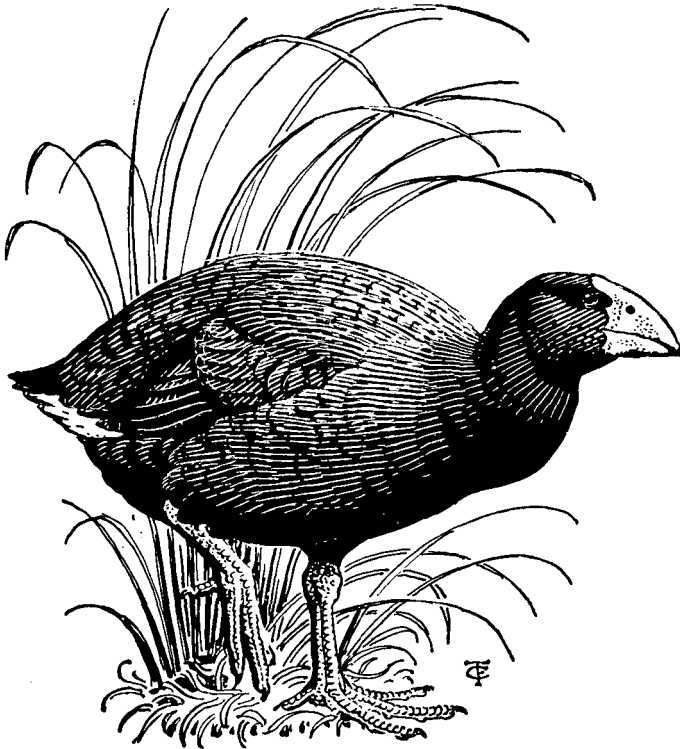


# NOTORNIS



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In continuation of New Zealand Bird Notes.

## Bulletin of the Ornithological Society of New Zealand.

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**WHITE HERON INQUIRY.**—For many years, the rarity of white herons has caught people's imagination and become legendary. The post-nuptial dispersal throughout New Zealand has been the cause of widespread newspaper reports of birds seen, and where there used to be one or two reported, now there are frequently 4 or 5, and there seem to be more reports. This may be due to: (a) white heron "spotting" becoming more popular; (b) increased breeding success at Okarito; (c) an influx of Australian birds. There is some evidence in favour of all of these. In the latter case, Australian birds would not necessarily breed at Okarito, and the possibility of new colonies being established should be borne in mind. In view of this, the society has decided to conduct an inquiry into the numbers and distribution of this species, to be organised by Mr. D. H. Brathwaite, Box 360, Napier. Members are urged to make an effort to obtain as many records as they can, and investigate newspaper reports in their districts. Because of the possible occurrence of closely related Australian species (and also the royal spoonbill, which feeds in shallow water with a scythe-like motion of the bill), each bird seen should be closely examined and the colour of the bill, bare skin on the face, upper and lower legs and feet noted. The habitat, e.g., lake shore, tidal flat, swamp, the depth of the water they are feeding in, and any other birds seen in company with the herons (particularly white-faced herons), are all of particular value.

## A VISIT TO THE CAVALLI ISLANDS.

By R. B. Sibson, Auckland.

In mid-December, 1951, as the result of an invitation generously extended by Mr. G. McDonald, a week was spent on the Cavalli Islands by G. J. Burton, R. N. Buttle, M. R. Goodwin, S. C. Rutherford, V. M. Rutherford, T. G. Short, Dr. O. F. Lamb and the writer, all members of the King's College Bird Cub. Transport between the mainland and the islands was provided by Mr. T. M. Roberts in the big-game fishing launch "Lone Star," in which the party found itself at 7 a.m. on December 13 sailing down the miniature fiordland of Whangaroa Harbour. Outside the heads and off Flat Is., fluttering and Buller's shearwaters were seen at their best in the stiff breeze.

By 10 a.m. we were landing on Motukawanui, the largest island in the group. Mr. McDonald and his sons met us on the beach of Wai-iti Bay and directed us to a camp site which they had cleared on a step among manuka up a steep slope some forty feet above the beach. The wisdom of their choice was proved when our tents were not airborne in a westerly gale which struck the islands a few days later. During the ensuing days we received many kindnesses from Mr. and Mrs. McDonald and their family who did all they could to make our stay in the Cavallis both comfortable and successful. Among other things, a 12ft. dinghy was put at our disposal. This, fitted with an outboard motor, and piloted by Dr. Lamb, enabled us, when the weather permitted, to effect landings on several of the smaller islands.

Lying a few miles offshore from Matauri Bay, the score or so of islands which form the Cavalli group, are contained within a rectangle of five miles by two in latitude 35° S. In the centre of the group is Motukawanui, two miles long and rising to a height of 550 feet. Although most of this island has been cleared and provides good grazing for cattle and sheep, patches of bush remain in some gullies and on the cliffs, thus enabling a small population of bellbirds to survive. The homestead is situated at the head of Horseshoe Bay. Our camp was sited just over a narrow neck of land from there in Wai-iti Bay.

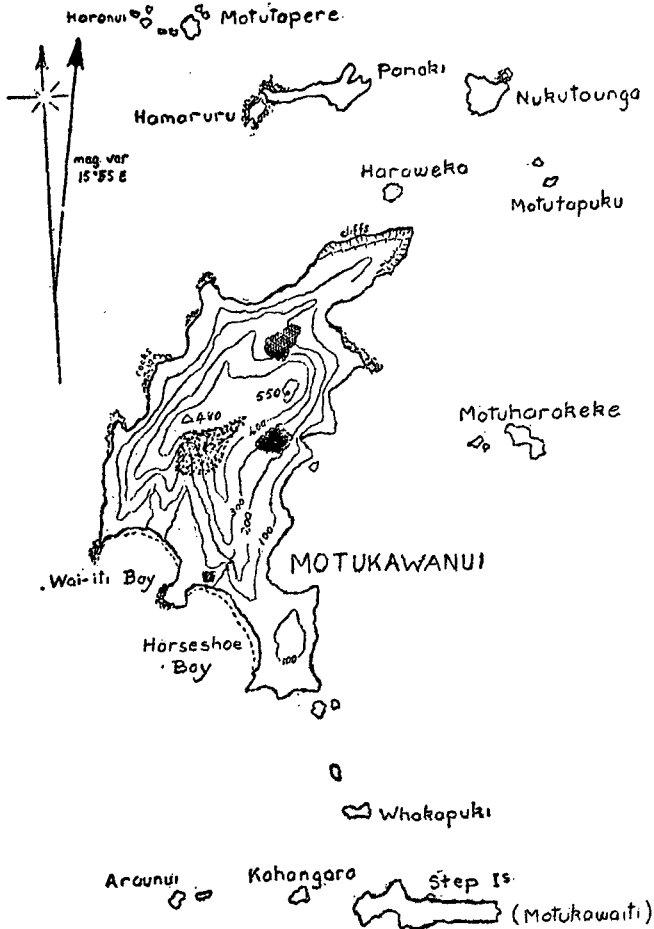
The next largest island, Motukawaiti or Step Is., is also cleared and carries cattle and sheep. During half a day on December 17, S.C.R. and R.B.S. covered most of this island.

A mile to the east of Motukawanui, Motuharakeke (Flax Is.), a name which fortunately it belies, is perhaps the most unspoiled of the smaller islands. The natural vegetation has defied the efforts of would-be burners and an exceedingly stubborn combination of taupata (*Coprosma retusa*) and *Hymenanchera* greets the human invader and slows his progress to a standstill. In winter, great numbers of starlings are said to use the island as a roost. It would be interesting to know if the density of the scrub is to be attributed to the enriching of the soil by the starlings' droppings. Beneath this scrub the soil is riddled with the burrows of fluttering shearwaters and diving petrels. Outside the scrub the burrows are also plentiful on such lower slopes as are covered with a thick mat of mesembryanthemum. R.N.B. and M.R.G. were landed for a short while on December 15 and reported among other things, the presence of the house sparrow. G.J.B. and R.B.S. spent more than an hour ashore on December 19, confirmed the presence of *Passer domesticus*, and ringed two young fluttering shearwaters which were nearly ready to leave their burrows and three well-grown young diving petrels. It was on Motuharakeke that Mr. A. T. Pycroft once in November found burrows occupied by sooty shearwaters.

To the north of Motukawanui lies a chain of islets, some of which have been occupied by Maoris in the past. On these most of the original vegetation has been burnt—the reason being, so we were told, to facilitate the taking of Oi (*Pterodroma macroptera*)—and has been replaced by a dense growth of flax (*Phormium tenax*). On December 15 landings were made on Hamaruru, where the most important find was an extensive colony of white-faced storm petrels; on Panaki, which yielded little of interest, and

on Nukutaunga. On this steeply rising and verdant island two parties were put ashore. One party did not get far, but M.R.G. and R.B.S. battled their way to the top through a young jungle of houpara, wharangi and mapou. Petrel burrows were not numerous and none in occupation could be found. There were signs that the top of the island was once a pa.

Little mention of the Cavallis appears in the literature of N.Z. ornithology. Among the breeding petrels of the group Falla (Rec. Auckland Mus., Vol. I., No. 5, 1934) mentions *P. urinatrix*, *P. marina*, *P. griseus* and *P. macroptera*, but omits *P. gavia*. This paper is offered in the hope that it may help to fill a gap in our knowledge of the birds of the offshore islands of New Zealand.



Sketch Map of the Cavalli Islands.

#### SPECIES LIST.

Little Blue Penguin (*Eudyptula minor*).—Fairly common. A few were still incubating eggs. One nest was about 150 feet up an almost vertical slope. If caught by the Maoris they are eaten with avidity.

Diving Petrel (*Pelecanoides urinatrix*).—Though none was seen at sea there is a big breeding colony on Motukarakeke. Young in the nest on

December 19 were well-feathered. The remains of many eaten by harriers were found.

