1,000. Some flocks far up river in bush on shingle beds. (R.St.P.) Nelson, 2/8/54, first full song for season, a weak incomplete attempt at first phase. By 8/8/54, singing was strong, full repertoire of phrases and heard throughout the day. (L.G.) Glory Bay, Pitt Island, 26/1/54, two juveniles. (E.W.D.)

YELLOW HAMMER (*Emberiza citrinella*).—Whangaruru South, four pairs round cottage all winter feed at bird table. (F.W.S.) Clevedon, 7/2/54, last song. (A.J.G.) Clevedon, 19/12/53, nest 3 eggs; 26/12/53, another nest of 4 chicks week old. (H.R.McK.) Moumoukai, Clevedon, 1954, except for redpoll all finches have decreased here since the country has been shut up for water catchment and the fern is covering the open country. (J.W.St.P.) Minginui, 1953-54, hardly any in spring, none in summer, small lots May-June-July. (R.St.P.) Horsham Downs, Hamilton, 4-14/9/54, a large night roost found in a toitoi hedge, rough estimate c 500 birds, goldfinches were roosting in the same hedge. (S.C.) Otakura, near Pounawea, 12/1/54, adult flew off nest on ground at top of an old quarry, nest contained two eggs. (D.N.F.C.)

GIRL BUNTING (*Emberiza cirius*).—Waihopai, 18/9/54, four in flock, possibly 8, but 4 flew away before identification could be established, black facial markings very distinct. (B.D.B.)

SPARROW (*Passer domesticus*).—Mairangi Bay, 23/1/54, female killed a shield beetle and carried off to nest; 12/2/54, young still being fed. (H.G.W.) Chatham Is., South East Island, Feb., 1954, one corpse only found. (E.W.D.)

STARLING (*Sturnus vulgaris*)—Whangaruru South, about six pairs nest in Pohutukawa trees. (F.W.S.) Aratapu, Dargaville, 20/9/54, thousands fly south each morning and return north in evening, occasionally settling in nearby trees. (E.H.M.) Minginui, 1953-54, no large numbers this season owing to lack of kahikatea fruit. (R.St.P.) Chatham Islands, Jan.-Feb. 1954, flocks seen near most settlements towards evening. (E.W.D.)

INDIAN MYNA (*Acridotheres tristis*)—Whangaparaoa Pen., heard for first time at Manly on 27/12/53, again on 3/1/54, two seen and heard again on 15/1/54 and three seen on 21/1/54. (S.C.) Auckland, Ponsonby, pair in 1952, now (1954) two pairs; one pair builds at St. Stephen's Church; Waiheke, 7/9/54, the first myna seen at the eastern end of Waiheke Island, after a violent northerly gale found in early morning on roof of house in Arran Bay, not seen since. (H.R.McK.) Clevedon, winter of 1954, roosting in dense flock in my trees as in 1952 and 1953, but increased to c 400 this year; contrary to custom they all left early in August. Mrs. E. Staples, Kaiiua, Firth of Thames, reported 200 plus suddenly coming to roost in a hedge of acmena about August 11 where none had been seen roosting before. It seems most unlikely, however, that the Clevedon birds have transferred to Kaiiua. (P.H.O.) Whitianga, 27/1/54, two on adjacent roof tops, not seen later; further south, Whenuaitē 2, Tairua 2 seen while passing through; Whangamata heard; Waibi-Paeroa, plentiful; Te Aroha, very numerous; Cambridge, 28/2/54, on shed roof, flew into trees with large piece of white paper. (R.S.) Moumoukai Valley, Hunua, 1954, the first pair I saw arrived in Sept., 1946 or 1947, and I now know of one lot of two and one lot of three. (D.N.L.) Tauranga-Whakatane area, 11/8/53 to 1/10/54, increased numbers where previously established and spreading further afield, i.e., Taneatua 4, Awakeri 5. (B.S.) Te Puke, December, 1953, seen and heard. (J.G.)

MAGPIE (*Gymnorhina* sp.)—Southern Kaipara Peninsula, 11/10/53, from Parakai to the Heads, well distributed, some with irregular black bands across the upper back. (J.C.D.) Cambridge: In local "Independent," W. Harbutt, writing weekend 7th June, 3 magpies flying, Pahihi Road, Tirau. Later endorsed: 2 staying on farm at Morrinsville. Another writer stated he had attempted to introduce two young ones several years ago but they died. (R.S.) Opotiki, a report from a Mrs. A. L. McKenzie of one seen on their farm during August, 1954. (J.C.D.)

WHITE-BACKED MAGPIE (*Gymnorhina hypoleuca*)—North Taieri Plains, Otago, 19/7/53, one seen. (J.W.)

NORTH ISLAND KOKAKO (*Callaeas cinerea wilsoni*)—Moumoukai, Clevedon, 16/11/53, found deserted unfinished nest in toro c 60 yards from nest site of 2/12/50. (R.J.F.) Moumoukai, Clevedon, 1954, no change in numbers noted. In 1953, with Mr. Manning and H.R.McK., trapped 24 rats in parts of breeding territories of two pairs, about four acres of bush. (J.W.St.P.) Aotea Harb. area, spring of 1953, heard one in bush on back of my farm, the first for years; 23/6/54, Te Mata-Aotea Harb. Road, heard one in bush by road; the call is well known to me. (C.R.B.) Kawhia, 22/7/54, report from Maoris at Te Maika; plentiful just south of Kawhia but not so common further south towards Awakino. (H.R.McK.) Mamaku Range, Nov., 1953, two of this sp. (probably a pair) seen in heavy bush country 12 miles south of Mamaku township, observed by Mr. Ian Rawstorn, an officer of State Forest Service. From his description, I have no doubt that the birds seen by him were of this species. (M.S.B.) Mamaku, off Highway, 14 mile peg; 9/8/54, single bird on top of tawa tree uttered the familiar "mewing" notes several times. Observed for several minutes, when it flew down into undergrowth, characteristic feeble flight. (C.T.)

Date of Publication—January 1st, 1955.

The Masterton Printing Co., Ltd., Lincoln Road, Masterton.