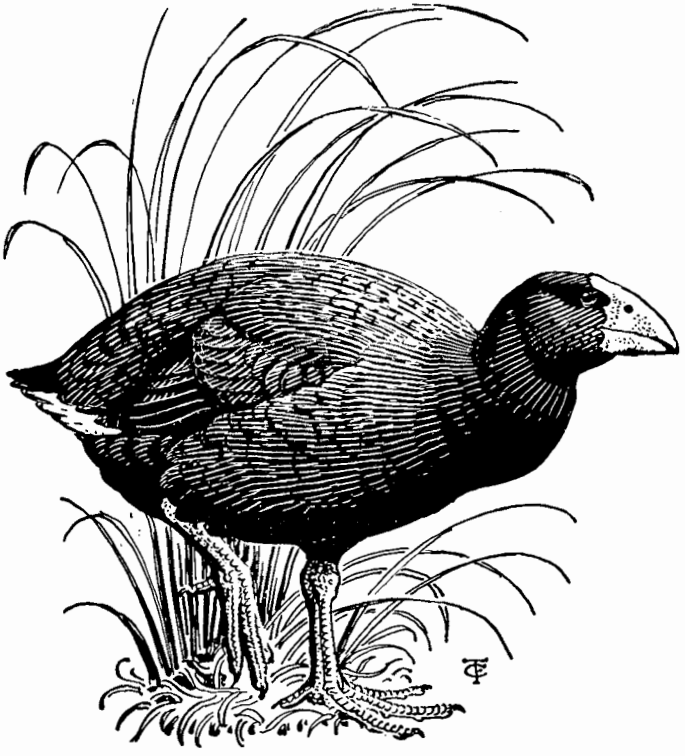
VOL. 6. No. 1. JULY, 1954.

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.

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Vol. 6 No. 1 Published Quarterly. JULY, 1954

CONTENTS.

BANDED RAIL NESTING IN AUCKLAND SUBURB.—A friend of mine has a garden which slopes down to Portland Road, Remuera. Across the road is a small tidal creek and a swampy flat, a corner of which has already been filled in. When scything the long grass at the bottom of his section, he laid bare a nest of seven attractively marked eggs. Having only an epicurean interest in eggs my friend ate all of them except one! The remaining egg was rescued from the refrigerator and submitted by the writer to Mr. A. W. B. Powell, of the Auckland Institute, who said at once that it came from a nest of the New Zealand banded rail (**Rallus philippensis assimilis**). Mr. Powell said further that he had known of the existence of banded rail in that area and they fed, he said, on marine insects among the stunted mangroves which grow in that corner of Hobsons Bay. The eggs were discovered on 3/3/54 which might indicate a final attempt on the part of the birds to rear a family, after failing to do so earlier in the season. Auckland naturalists will be interested to know that in spite of rats, cats, hedgehogs, dogs and humans, this shy and comparatively rare native bird still survives within an easy ten minutes' drive of the roar of Queen Street traffic.—J. A. Fagan, Auckland.

ANNUAL MEETING.

Between 50 and 60 members of the Ornithological Society of New Zealand (Inc.) from various parts of New Zealand assembled in the Library of the Auckland War Memorial Museum on May 21, 1954, for the 14th annual general meeting. The chair was taken by the retiring president of the society, Mr. R. B. Sibson.

The annual report was read by the secretary, Mr. F. M. Brookfield, and was adopted by the meeting. Separate reports, which also were adopted, were read by the treasurer, Miss N. Macdonald, by the convener of the Ringing Committee, Mr. P. C. Bull, and by Mr. Sibson, on behalf of the librarian, Mr. Turbott.

In accordance with the ballot held at the previous annual general meeting, the positions of president, treasurer and secretary had now become vacant. The only nominations received were those of Mr. H. R. McKenzie, Miss N. Macdonald and Mr. F. M. Brookfield, who were accordingly declared elected as president, treasurer and secretary respectively.

Mr. Sibson made particular mention of the services to the society of the late Mrs. Tily, who was South Island vice-president at the time of her death, and also of Mr. J. M. Cunningham, the former secretary. On the motion of Mr P. C. Bull, the meeting requested the council to recommend Mr. Cunningham for honorary life-membership in recognition of his work.

Mr. D. N. Chambers was re-elected auditor and was thanked by the meeting for his services.

After the formal business of the meeting was completed, films of a very high and enjoyable standard were shown by Dr. R. A. Falla and by Mr. G. Moon. The meeting expressed its thanks to these members and also to the acting-director of the museum for the use of its facilities for the evening.

FIELD EXCURSIONS.

On the morning immediately following the annual meeting, Saturday, May 22—about ten car-loads of members set out for Bethells Beach, mainly for the purpose of viewing the spotted shag colony. Unfortunately some heavy rain marred the day and relatively little of interest was seen. Several of the cars travelling via Waitakere found the road impassable and were compelled to carry on to Muriwai, but they were scarcely more successful there than those who had reached Bethels by a route unknown to the Muriwai party. For all of us, however, the day was not without that peculiar enjoyment that always comes with wind and rough weather.

The following day was much better, both ornithologically and meteorologically. Members travelled by car to the Firth of Thames where they were rewarded by seeing part of the flock of wintering wrybill plover and the usual wintering flocks of godwit, knots and South Island pied oystercatchers. Two turnstones and a New Zealand dotterel were also seen.

ANNUAL REPORT.

The fourteenth annual report, for the year ended March 31, 1954, stated:—

General.—In this, the first complete year of the society's existence as a corporate body, the new constitution has continued to function smoothly. The work of the society has generally been carried on quietly but efficiently and the progress of previous years consolidated. As examples of the activities of members we mention further bird-census work carried out at Dunedin and at Auckland, the shining cuckoo and white heron investigations still in progress and the exhibitions under the auspices of the museums of bird photographs taken by some of our members. Ringing activities have continued and will be the subject of a special report by the convener of the Ringing Committee.

Officers.—At the beginning of the year the members of the council were as follow:—President, Mr. R. B. Sibson; South Island vice-president, Mrs. I. Tily; North Island vice-president, Mr. H. R. McKenzie; secretary,

Mr J. M. Cunningham; treasurer, Miss N. Macdonald; editor of "Notornis," Mr. R. H. D. Stidolph; librarian, Mr. E. G. Turbott; Mrs. L. E. Walker and Dr. R. A. Falla.

We sadly record the death of Mrs. Tily, the South Island vice-president, which took place in March, 1954, at Dunedin. Mention will be made of her generous service to the society and to New Zealand ornithology generally in the address of the retiring president.

Mr. J. M. Cunningham resigned from the secretaryship in the course of the year, his resignation taking effect from the end of October. Mr. Cunningham is another officer to whom the society owes much. For seven years he carried the double burden of the secretary-treasurership and he has well earned a respite from council duties. The council appointed in his place Mr. F. M. Brookfield.

Mr. Turbott left in December for an absence of several months in Europe. He was appointed by the council officially to represent the society at the Eleventh International Ornithological Congress, which will begin in Basel, Switzerland, on May 29th, 1954. In Mr. Turbott's absence the president has been acting as librarian.

During the year the council succeeded in filling most of the positions of regional organisers. The following districts are each still without one:—Wellington, Taranaki, Bay of Plenty, Waikato and North Auckland. The regional organiser is, of course, a very necessary officer for each district; without him the activities of members will be unco-ordinated and perhaps spasmodic. Progress will be slower and enthusiasms, particularly of any newly-joined members, will flag. The council is anxious that suitable people will be found to fill the vacancies as soon as possible.

Membership.—This stood at the end of the financial year at 772 compared with 682 last year. The treasurer's report will give details of these figures.

Publications.—Ths year saw the accomplishment of two publishing ventures undertaken by the society: the reprint under the title "Reports and Bulletins" of the cyclo-styled issues of 1939-40, and—more notable, of course—the publication of "Checklist of N.Z. Birds," which was the work of the Checklist Committee convened by Dr. C. A. Fleming. The "Checklist" has generally been very well received. At least four reviews, all of them favourable on the whole, have so far appeared in overseas ornithological journals. The editors of three Continental journals have requested and been sent copies for review.

TREASURER'S REPORT.

Membership of the society now stands at 772, 53 of these being life members, 476 ordinary members paying 7s. 6d per annum, 46 junior members paying 5s. per annum, 181 endowment members paying 10s. a year, and 16 complimentary members to whom copies of Notornis are sent free. These latter include certain libraries and lighthouse-keepers. Seventy members were unfinancial on March 31, representing the sum of £33 10s., as compared with £8 10s. for last year. There were 22 resignations. Although on the face of it the society's financial position appears good, it must be pointed out that the large credit this year is due not so much to an increased number of subscriptions but to profits from various publications by the society in the past year. These profits will not recur to any great extent. Profit from the sales of the Checklist was £24 1s. 11d. on the printing of 500 copies, which were mostly sold to members at the pre-publication price of 7s. 6d. each. Similarly, a profit of £71 17s. was made on the sales of the cyclostyled reprint of Reports and Bulletins. The total from subscriptions for the year amounted to £263 3s. 6d., while the total from sales of Checklist, Takahe and Reports and Bulletins was £144 16s. 4d. Donations for the year totalled £14 1s. 6d. The printing of Notornis cost the society £188 10s. 1d., while the greatest increase in expenditure was £22 14s. 1d. for postages as a result of the increased postal rates and the extra publications posted to members. The importance of

early payment of subscriptions cannot be too strongly stressed because every account sent out costs the society much-needed money, and when three or four reminders have to be sent during the year the costs mount up. The society's most grateful thanks are due to all who have sent donations during the year; also to Mr. D. N. Chambers for auditing the books.—Noelle Macdonald, hon. treasurer.

INCOME AND EXPENDITURE ACCOUNT to 31st March, 1954.

INCOME	£	s.	d.	EXPENDITURE.	£	s.	d.
Subs., 1953 and Arrears	276	13	6	Printing "Notornis," Vol. 5, Nos. 5 to 8	188	10	1
Donations, General and Illustrations Fund	14	1	6	Envelopes	12	12	1
Sales—				Stationery	10	4	8
Back Numbers	32	4	0	Ringing Stationery	1	0	0
"Takahe" issue	1	14	0	Exchange	1	9	11
Checklist	39	1	5	Postages	50	0	5
Reprint Cyclostyled Issues	71	17	0	General	10	14	4
Interest, P.O.S.B.	8	17	0	Balance Inc. Expenses	7	11	3
				Depreciation, Plant	3	1	8
				Excess of Income over Expenditure, to General Reserve	159	4	0
	£444	8	5		£444	8	5

BALANCE SHEET as at 31st March, 1954.

LIABILITIES.	£	s.	d.	ASSETS.	£	s.	d.
Subs. paid in Advance	50	7	6	Stocks on hand, 31/3/54	130	4	0
Life Members' Subs.	187	13	0	Subs. in Arrears, estimated to realise	13	10	0
Sundry Creditors	20	10	0	Sundry Debtors		15	0
Ringing Fund	25	0	0	Plant, less depreciation	36	0	1
General Reserve	336	3	6	Bank of New Zealand	36	8	2
				P.O. Savings Bank	402	16	9
	£619	14	0		£619	14	0

(A more detailed statement of accounts, certified by Mr. D. N. Chambers, was presented to the annual general meeting.)

LIBRARY REPORT.