White-faced Storm Petrel (*Pelagodroma marina*).—Many were breeding on Hamaruru. A few nests were in open ground near the summit, but the majority were in two gullies with steeply sloping sides under a canopy of pohutukawas. Some adults were on eggs and young in the downy stage were found in burrows where no adult was present. Despite their nocturnal comings and goings some fall victims to harriers.

Giant Petrel (*Macronectes giganteus*).—One was just outside Wai-iti Bay on December 19; rather far north for midsummer.

Lesser Broad-billed Prion (*Pachyptila salvini*).—One corpse on Motukawaiti, a wreck of the winter gales.

Fairy Prion (*P. turtur*).—One corpse on Motukawaiti.

Flesh-footed Shearwater (*Puffinus carneipes*).—A few were seen between the Cavallis and the mainland on December 14. Surprisingly scarce.

Buller's Shearwater (*P. bulleri*).—Many off Flat Is. on December 13. Frequently seen with *P. gavia* around the Cavallis.

Fluttering Shearwater (*P. gavia*).—There is a considerable breeding colony on Motuharakeke, which they share with diving petrels and which may be the land-base of the flock of 800-1000 which was usually to be seen in Cavalli waters. Some nests were under thick mesembryanthemum only a few feet above sea level. Young were in different stages of development, some being in down, some almost fully feathered; and one bird seen at sea and hardly capable of flight was believed to be a youngster.

Allied Shearwater (*P. assimilis*).—One corpse on Motukawanui.

Grey-faced Petrel (*Pterodroma macroptera*).—Known locally as the Oi, this is (or was) the most generally distributed of the petrels in the Cavallis and its burrows may be found on most suitable headlands and slopes. Mutton-birding has much reduced its numbers. We learnt that about 200 were taken in November. Only those which breed in inaccessible places have much chance of escaping the attentions of the mainland Maoris. We were unable to find a single occupied burrow. None was seen at sea.

Black Shag (*Phalacrocorax carbo*).—Occasional visitor from the mainland. One on December 18.

Pied Shag (*P. varius*).—This is the common breeding shag of the Cavallis. A colony of c. 15 pairs occupies a typical site in pohutukawas on the west coast of Motukawanui. The breeding season was almost over. Most of the young were on the wing.

White-throated Shag (*P. melanoleucus*).—Occasional visitor from the mainland. One on December 19.

Gannet (*Moris serrator*).—A few were always to be seen. The name of the island, Motu-tapuku, may indicate that it was once a gannetry.

Reef Heron (*Demigretta sacra*).—A pair had a nest in a cave near Wai-iti Bay. Breeding was evidently late. The nest contained one egg on December 14, two on December 16, still two on December 19. Mrs. McDonald informed me that in due course "the herons hatched out." A single bird was seen on Motukawaiti.

Harrier (*Circus approximans*).—As many as five pairs may breed in the group. On Hamaruru they were taking toll of stormy petrels and on Motuharakeke of diving petrels. A youngster just able to fly was flushed on Panaki.

Brown Quail (*Synoicus ypsilophorus*).—These occasional visitors from the mainland have been recorded by Mr. McDonald. None was seen during our stay.

N.Z. Dotterel (*Pluviorhynchus obscurus*).—The finding of five pairs was a pleasant surprise. They were distributed as follows:—(a) Motu-

kawanui: Horseshoe Bay, 1 pair; Northern Bay, 2 pairs. (b) Motukawaiti: 2 pairs. The two pairs in Northern Bay were occupying the type of habitat that one usually associates with this species, though the area of sand was small nor was there a stream running through it to the sea; two pairs may have found such a restricted area a tight squeeze. We could only find one nest, which contained one egg on Dec. 15. The other three pairs were occupying narrow stony beaches with no hinterland of sand. At the beginning of our stay, the Horseshoe Bay birds sometimes flew over to Wai-iti Bay—a much more typical breeding habitat—to feed; but at the end of our stay they remained glued to one strip of stony beach half a mile away. The two pairs on the north coast of Motukawaiti were also cramped for room. A nest with one egg was found on Dec. 17. Nearby were the remains of another egg, eaten. As we were sailing back to Whangaroa on Dec. 20, Mr. T. M. Roberts showed us another pair occupying a very small narrow stony beach in company with one pair of Caspian terns which had a well-feathered chick on Arrow Island, just outside the entrance to Whangaroa Harbour.

White-fronted Tern (*Sterna striata*).—The breeding population was remarkably small, a few dozen pairs on rocks off Motukawaiti.

Caspian Tern (*Hydroprogne caspia*).—According to Mr. McDonald, two pairs usually breed. Nesting this year was late. One pair in Horseshoe Bay had lost their first nest and laid again during our stay. The pair on Motukawaiti had two eggs on December 17.

Red-billed Gull (*Larus novaehollandiae*).—There were two small colonies (a) Wai-iti Bay, 48 pairs; (b) Motukawaiti, a few among the terns. Nesting was late, many eggs were still not hatched on December 20. Eggs are taken for eating by the Maoris. Many hundreds of gulls came in from the sea in the late afternoon to roost on the smaller islands to the north of Motukawanui.

Black-backed Gull (*L. dominicanus*).—Not present in great numbers. Three pairs had nests on the outskirts of the smaller gulls' colony in Wai-iti Bay. Otherwise they were mainly in isolated pairs around the coast of Motukawanui and Motukawaiti. They were missing from many of the smaller islands.

Morepork (*Ninox novaeseelandiae*).—Heard on Dec. 17. Mr. McDonald related how once in broad daylight a morepork swooped and seized a rat (*Rattus ? exulans*) which had been disturbed from an old puriri.

Kingfisher (*Halcyon sanctus*).—Apparently rather scarce. Two pairs were located on Motukawanui. One was heard on Panaki.

Pipit (*Anthus novaeseelandiae*).—Pleasingly abundant on Motukawanui; and present on some of the smaller islands.

Grey Warbler (*Pseudogerygone igata*).—The scrub and bush on Motukawanui supported a normal population. Song was frequent. None was found on the other islands.

Fantail (*Rhipidura fuliginosa*).—Found only in the bush on Motukawanui, where they were plentiful.

Silvereye (*Zosterops lateralis*).—Easily the most numerous of the native passerines. Breeding even on the smaller islands, e.g., on Nukutaunga where a nest was found. Their abundance is a noteworthy contrast to their scarcity on Little Barrier and Hen Island.

Tui (*Prothemadera novaeseelandiae*).—Probably one pair breeding on Motukawanui, one being heard in the bush and one seen elsewhere. Mr. McDonald has seen up to six at once and thinks that tuis may sometimes fly over from the mainland.

Bellbird (*Anthornis melanura*).—The surviving patches of bush on Motukawanui support a small population, perhaps 12 pairs. The song of these Cavalli bellbirds is curiously distinct, a wader-like call usually of four more or less even notes pew-pew-pew-pew, being most commonly heard. It

is quite unlike the typical bellbird song. We were sitting on the highest point of the island when we first heard this far-carrying call from birds which were located some hundreds of feet below us among pohutukawas on the eastern cliffs. It was something of a surprise to find that these puzzling calls were coming from bellbirds. The typical song was not heard at all. Subsequently we often heard the quadruple call from bellbirds in the bush. Mr. A. T. Pycroft tells me that in his opinion the Cavalli bellbirds were poor singers. It was evidently a late nesting season. No young birds were seen. A nest found on December 18 contained two eggs.

#### EUROPEAN BIRDS.

Skylark (*Alauda arvensis*).—Plentiful on the two main islands which are ideal lark country.

Song Thrush (*Turdus ericetorum*).—Plentiful on Motukawanui. Song was mostly at dawn and in the evening; e.g., many were in full song at dusk on Dec. 17. At noon on Dec. 14 a burst of song from one bird was heard.

Blackbird (*Turdus merula*).—Apparently more enterprising than the song thrush in colonising the outlying islets. An old nest was found on Motuharaeke. Although song was spasmodic, several birds were still in good voice on Dec. 17.

Dunnock (*Prunella modularis*).—This species has colonised the group most successfully. Song was full and frequent. A nest found on Dec. 15 contained four eggs.

Starling (*Sturnus vulgaris*).—Breeds commonly on the cliffs. No big flocks were noted.

Greenfinch (*Chloris chloris*).—Scarce. Males were in full song.

Goldfinch (*Carduelis carduelis*).—Abundant. In small flocks.

Yellowhammer (*Emberiza citrinella*).—Thinly distributed on Motukawanui. Singing was irregular.

Chaffinch (*Fringilla coelebs*).—The commonest of the finches. Song was general.

House Sparrow (*Passer domesticus*).—It was surprising to find these frequenting clefts and cliffs on the outlying islets. They were in a similar situation on Motukawanui and were scarce about the homestead.

#### DISTRIBUTION OF PASSERINES ON CAVALLIS.

Name of Island	Native.					European.										
	Pipit	Riro-riro	Fantail	Bellbird	Tui	White-eye	Skylark	Thrush	Blackbird	Dunnock	Starling	Greenfinch	Goldfinch	Yellowhammer	Chaffinch	Sparrow
Motukawanui	x	x	x	12	1	x	x	x	x	x	x	4	x	8	x	4
Motukawaiti	...	v	-	-	-	v	x	v	5	5	v	-	v	-	7	4
Hamaruru	.....	1	-	-	-	v	-	-	2	2	v	-	1	-	2	3
Panaki	... ..	-	-	-	-	v	-	-	1	1	v	-	1	-	1	2
Nukutaunga	.....	-	-	-	-	v	-	-	-	-	v	-	-	-	1	-
Motuharaeke	-	-	-	-	-	v	-	-	1	2	v	-	-	-	1	3

Legend.—Figures represent number of singing males heard or of pairs believed to be breeding.

x = estimated population of 20 or more pairs.

v = present, but no estimate of numbers made, probably 5–10 pairs.

## NEW WADER FOR NEW ZEALAND—LEAST SANDPIPER

By R. H. D. Stidolph, Masterton.

A diminutive wader, seen on a tidal mudflat on the northern side of the Wairoa River mouth, Hawke's Bay, on November 21, 1952, turned out to be a least sandpiper (*Erolia minutilla*), the first record of this species in New Zealand. The bird was seen under exceptionally favourable circumstances, at a distance of about 20 feet, through X8 binoculars.

I was watching a scattered party of eleven golden plover when a very small wader was noticed, which my wife described as "like a skylark." It was probing the mud near a golden plover. The latter chivied it, and it flew a yard or two, when the plover put it up again. This time it flew towards several godwits feeding in rather deep water. Several abortive attempts were made by this small wader to alight with the godwits but the water was too deep. Then, with a decidedly flicking movement of the wings, it flew towards me and pitched on the mudflat close to where I was standing. I needed no more inducement to peel off my footwear and wade across the shallows.

Approaching quietly, I reached within 20 feet of the bird as it fed; it paid no attention to my presence. In subdued sunlight and through the binoculars I had no trouble in taking notes of its plumage. The plumage as a whole reminded me of the sharp-tailed sandpiper (a fact which I noted at the time) and the possibility of the bird being a small example of that species was not overlooked. The bird had a rufous-tinged crown, a russet eye-stripe, russet or tan edges to the wing feathers, much darker, almost black feathers on the back, near-black middle tail feathers, seen in flight, (but not as black as those of the red-necked stint), and a russet wash across the chest, the feathers there being streaked darker. The bill was black and the legs and feet yellowish. I put the bird to flight and on taking wing it uttered "tweet, tweet, tweet"—this I wrote down on the spot in my note-book.

The colour of the legs, a dull though clear yellow, indicated that it was not the red-necked stint, which has black legs. Apart from this, the neck colouration of this bird, which appeared to be in breeding plumage, also differed from that of the red-necked stint. The diminutive size, the absence of any brownish colouration at the base of the bill, which is readily seen at close quarters on the sharp-tailed and pectoral sandpipers (several of these birds were seen two days later at Napier) and the call, showed that the bird could not have been a small example of either of these species.

The nominate race of the least sandpiper (*E. minutilla minutilla*) is a North American breeder, migrating southwards to as far as Brazil and Peru. The eastern Asiatic race (*E. minutilla subminuta*) breeds in eastern Siberia to Kamchatka and migrates southward via China and Japan to south-eastern Asia, the Philippine Islands, Malaysia and Northern Australia. It is extremely doubtful whether these two races can be separated in the field; either could straggle to New Zealand, though *subminuta* may be the more likely to reach these shores.

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RINGING.—Members are requested to complete their ringing schedules and return them immediately to the convener of the Ringing Committee (Mr. P. C. Bull, 131 Waterloo Road, Lower Hutt). All rings used up to March 31 should be shown, together with all "repeats" and "recoveries." Advice would be appreciated as to whether the various operators expect their 1953-54 ringing results to be comparable to those being returned now. The schedules are required for the compilation of the annual ringing summary and an estimate of next year's requirements would assist in maintaining ring stocks at an adequate level.



## OCCURRENCE OF "RED-LEGGED" HERONS IN N.Z.

By Mrs. L. E. Walker, Dunedin.

In "Ibis," (Vol. 94, p. 363) there appeared an article on the occurrence of red legs of varying intensity in herons, the species referred to being *Ardea cinerea* (England), *Ardeola ibis* (River Niger, in Africa), *Ardeola grayii* (India), *Nycticorax nycticorax* (India) and *Egretta alba* (India), most of the reports referring to birds in breeding plumage.

On August 28, 1949, I was observing white-faced herons (*Notophoxyx novahollandiae*) at Merton, Otago, where these birds frequent the mud-flats. One bird with very pale plumage was conspicuous because of its bright red legs. After watching this bird for some time, I was puzzled about the legs. Later that same day I returned to the area and was fortunate in being able to approach within a reasonable distance of the bird and watch it through binoculars for some ten minutes or so, again taking particular notice of the legs. As this bird was seen in August, it would then have assumed its breeding plumage and the record fits in with the overseas records. Then, on May 26, 1952, one of our local members, Mr. W. J. Noble, recorded a white-faced heron in the Anderson's Bay Inlet, Dunedin, with legs light red in colour. The next record came from Waikouaiti, Otago, where, on September 26, 1952, Miss B. McDougall saw a white-faced heron alight on a tall macrocarpa tree in her garden. In this case the feet were fleshy pink but the colour of the legs was not noted. On October 5, 1952, the writer, together with three keen bird observers, visited Waikouaiti Lagoon and saw a white-faced heron with red legs fly slowly over it. The fifth record came to hand on October 10, 1952, when Mrs. I. Tily saw two white-faced herons at Karitane, Otago; one bird was smaller than the other and had dull red legs with just a tinge of yellow near the feathering. Its feet, when lifted out of the water, were clear pink. The other bird had greenish-yellow legs.

In these occurrences of "red-legged" herons all the records are of the white-faced species and all have been recorded in Otago. Would any member observing red legs or red bills on any species of heron, please communicate with the writer, 15 Cornwall Street, Vauxhall, Dunedin, E 1, giving the date, place where seen, species, degree of redness (pale, dull, bright) of legs, feet or bill.

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**BANDED DOTTEREL (*Charadrius bicinctus*) DISTRACTION DISPLAY.**—A previous observer indicates that banded dotterels use their distraction display (dragging a "broken" wing) only when they have chicks. This may be a local characteristic, for it was not my experience recently. When on a brief visit to Cable Bay (near Taipa, Doubtless Bay) during December, 1951, a banded dotterel's nest was discovered on December 17. While we were some 150 yards from the nest the birds flew overhead and across our path, uttering agitated cries. When within 30 yards of the nest they dropped to the beach in front of us trailing their drooping wings and endeavouring to lead us away. One bird was markedly bolder than the other and came much closer to us than its mate. The nest—a depression in the sand surrounded by seaweed, shells and driftwood—contained three eggs. Having photographed the nest and birds we followed one to see how far it would lead us. It took us the length of the beach (over  $\frac{1}{4}$  mile) and would have taken us further had we not run out of enthusiasm. When we passed by some hours later, one bird was sitting on the nest while the other (probably on sentry duty) was perched on a rock some distance away.—S. A. Rumsey, Auckland.

**REGIONAL ORGANISERS.**—Under the constitution, the Council now have power to appoint, for a term of one year each, regional organisers in the districts for which it deems such organisers necessary. In making appointments, the Council will naturally be guided by representations made by members in such districts.

## WADER SEEN AT NAPIER.

By D. H. Brathwaite, Napier.

On Saturday, July 12, 1952, in company with Mr. K. Schwabe, of Napier, I was counting a small flock of stilts on Ahuriri Lagoon when four godwits landed beside them. Within a minute or so they flew off again, and we were about to move on ourselves when my companion drew my attention to "another godwit" which had just landed in the same place. Although the bird seemed about the right size and build at first glance, something peculiar about it made me examine it more carefully through my binoculars. The bird was about 30-40 yards away, and the light conditions were almost perfect, enabling me to examine the bird in detail while my companion wrote down in my notebook the description as I gave it to him. Unfortunately, the bird was flushed by two boys who had approached unnoticed by us; the notes are therefore rather terse but are here quoted as written on the spot, though in different order and amplified by explanatory notes in parentheses:

"About the size of a godwit (actually judged by comparison with stilts, whose company it seemed to prefer); bill, much shorter, estimated as about half that of godwit, colour uncertain, perhaps reddish-brown (the quick head movements of the bird against varied backgrounds made the bill hard to see in detail, apart from length, but a fleeting impression of reddish colour at the base was obtained), straight (I once or twice had an impression that the bill was slightly decurved distally); legs about as long as those of godwit (in proportion to size), pale blue-grey in colour; clear pale lines along middle of crown and above eye, separated by broader dark-brownish bands; upper parts blackish, narrowly edged buff, with a rather spangled (or speckled) effect; under parts pale buff, appearing faintly marked with reddish-buff on sides of breast; in flight showed no noticeable pattern (i.e., pale rump or wing-bar), except that the primaries may have been darker."

We were shortly afterwards joined by Mr. G. Crawford and were successful in again locating the bird, which was watched for altogether nearly an hour. There was general agreement as to the general characters as described above, except that neither of my companions were able to confirm my impression of slight decurvature in the bill. When first flushed the bird gave voice to a very musical "quee-dee," not unlike the call of a golden plover. When again flushed later on, it flew off with a hoarser (but still musical) "klee-klee-klee."

When feeding, the bird was not seen to enter the water, foraging on exposed tidal flats but actually appearing to favour dry sand and even ground with a sparse covering of vegetation (grass). It fed with quick pecking movements, rather than probing in the manner of a godwit. The gait was not unlike that of a godwit, though perhaps its movements were a little quicker and the pigeon-like movement of the head with each step a little more noticeable. The head was normally carried very erect, making the neck appear longer than in a godwit.

A perusal of literature available to me suggests that the bird can only have been a little whimbrel (*Numenius minutus*) though I would have expected the bill to have a more pronounced decurvature. However, if the illustration of the bill as given by Mathews & Iredale (*Man. Birds Aust.*) is accurate, it would account for my being unable to gain more than a brief and indefinite impression of the curvature, taking into account the bird's quick movements. The colour of the bill as given in the same work, "blackish-brown, base of lower mandible flesh-colour," would account for the glimpse of reddish colour mentioned above. The dimension of the little whimbrel and bar-tailed godwit given by Mathews & Iredale agree very well with our impressions of the relative size and proportions of the bird as compared with the godwit.