In the absence of Mr. E. G. Turbott, the Library report will be very brief. Our collection of books, periodicals and pamphlets is growing rapidly. We are grateful to Miss Evans who has found time to arrange and catalogue them. Since last year 48 new items have been added and the number of borrowings has increased from 65 to 103. The Library Committee would be grateful if borrowers would return books as soon as they have finished with them. At present the binding of some complete volumes is held up because odd issues have been away too long. As the number of foreign ornithological journals increases it appears that most of the annual library grant will be spent on binding.

RINGING COMMITTEE REPORT.

The report of the Ringing Committee for the year ended March 31, 1954, stated: The society's ringing scheme continues to develop satisfactorily. Nineteen operators have between them ringed 3067 birds of 21 species, and there have been 178 recoveries. The number of birds ringed and the number of recoveries exceed all previous yearly totals, and this, together with previous work, has resulted in important advances in our knowledge of the movements and behaviour of several species of birds—knowledge which could not have been obtained by any other means. A summary of the birds ringed and recovered during the year ended March 31, 1954, is supplied separately.

The increasing number of birds ringed and recovered has caused a corresponding increase in recording work, and the Ringing Committee is grateful to Mr. Moreland, of the Dominion Museum, for the considerable amount of time he has devoted to this work. If ringing activity continues to expand in this way some assistance with the recording work will be

required from members. At present there are still some operators who cause unnecessary work by asking for supplies of rings at short notice, by not filling in their schedules correctly or by failing to forward them promptly.

The excessive wear shown by the society's rings when used on certain species continues to cause concern. It appears that the fitting of rings too loosely is at least partly to blame for this, and the matter is receiving further study. The manufacturers advise that they now have a specially resistant type of ring for use on waterfowl, and it is hoped to obtain some of these for trial next season. It is also intended to investigate further the possibility of getting more satisfactory rings from other sources.

A change of policy has been made with regard to ringing permits. Under the new policy each operator has his own individual permit which specifies the species he may ring. This method allows the Ringing Committee more freedom to make allowances for the special requirements of individual research projects and at the same time ensures a better control of ringing activities. The society's permit to handle certain protected birds for the purpose of ringing, granted by the Hon. the Minister of Internal Affairs, is conditional on the scheme being properly controlled, and such control is clearly in the interests of the operators themselves. All active ringing operators have now received their individual permits together with an instruction leaflet explaining the new scheme and incorporating certain technical recommendations with regard to bird ringing. Other members requiring copies of this leaflet (No. 4) may obtain them from the convener of the Ringing Committee.

All recovery cards held up to March 31, 1953, have now been duplicated and the duplicate set is held by the Auckland Museum. The Ringing Committee is grateful to the Department of Scientific and Industrial Research for assistance with the typing of these cards.

In 1951 the Ringing Committee sent a quantity of the society's rings to the Australian National Antarctic Research Expedition because that organisation had insufficient time to procure its own rings before the departure of personnel to Heard Island. The Australian authorities provided dollars for a new supply of rings to be sent from America so that our stocks would be fully replenished. Before the New Zealand rings had all been used the Australians managed to obtain a supply of rings bearing their own inscription, and the fairly substantial unexpended balance of New Zealand rings has recently been returned to us as a gift. This generous action is very much appreciated.—P. C. Bull, convener of the Ringing Committee.

ALBINO KOKAKO NEAR PAEROA.—It was the good fortune of my brother, H. J. Morgan, of Rarotonga, and myself during a tramp in the bush on 7th January, 1954, to see at close quarters an albino kokako (**Callaeas cinerea wilsoni**) or blue-wattled crow. We were in the ranges between Waitekauri and Paeroa and had had lunch on a ridge at a height of 1600 feet above sea level when my brother decided to see which birds he could call. Very soon we were visited by warblers, pied tits, fantails, tuis and then a kokako. Within a few minutes of seeing the first kokako we saw an albino kokako. We observed both birds for approximately 25 minutes and they came to within 15 feet of us. The albino was three parts white and one part slate grey. Of the tail feathers one, or perhaps two, were all grey while the rest were pure white. The colour of the bill was a light orange. The albino was the more curious of the two and kept calling "took! took! took!" Oliver ("New Zealand Birds," p. 502) states that albinos have been obtained in the Rimutaka mountains, and the Wairarapa district. This must have been many years ago, when the kokako was plentiful, as there have been no reports of its being found in those places recently. It, therefore, appears that this present case of albinoism is of particular interest.—H. L. Morgan, Paeroa.

RECOVERY OF RINGED HARRIERS.

By J. S. Watson, Animal Ecology Section, D.S.I.R.

INTRODUCTION.

Ringing studies of birds will only provide reliable information on vital statistics and movements when a large number of returns are available for analysis. The species selected for such investigation should, therefore, be either those in which a large proportion of marked birds will be recovered or those that can be caught and marked in large numbers so that although the proportion of returns may be small yet the total recovered is large enough to be useful. The Australasian harrier (Kahu) (**Circus approximans** Peale) is a particularly suitable species for ringing because many birds are killed each year for the bounty paid by the acclimatization societies, so a good proportion of recoveries can be expected; moreover, the birds, being readily attracted by carrion, can easily be caught for marking.

A ringing study of these birds was undertaken as part of an investigation into the ecology of the rabbit in New Zealand, the harrier, about which little factual information is available, being a predator of this animal. This paper gives a preliminary account of this work and of the information on the birds' movements derived from the recoveries.

METHODS.

Apart from three nestlings, all the birds ringed were caught in traps of two types both baited with dead rabbit. One, a modified form of the "crow" trap described by Hollom (1950), is a wire-netting cage approximately 5 x 4 x 4 ft., with a hole along the top by which the birds can enter but which they have difficulty in finding to make their way out again. A perch above the trap is an improvement, for without it the birds alight on the ground and spend much time walking round trying to find a way in. A funnel entrance at ground level overcomes this difficulty, but also enables cats and ferrets to enter and remove the bait. This trap has the advantage that several birds can be caught at one time; as many as five harriers have been found simultaneously in one. The other trap, equally successful in catching birds, has a door that shuts when a hook holding the bait is removed. This trap can catch only one bird at a time and to be most effective must be placed where it can be easily seen and so can be emptied as soon as a bird is caught.

Some care is necessary when handling the birds to remove them from the traps. A harrier makes no attempt to defend itself with its beak but may strike vigorously with its feet, and having a very strong grip it is difficult to make it release its claws once it has taken hold; the birds should therefore be grasped firmly by the tarsi.

RINGING RESULTS.

Trapping began at the Animal Ecology Field Station, Hynish, in the Gwavas State Forest, near Tikokino, Hawke's Bay, in 1951, and an additional trapping locality was started the following year at Awatea Station about seven miles east of Hynish. Table 1 shows the number of birds marked, and the number recaught from previous seasons at the two stations each year. Young birds, shown separately, are easily recognized by their uniformly coloured brown breast feathers and dark brown eye; they start moulting out of this plumage about the beginning of February when about 13 months old and by this time the eye is paler so that they are distinguishable from the young just out of the nest.

TABLE 1.

TRAPPING RESULTS.

	HYNISH				AWATEA						
	Marked		Re-		Marked		Re-				
Year.	Young.	Old	caught.	Total.	Young	Old	caught.	Total	Young	Adult	% Young
1951 ...	21	21	—	42	—	—	—	—	21	21	50
1952 ...	21	41	4	66	20	18	—	38	41	63	39
1953 ...	5	19	6	33*	16	21	4	41	21	50	29
Total ...	47	81	10	141*	36	39	4	79	83	134	38

* Includes three birds whose age was not determined.

Altogether 206 birds were ringed, of which 83 were young, 120 old, and three were of undetermined age. The different number caught each year reflects the intensity of trapping rather than changes in the harrier population; but the varying percentage of young birds in the total catch may well indicate the relative nesting successes in the different years. The steady fall could be due to the reduction of the rabbit population over this period, as the nestlings are fed very largely on young rabbits.

The harriers come most readily into the traps during the period March to June, but are difficult to catch throughout the breeding season from the start of their display flights in August until the young leave the nest in January. This could well be due to a greater abundance of alternative food such as the young rabbits and birds at this time. The same periodicity is apparent in the date when marked birds were recovered (Table 2).

TABLE 2.

MONTH OF DEATH OF MARKED BIRDS.

Month.	Jan.	Feb.	Mar.	Apr	May	Jun.	Jul.	Aug.	Sep	Oct	Nov.	Dec.	Total
No. killed	0	4	6	8	7	8	0	1	0	1	0	0	35

The proportion of marked harriers recovered is very high. Out of 142 birds marked in 1951 and 1952, 32 (22.5%) have so far been killed and reported. This is a higher recovery rate than any recorded in the British bird-ringing scheme; in the last report in which recovery figures were given (Thompson 1949) the black shag (English cormorant, **Phalacrocorax carbo**) had the highest rate with 22.1% recovered. In addition to the marked harriers killed, 14 birds were recaptured at the trapping stations in subsequent years so that the total recovery rate is 32.4%.

The harriers do not appear to become shy of the traps and a number were recaptured shortly after being marked. Table 3 shows the frequency with which different birds were recaught within a month of being marked.

TABLE 3.

FREQUENCY OF RETRAPPINGS WITHIN A MONTH OF RINGING

	No. Marked	Times Recaught. 1	2	3	4	5	Total.	Average No. recaptures.	Per cent. marked birds recaught.
Young ...	83	7	2	1	–	1	11	1.73	13.2
Old	120	15	9	1	–	–	25	1.44	20.8
Total	203	22	11	2	–	1	36	1.53	17.7

It can be seen that although individual young birds came back to the traps slightly more frequently than did adults, yet a larger proportion of the latter were retrapped. However, the differences between the two are no greater than one might expect to get by chance and do not indicate that the young birds are more liable to get caught than the old ones; this is interesting in view of the much higher mortality from trapping and shooting reported in the young of some other species (e.g. cormorant Stuart 1948).

Table 4 shows the distances travelled by recovered birds. Caution is needed when examining these figures as some of the birds recovered during the season in which they were ringed may well have been killed before being able to move as far as they might have done, thus giving a bias in favour of returns from near the trapping stations. There is a suggestion of this, for of the 16 birds killed in the same season as they were marked 8 (50%) had moved less than five miles, while of the 19 birds killed in subsequent years 7 (36%) were less than five miles away.

TABLE 4.

DISTANCES TRAVELLED BY MARKED BIRDS.

Distance Miles.	MARKED AS YOUNG. No. Recovered Same year.	after 1 year.	after 2 years.	MARKED AS OLD. No. Recovered Same year	after 1 year	after 2 years.
0 (re-trapped) ...	–	3	1	–	9	1
0-5	5	3	1	3	3	0
5-10	2	0	0	3	7	1
10-15	0	0	0	0	0	0
15-20	0	1	0	0	0	0
20-25	1	1	0	0	0	0
100-500	1	2	0	1	0	0

There appears to be some difference between the movements of old and young birds. Table 4 shows that the adults, with one exception, were killed within ten miles of their ringing place, whereas six out of the seven birds which moved more than ten miles were young when banded. There is a further record (Lopdell 1944) of a young harrier, ringed as a nestling and recovered 29 miles away four months later; thus there appears to be some dispersal of young birds probably in the winter after they leave the nest. The smaller proportion of young than old birds recovered where ringed in later years also supports this suggestion.

The large gatherings (Wodzicki 1949), communal roosts, and the numbers that assemble to feed on dead rabbits along the poison lines, show that the birds are rather mobile in winter. The ringing returns indicate the normal range from which individual birds might come as having a radius of about five miles, that is an area of about 80 square miles.

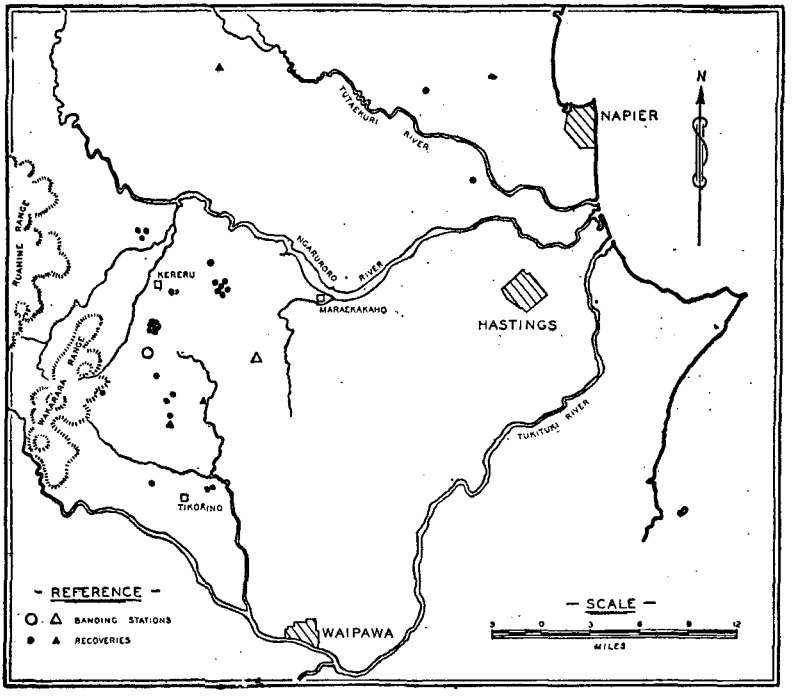

Figure 1—RECOVERIES OF MARKED BIRDS WITHIN 25 MILES OF TRAPPING STATIONS.

The maps (Figs. 1 and 2) show where the recovered birds were killed. Fig. 1 shows that the recoveries from the Hynish trapping station (marked

by a circle on the map) were in the opposite quadrants N.E.–N.W. and S.E.–S.W. and there were no recoveries in the other directions. The Whakarara and Ruahine ranges lying to the west are virtually uninhabited, which could explain why no birds were returned from that quarter. The absence of returns to the east is, however, harder to explain as this district is no more sparsely populated than that to the north and south. Moreover the Awatea trapping station (marked with a triangle) is only seven miles to the east with no obvious barrier intervening and although 131 birds have been ringed at Hynish and 75 at Awatea no bird marked at one station has ever been recaptured at the other which might suggest that east-west movements are not very frequent.

Figure 2—LONG DISTANCE RECOVERIES OF RINGED HARRIERS

Fig. 2 shows the long distance recoveries of marked birds. These were:

No. 13443, a young birds marked at Hynish on 3 March 1952, and killed near Carterton, 110 miles south-west, in June 1953.

No. 13458, an old bird marked at Hynish on 4 April 1952, retrapped twice in the following week, and killed a month later on 10 May 1952 near Lake Waitaki, Otago, 460 miles south-west.

No. 13461, a young bird marked at Awatea on 30 April 1952, and shot over a year later on 9 May 1953 at West Taratahi near Carterton.

No. 14639, a young bird marked on 12 March 1953 at Awatea, and killed three months later on 19 June 1953 at Te Wharau near Dargaville, 290 miles north-west.

Two of these birds, Nos. 13458 and 14639, killed shortly after being marked, show that these lengthy movements occur in the late autumn or early winter, about April and May. The birds disperse over a very wide area; only one of them (No. 14639) crossed the mountains running down the two islands—all the other recovered birds had remained on the east side. The mountains can hardly be a very serious barrier to this species as numerous gaps and passes give access to the other side, and the harrier, like other broad-winged hawks, uses convection currents to enable it to soar to considerable heights; nevertheless the mountains appear to influence to some extent the direction in which the birds move.

DISCUSSION.

This preliminary account of the ringing of harriers has been given to show the progress being made with this work. The number of returns is still too scant to enable very detailed conclusions to be drawn about the behaviour of these birds, but is sufficient to give some indication of the movements of this bird which hitherto has been a matter of speculation.

Some limitations of this ringing method are that the returns are almost all of birds which have been trapped or shot, so their distribution will be influenced to some extent by that of people interested in destroying harriers —which is probably not random throughout the country. The four long distance recoveries were all in rabbit infested districts which might indicate either the animosity of rabbiters against harriers or the predilection of harrier for rabbit-infested country. Moreover, marking and killing of the birds only occurs during half the year and therefore gives a rather limited picture of the harriers' behaviour.

ACKNOWLEDGMENTS.

I should like to thank Mr. E. Clarkson for permission to establish a trapping station on his property; Mr. D. Clarkson for operating the traps there; Messrs. P. Hardy, N. Knol, and R. Edgar for help with the Hynish traps; Mr. R. H. Taylor for preparing the maps; and especially all those people too numerous to mention individually who have sent in details of marked harriers killed.

SUMMARY.

In the three years 1951-3 206 harriers have been caught and marked at two trapping stations in Hawke's Bay.

Thirty-five birds have so far been recovered and a further 14 were recaught in subsequent years where ringed.

The returns indicate that the old birds tend to stay within a radius of about five miles but a proportion of the young ones disperse up to several hundred miles from where they were ringed.

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AUSTRALIAN PELICANS IN THE SOLOMON ISLANDS AND NEW HEBRIDES.

By Marshall Laird, Department of Parasitology, University of Malaya.

[* These notes were made in the course of malariological studies initiated by the Royal New Zealand Air Force and supported by a grant from the N.Z. Department of Scientific and Industrial Research.]

Shortly after arriving at Aneityum (the southernmost island of the New Hebrides, 169° 47' E., 20° 12' S.) on August 4, 1952, it was heard that some large white birds quite strange to the local natives had recently appeared there. An Aneityumese had shot one of these birds at Anelgauhat, the harbour on the south coast of the island, two days previously. This man was located, and on being asked for details he said that although the bird had been eaten its skin was still near his hut.

The remains proved to consist of the vertebral column, legs, tail, and parts of the wings and head of a pelican. Wing quills, scapulars and some of the tail coverts were brown, as much as remained of the rest of the plumage being white. The sides of the bill were bluish, while the dorsal surface and pouch were flesh-coloured, and the feet were of a light, slaty colour.

Measurements were made as follow:—

Overall Length	64in.
Length of Bill	17.5in.
Length of Wing	24in.
Length of Tarsus	5in.
Length of Tail	7.5in.

From the data presented by Alexander (1928), these measurements and details of colouring are unmistakably referable to **Pelecanus conspicillatus** Temmick, the Australian pelican. The dark portions of the wings and tail being not black but brown indicate that the bird in question was a juvenile.

Pressure of other work during the remainder of the three days spent at Aneityum prevented the gathering of further information beyond the facts that numerous birds similar to the one inspected had been seen and that several had been shot by the natives for food.

A record of the occurrence of pelicans in the British Solomon Islands Protectorate subsequently appeared in the "Pacific Islands Monthly," (Anon., 1952). It was stated therein that some of these birds appeared at Gatukai (a small island of the New Georgia group, Western Solomons) "shortly after the big wind which caused so much damage early this year and it is suggested that they were blown away from their homes, possibly in New Guinea." Later sightings were reported from Kolombangara, New Georgia group (a dozen birds), and from Lunga, Guadalcanal (a score of birds).

A return visit was paid to Aneityum during February and March, 1953. No pelicans were seen in the vicinity of Anelgauhat, where most of the scanty population is concentrated. The first sighting was at 0630 hours on February 19, when a single bird was observed from a launch while passing Anauunse near the north-western limit of the island. This bird was occupying a small rock which was all but awash, about 50 yards offshore. It remained there as the launch went by, and was studied closely through binoculars. The dark parts of its plumage were quite black, and it was identified with certainty as an adult **P. conspicillatus.**

What was in all probability the same bird was seen on the same rock at 1600 hours on February 28, during a launch journey to Port Patrick on the north coast. While staying at Port Patrick I was told by Mr. Harry Freeman, who has spent most of his life on Aneityum and is a keen observer of the island's birds, that two separate flocks of white pelicans arrived in the early months of 1952. The natives had since shot many of them for food and now only about ten were left, living singly at relatively inaccessible parts of the coast.

Some months later, a visit was paid to the British Solomon Islands Protectorate. While at isolated Rennell (11° 40' S., 160° 15' E.), the most southerly island of the Solomons, my wife and I tramped up to Niupani Village on Lake Tenggano (August 19, 1953). This ake, the largest in the tropical South Pacific, supports a unique avifauna. Birds found there include the white ibis, white spoonbill, Australian dabchick, Australian grey duck and black bittern (Mayr, 1945). One of our objectives at the lake was to obtain blood smears from some of these birds as part of a survey of avian haematozoa in the Pacific.

On the way to Lake Tenggano a native from one of the villages there was asked for information concerning the local waterfowl. We were particularly interested in the abundance of ibis, but attempts to describe these birds in pidgin met with no response—largely because I can never seem to remember that in this jargon all birds must be referred to as "pigeons"—until our friend suddenly brightened up and declared: "Me savvy one big fellow pigeon, mouth belong him he big too much." An attempt to apply this description to **Threskiornis**, with its long, curved bill, was invalidated shortly afterwards when some ibis were seen. No, the bird in question was much bigger than that (this also ruled out the only other Rennellese species to which the description might have been applied, the white spoonbill and the reef heron). About 20 very large, white birds had arrived early the year before. From the picturesque description detailed to us, these could only have been pelicans. They were quite new to the Rennellese, who proceeded to hunt them for food. At the time of the visit, some eighteen months later, only two survivors of the flock were known to be still living on the shores of Lake Tenggano. Neither bird was sighted on this occasion.

Numerous flocks of Australian pelicans thus reached various islands of the Solomons and New Hebrides early in 1952, the first recorded sighting being that at Gatukai shortly after the "big wind" towards the beginning of the year (Anon., 1952). Once back at my Fijian base, information regarding such a wind was sought from Mr. F. E. J. Holley, of the Meteorological Office, Nandi Airport, to whom I am grateful for the following information derived from Australian official sources: On March 3, 1952, the area Queensland-New Guinea-New Hebrides-Norfolk Island was covered by a trough which deepened during the 4th and 5th to a moderate tropical depression, a shallow but very elongated trough stretching from the Central Tasman Sea to south of S.E. New Guinea; on March 6 and 7 this depression drifted east-south-east, and by 0600Z on the 7th, it was well east of the New Hebrides. On March 3 and 4 fairly strong winds were blowing towards to sea, mainly at 7,000 feet and 10,000 feet, over Rockhampton, Queensland; and from the 3rd, westerlies of the order of 270-280/12-16 knots were blowing over the New Hebrides and New Caledonia. From the 5th, these winds (at 3,000, 5,000 and 7,000 feet) gradually turned to 300° or 310° and increased to 20-30 knots, and at 0600Z on the 6th, the 10,000 feet wind over Vila was 310°/42 knots. After the 7th, upper winds over Queensland and the New Hebrides dropped sharply in strength and reverted to the normal south-easterly (Holley, p.c. 1954). Mr. Holley also pointed out that normal south-easterly wind continued at the 3,000 feet level over Rockhampton throughout the period, so that a bird merely attaining this altitude, or descending to it by turbulent downdraft or through tiredness, would have had no further westward assistance, but that had a bird merely drifted at altitudes between 7,000 feet and 10,000 feet it could have reached the New Hebrides from Queensland in little more than two days.