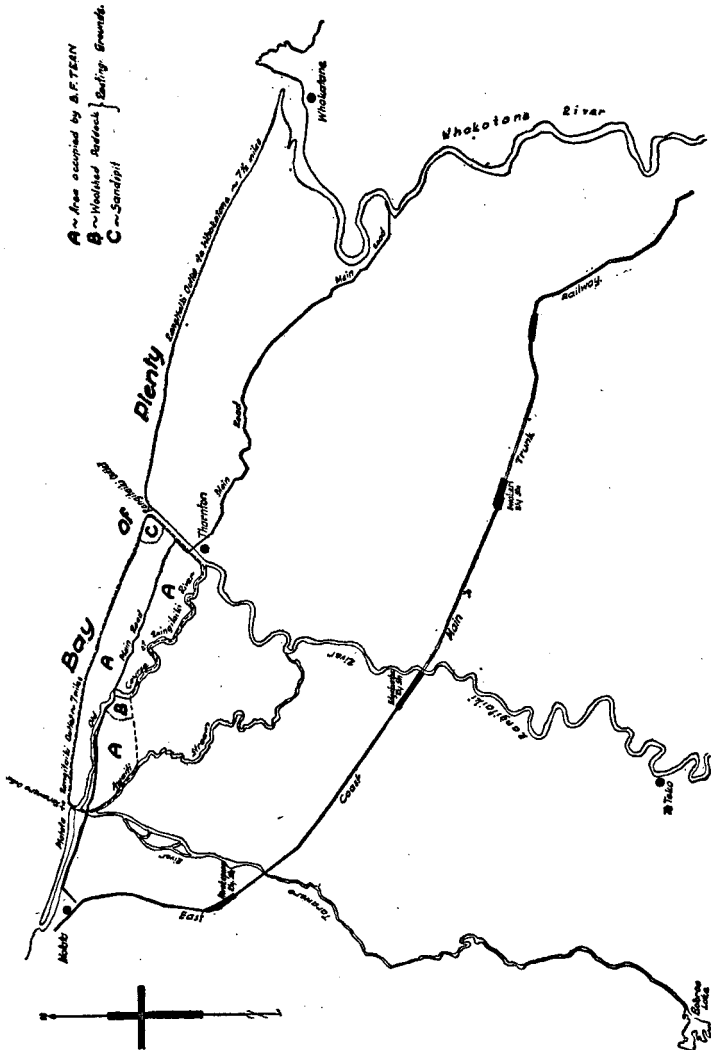
The bird has not been seen since.

# BLACK-FRONTED TERN IN BAY OF PLENTY.

By B. Sladden, Tauranga.

Writing of the black-fronted tern (*Chlidonias albigriata*) in the north (Notornis 3, No. 1) Mr. R. B. Sibson refers to the sparse records of the bird from the Bay of Plenty district. The writer of the following notes has now to report the black-fronted tern in considerable numbers in the Rangitaiki coastal area where it was last seen by R. B. Sibson in 1947.

Here during the past twenty-five years or so, changes have been taking place that have had a marked influence on the numbers and the type of birds inhabiting the shoreline from the Rangitaiki River westward to Matata, and inland to the south of the protecting bank of sandhills. By the diversion of the Rangitaiki and Tarawera rivers each to a more direct outlet to the sea, estuaries have been formed, where hitherto an uninter-



SKETCH MAP OF THE RANGITAIKI RIVER AREA.

rupted stretch of open beach had extended from Whakatane to Matata, a distance of about 15 miles. At Matata the two rivers had formerly entered the sea together, and a shallow lagoon has since been formed which is today a well populated bird sanctuary. Nature has considerably altered the man-made river outlets by the formation of sandspit and backwater, a favourite gathering place for the shore birds that now flock here in goodly numbers, and among them in the past months was the black-fronted tern.

Behind the sandhills, as a result of lowered river levels, moist pasture land has taken the place of swamp and lagoon, where for untold years a vast duck preserve had been the jealously guarded possession of the native tribes of the district. On the fringe of this area the black-fronted tern found a congenial retreat in the past winter and could be seen resting on the paddocks, or in buoyant flight dropping to the ground at intervals to pick up grub or insect at the feet of the grazing sheep.

The notes that follow give the dates and the counts of the birds seen and some impressions by the writer who was making his first acquaintance with the black-fronted tern:—

May 20.—In a paddock by the coastal highway between the Tarawera and Rangitaiki rivers, a group of squatting birds caught my eye. A closer view showed them to be terns of some kind but not the familiar white-fronted tern of the shores. Without glasses, and under conditions poor for observation, I could only surmise that here was the black-fronted tern. The peculiar lead-coloured appearance of the birds en masse, their rather small size and the conspicuous white tail coverts of those in flight seemed to fit, although other essential details could not be distinguished.

May 21.—The birds were still in the same locality, but under stormy conditions no count was made.

June 9.—With glasses, I counted 97 birds in two groups on the ground with a few on the wing. Of two birds flying toward me at close range, one had the jet black front of the species but the white lateral bands were not visible. The other bird had a completely white front and poll. In neither case could details of bill, legs or feet be distinguished. Only a small proportion of the birds were in the air at once, and as these rejoined the resting groups, others took the air. In a monotonous but purposeful flight, they patrolled the paddock area, checking progress occasionally with upraised wings to drop to the ground and pick up something that keen sight had detected from the air.

June 26, 4 p.m.—There were no black-fronted terns in the paddock but six flew across the road, heading for the coast.

June 27, noon.—At the Rangitaiki River outlet today there were 28 birds, some of which were feeding over the slack water inside the breakers while others rested on a sand-spit bared by the ebb tide. The feeding birds seemed to get something from the surface of the water, but the run of whitebait in the rivers had then hardly begun. Of the 28 birds located here, five showed plumage changes, mainly noticeable in the mottled appearance of the sides of the face. At their usual haunt in the woolshed paddock, there were 58 black-fronted tern. They were restless and rose noisily from the ground to alight again at the same spot, before dispersing over the paddocks, with a few breaking off and heading for the coast. Today's count was 81 birds.

July 10 (frosty morning).—The terns seen were fewer and more scattered. Six birds were feeding over the wet flats near the Tarawera River, with two at the woolshed area, and 19 at Rangitaiki outlet, among them being one white-fronted tern. Tally, 27.

July 19.—A group of from 40 to 50 birds rested in the woolshed paddock, their numbers being increased by others coming in from the south paddocks until there were 98 in a single group. On approaching them they rose noisily, their call being less clamorous than that of the white-fronted tern under similar circumstances, but the note was much the same

otherwise. They settled again at the same spot except for 15 that alighted on top of the battens of an intervening fence within 150 feet of where I stood. Of these 15 birds there were four that were not in the full plumage of the adult bird. One young bird was lightly mottled brown about the poll and face with darker patches round the eyes. This proportion of apparently immature birds, viz., 4 in 15, was higher than in the group generally. I was still unable to see clearly the colour of bill and legs except in respect of one bird on the fence, which had a dull orange coloured bill. An attempt to get a closer view of the birds resulted in their flying off to scatter over the paddocks to the south and west. A quick run to the Rangitaiki outlet brought to light another 31 black-fronted terns. Within twenty minutes a further 13 birds had joined up. It is feasible that later arrivals may have come from those already counted in the paddock, but I do not think so. The tide being full at this time, the birds were squatting in rather loose formation on the dry sand, and the dull hue of their plumage matching exactly their surroundings made a count difficult till they rose from the ground. As before, a few birds were feeding over the estuary. Disallowing the last-mentioned 13 birds, the tally for today is 129.

August 6.—There were no black-fronted terns to be seen in the paddocks or at the river outlets, and visits on subsequent dates gave no results.

It seems likely that the black-fronted tern has appeared here at intervals and in small numbers since R. B. Sibson's record of 1947. Mr Herd, the farm manager, says that in the winter before last (1950) he had seen an "odd bird or two," and last year (1951) "there were a few more," while this winter (1952) "they have been here in force."

The recent visit here of the black-fronted tern in such numbers gives weight to the theory that the bird may still be breeding inland. It is a fairly short and direct route northward to the coast via the course of the Rangitaiki River with a suitable winter retreat immediately at hand. If the opportunity occurs during the winter of 1953 it may be possible to record more nearly the dates of arrival and departure of the birds and to learn something of their feeding habits.

It is perhaps worth while to note the remarks of J. C. Bidwill "Rambles in New Zealand," 1841 (pages 71 and 81) in reference to the so-called "tropic birds" he saw "among the lavas of Tongadido," and about the lake "Rotuite," (probably Lake Rotoaira). Bidwill's description of the birds is rather hopeless but it was most likely the black-fronted tern that he saw. He said that the shallow lake abounded in a small type of fish about an inch long, which the Maoris dried for food.

It would be of interest to know to what extent any depletion of food supplies in more recent years and possible interference with nesting grounds by vermin or otherwise, may have affected the number of birds that have been seen inland of late years. On the other hand, where exactly have the recent visitors to the coast come from, and is it a matter of food supply, linked up with the changing environment, that has induced the black-fronted tern to occupy in increasing numbers as a winter sojourn, the restricted area of the Rangitaiki and Tarawera rivers estuaries?

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**STILTS NESTING AT ARDMORE, 1951-52.**—Two adults and three young pied stilts of the previous season came back for an hour on 13/5/51. It is fairly safe to assume that these are the birds recorded in 1950-51. On 5/7/51 these returned, and with some additional adults at times, remained until nesting began. At this point the three young either left or were driven away. Records are: 31/8/51, nest, three eggs, bird incubating when found; 3/9/51, cow destroyed nest. This pair nested again and hatched four chicks on the following dates: October 11, two; 12, one; and 15, one. One chick was much smaller than the others and was probably the one hatched late.—A. F. Stokes, Ardmore.

## NESTING OF NEW ZEALAND DOTTEREL, 1951.

By H. R. McKenzie, Clevedon.

During the 1951 season three pairs of N.Z. dotterel, or possibly four, laid four clutches of three eggs each at Clevedon, from which apparently one chick was reared. This compares poorly with the 1950 season, when four chicks were reared from nine eggs laid ("Nesting of New Zealand Dotterel, 1950," *Notornis*, Vol. 5, No. 1, p. 15). A new early laying record was established, two nests of one and two eggs being found on August 30. This would put the date of the first egg back to August 29 at least. Behaviour at the commencement of incubation was studied particularly again this year. Nesting territory was taken up very early.

17/6/51—A coloured pair fussing as if territory-minded. Several birds present.

14/7/51—Two coloured pairs, fussing.

11 and 19/8/51—Several play-nests.

30/8/51—Two nests with eggs.

### No. 1 NEST.

30/8/51—12 noon, two eggs (M. J. Thorn). 5.30 p.m., visited by D. J. Shaw to see whether another egg had been laid later that day; still two eggs.

31/8/51 and 1/9/51—Still two eggs.

2/9/51, 3 p.m.—Three eggs.

3/9/51, 4.20 p.m.—Male found sitting.

4/9/51—Incubation commenced by female.

23/9/51—Eggs had vanished. Cause unknown.

### No. 2 NEST.

30/8/51, 12 noon—One egg (H.R.McK.). 5.30 p.m., D. J. Shaw found still one egg.

31/8/51, 5.40 p.m.—Two eggs.

1, 2, 3/9/51—Still two eggs up to 4.20 p.m. on 3rd. The nest had the appearance of being deserted and the birds made little fuss.

4/9/51, 5.30 p.m.—Three eggs. Pair making more fuss.

5/9/51, 5.25 p.m.—Female appeared to have charge of nest, which would mean the beginning of incubation.

6/9/51—Female certainly incubating.

23/9/51—Eggs gone.

### No. 3 NEST.

2/9/51—A third pair noted. These may have been newly coloured birds of the local population, or may have come from elsewhere.

4-25/9/51—Made play-nests and guarded territory.

27/9/51—5.20 p.m., one egg. (Miss G. M. Cowles.)

28/9/51—6.15 p.m., two eggs.

29, 30/9/51 and 1/10/51—5.45 p.m., still two eggs.

2/10/51—5.50 p.m., three eggs.

3/10/51—5.46 p.m., female incubating, though not intensely. Male keeping well away from nest, but on guard.

28/10/51—One egg missing.

30/10/51—5.55 p.m., the two eggs cracked.

31/10/51—5.42 p.m., one newly-hatched chick, still wet; one egg still cracked.

1/11/51—Visited area but did not approach nest for fear of harming chicks by exposure to violent storm of wind and rain.

3/11/51—Four birds obviously guarding young. It is not known whether the second chick left the nest.

Owing to much evidence of the presence of vermin, visits were discontinued in case the young should be exposed to attack after being separated from the parents by observers.

27/11/51—Went to ring chicks but found none. One fussy male, one dead bird, eaten, perhaps his mate and the mother of the chick, or chicks; one pair a little fussy at first, but became indifferent. Rashly I concluded that the first pair had been the parents and had lost their chicks through vermin. My previous experience should have taught me to look for chicks 200 to 400 yards away, on the edge of cover. I realised my folly when I later found a pair guarding a flying youngster. They probably were the "indifferent" pair, though this cannot be proved.

#### No. 4 NEST.

9/12/51—Three eggs (F. Murray).

26/12/51—Eggs gone. My dog found a rat close to the nest and we had a long hunt through heavy weed, a tidal lagoon and low mangrove. The dog was willing but inexperienced and at last when it appeared that the rat might escape, Miss Joyce Atcheson, aged 14, plunged through a deep muddy tidal creek and despatched it with my stick, while her sister Helen, aged 6, who had assisted ardently, danced an excited haka on the mudflat. Such being the calibre of our young naturalists I think we have little to fear for the future.

Determined efforts were made to assist the breeding birds. Cattle were a grave menace to the first two nests so iron post standards and wire were carried out and fences erected round the nests. When a beast grazed up to a nest the pair would make aggressive passes, try to lead it away, or flutter close to its face, but entirely without avail. The birds still did this after the fences had been put up. They were not in the least worried by the fences. Traps were set for vermin but no catch was made until the autumn in 1952 when a polecat ferret, or fitch, was caught in a wire-netting cage trap with a funnel entrance, baited with raw meat.

A full egg-laying clutch period still remains to be obtained. In the case of No. 2 nest, found with one egg, the second egg was laid the next day and the third four days later. This is probably not usual.

In the account of the 1949 nesting ("Nesting of New Zealand Dotterel," *Notornis*, Vol. 4, No. 2, p. 24) I suggested that incubation may start immediately the third egg was laid, or even when there were only the two first eggs. I am now satisfied that this was not correct. One good record was obtained in 1950 and two quite good ones in 1951. These showed that incubation twice almost certainly began the day after the last egg was laid, and once two days after. Diligent observing showed that the desultory sitting of either bird at odd times ceases abruptly and the female takes over completely. Nothing definite can be arrived at yet; these birds seem to be particularly regardless of any idea of set rules.

This account shows little of the great amount of work done by many interested persons to produce it. The intensive watching and recording was carried out mainly by Miss G. M. Cowles, K. E. Fox, F. Murray and myself, while a great mass of general work was willingly performed by a large number of members of the Ornithological Society of New Zealand, the Forest and Bird Protection Society of New Zealand, and other good friends.

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**DISPERSAL MOVEMENT OF WHITE-NECKED HERON (*Notophox pacifica*).**—In view of the recent record of a bird of this species in New Zealand (*Notornis*, Vol. 5, p. 38), readers may be interested to learn that white-necked heron are unusually plentiful in the south-west of Western Australia this year (1952). Evidence of this invasion is being collected and summarised. The influx has been attributed to the drought conditions prevailing in parts of northern Australia, but evidence of this is not entirely satisfactory.—Eric H. Sedgwick, Wooroloo, West. Aust.

## GREENSHANK IN NEW ZEALAND.

By R. H. D. Stidolph, Masterton.

When scanning a scattered feeding flock of bar-tailed godwits and stilts on Awapuni Lagoon, a tidal area near Gisborne, on November 17, 1952, a smaller bird than the godwits was spotted feeding somewhat apart from the others in the middle of the mudflat. It was later identified as a greenshank (*Tringa nebularia*), the first reported in New Zealand since Hutton recorded one from Otago in 1874.

The smaller size of this bird at once attracted my attention. It was a neat, trim-looking bird—stream-lined—a fact which made it appear smaller than it actually was; a feature was the rather uniform dark colouring of the upper parts and the whiteness of the underparts, combined with a fairly long but distinctly noticeable, slightly upturned bill. The bird had a grey crown, white face and the white appeared to almost encircle the hind neck. The primaries were darker than the remainder of the upperparts. The legs seemed to be greenish-yellow and the bill a dark shade, but not black.

I watched the bird for about ten minutes through binoculars X8 while it was feeding in the mud, in a manner resembling the stilt. In the meantime, many of the godwits, besides five knots, had flocked and settled a chain or two away for a rest. Looking over these again, I saw a whimbrel on the edge of the assembly and a few seconds later it took flight, uttering its characteristic cry.

I clapped my hands to put up the godwits and the stranger. Immediately the latter took wing it showed, very distinctly, a white rump and back, the white extending right up the back almost to the shoulders in a sharp inverted V. At the same time, a clear cry rang out, which I wrote down on the spot as "teu-teu-teu." This cry was repeated two or three times, at intervals. On the wing, the bird had very sharp pointed wings and a clear-cut appearance. It headed the flight of godwits and passed right overhead, calling, and gave excellent chances of observation.

The description of the bird and its call can fit no other bird than the greenshank and it is interesting to again record this species in New Zealand after a lapse of 78 years.

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## VIRGINIAN QUAIL IN WAIROA, H.B. DISTRICT.

By H. R. McKenzie, Clevedon.

The Virginian quail, or "Bob-White" (*Ortyx virginianus*), is apparently holding its own in the hilly country towards Lake Waikaremoana. Oliver ("New Zealand Birds") states: "In 1898 the Wellington Acclimatisation Society imported about four hundred birds and the following year over seven hundred and fifty and distributed them throughout the country from Auckland to Southland. During the next ten years they gradually disappeared and none were reported for many years after this. In 1923, however, a number were caught to the south of Auckland, proving that in one locality at least the species had become established." No mention of the species has been made in the publications of the Ornithological Society, 1940-1952.

Mr. G. E. Sopp, Aniwanuiwa, Lake Waikaremoana, says: "When shooting in a large area to the north of the Wairoa-Lake Waikaremoana Road, up to 1949, I found flocks of Virginian quail with ten to twenty birds in each. It is shot as a game-bird and is apparently holding its own. Californian and brown quail are present in the same area."

Mr. A. W. Gray, now resident at Clevedon, lived until recently in the Waikaremoana Valley, where he knew this bird well. It may be that this is the only area in which the Virginian quail has succeeded.



## AUTUMN BIRD COUNT IN MATATA BIRD SANCTUARY.

By Kaj Westerskov, Wildlife Division, Department of Internal Affairs.

While visiting the Matata Bird Sanctuary (Bay of Plenty) with the local district ranger, Mr. Ken Francis, of Whakatane, on May 6, 1952, an attempt was made to count all birds present in the two lagoons forming the sanctuary. A total of 1114 birds was recorded in the sanctuary proper belonging to 16 different species. Of rarer species three white herons were the main attraction. Following is a list of birds observed (cf. also table):

**Dabchick (*Poliiocephalus rufopectus*).**—A total of five dabchicks was seen, but more were undoubtedly present.

**Black Shag (*Phalacrocorax carbo*).**—Six black shags were scattered over the mudflats in the western lagoon.

**Pied Shag (*Phalacrocorax varius*).**—Five pied shags were seen in the western lagoon, some of the birds were feeding.

**Little Pied Shag (*Phalacrocorax brevirostris*).**—Ten little pied shags were found on the mudflats in the western lagoon; several of the birds were "sunning" themselves with outspread wings.

**White Heron (*Casmerodius albus*).**—Three white herons were recorded, two in the eastern lagoon and one in the western lagoon.

**Bittern (*Botaurus poiciloptilus*).**—A bittern was seen wading in the water about ten feet from our vehicle. When we stopped the truck, the bittern adopted the characteristic camouflage position with upturned bill, a position which is of high value when the bird is hiding among reeds but which, when the bird was standing in low, open water, looked rather grotesque.