From these data, then, it would appear that the Australian pelicans which arrived in the Solomon Islands and New Hebrides early in 1952 could have been blown from some point or points on the eastern coasts of Queensland and Papua-New Guinea, provided that they could have first attained altitudes of 7,000 feet or so, between March 3 and 7. The "big wind" already referred to (Anon., 1952) was presumably the hurricane which caused widespread damage in the Solomons on January 23-24 ("Pacific Islands Monthly," 22, (7), 122). However, this hurricane—

which subsequently moved on to cause major destruction in Fiji—arose in the Solomons area ("Pacific Islands Monthly," 22, (7), 15). It could not, therefore, have been responsible for a dispersal of Australian and New Guinea birds into the Pacific. The moderate tropical depression discussed herein affords a likely explanation of this dispersal, the pelicans concerned being carried by upper winds. As to the climbing capacities of **P. conspicillatus**, Dr. R. A. Falla (p.c. 1954) informs me that "over the warm dry areas near Mildura, in October, 1951, I watched pelican flocks gaining altitude until they passed out of range of 8x binoculars, and this I would judge to be at over 4,000 feet."

REFERENCES.

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Anon., 1952.—Pelicans blown into the Solomons. Pacific Islands Monthly, 23, (2), 78.

Falla, R. A., 1954.—Personal communication, March 10.

Holley, F. E. J., 1954.—Personal communication, February 3.

Mayr, E., 1945—Birds of the South-west Pacific. MacMillan, New York. xix + 1-316.

BIRDS SINGING AT NIGHT.—Reading the report of J. M. Cunningham in the April issue of Notornis (5 (8) : 252) has brought to mind an experience I had four or five years ago, which was very similar to that of Mr. Trim at Palmerston North. I believe I wrote down the details at the time but in any case I cannot find them now. It is clear enough in my memory, however, to recount the following particulars, all of which are remarkably similar to the report mentioned above: In the farm country near Palmerston (Otago) one night late in summer I went out-of-doors at 10.30 p.m. and heard a chorus of blackbirds, and I believe, thrushes, filling the air with full song. Mostly the song came from the pine and macrocarpa trees round the homestead, but I can recall other individuals being closer at hand in the garden shrubs or trees. The night was very warm and still and bright with a full moon. I went to the barometer seeking an explanation in the barometric pressure, and though it is beyond me to remember the reading, I recall that it was not abnormally high nor abnormally low. My only suggestion is that the mildness and brightness of the night was responsible for this unusual nocturnal exuberance.—B. A. Ellis, Dunedin.

Mrs W. H. Rolston, Levin, writes: "I was most interested in the article 'Birds Singing at Night' which appeared in the April issue of Notornis. I am writing this as I and my daughter had a similar experience in the same month of August, 1953. Our farm, in Lindsay Road, Levin, is three miles from the Levin Post Office. On the night in question, just before midnight, we became aware that the blackbirds were singing their spring song at the top of their voices in the trees around the house and orchard. My daughter and I listened to them for quite half an hour or more, and they were still singing when we went back to bed at about 12.30 a.m. My daughter went home on August 30, and the singing took place a few nights before she left. It was a bright, clear moonlight night and could possibly have been the same night as that on which your correspondent, Mr. Trim, heard them at Palmerston North. This is the only time that I have ever heard blackbirds singing at night. No thrushes or other birds entered into the singing, although there are plenty of them here."

SHINING CUCKOO ARRIVAL DATES.—Mr. J. M. Cunningham, 39 Renall Street, Masterton, who is collecting data on the arrival dates of the shining cuckoo in New Zealand, states that some letters on this subject forwarded to him in England have gone astray. He asks members who have not received an acknowledgment to send him a further copy of their letters. This refers to 1953 records only.

RINGING OPERATIONS.

SUMMARY FOR THE YEAR ENDED MARCH 31, 1954.

Compiled by P. C. Bull, Lower Hutt.

The following is a statistical summary of the birds ringed and recovered during the past year. It includes a number of birds of various species outside the normal scope of the society's scheme, ringed by special permission of the Hon. the Minister of Internal Affairs, and also some birds ringed with other than society rings, but details of which have been provided by the operators. No distinction is made in either case. Species neither ringed nor recovered this year, but included in last year's full summary (Notornis, Vol 5, No. 5) are omitted from the list below. The order of species has been changed from an alphabetical one to the order given in the new checklist, but vernacular names have been retained. All recoveries reported up ot April 14, 1954, are included.

BIRDS RINGED AND RECOVERED.

(*Denotes coloured rings also used.)

Species. Operator and Where Ringed.	Totals for 1953-54. Ringed.	Recovd.	Grand Totals to 31/3/54 Ringed	Recovd.
ROYAL ALBATROSS	–	1	374	14
BULLER'S MOLLYMAWK—				
E. W. Dawson, Chatham Islands	44	–	44	–
GIANT PETREL—				
E. W. Dawson, Chatham Islands	18	–	19	2
FLESH-FOOTED SHEARWATER—				
R. B. Sibson, Big Chicken Island	27	–	27	–
SOOTY SHEARWATER—				
R. B. Sibson, Big Chicken Island	28	–	42	–
GREY-FACED PETREL—				
R. B. Sibson, Big Chicken Island	14	–	18	–
PYCROFT'S PETREL—				
R. B. Sibson, Big Chicken Island	4	–	4	–
GANNET		17	1685	35
P. A. S. Stein, Hauraki Gulf	633			
K. A. Wodzicki and F. H. Robertson, Cape Kidnappers	142			
PIED SHAG—				
Dept. Internal Affairs, Rurima Rocks, 1951	4	–	4	–
LITTLE BLACK SHAG—				
Dept. Internal Affairs, Rurima Rocks, 1951	2	–	2	–
WHITE-THROATED SHAG—				
Dept. Internal Affairs, Rurima Rocks, 1951	7	3	7	3
BLUE HERON—				
P. A. S. Stein, Hauraki Gulf	2	–	2	–
GREY DUCK—				
H. G. Warburton, Oruru, 1952	3	–	4	–
MALLARD DUCK (Cross)—				
J. M. Cunningham, Masterton, 1944	1	1	1	1
HARRIER		22	216	32
J. S. Watson, Hawke's Bay	41			
NEW ZEALAND DOTTEREL		3	8	5
*H. R. McKenzie, Firth of Thames	3			

YOUNG KEAS IN NEST.
Arthur Pass National Park, January 29, 1954.

Photo: R. Cleland.

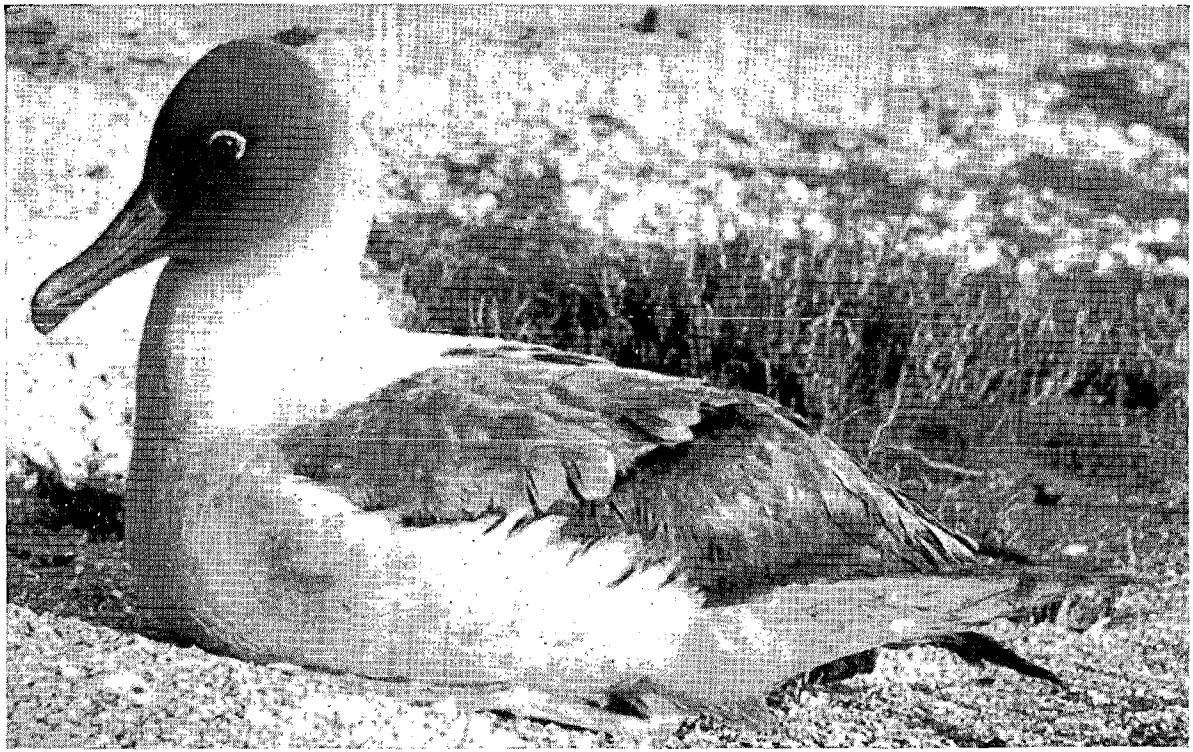


Photo.: Noelle Macdonald.

LIGHT-MANTLED SOOTY ALBATROSS; Miranda, June 7, 1953.

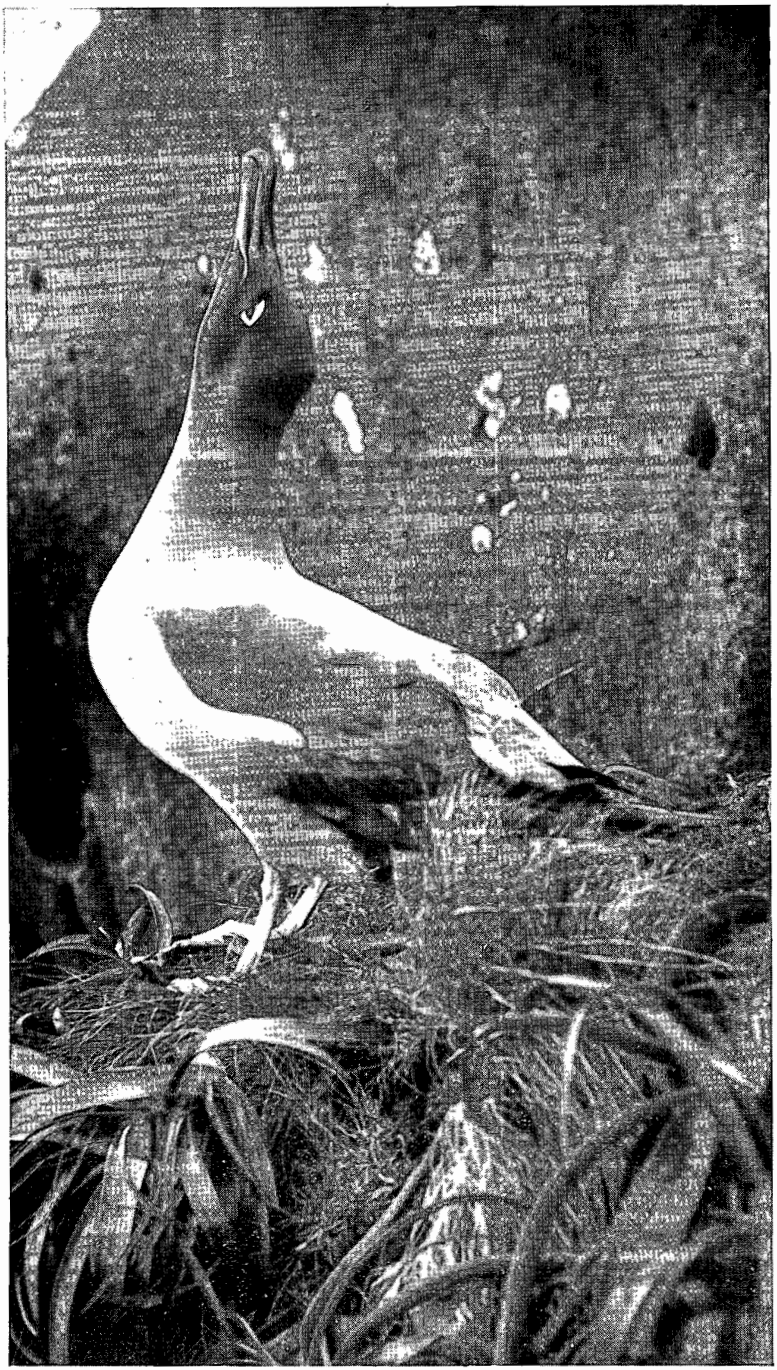


Photo.: J. M. Moreland.

LIGHT-MANTLED SOOTY ALBATROSS (Unemployed Bird)
Campbell Island, January 4, 1952.

Photo.: B. A. Ellis.

NEST AND NESTLING OF WHITE-FRONTED HERON
Shag River District, October 24, 1953.

Species. Operator and Where Ringed.	Totals for 1953-54. Ringed.	Recovd.	Grand Totals to 31/3/54 Ringed	Recovd.
BLACK-BACKED GULL		25	2021	76
G. W. Gummer and J. C. Davenport, Rangitoto Island	519			
W. R. Marsden, New Plymouth	3			
Mrs. O. Sansom, Bluff	12			
L. Gurr, Nelson	2			
*F. C. Kinsky, Baring Head	100			
P. A. S. Stein, Hauraki Gulf	20			
RED-BILLED GULL		63	687	83
L. Gurr, Nelson	52			
BLACK-BILLED GULL	–	10	1742	29
E. W. Dawson, Ashley River	513			
WHITE-FRONTED TERN		5	1542	49
E. W. Dawson and W. C. Clark, Lake Ellesmere	447			
*J. C. Davenport, Hauraki Gulf	42			
H. R. McKenzie, Firth of Thames	50			
CASPIAN TERN		–	9	–
H. G. Warburton, North Auckland	2			
BLACKBIRD		20	417	62
*P. C. Bull, Lower Hutt	77			
H. L. Secker, Wellington	30			
J. M. Cunningham, Masterton	2			
SONG THRUSH		4	100	14
*P. C. Bull, Lower Hutt	17			
HEDGE SPARROW		–	32	3
P. C. Bull, Lower Hutt	3			
SILVEREYE		4	4986	187
B. D. Bell, Blenheim	204			
OTHER SPECIES (Previous Years)			1154	224
Numbers ringed and recovered, 1953-54	3067	178		
Numbers ringed and recovered to 31/3/53			12079	663
Numbers ringed and recovered to 31/3/54			15146	841

RECOVERIES.

ROYAL ALBATROSS (**Diomedea epomophora epomophora**).

Bird No. A99, ringed as a chick at Campbell Islands by Mr. Sorensen, on 4/10/43, was recovered in Chile the following year. Full details are being published separately.

GANNET (**Sula bassana serrator**).

Seven birds ringed as young at Cape Kidnappers have been recovered dead. No 15486 was ringed on 2/2/53 and recovered at Portland Island in May of the same year, and No. 15634 was ringed on 19/1/52, and the ring recovered at Cape Foulwind in September, 1953. The remaining five birds were ringed during the 1953-54 season and three of them were found dead at the breeding colony in March, 1954, a fourth (No. 19441) at Westshore (Napier), on 6/3/54, and the fifth (No. 19413) in Wellington Harbour on 13/4/54.

Ten young birds ringed at Horuhoru (Hauraki Gulf) have been recovered. No. 15785 was ringed on 5/4/53 and recovered on 4/5/53 at Nine Mile Beach, near Forster, N.S.W. (140 miles north of Sydney), and No. 15674, ringed on 22/1/53, was found one mile north of Wollongong, N.S.W., on 30/1/54. The remaining eight birds were ringed during the 1953-54 season and four were recovered in Australia, as follows: No. 19890, Port Elliot, South Australia, on 18/2/54; No. 20086, Korumburra, Gippsland, Victoria (18 miles inland) on 6/3/54; No. 19686, on beach between Port-

land and Nannawong, Victoria, on 13/2/54; No. 19862 landed on a trawler four miles off Twofold Bay, N.S.W., on 4/3/54. The remaining four birds were recovered in New Zealand, No. 19918 at Orewa Beach, Auckland, on 17/3/54; No. 19734, four miles north of Colville, on 19/1/54; No. 19678, near Manly, Auckland, on 10/3/54; and No. 19877, half-way between Thames and Paeroa, on 12/3/54.

WHITE-THROATED SHAG (**Phalacrocorax melanoleucos brevirostris**).

Three young birds ringed at Rurima Rocks, Bay of Plenty, on 8/10/51 by an officer of the Wildlife Branch of the Department of Internal Affairs, were subsequently shot, one near Edgecombe, on the Rangitaiki River, on 28/1/52, and two at Lake Rotoehu, on 2/12/51 and 30/1/52 respectively.

DUCK (Mallard-Grey Cross) (**Anas superciliosa x A. platyrhynchos**).

A duck reared by Mr. Cunningham in Masterton and liberated with a home-made ring at Mt. Bruce on 16/8/44 was shot on the Awatere River on 18/5/51.

HARRIER (**Circus approximans**).

Of 21 birds ringed in Hawke's Bay and subsequently recovered, seven were retrapped where ringed up to two and a half years after ringing, and 14 were recovered dead, nine within 10 miles of the ringing station, one 20 miles north-east of it (Apley), one 25 miles north-west (Waiware), two a hundred miles south (both near Carterton), and one 300 miles north-west (Dargaville). No. 15002, ringed at Turangi on 28/8/52, was shot at Rangipo Prison Farm on 1/8/53.

NEW ZEALAND DOTTEREL (**Charadrius obscurus**).

Nos. 5906 and 5908 were colour-ringed at Kaiaua, Firth of Thames, on 13/12/53 when they were about 22 days old. Both birds were seen several times during the following March and April at Karaka on the Manukau Harbour, a distance of 26 miles overland from the place of ringing.

No. 5905 was colour-ringed as a young bird at Kaiaua on 7/12/52 and was seen four times during the following four months at various places on the eastern Firth of Thames coast between one mile north of Kaiaua and five miles south of Miranda.

BLACK-BACKED GULL (**Larus dominicanus**).

Twenty-two gulls ringed as young on Rangitoto Island have been recovered at various localities, viz., Rangitoto (3), Howick (1), Motutapu Island (1), North Shore (7), Auckland City and waterfront (6), Mt. Albert (1), Onehunga (2) and Waiuku (1). One of these birds was ringed during the 1951-52 season, 13 during the 1952-53 season and eight during the 1953-54 season.

Nos. 13823 and 13827, ringed as young birds on 10/1/54, near Waiheke Island, were recovered during March, 1954, at Henderson and Panmure respectively.

No. 13942, ringed as a young bird at Baring Head, Wellington, on 13/12/52, was recovered at Ohiro Bay five months later.

RED-BILLED GULL (**Larus novaehollandiae**).

The unusually large number of recoveries this year results from the fact that Mr. Gurr has been able to read the ring numbers on many of the gulls he has been studying in Nelson. Fifty-two gulls ringed on the Boulder Bank were subsequently identified in the vicinity of Nelson City in this way up to three years after ringing. No. 9538, ringed at the Boulder Bank, Nelson, on 9/1/53, was identified at Oriental Bay, Wellington, on 8/6/53, by reading the ring number without catching the bird. No. 9470, ringed at the Boulder Bank on 6/1/53, was caught and released at Tarakohe Wharf on 16/6/53, and No. 9548, ringed at the same place on 9/1/53, was found in a sick condition on the shores of Forsythe Island, at the entrance to Pelorus Sound, on 18/10/53. Six

gulls ringed at the Boulder Bank were recovered dead, two at Port Nelson, two at Nelson Aerodrome, and two at Picton.

No. 10043, ringed at Porangahau on 1/1/52, was shot at Whakahi Lake, Wairoa, on 3/5/53, and handed to the Wairoa Rod and Gun Club by a Maori.

No. 11358, ringed at Great Island, Three Kings, on 8/1/53, was found dead at Awanui Wharf, North Auckland, four months later.

A red-billed gull ringed with the East Coast colour combination, was seen by Mr. Secker at Lyall Bay, Wellington, on 9/1/54. The only gulls on which this combination has been used are some ringed by Mr. Cunningham at Castlepoint and White Rocks on 21/12/52 and 4/1/53 respectively. As the number on the aluminium ring could not be read this record is not included in the total recoveries listed in the statistical section of this report.

BLACK-BILLED GULL (**Larus bulleri**).

There have been ten recoveries this year from the many young birds of this species ringed on the Ashley River near Rangiora. Mr. Dawson has identified five by reading the ring numbers with binoculars; two birds ringed as young in November, 1952, were seen on the banks of the Avon in Central Christchurch, on 17/1/54, and three others ringed in 1950, 1951 and 1952 respectively, were seen at the breeding colony in 1953. The remaining recoveries were of dead or injured birds found at Kaiapoi (2), Port Underwood, Pukerua Bay (Wellington) and Lower Hutt, four to 24 months after ringing. The Lower Hutt recovery rests on the finding of the ring lying in a garden where seaweed had been used recently as a fertiliser.

WHITE-FRONTED TERN (**Sterna striata**).

Two birds ringed on the Western Firth of Thames coast in January, 1954, were recovered the following March at Waitakaruru and near Paeroa respectively, while a third bird ringed at the same colony in January, 1952, was recovered at Motuihi Island in March, 1954. Two birds ringed at Lake Ellesmere in January, 1954, were recovered dead at the colony two months later.

SONG THRUSH (**Turdus ericetorum**).

Two birds were retrapped and a third found dead at the ringing station (Lower Hutt), 12, 27 and 9 months respectively after ringing. A fourth bird was recovered dead half a mile away 18 months after ringing.

BLACKBIRD (**Turdus merula**).

Eleven birds were retrapped at the place of ringing (Lower Hutt) up to two years after ringing. Nine birds were recovered dead within one mile of the ringing stations (Karori and Lower Hutt) up to 18 months after ringing; at least five being killed by cats.

SILVEREYE (**Zosterops lateralis**).

Four birds ringed in June 1953 in Blenheim were recovered dead less than a mile from the ringing station within a month of ringing, three of them being killed by cats.

SPECIAL RECOVERIES.

BLACK SWAN (**Cygnus atratus**).

A very interesting set of records of black swan recoveries has been received from the North Canterbury Acclimatisation Society. This society began ringing black swans at Lake Ellesmere in 1935 and may thus claim to be among the pioneers of bird ringing in this country. With a few breaks, the ringing was continued until 1952, a different colour being used each year. Unfortunately, the rings were not numbered and it is not known how many birds were ringed each year. For this reason the recoveries have not been included in the statistical part of this report.