**Paradise Duck (*Tadorna variegata*).**—Two male paradise ducks were seen on a mudflat in the western lagoon. They were standing a little away from grey duck and shoveler; no female paradise ducks could be located.

**Grey Duck (*Anas poicilorhyncha*).**—A total of 750 grey ducks was counted in the sanctuary, of which 150 were found in the eastern lagoon, the remainder in the western lagoon. A great number of grey ducks was shot by sportsmen during morning and evening flights in lagoons, meadows and paddocks around the sanctuary.

**Mallard (*Anas platyrhynchos*).**—Only six mallards were recorded with certainty, two in the eastern and four in the western lagoon.

**Shoveler (*Anas rhynchos*).**—A total of 60 shoveler were seen, all in the western lagoon. The shoveler were seen in small flocks (3, 5, 8, 14) among the grey ducks.

**Black Swan (*Cygnus atratus*).**—Fifty black swans were seen in the western lagoon. It was interesting to note that one of the swans sitting on the mudflat was apparently still under the impulse of breeding behaviour as it was working on building a small nest, taking up vegetation and piling it up in a heap behind it.

**Banded Rail (*Hypotaenidia phillipensis*).**—A banded rail was seen on mudflat near the road; disappeared into reeds.

**Pukeko (*Porphyrio poliiocephalus*).**—Thirty pukekos were recorded, mainly in western lagoon, but higher numbers would undoubtedly be found in reed-beds surrounding lagoons.

**White-headed Stilt (*Himantopus himantopus*).**—A total of 180 stilts was counted; this handsome bird was one of the conspicuous species due to its graceful flight, peculiar voice and extravagant walking.

**Black-backed Gull (*Larus dominicanus*).**—Two adult black-backed gulls were seen in western lagoon.

**Red-billed Gull (*Larus novae-hollandiae*).**—Three red-billed gulls in western lagoon.

In addition to the above-mentioned birds observed in the sanctuary proper, the following species of birds were seen from the road along the sanctuary:

Kingfisher (*Halcyon sanctus*).—Three kingfishers at eastern lagoon.  
 Silveryeye (*Zosterops lateralis*).—Many silveryeyes in bushes along road and gardens.  
 Sparrow (*Passer domesticus*).—Common in Matata.  
 Thrush (*Turdus ericetorum*).—A few in bushes in gardens at Matata.  
 Blackbird (*Turdus merula*).—A few in gardens at Matata.  
 Skylark (*Alauda arvensis*).—Very common in fields adjacent to sanctuary.  
 Starling (*Sturnus vulgaris*).—Small flocks seen in Matata.

Table showing species and numbers of birds recorded at Matata Bird Sanctuary, May 6, 1952. Dominance is percentage of total. Status refers to legal status: P, protected bird; G, game bird; and NP, not protected. It will appear that the sanctuary harboured 17.4% protected birds, 80.6% game species (waterfowl), and 2.0% non-protected birds.

	Dominance		Status
	Number	%	
Dabchick .....	5	0.4	P
Black Shag .....	6	0.5	NP
Pied Shag .....	5	0.4	NP
Little Pied Shag .....	10	0.9	NP
White Heron .....	3	0.3	P
Bittern .....	1	0.1	P
Paradise Duck .....	2	0.2	G
Grey Duck .....	750	67.3	G
Mallard .....	6	0.5	G
Shoveler .....	60	5.4	G
Black Swan .....	50	4.5	G
Banded Rail .....	1	0.1	P
Pukeko .....	30	2.7	G
White-headed Stilt .....	180	16.2	P
Black-backed Gull .....	2	0.2	NP
Red-billed Gull .....	3	0.3	P
	1114	100.0	

ANOTHER RECORD OF HUDSONIAN GODWIT.—On 25/4/52, J. C. Davenport, M. B. Gill, S. C. Rutherford, V. M. Rutherford, G. E. Thomas and I visited Puketutu causeway and despite the continual drizzle had excellent views of a Hudsonian godwit (*Limosa haemastica*) both in flight and on the ground. We had halted the car near a high-tide roost which is frequently used by wrybills and in extremis by larger waders. The Hudsonian godwit was first noticed as with three knots it rose from among the wrybills, and circled low showing the characteristic wing and tail pattern. But especially noticeable also was the large area of dark feathering around the axillaries, a feature which I have not noted in other Hudsonian godwits that I have seen, though it is conspicuous enough in at least one of the Ellesmere specimens in Canterbury Museum. This black area is only likely to be visible to an observer who has an exceptionally good flank view of the bird in flight. It is possible that the extent and density of the black varies seasonally. On completing a short flight, the Hudsonian godwit alighted at the water's edge some yards apart from the other waders and gave us an opportunity to note the greyness of the upper parts and how the even grey of the chest ended quite abruptly. On the ground this was a most helpful feature in differentiating the Hudsonian from the bar-tailed godwits which were dropping in on all sides of it. In size, it was scarcely as big as a male bar-tail. Several of these males were mildly pugnacious not only towards it but also inter se. Eventually it dozed off in the midst of them. It showed no trace of red colouring. This constitutes the third record of Hudsonian godwit in Manukau in recent years. Curiously enough, the last was also found on April 25, in 1949. (N.Z. Bird Notes, 3, 199.) Wader flocks were closely watched throughout the winter, but the Hudsonian godwit was not reported again.—R. B. Sibson, Auckland.

## BIRD OBSERVATIONS AT ARAMOANA.

By L. E. Walker, Dunedin.

On March 22, 1952, the Dunedin Naturalists' Field Club held the first outing for the year at Aramoana, situated at the entrance to Otago Harbour. Sandhills extend for a mile across the western side of the entrance while harbour protection works (known as "The Mole") project into the sea for over three-quarters of a mile. On the inner side of the spit are mudflats which cover a considerable area at low tide. The Bird Section of the club concentrated its observations on the Mole in the morning and on the mudflats in the afternoon, when the tide was suitable for the waders, the result giving a total of 27 species for the outing.

The following were the observations made:—

Royal Albatross.—Six were noted on the sanctuary across the entrance. Through binoculars, one bird was seen landing and feeding the young chick. It is to be deplored that this colony has again suffered at the hands of vandals, despite the almost constant attendance of the ranger.

White-capped or Shy Mollymawk.—Three seen at sea off the end of the Mole.

White-throated Shag.—Fourteen on beacons in the harbour, 12 being the white-throated and two the little pied.

Stewart Island Shag.—Three noted, two flying near the Mole and one on a beacon inside the harbour entrance. Three birds of the bronze phase were seen in the water while a fourth was sitting on the Mole. On the cliff on the opposite side of the harbour entrance, 15 birds were noted where, on a previous occasion, Stewart Island shags had been seen flying to and from the nesting ground.

Spotted Shag.—One seen in Dowling Bay and four on the hulk off the Mole, each watching the party through a porthole.

Grey Duck.—Twelve in flight flying south.

Harrier.—Two noted.

South Island Pied Oystercatcher.—On the mudflats, 250 plus were seen.

Banded Dotterel.—Feeding all over the mudflats; too numerous to count.

Bar-tailed Godwit.—Fifty on mudflats.

Pied Stilt.—Forty-five feeding on the mudflats.

Caspian Tern.—Twelve.

White-fronted Tern.—On the Mole, 250 plus were counted. All appeared to be adults in winter moult and all had a pink flush on the breast (in several cases it was almost a rose shade). Two of the members had been on the Mole last November and had seen the nesting terns with a pink flush on the breast, but, on this occasion, the colour was much brighter.

Black-backed Gull.—Large flocks feeding on mudflats.

Red-billed Gull.—Flocks noted on the beach and a few birds mingled with the white-fronted terns.

Black-billed Gull.—Several seen.

Morepork.—One on roof of house in Waipuna Bay.

Grey Warbler.—Songs heard.

White-eye.—Flock of 20-30 noted.

Bellbird.—One seen.

Goldfinch.—Two noted.

Sparrow.—Flock of 50 seen.

Thrush.—One seen.

Blackbird.—One seen.

Hedgesparrow.—Calls heard.

Skylark.—Six seen.

Starling.—Flocks seen; 20-30 in one flock in flight.

A further visit to the area was made on April 14 by I. Tily and L. E. Walker and the following records were made:—

White-fronted Tern.—On the rocks at the extreme end of the Mole, 700 plus were seen. The pink flush was still apparent on the breasts of the birds but not quite so marked as on the previous visit in March. Birds were still in the process of moulting and there was a difference in the degree of greyness on some of the birds. Although a very careful check was made, no juveniles with the mottling on the wings could be seen.

Stewart Island Shag.—Seven birds of the bronze phase were seen in the water and two flying. Four birds with the alar bar and white dorsal patch were noted and one of these dived into the sea close to the observers. It came up with a red cod about 18 inches long in its bill and promptly swallowed it.

Buller's Mollymawk.—Five seen on the water off the stern of a small fishing boat moored close to the Mole.

Royal Albatross.—Six counted on the sanctuary.

Harrier.—Three on mudflats.

South Island Pied Oystercatcher.—On the mudflats, 150 plus were seen, including a partial albino.

Banded Dotterel.—A count of 55 plus was made but only over a section of the feeding area.

Bar-tailed Godwit.—Six feeding with some South Island pied oystercatchers.

Pied Stilt.—Fifty plus on the mudflats.