The records consist of 34 recoveries of black swans ringed at Lake Ellesmere over the period 1935-1952. Four birds were recovered within a year of ringing, nine in the second year, three in the third, five in the fourth, five in the fifth, two in the sixth, and one each in the ninth, eleventh, twelfth, thirteenth and fifteenth year after ringing. The date of recovery of one bird was not known. Six of the birds were recovered at Lake Ellesmere, five at Lake Wairarapa, four at Lake Kaitangata, two in Hawke's Bay, two at Motukarara, and one each at Berwick Lake, Waitata Hatchery, Taieri River mouth, Waituna Lagoon, Lake Wainone, Marlborough, Lake Waihola, mouth of Selwyn River, Cooper's Lagoon, Lake Waipori, Green Island Swamp, Greenslades Flat, Irwell, Carterton and Greenpark Sands.

Grateful acknowledgment is made to the North Canterbury Acclimatisation Society for permission to publish these recoveries and to the Wildlife Branch of the Department of Internal Affairs to whom the records were originally sent.

Two recoveries of birds ringed outside New Zealand are of interest.

GIANT PETREL (**Macronectes giganteus**).

No. ANARE 2486 ringed at Heard Island on 6/1/53 by the Australian National Antarctic Research Expedition was recovered at Moki Island (near Stewart Island) in June of the same year.

AMERICAN PINTAIL DUCK (**Dafila acuta**).

No. 41-679296 ringed in California on 16/8/49 and recovered at Penrhyn Island, Northern Cook Group, on 15/11/49. Full details of this interesting recovery will be published separately.

VISITATION OF GLOSSY IBIS.

Towards the end of 1953, flocks of glossy ibis (**Plegadis falcinellus**) appeared in Southland, Marlborough and Wellington provinces. The reports received follow:—

Southand.—On November 18 on Lake Hawkins, a marshy lagoon on reclaimed land, Invercargill Estuary, Mr. George Moffett, of Invercargill, and Mr. and Mrs. K. Bigwood, of Christchurch, saw a flock of "strange" birds and found them to be glossy ibises. Mr. Moffett and I have visted the locality frequently since then and have seen the birds on every occasion. Although they fly up and circle, they return to some part of the area. When the sun catches them the plumage has a reddish appearance; but from a distance they appear like a black curlew, which I think they have sometimes been called. They are always feeding when on the ground—busy all the time, like starlings. Many people here are interested in them, including two Dutch boys who know them from bird-watching in Europe. Yesterday, 29/11/53 there were 24 birds still there. This was the first count, on 18/11/53.—Olga Sansom, Invercargill, 30/11/53.

Marlborough.—First seen at Dillon's Point, Blenheim, by Mr. G. Holdaway on 13/11/53, about 16 glossy ibises were present for about one week and then departed. (These were identified by the Dominion Museum from a description sent in by Mr. Holdaway.) They returned to the same spot again on 6/12/53, when 16 were reported by Mr. Holdaway. (Eighteen were seen in the morning of 7/12/53 by the school teacher and school children from the Dillon's Point School, and five were seen the same evening by myself. The following dates and counts were taken by G. Holdaway with one exception: 8/12/53, 16; 10/12/53, 16 (Rev. Fr. Feehly, S.M.); 14/12/53, 18; 18/12/53, 18; 21/12/53, 18. This was the last date they were seen but the birds may have remained a few days longer as the pond was not visited for over a week. The ibis kept together near a swampy pond in the low-lying Dillon's Point area, between the

Opawa River and Rose's Overflow. They seemed very contented and appeared to feed ravenously whenever observed. They fed about the edges of the pond but never in the water, and probed among the grass, etc., often taking flight when a harrier flew near. When last observed, the pond was receding very fast with the onset of the dry spell and dried up completely shortly after. My thanks are due to Mr. Holdaway on whose property the ibis occurred. He recorded most of the above counts.—Brian D. Bell, Blenheim.

Wellington.—Fourteen glossy ibis put in an appearance on a property at Opiki, about ten miles from Palmerston North. The birds arrived about the last week in December and are apparently living on tadpoles and what insect life they can find. They vary in size and I would say that five are immature. They appear to be little more than half the size of the larger birds. It is noticeable that the larger birds will occasionally completely enfold a smaller bird with a wing as though protecting it from the hot sun. They are rather shy and will take wing if approached closer than about eighty yards. They are all strong fliers and attain considerable height when disturbed. I took Major Wilson to Opiki to verify the identity of the species. About ten years ago we had one glossy ibis living about the Manawatu but it eventually disappeared.—Tom Andrews, Palmerston North, 20/1/54.

Mr. T. Andrews, Acclimatisation Society ranger, took me down to Mr Gosling's property, near Opiki, on January 8, 1954, where, on a piece of shallow water behind his home, quite close to the road, were 14 glossy ibises. We walked to within a hundred yards and examined them through field glasses. Some of them were much smaller than others, and one of the smaller ones sheltered itself under the wing of a larger one as if it was a young bird of this season. We then approached to within 50 yards when they rose in the air, wheeled round, and went off to the south. They showed great powers of flight and swooped down, making a noise like the shoveler duck when descending swiftly. The water they were in is not permanent, but only occurs in the wet season. Mr. Gosling states that there were large numbers of tadpoles in the water, which was probably what the ibises were feeding on. The whole flock of 14 were there nearly continuously for about a month but since then they have only returned occasionally. On February 5, Mr. Gosling reported four had been there in the morning. Previously the numbers had varied from four to nine. They apparently have found better feeding grounds elsewhere as the water on Mr. Gosling's place has nearly dried up.—Robert A. Wilson, Bulls, 6/2/54.

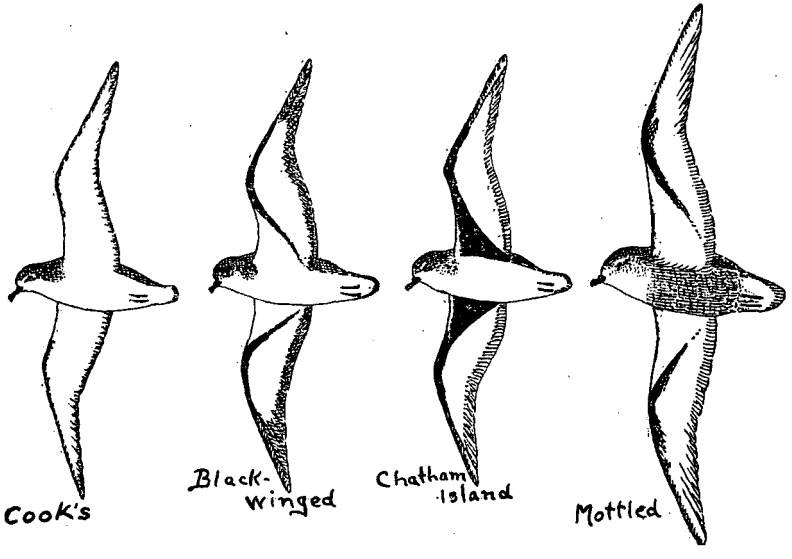
ALBATROSS STRANDED AT PAEROA.—On 5/6/53 a large sea bird was found in a field by Mrs. A. Rogers, successfully defending itself against the attacks of a dog. The bird was rescued with some difficulty. I identified it as a light-mantled sooty albatross (**Phoebetria palpebrata**). In response to a telephone call, Mr. and Mrs. R. H. McKenzie, of Clevedon, and Miss N. Macdonald, of Howick, came by car on 7/6/53, and it was decided that the best way to try to ensure the recovery of the bird was to take it to the Auckland Zoo, where the director, Mr. R. W. Roach, specialises in the care and curing of sick creatures. During the journey, Miss Macdonald suffered many pecks while holding the bird to keep it safe. At Clevedon it was placed, swimming, in a bath where it drank some fresh water. It appeared hungry but no suitable food was available, so Miss Macdonald took it on to the Zoo. Regardless of the late hour, Mr. Roach fed it immediately. For some days it took food and seemed to be doing quite well but died after ten days. It was found on examination that the food had not been assimilated. It was a young female. The light-mantled sooty albatross breeds at the Auckland, Campbell, Antipodes and Macquarie Islands, and frequents New Zealand seas to some extent, but has only been found ashore when storm-wrecked or exhausted.—H. L. Morgan, Paeroa.

A NORTH ISLAND RECORD OF THE BLACK-WINGED PETREL.

By C. A. Fleming, Wellington.

The black-winged petrel (**Pterodroma hypoleuca nigripennis**) nests at the Austral, Kermadec and Lord Howe Islands, and at the Three Kings Islands, where it was discovered by P. C. Bull in 1945 (Turbott and Buddle, 1948), but has not previously been recorded from the New Zealand mainland (Checklist, 1953, p. 25). This note is prompted by the discovery at Waikanae Beach on March 20, 1954, of a battered specimen identified as **nigripennis**, now lodged in the Dominion Museum.

The Waikanae specimen had probably been on the beach a week or more before it was found. It consists of a sand-dried body, fairly well covered by feathers, with a complete tail, two partly feathered wings and the bones of the neck and head, completely devoid of skin. Available measurements are: Wing, 222mm.; tail, 99 mm.; tarsus, 30 mm.; toe, 37mm. The skull agrees in shape with a skull of **P. h. axillaris** with which it has been compared, but is 4 mm. shorter (62 compared with 66 mm., compare Fleming, 1941, p. 74).



The upper surface of the wing is dusky black, lacking the grey coverts of the Chatham Island subspecies **axillaris.** The under surface shows a well-defined dark leading edge contrasting with the white of the under coverts and with the axillaries, fortunately preserved on one wing. The primaries are brownish black, with white areas on the basal half of the inner webs, only visible when the wing is spread. The primaries (and other wing characters) agree with those of Kermadec specimens of **nigripennis. P. h. axillaris** has more extensive pale areas on its inner webs, and **P. h. hypoleuca**, the North Pacific race, has entirely dark inner webs (Falla, 1942, p. 116). The tail is incomplete, but what remains agrees well with that of **nigripennis**; its brownish-black rectrices contrast with the grey coverts, giving a dark-tipped effect lacking in **axillaris**, which has grey rectrices. The tarsi and proximal third of the feet are flesh-coloured, in contrast with the rest of the feet which are black.

In size, the Waikanae bird falls within the range of specimens of **nigripennis** from breeding stations. Its wing and tail are both one millimeter shorter than the smallest of seventeen measured by Turbott and Buddle (1948), but Murphy (1929) recorded tail measurements as low as

95mm. and some of the Dominion Museum's adult skins have shorter wings (e.g., D.M. 1909, Sunday Island, Dec. 17, 1918). The short wing measurements are not due to wear for the primaries are fresh, nor to immaturity, since the skull (of the Waikanae bird) is well ossified, nor to recent moult. They are due to rather short outer primaries, only a few millimeters longer than the adjacent "second" primaries.

Mr. R. B. Sibson, Auckland, has kindly allowed me to quote some unpublished observations on **P. h. nigripennis** made in the South Pacific, east of the North Island, from R.M.S. Rimutaka on the journey from New Zealand to Panama. He first saw the species in the evening of Jan. 14, 1950, in 39° S., 175° W. There were several next morning in 37° S., 169° W., a few in the afternoon, and in the evening a bird flew on board in 37° S., 167° W., a position north-east of the Chatham Islands. The skin is preserved in the Dominion Museum.

The under-wing patterns of some of the "gad-fly petrels" are diagnostic. The accompanying sketches are based chiefly on dried skins and so are probably not as accurate as they would have been if based on birds in the flesh. Alexander's sketch (1928, pl. 11, fig. 47) of the mottled petrel (Peale's petrel) is quite misleading.

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MEETING OF DUNEDIN MEMBERS.—A meeting of Dunedin members and friends was held on February 24, 1954, in the biology lecture room at the Museum. In the absence of the South Island vice-president, Mrs. I. Tily, the chair was taken by the local regional organiser, Mrs. L. E. Walker. The speaker for the evening was Dr. Farner, of Pullman University, Washington, at present in New Zealand on a Fullbright Scholarship. His subject was "Birds of Crater Lake National Park." The park, which was established in 1902, covers an area of about 250 square miles with elevations varying from 4,500 ft. to just under 9,000 ft. Visitors, who number up to 500,000 a year, are allowed in only 1% of the total area. Thirty-eight species of breeding birds have been recorded in the transition zone forest (4,500-5,000 ft.), the same number in the Canadian zone forest (5,500-6,200ft.); 22 species in the Hudsonian zone forest (6,200-8,000ft.); and only two species of breeding birds in the alpine zone above 8,000ft. (treeless). Dr. Farner described the movements of birds in the area and showed how these were an upward movement after breeding. For instance, blue grouse commenced their upward movement before the young could fly. Consequently the young birds walked about 15-20 miles. He said he was most favourably impressed with the widespread interest in birds and in their conservation and protection in New Zealand, and he felt the Ornithological Society of New Zealand could be a most effective influence in furthering this interest. He stressed the importance of preserving entire areas as living museums where the native species could be observed, enjoyed and studied under conditions at least approximating the original primitive conditions. Excellent colour slides of the Crater Lake area and of the birds found therein were shown.

NEW ZEALAND NESTING OF THE WHITE-FACED HERON.

By Brian A. Ellis, Dunedin.

Since my reporting (N.Z. Bird Notes 1 (9) : 109-110) on the white-faced heron (**Notophoyx novae-hollandiae**) in the Shag Valley in January, 1945, I have had some years of searching for an occupied nest of this interesting species. I met final success this season when a nest was discovered on 24/10/53, with a young bird visible from the ground.

I had three pairs under observation at this time, and in widely separated districts, when from the back-yard of our farm house the purposeful manner of a heron's flight led me to a plantation of **Pinus radiata.** After two or three minutes it reappeared from the other side and returned in the direction of the Shag River, about half a mile distant. Going into the plantation I soon startled the other parent from its perch beside a nest high in a tree near the centre, and I was able to satisfy myself from there that the nest contained young.

Later in the day I climbed the only adjacent tree which I could manage to scale, to a point where the nest and its sole ungainly occupant could be examined and photographed from a distance of no more than 20 feet, though I must admit my hold was shaky. The nest was 72 feet from the ground (by measurement), placed close into the trunk of the tree and built entirely of pine twigs of about 3-16in. thickness. It was about 18in. in diameter, almost flat, and some 4 or 5 inches through, though open enough in construction for light to be seen through it from below. It was much fouled and smelly, and there were blowflies even at this height. Some feet of the tree below the nest were effectively "white-washed."

There was only one nestling, and a diligent search of the ground under the tree and inspection of the nest gave no evidence that there had been either addled eggs or dead nestlings ejected at any earlier stage. It was probably between two and three weeks old, with a partial covering of feathers, but still a fair amount of light grey down showing. The dark alar bar, which is so conspicuous in the adult bird in flight, and about the easiest feature for distinguishing it from the reef heron (**Egretta sacra sacra**) was easily discernible at this stage of development. Its long neck was curiously swollen to more than double thickness for most of its length, reducing to normal proportions just before it joined the body. This can be discerned in my photograph—whether it is a normality or not I cannot say, but at least I know that the chick continued in apparent health in spite of it. To the best of my knowledge it was some time since the young bird had been fed—I believe it was being fed only in the mornings at this stage: I saw no visits by the second parent later than 10 a.m.

The young bird was about 15in. in length, and when startled by my arrival it sat bolt upright in the nest wth beak pointing skyward. This seemed to be its most convenient pose for focusing its eyes on me. When there was some extra noise from below it looked down by bringing its beak to the horizontal, but no lower. Compare the well-known "freeze" position of the bittern: does it see in the direction of the danger while pointing skyward, or does it point so in order to see best?

Although the parent had left its perch beside the nest as soon as we approached the foot of the tree, it did not go far, and while I was up in the tree I sighted it once or twice flapping about in the branches forty or fifty yards away.

Next morning I saw one heron flying out to the river at 10 a.m., and it had not returned an hour later—in fact, I did not see them both together all day. The other continued its guard by the nest, but it was not there at my last visit in the evening, nor could the young bird be seen, although the light was no longer good. On 27/10/53 a friend with binoculars could not identify the young in the nest, and neither parent was about. At 10.30 a.m. on 31/10/53 the young bird scrambled back on to the nest as I approached. I wondered if it had reached the stage of flying back

and forth, and this visit had just caught it at the nest. Now one week older than when first discovered, it was much larger and better fledged, though still retained the oddly-swollen neck.

On this day one of the parent birds spent three-quarters of an hour sunning itself and preening its feathers while perched in a macrocarpa of the homestead shelter trees, a much more amenable position than near the nest—about 400 yards away.

Next day (1/11/53) the young bird was not in the nest at 9.15 a.m. and at 3 p.m., nor was it the following day when the parent was at its perch again in the macrocarpa tree. The herons were seen about the district at odd times over the next three weeks, but the young was never identified, so I have really no definite record of the successful rearing of this chick. On several nights a bird was seen to return to the vicinity of the nest-site at dusk, on one occasion being met by another which flew out from the trees and accompanied it in.

I have been able to gain some scattered information about other nests in the coastal region of Palmerston-Waikouaiti-Waitati. In October, 1952, two young were reared from a nest 30 feet up in a bluegum tree which grew close to a farm house near Flag Swamp. This nest was placed close into the trunk of the tree and was completely obscured by leaves which had come away as a second growth: its location was confirmed only when the nestlings got to the stage of walking out on a branch as they gained strength. The parents were observed to fly off towards the coast after feeding the young, probably to the tidal flats, approximately four miles away.

Much interest has been aroused by recent notes on the red-legged phase in various species of heron, and Mrs. L. E. Walker has published observations (Notornis 5 (4) : 116) on **Notophoyx novae-hollandiae** in areas adjacent to those I have mentioned above. However, I have not found this red-legged phase in any of the birds I have studied, the legs in all cases being a rich yellowish-green colour. In keeping with a general excellence of plumage, the legs are a richer colour in the breeding season than at other times, but these observations of a nesting pair must contradict the suggestion that red legs are assumed by all species of heron in breeding plumage.

The herons abandon in the nesting season a very consistent habit by which they disturb the countryside at all other times of the year—that of giving a raucous call whenever coming to or leaving a perch.

In choosing a nesting site, the white-faced heron appears to favour a position which is quite some distance from its feeding grounds. Amongst places where they are known to nest, I know of none closer than a quarter of a mile from a waterway of any consequence and as it is likely that even at this time of the year much of their food is gained from the tidal flats at the coast, they would have to travel a distance ranging from three to five miles.

It appears that this species suffers from a high rate of egg and nestling mortality in the district in which I have studied it. From five nests of which I have had descriptions, there have been only seven young reared, one each from three nests, and two each from the other two. At two locations the finding of the remains of young birds was described by residents. A nest containing eggs has yet to be found here, but in Australia a clutch is commonly four or five eggs (Oliver, 1930), though in its native habitat the species apparently does not enjoy a highly successful nesting.

In an article on egg and nesting mortality rates in the Emu (Vol. 47: 321) P. A. Bourke gives the following information on three nests of **N. novae-hollandiae** which were covered by his investigations: "Clutch sizes: 4, 4, and 3. Young hatched: 4, 3, and 3. Young reared: 2, 3, and 2. One egg (from second nest) dislodged by bird leaving nest. Three nestlings (two in one nest and one in another) died in nest when several days old. Their bodies were not removed and were trodden into the nest by living nestlings." Though not wide enough in its scope to be really conclusive,

the above does show that this species suffers from an unusually high rate of nestling mortality in Australia. It would further appear from our present knowledge that this high nestling mortality rate is sustained or exceeded in New Zealand.

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A KEA'S NEST.

By L. W. McCaskill, Christchurch.

For a bird that has received so much publicity, it is surprising that we know so little about the nesting habits of the kea (**Nestor notabilis**). With the increasing number of mountaineers and trampers visiting the haunts of the kea we would expect that nests would be more commonly found than is actually the case. A recent experience would suggest that possibly we have been looking in the wrong place.

Potts gave us the following description in "Out in the Open": "It breeds in the deep crevices and fissures which cleave and seam the sheer faces of almost inaccessible cliffs, that in places bound as with massive ramparts the higher mountain spurs. Sometimes, but rarely, the agile musterer, clambering amongst these rocky fastnesses, has found the entrance to the 'run' used by the breeding pair, and has peered with curious glances, tracing the worn track till its course has been lost in the dimness of the obscure recesses, beyond the climber's reach. In these retreats the home or nesting place generally remains inviolate, as its natural defences of intervening rocks defy the efforts of human hands, unless aided by the use of heavy iron implements that no mountaineer would be likely to employ."

Marriner described a nesting site found in 1906 in a gorge of the Rakaia River. It was in a long, narrow tunnel among rocks near the top of a cliff. Young birds had been taken from this nest in August.

In January, 1908, Edgar Stead found a nest at Glenthorne, a station up the Wilberforce River. This nest was in a tunnel in a big rock slip and contained four eggs.

Apart from this record by Stead, it has been assumed that the kea's breeding season commenced about June with the eggs usually laid in July. Until recently, it has also been assumed that the nest always occurred in rocky country usually well above the bush line.

On January 29, 1954, I was inspecting part of the Arthur Pass National Park in company with the ranger, Mr. Ray Cleland. Returning from Lake Minchin to the Poulter River we were surprised to see a kea perch near us in dense beech forest. A few moments after we sighted her, the kea dropped to the ground, landing out of sight behind a bank. We hastened to the spot where she had landed but there was no sign of her except a few stray feathers and a small pile of droppings below the perch where we had first seen her. Further inspection disclosed the entrance to a tunnel with a well-worn track. The tunnel, about two feet long, passed under the arching roots of a beech tree, under some loose rubble disturbed by the fall of a tree long ago, and into a chamber about four square feet in area. In the chamber were the parent bird and three young in the down stage.

A little excavation enabled us to remove the adult bird. On release, she flew to her perch and proceeded to screech almost continuously. The young replied to her with the same harsh screech, the only apparent difference being the lesser volume. The young birds were carefully removed, photographed and returned to the nest. They were so fat that they had difficulty in standing upright for long and soon squatted down or rolled over sideways. One was considerably smaller than the other two but even it was quite fat.

The body of each was covered with long, pale grey down. Six of the wing feathers were quite well-developed in each bird; they were the well-known bright olive-green in colour with an edging of bluish black. The most striking part of the young was the bill and the surrounding tissue, all of which was a bright yellow shade.

After replacing the young birds, the outside of the nesting chamber was restored as nearly as possible to its original condition, and we retired to a distance of a chain. The adult bird, which had been watching events closely, at once landed on the ground, inspected the surroundings minutely and returned to the young.