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BLACK-BACKED GULL COLONY ON WAIRUNA PEAK.—On November 30, 1952, a friend and I visited a colony of black-backed gulls which is situated on the southerly slope of Wairuna Peak, South Otago. The colony is not far from the top of the peak which is about 1550 feet above sea level and probably 30 miles from the coast itself. On the shady side of the peak there are two or three more or less distinct, vivid green patches totalling perhaps an acre or two, and from a distance flocks of gulls are often to be seen hovering over them or else resting there. On our approach to the lower patch of rank green grass, we startled hundreds of mature gulls into flight and agitated squawking. Every few yards there would be a nest. We could not stand anywhere without seeing a nest within a short range in at least one direction. Some were vacated, but many contained one, two or three eggs. Soon we found that many of the vacated nests were really still being used but that the screaming of the startled parents had sent the chickens to the cover provided by the nearest available lush grass, which was usually right beside the nest. It was quite impossible to estimate just how many young birds there were burrowed in among the grass, and it was with difficulty that we managed to avoid standing on some of them. The young we found in all stages from hatching to chubby birds 6in. or 8in. high. The larger nesting site, 100 yards or so further up the hill, we thought contained a greater number of chicks in proportion to the yet unhatched eggs, and, although most of the chicks seemed to be bigger, we did see some small ones, and, indeed, it was here we watched one push out of its shell. All the nests were made of soft grass.—Haddon Taylor, Dunedin Naturalists' Field Club.

SILVER-EYE'S SONG.—Here is evidence of the silver-eye being an expert imitator. During October, 1952, it was noted that a hedgesparrow was singing lustily every morning in the garden. However, it was not until a closer inspection was made that it was discovered that the bird singing was not a hedgesparrow at all but a silver-eye. While the bird perched in a privet tree he preened and paused at intervals to utter the identical song of the hedgesparrow. Previously there had been a pair of hedgesparrows in the garden, but early in October they were observed in a neighbour's garden where they probably nested.—Noelle Macdonald, Howick.

## NOTICES TO MEMBERS.

**SPECIAL GENERAL MEETING.**—A Special General Meeting of the Society was held in the Dominion Museum, Wellington, on January 17, 1953. The North Island Vice-President, Mr. H. R. McKenzie, presided over a small attendance of members. A resolution providing for the doubling of subscriptions was amended and subscriptions now are: 5s. for juniors (up to the age of 18 years); 7s. 6d. for ordinary members; 10s. for endowment members; and £6 6s. for life members (over the age of 30 years). After considerable discussion, the new constitution drafted by the committee appointed for the purpose in 1951, was amended and adopted. The society was subsequently registered as an incorporated society on January 21, 1953.

**GRANT FOR RINGING SCHEME.**—In making the society a grant of £25 towards the cost of purchasing additional rings, the Department of Internal Affairs wishes the society all success in the continuation of its ringing work and looks forward to further years of close co-operation with the society in its activities. An extract from a letter from the Assistant-Secretary for Internal Affairs, states, "Although the Ornithological Society does not concern itself with protection of birds, but with their study and observation, I am pleased to say that it has indirectly done a great deal for protection of native birds because of the knowledge about them it has put on record. This Department has already had positive evidence of the interest in bird protection that the society's work has aroused." (Signed) G. L. O'Halloran. The society is grateful to the Department and the Controller of the Wildlife Division, Mr. G. F. Yerec, for the interest displayed in its activities and for the practical form of encouragement given.

**NEW TREASURER.**—Mr. J. M. Cunningham relinquished the position of treasurer, and Miss M. Macdonald, "Keppoch Lodge," Sale Street, Howick, Auckland, was appointed by the council to fill the vacancy as from April 1, 1953. All subscriptions should, therefore, now be sent to Miss Macdonald.

**MEMBERS' ADDRESSES.**—Members are again urged to check their addresses on the envelope and advise the secretary of any errors immediately.

**NEST RECORDS AND BEACH PATROL.**—Nest Records cards should be sent to Mr. J. King, Box 448, Masterton, and Beach Patrol cards to Mr. R. K. Dell, Dominion Museum, Wellington.

**NOTORNIS REPORTED SEEN IN 1910.**—In my letter published in the last issue of Notornis (p. 83) the location of Gear Arm was inadvertently given as being in George Sound, whereas it should have been Bradshaw Sound.—W. A. Cumming, Palmerston North.

**CLASSIFIED NOTES.**—The names of the following contributors should be added to those published in the last issue (p. 85):—

R. V. McLintock, Mrs. Stirling	L. E. Walker, Mrs., Dunedin.
I. Tily, Mrs., Dunedin.	A. S. Wilkinson, Levin.

## NEW MEMBERS.

\* Life member.

Beatson, J.L., 5 Passmore Cres. Dndn. Pearson, M., L.D.S. Farm, Frankton  
Bourke, Miss K. 372 Stout St., Gisbne. Penniket, J.G., Poplar Av., Raumati S.  
Couldrey, Mrs E.M., Maratai, Auckld. Pittock, MrsD., 132 SydneySt.W., Wgtn  
Crew, N.J., Whaterangi, Featherston. Perry, J.W., Sanson R.D., Palmston N.  
Dalrymple, Miss N., 109 Gala St. Invgl. Favalloro N.J., Box 242, Mildura, Vic.  
Harris, A.R., 52 Peter St. Dndn, SW1 \*Tunnicliffe, C.F., Shorelands, Mall-  
Munster, MrsE., 14 Jefferson St. Wgtn. traeth Bay, Bodorgan, Anglesey, Eng.

## REVIEWS.

Proceedings of the Xth International Ornithological Congress, Uppsala, June, 1950. (Uppsala, 1951). 662 pp., illustrated.

The Tenth International Ornithological Congress was notable not only because a dozen eventful years separated it from its predecessor, but also (to us in New Zealand) because it was the first occasion the O.S.N.Z. was represented by a delegate. The stout paper-covered volume of proceedings includes many papers reflecting trends of "post-war" ornithology. Accounts of the congress, the excursions, the birds observed, the programme, lists of delegates and of members occupy 50 pages. In Alexander Wetmore's presidential address on additions to knowledge of prehistoric birds, 1933-1949, we learn that the ostrich-like Eocene *Eleutherornis* indicates that modern ratites have come from flying ancestors, a conclusion of interest in the land of the moa. Professor Horstadius, secretary-general of the congress, is author of an introduction to Swedish ornithology. The congress papers are arranged in six groups, four of them representing "central domains in ornithology," each headed by a synoptic paper by an eminent specialist.

Ernst Mayr's "Speciation in Birds. Progress Report on the years 1938-1950" appropriately opens the first section, evolution and systematics, which includes an abstract of R. C. Murphy's review of populations of the wedge-tailed shearwater (*Am. Mus. Novitates* No. 1512) and a paper on South American cormorants by C. Jouanin.

The second section, migration and orientation, opens with a review of migration studies, 1938-1950, by Rudolf Drost, summarizing recent advances (with more than 250 references) but leaving a clear impression of the vast amount still unknown. The papers that follow include a new method of investigating flight orientation and results obtained so far (German, with English summary) by Gustav Kramer, who describes his important experimental work in which the directional tendencies of captive starlings were modified by mirrors. "An elaborate faculty of computing the 'desired' direction on the basis of actual sun position, day time, angle speed of the sun movement, must . . . be assumed." (See also *Ibis*, vol. 94, pp. 265-85, in English.) "Some Aspects of Bird Migration in New Zealand" (by R. B. Sibson, the O.S.N.Z. delegate) summarizes what is known of this subject in six pages, under five headings: Arctic breeders, N.Z. breeders migrating north, N.Z. breeders migrating to Australia, inter-island migrants, and sub-Antarctic seabirds wintering near New Zealand. Much of the data is well-known to workers here, but has not been compiled in this way before. (A correction: The short-tailed shearwater recorded from Ceylon was not a ringed bird.) A "Round Table Conference on Bird Ringing" adopted 16 resolutions on ring-marking, publication of results, and international organization. For instance, "each country should have a single ringing scheme," and "when a recovery is made abroad, the ringing centre to which it is reported should inform the centre in the country where the bird was recovered." Thirty-nine ringing schemes are listed in 26 countries (two in N.Z.).

N. Tinbergen's "Recent Advances in the Study of Bird Behaviour" opens the third section (behaviour). It is a review of possibilities rather than of results, but offers promise for the future, under the three headings: "causation," "biological significance" and (evolutionary) "history." The papers that follow concern imprinting phenomena in ducks (Fabricius), inheritance and learning of chaffinch song (Poulsen), use of films in behaviour studies, and the ability of birds to distinguish numbers (in German), the amazing results of O. Koehler's experiments.

David Lack introduces the ecology section with a review of census-studies, irruptions, cycles, range-changes, and the factors involved (reproduction, mortality, breeding seasons, clutch size, survival and population limitation by food). A study of mortality rates in petrels is indicated as an obvious need because of their low reproductive rate and probable long average life. James Fisher suggests that the fulmar is now "a symbiote

of man," increasing as the result of whaling and trawling activities, and (with Vevers) reports that gannets have increased 18% in the east Atlantic since 1939 and have not yet reached the upper limit of population set by food supply. Several papers report the spectacular range-changes of Northern Hemisphere birds correlated with ameliorating climate in the past few decades. For instance, 23 species have been added to the Swedish list or have improved status since 1930, seven southern species have colonized Iceland successfully in the last 50 or 60 years, and Arctic species have lost ground in the same area. An unprecedented and well-documented case of invasion is described by F. Salomonsen (The Immigration and Breeding of the Fieldfare in Greenland). This European taiga species, normally straggling west to Iceland on migration, has done so more often during the recent improvement of climate, and, in January, 1937, a large flock crossed the Atlantic, being recorded on Jan Mayen and in N-E Greenland before crossing the ice cap to S-W Greenland; at least one bird reached Arctic North America to become the first record for the continent (a mummified skin obtained from an old Eskimo). In S.W. Greenland, the fieldfare established itself and eleven years later was breeding freely in certain areas. A. O. Gross (The Herring Gull-Cormorant Control Project) reports decrease of breeding terns (in Maine) resulting from increase in herring gulls to the status of pests. Normally fish-eating gulls even attacked ripe blueberry fruit (compare *L. novae-hollandiae* with *Meryta* and *Coprosma* berries). Control is by spraying the eggs with an oil emulsion. Double-crested cormorants have also increased and are controlled owing to complaints of the fishing community. Murphy's work in correlating zonal seabird distribution with zones of surface water is well-known in New Zealand, and it is noteworthy that D. E. Sargeant, discussing ecological relationships of two related northern guillemots, calls for greater co-operation with oceanographic and fisheries research to determine the factors controlling distribution.