The nesting chamber was located about thirty yards from the bush edge at a height of about 2200 feet. The bush opened on to a bare face above the valley of the stream which drains Lake Minchin.

As a result of these observations, it is suggested that people interested in nests of the kea might look for them in January and in bush in a situation similar to that described.

ROYAL ALBATROSS A 99.

(**Diomedea epomophora epomophora.**)

By J. H. Sorensen, Wellington.

Royal Albatross A. 99 (**Diomedea epomophora epomophora**) was ringed as a fledgling by the writer on Campbell Island on 4th October, 1943, when about seven months old. Several hundred fledgling royal albatrosses, and some adults (apart from the mated pairs studied intensively), were ringed about this date. The rings were home-made ones of aluminium from old pots, copper from an old boiler, and even the alloy from discarded dry battery cases. Each ring was stamped "Return Southland Museum, N.Z.", and carried the serial letter A followed by the number allocated.

In September, 1953, almost ten years later, the Director of the Southland Museum, Mrs. O. Sansom, received a letter from Dr. R. A. Philippi, Director of Ornithology, Natural History Museum, Santiago, Chile, advising that an identification ring No. A.99 had recently been handed to him. Dr. Philippi wrote as follows:—

"In the year 1944 a specimen of Royal albatross (**Diomedea epomophora**) was captured on the beach at El Tabo, Province of Santiago, Chile, with this ring attached. The bird was in an exhausted condition and died soon after." Mr. P. C. Bull, convener of the Ringing Committee of the Ornithological Society, then wrote to Dr. Philippi and told him the bird's ringing record. At the same time he requested further information, especially as to the date in 1944 when the bird was found, what had happened to the body, and whether any photographs were available. On 29th December, 1953, Dr. Philippi replied, and I quote his letter in full:—

"With regard to the ringed specimen of the royal albatross found on the beach at El Tabo at the end of March or beginning of April, 1944, I can give you the following data: The specimen (A-99) is mounted and preserved in a Catholic School of this city. As can be appreciated by the enclosed photographs, it is undoubtedly a very young bird. The discovery has only recently come to light due to the fact that the person who found the dying bird at El Tabo took the ring to the British Embassy, where an official informed him that it would be inadvisable to make any comment or announcement at all as the ring might indicate a message from a German

submarine! (war-time) a remarkable statement possibly due to nerves or bureaucratic officialdom—which I pass on to you on account of its humorous aspect. Thus the find was forgotten until by a pure accident I became acquainted this year with the person who picked the bird up, thereby giving us the opportunity of confirming the surprising fact that this albatross migrates to Chile."

Dr. Philippi returned the ring which shows no wear after its five months on the bird's leg. It is one of the aluminium ones. Judged by the photographs of the mounted bird, it is certainly very young. The absence of white feathers on the humeral flexures does not tell much; the bird could be a female. Apparently the sex was not determined when the bird was skinned. One photograph, however, is a dorsal view showing "mottled" feathering on the rectrices and on the back between the wings, which indicates (quite apart from the known date of ringing), that the bird is juvenile. In older birds such "barring" and "mottling" disappears and is replaced by pure white plumage on these parts.

As recorded elsewhere (Sorensen, 1950) an attempt was made, when ringing fledgling albatrosses on Campbell Island, to sex the birds by sight, using the presence or absence of brown feathers on the crown of the head as a sexual character. It was realised at the time that this "mottled crown" character was not entirely satisfactory, for a slight mottling was known to occur on some which, from their size, were obviously males. But it was always present in a marked degree on female chicks. In borderline cases ringed birds were recorded as males if they were heavier than typical females and had stouter tarsi, the latter feature being very evident when crimping on leg-rings. During the ringing, males were ringed on the right leg and females on the left leg. No information has been supplied as to which leg was ringed on the present bird when it was found. According to my records, it was ringed on the left leg, had a "mottled crown," and was recorded as a female. The photos supplied by Dr. Philippi show no obvious barring or mottling on the crown of this bird. It has thus lost this character within six months.

This proof of trans-Pacific migration of **Diomedea epomophora epomophora** does not, however, rule out the possibility that the royal albatross may also breed in Tierra del Fuego. Dr. R. C. Murphy has stated that albatrosses emigrate from the New Zealand region to the coast of Chile, and that there is a breeding ground for this or another subspecies in the hinterland of Tierra del Fuego. Murphy goes on to give the records of birds taken off the South American coast. In discussing these birds, he stated:—

"Whence come the royal albatrosses which visit the coasts of Chile and of Argentina and Uruguay? The orthodox answer would be to say that they cross the Pacific to South America, round Cape Horn from the westward, and enter the South Atlantic. But there are several objections to such a theory, and much likelihood of the existence of a South American breeding ground as suggested in two letters I have received from Dr. Dabbene, the substance of which is as follows:—

"Mr. P. Reynolds, a member of the British Ornithologists' Club, who resides at Harberton Harbour, Beagle Channel, Tierra del Fuego, has discovered large white albatrosses nesting on the slopes of the mountains near Lake Cami, in the interior of Tierra del Fuego. To reach this locality from the Strait of Magellan the birds pass up Admiralty Sound. Mr. Reynolds does not know to what species these great albatrosses belong; but Dr. Dabenne believes that they are **Diomedea epomophora.**

"Dr. Debbene writes, furthermore: All of the large albatrosses captured during the winter months by the Compania Argentina de Pesca, at points some two hundred miles off the coast of the province of Buenos Aires, are royal albatrosses. About 50 specimens have thus far been obtained and received at the National Museum.

"Now, it is hardly to be credited that birds captured in such numbers in the South Atlantic come all the way from New Zealand breeding grounds.

Rather, they should originate in islands off South America, and the discovery made by Mr. Reynolds in Tierra del Fuego doubtless supplies the clue."

Dr. Murphy's account is given rather fully because it does show that the hypothesis that the species nests in Tierra del Fuega cannot be discarded but remains to be proved by the identification of the species and subspecies which almost certainly breeds there. At the same time, the finding of the bird A.99 does conclusively prove that birds breeding on Campbell Island in the New Zealand region do reach the South American coast. It is generally thought that the subspecies **sanfordi** also makes the journey and the Corral specimen, the type of this subspecies taken off the South American coast, has been attributed to the Chatham Island breeding population by Dr. R. A. Falla. The finding of a ringed **sanfordi** on the South American coast would put the latter hypothesis beyond all doubt.

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CORRESPONDENCE.

(To the Editor.)

Sir,—So many requests for information as to the status of Peter's Check-List of Birds of the World have come to the Museum of Comparative Zoology that we think your readers would be interested in the matter. We have been appointed joint editors to see that the work is completed. Probably seven volumes will be required to contain the families not treated by Mr. Peters. A volume has almost been finished by Dr. Zimmer of the American Museum in New York. Sixteen collaborators have most kindly agreed to contribute the families that remain to be done and each one will be the responsible author of his contribution. We hope by this means to assure that the work will be completed in as short a time as possible.—We are, etc., ERNST MAYR, J. C. GREENWAY, Jr. Feb. 11, 1954.

REVIEWS.

Check List of the Birds of Great Britain and Ireland. Published by the British Ornithologists' Union. London. 1952.

The British Ornithologists' Union issued its first list of British birds in 1883. Revised lists followed in 1915 and 1923. The compilation of a new list was begun in 1946 and the "Checklist of the Birds of Great Britain and Ireland" (1952) is the outcome of more than five years' work by a committee of distinguished ornithologists. Not unexpectedly, it is an important publication which will set the standard of national and regional checklists for many years to come. The general classification has been changed from the 1923 list to bring it into line with modern practice. The new list sets out to emphasise the importance of the species as a biological unit. Only species are numbered.

In the introduction there is a concise statement of the functions of a checklist and there are wise words on the difficulties—the acceptance of sight records, the recognition of obscure geographical races, correct othography and vernacular names—which are likely to beset all authors of checklists. No checklist is ever likely to satisfy all critical readers, because in the words of the introduction, "the truth concerning natural phenomena cannot be arbitrarily decided."

Of especial interest to New Zealand ornithologists are the sections on petrels and arctic waders. The authors believe in big genera. It is good to see **puffinus** discarded and the shearwaters from the small **baroli** to the large **gravis** all grouped under **procellaria. Bulweria** as a generic name has displaced **Pterodroma,** a change which some in New Zealand may regret. The range of the black-browed mollymawk, of which there appear to be two

valid races, it not given correctly. This species has not been found breeding at the Auckland Islands, but the race **impavida** breeds further east at Campbell and Antipodes Islands.

As in the N.Z. Checklist, the grey and golden plovers are grouped under **charadrius.** The turnstone is put back in the charadriidae, whereas in the N.Z. List, which followed Witherby and Mayr, it is classed with the **scolopacidae.** The disappearance of the clumsy **heteroscelus** and the placing of the tattlers in the genus **Tringa** is a welcome innovation. But surely the specific name of the grey-rumped sandpiper is **incana,** and why is its alternative vernacular name given as Polynesian tattler? Melanesian, perhaps, but not Polynesian, for **brevipes** reaches only the fringes of Polynesia, and it is the typical Alaskan tattler which is entitled to the epithet Polynesian. It is perhaps surprising to see the monotypic genus **Xenus,** retained for the Terek sandpiper, when the bird has so many obviously tringine characteristics. Sooner or later the problem of the correct specific name of the little stint will have to be faced. There are sound reasons for believing that **C. minuta** and **C. ruficollis** are conspecific, and **ruficollis** (1776) has priority. Winter specimens of **ruficollis** were sent to England and identified as **minuta.** Although the pectoral sandpiper reaches N.Z. regularly and Australian records are accumulating, the S.-W. Pacific is not included in the given winter range.

Other points of local interest are:—The family Tytonidae (barn owls) is deemed superfluous. (Revisers of N.Z. List, please note.) Australia should be included in the range of **Acrocephalus arundinaceus.**

There is a distinct possibility that the day will come when a bird in the British List will be named after New Zealand. Malayan ornithologists now accept **novaeseelandiae** as the specific name of their pipit, formerly **Anthus richardi malayensis.** Revisers of the British list may have to carry the change further, so that the name of Richard's pipit becomes **A. novaeseelandiae richardi.**

Surprisingly enough, the name of the yellowhammer is food for speculation. The race **nebulosa** is now accepted as valid, and if the recent British and New Zealand checklists are correct, continental yellowhammers of the typical race are not known in Britain (but v. Ibis 95, 409) and the present stock of N.Z. yellowhammers is continental, not British. Has nearly a century of neozelanic climate turned the descendants of **E. citrinella nebulosa** into **E. c. citrinella,** or were the ancestors of our present yellowhammers brought from Europe?

All who have studied the history or systematics of New Zealand birds will find the new British checklist a valuable, stimulating and provocative document.—R.B.S.

A Species Index to the Emu.

The first number of the Emu appeared in 1901. On the completion of its fiftieth volume, A. R. McGill undertook the tedious and painstaking task of compiling an index. It is easily used and the arrangement is simple. Standing genera are given alphabetically and species with synonyms are listed under them. For some groups which especially concern New Zealand the list of references is formidably long. Thus **Diomedea** takes up nearly two columns, **puffinus** nearly three and **pterodroma** two and a half. By way of being still more helpful, the volume concludes with a list of contributors. It would be a major miracle if there were no misprints in a work of this kind. On p. 56 maratima should be spelt maritima. Future workers in Australasian ornithology will be very grateful to the author for the time he has saved them in hunting up references.—R.B.S.

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