In the fifth section of the proceedings, regional faunas, E. M. Nicholson's paper "Birds of the North Atlantic" includes a proposed scheme of regions, 10 degree quadrilaterals, with appropriate names, for use in plotting and discussing seabird distribution. "Birds of Tristan da Cunha" (Y. Hagen) summarizes work elsewhere published in full as a result of the Norwegian Expedition, 1937-38. None of 532 ringed *Eudyptes crestatus* were recovered elsewhere, but 12 of 570 ringed *Diomedea chlororhynchus* were recovered in their first winter from Portuguese Angola and Walvis Bay; no older birds were recovered though ringed birds were at the breeding ground 12 years later. Giant petrels ceased to breed at Tristan after the extermination of sea elephants. Ringed *Puffinus gravis* were recovered from the N. Atlantic and from South Africa. Hagen discusses the skua, naming the Falkland sub-species. A paper of less direct New Zealand interest is Holgersen's "On the Birds of Peter I. Island."

In the final (miscellaneous) section, R. C. Murphy's "Moa Deposits of Pyramid Valley Swamp, New Zealand," is a brief and competent account, marred by the statement (in a diagram) that the swamp deposits overlie a hard-pan floor of a glacial valley. Whatever the relation of moas to the glacial period, no one has seriously suggested that the "corrie-like depression" containing the swamp was carved by a glacier.—C.A.F.

**The British Trust for Ornithology, Eighteenth Annual Report, 1951.**  
Address of Trust, 2 King Edward Street, Oxford, England. Price,  
1s. 6d.

This year is described as one of development rather than of new projects, though plans were being considered for extending research work in 1952. A substantial increase in membership is recorded and field investigations have been well supported. The O.S.N.Z. has nest records and ringing schemes in operation and it is of interest to note that the nest records scheme of the British Trust "is now producing data on a scale which should make it of great value to students of breeding biology, while the ringing scheme again established a record." The Trust's regional

representatives (akin to the regional organisers of O.S.N.Z.) "are in many ways the key men of the Trust's organisation and upon whose energy and enthusiasm such a high proportion of our activities depend." N.Z. organisers, please note!

A perusal of the report provides impressive evidence of the great part the Trust is taking in British ornithology. The expansion and progress of bird observations is returning handsome dividends. All serious bird students would be well advised to have copies of these annual reports and keep themselves abreast of what is being achieved in Britain.—R.H.D.S.

**Bird Watching, by Mollie Miller Atkinson. A. H. & A. W. Reed, Wellington. Price, 6s.**

Some of the joys of bird-watching are conveyed to the reader in this little volume which should have an appeal to the younger folk. The chapters deal mostly with native birds and some are illustrated by drawings by the author, the most successful being those of the fantail, silver-eye, tui and morepork.—R.H.D.S.

**New Zealand Birds from Linocuts, by H. McL. Eggers. A. H. & A. W. Reed, Wellington. Price, 4s.**

Instructions on how to make linocuts are given in this publication, which contains as illustrations of the art, a selection of birds based on Buller's volumes. A "complete course of instruction" sets out clearly the procedure to follow in the making of linocuts.—R.H.D.S.

**Bird Secrets, by Major G. A. Buddle. A. H. & A. W. Reed, Wellington. Price, 20s.**

A fine series of photographs of New Zealand birds and a pleasantly written narrative relating the experiences of the late Major Buddle in the field, make this volume an indispensable one for the bird-lover. Although one or two of the photographs are of indifferent quality (the tui at its nest is a notoriously difficult photographic subject) a great number of them are admirable and well-reproduced. The difference in the proportions of the bill in the red-billed and black-billed gulls is clearly indicated, and among rarely photographed species must be mentioned the excellent studies of the spotless crane and the North Island oystercatcher. This volume contains 71 pages of text and 26 pages of illustrations, the latter dealing with 31 species.—R.H.D.S.

**Field Guide to the Waders, by H. T. Condon and A. R. McGill; published by the Bird Observers' Club, Melbourne, Vic. Copies obtainable from Mr. D. Mitchell, 4 Victor Avenue, Cheltenham, S 22, Victoria. Price, 2s. 6d, plus postage.**

Here is an invaluable guide to the waders that will be welcomed by the increasing band of estuary watchers in New Zealand, especially as it contains almost all of these birds that have been recorded in New Zealand from overseas. The basis of the guide is explained in the introduction and this is followed by a general description of waders, hints for identification, a note on the arrangement and a list of the various species recorded from Australia, totalling 51, all of which are illustrated (many both flying and standing), while a further 13 are given as possible future additions. For each species is a brief plumage description with characteristic markings, if any, in italics; and reference in many cases to differences in seasonal and juvenile plumages. An indication of the bird's habits, its call notes, habitat and distribution complete a brief summary of each bird.

The illustrations as a whole should be helpful: the most serious defect is that relative size has not been observed in arranging the birds on the plates. Especially is this noticeable on page 13, where the bar-tailed godwit ( $15\frac{1}{2}$  inches in length in life) is shown only a trifle larger than the turn-



stone (9 inches) or the common sandpiper (8 inches), while the little whimbrel (13 inches) immediately above the godwit is shown as a larger bird. Other examples can be found, notably on page 19, where the long-toed stint (6½ inches) is shown much superior in size to the wood sandpiper (9 inches). This is a pity, as it is so unnecessary; a little planning could have at least given the birds on any one plate in relative proportions, and, in the case of the oystercatchers on page 7, a line could have separated these or other large species from the remainder, as the authors have done on page 21. A redeeming feature is that the size of each species is given in inches in the text. Under the hints for identification the authors state that it is most important to judge correctly the size of the species under observation. That makes it all the more hard to understand why they have in many cases ignored size in the plates and frankly admit doing so in the introduction!

An injunction they give under hints that cannot be emphasised too strongly is: "When an unknown bird is encountered the observer is urged to record his impression at once in a suitable notebook, preferably before consulting this Guide." There will be many New Zealanders who must have this booklet at their elbow as a help in identifying waders visiting our shores. Thirty-two of the species mentioned in the book have been recorded from New Zealand.—R.H.D.S.

REACTIONS OF DIOMEDEA EXULANS to Other Bird Species.—Wandering albatrosses are commonly seen resting on the waters of Lambton Harbour, Wellington, where they partake of offal thrown out of ships. In September, 1948, a bird paddling its way into the inner waters of this harbour apparently to inspect a stream of traffic passing along a nearby street, was attacked by a dozen red-billed gulls (*Larus novaehollandiae*). The gulls dived at the albatross one at a time for ten minutes or so, but the albatross remained unmoved. In June, 1952, it was therefore surprising to see another albatross of the same species exhibit fear when several black-backed gulls (*Larus dominicanus*) plunged around it to seize carrion from ships. The same albatross, though exhibiting alarm at the propinquity of noisy, scavenging gulls of this species was itself seen to dominate a nelly (*Macronectes giganteus*). The albatross swam across to the nelly sitting on the water some yards away. When close by, it elevated its bill from an approximate plane to an angle of 45 degrees. The albatross then clapped the unguis hard on the mandible and the nelly at once took flight.—H. L. Secker, Wellington.

### SCIENTIFIC NAMES.

The scientific names of birds mentioned in this issue, where not given in the text, are:—

Albatross, Royal ( <i>Diomedea epomophora</i> )	Oystercatcher, S.I., Pied ( <i>Haematopus finschi</i> )
Albatross, Wandering ( <i>Diomedea exulans</i> )	Quail, Brown ( <i>Syncoicus ypsilophorus</i> )
Blackbird ( <i>Turdus merula</i> )	Quail, Californian ( <i>Lophortyx californicus</i> )
Bellbird ( <i>Anthornis melanura</i> )	Redpoll ( <i>Carduelis cabaret</i> )
Dotterel, Banded ( <i>Charadrius bicinctus</i> )	Sandpiper, Pectoral ( <i>Calidris pectoralis</i> )
Dotterel, N.Z. ( <i>Pluviorhynchus obscurus</i> )	Sandpiper, Sharp-tailed ( <i>Calidris acuminata</i> )
Duck, Grey ( <i>Anas poicilorhyncha</i> )	Shag, Stewart Is. ( <i>Leucocarbo chalconotus</i> )
Godwit ( <i>Limosa lapponica</i> )	Shag, Spotted ( <i>Stictocarbo punctatus</i> )
Goldfinch ( <i>Carduelis carduelis</i> )	Shag, White-throated ( <i>Phalacrocorax melanoleucus</i> )
Gull, Black-backed ( <i>Larus dominicanus</i> )	Silver-eye ( <i>Zosterops lateralis</i> )
Gull, Black-billed ( <i>Larus bulleri</i> )	Skylark ( <i>Alauda arvensis</i> )
Gull, Red-billed ( <i>L. hollandiae</i> )	Sparrow, House ( <i>Passer domesticus</i> )
Harrier ( <i>Circus approximans</i> )	Starling ( <i>Sturnus vulgaris</i> )
Hedge Sparrow ( <i>Fruinella modularis</i> )	Stint, Red-necked ( <i>Calidris ruficollis</i> )
Heron, White ( <i>Casmerodius albus</i> )	Stilt ( <i>Himantopus himantopus</i> )
Heron, white-faced ( <i>Notophoxyx novaehollandiae</i> )	Tern, Caspian ( <i>Hydroprogne caspia</i> )
Knot ( <i>Calidris canutus</i> )	Tern, White-fronted ( <i>Sterna striata</i> )
Morepork ( <i>Ninox novaeseelandiae</i> )	Tern, Song ( <i>Turdus ericetorum</i> )
Mollymawk, Buller's ( <i>Thalassarche bulleri</i> )	Warbler, Grey ( <i>Pseudogerygone igata</i> )
Mollymawk, White-capped ( <i>Thalassarche cauta</i> )	Whimbrel ( <i>Numenius phaeopus</i> )

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