New Zealand Bird Notes



Bulletin of the Ornithological Society of New Zealand. Published Quarterly.

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Bulletin of the Ornithological Society of New Zealand.

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

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OFFICERS FOR 1950.—In accordance with the society's constitution, notice is hereby given that nominations for officers of the society for the ensuing financial year are to be in the hands of the secretarytreasurer not later than April 14. Such nominations must be in writing, signed by two members, and be accompanied by the written consent of the nominee. The retiring officers are as listed above, and where no nomination is received for any office, the retiring officer is deemed to be re-nominated.

NOTICE OF BUSINESS.—Notice of business to be discussed at the annual general meeting must also be sent to the secretary-treasurer not later than April 14.

ANNUAL GENERAL MEETING.—A notice calling the annual general meeting for 1950 will be sent to members at a fater date: it is probable, however, that the meeting will be held in Wellington on May 19. This tentative information is given to enable members wishing to attend to make their travelling arrangements. A field day probably will be held at Buller's Lake, Levin, on the following day and members likely to be taking part are asked to communicate with the secretary-treasurer, J. M. Cunningham, 39 Renall Street, Masterton, so that travelling arrangements can be made.

COMMUNAL DISPLAY OF THE SHINING CUCKOO. By J. S. Watson and P. C. Bull, Wellington.

On December 13, 1949, the writers were in camp at Gwavas State Forest, Hawke's Bay. At 6.30 a.m. a number of shining cuckoos (Chalcites lucidus) were heard calling in the trees by the camp. The note was the descending "piu-piu" which terminates the usual song of this species. Five birds were present and for a few minutes they were all in view on the branches of a dead tree, but for most of the time they were in the tops of thick pines where it was difficult to see exactly what was happening. The birds when calling sat in a very erect posture flicking their wings. Individual birds several times flew out of the trees and caught passing insects; the increase of noise on their return to the tree suggested that the insect was being fed to another bird, though this was not actually seen. All the birds appeared to be adults. The impression received at the time was that some form of communal display with courtship feeding was taking place. The birds remained within hearing of the camp for about one hour after which one bird, usually to be heard about the camp, started singing.

A rather similar display was observed by one of us (P.C.B.) at the edge of the bush in the Upper Waihaha Valley, western shore of Lake Taupo on January 7, 1950. On this occasion the display lasted only five minutes and occurred at 1.15 p.m. One bird was calling in the usual way when another flew into the tree and the trilling notes (''piu-piu'') were then heard. Two or three other shining cuckoos arrived within the next few minutes and all the birds flew about in the top of a rather bushy tree in an excited manner. After five minutes the trilling stopped and the birds separated. A few minutes later a single bird was giving the usual song from this tree and a second one was doing the same from another tree several hundred yards away.

Graham (Forest and Bird, 55, 5, 1940) records witnessing a very similar scene which he interpreted as an adult feeding young birds. There must be considerable doubt, however, whether this is the correct interpretation of what he saw. The date on which the incident occurred 'one day in November'' is exceptionally early for young cuckoos to be about; Dr. Falla informs us that January is the usual date for the appearance of young cuckoos in the Wellington district. It would seem more probable that the incident recorded by Graham was in fact courtship feeding. The Summarised Classified Notes for 1943 (N.Z. Bird Notes, 1:26) also records an instance of courtship feeding. A short account of alleged feeding of a young bird by an adult of this species appeared in Summarised Classified Notes for 1944 (N.Z. Bird Notes, 1:77) but from the few details given the possibility of courtship feeding cannot be excluded.

This habit of courtship feeding has been recorded in two of the three African species of Chrysococcyx, a genus very closely related to Chalcites (Friedmann, H., 1948, "The Parasitic Cuckoos of Africa," Washington, U.S.A.). It is true that adult males of the African species have been recorded feeding young birds, and Moreau (1949, Ibis, 91:553) states "While it is possible that in one or two cases the bird receiving food may in fact have been an adult female, it is certain that most of the reports of young being fed can be accepted as authentic." Thus, while it may eventually be found that this habit does occur in the New Zealand shining cuckoo, we do not agree with Friedmann (1949, Ibis, 91:517) that it has as yet been proved.

BREEDING OF BLACK-BILLED GULL.—A colony of black-billed gulls (Larus bulleri) nested on the riverbed and bank of the Oreti River, Southland (on Mr. J. Price's property) last season. I counted 250 nests —there could be 300—all with two or three eggs and the birds were sitting on November 3 when I visited it. Old residents of the district say that this is the first time the birds have nested there during the last 50 years.—Mrs. Olga Sansom, Invercargill.

BIRDS IN WESTERN SOUTHLAND.

(The following note has been prepared by C. A. Fleming from information given by Mr. A. C. Beck, N.Z. Geological Survey, who, for three months in the summer of 1948-49, led a field party into the littleknown forested area lying west of Te Waewae Bay, between Lakes Hauroko. Pateretere and Hakapoua and the coast.)

No kiwis were head or seen. Odd crested-penguins (Eudyptes p. pachyrhynchus) were found from Te Waewae Bay to Big River, and breeding birds in a sea cave, half way between Aan and Big rivers, had fresh eggs on November 28, 1948. The identity of the penguin and condition of the eggs seem quite certain: the late date recalls Sutherland's report of a second laying in December, in a colony that began to nest in July. (Emu, vol. 20, pp. 74-81, 1920.) Blue penguins (Eudyptula minor) were also present, but no yellow-eyed penguins (Megadyptes). Great-crested grebe (Podiceps cristatus), several pairs with young, at Lake Pateretere, in mid-November. Black shags (Phalacrocorax carbo) were seen on the lakes, and little pied shags (P. melanoleucos) have colonies on the Wairaurahiri and Waitutu rivers (the latter a large cne). Mr. Beck thinks all were of the white-bellied phase. No herons. bitterns, or pukekos seen. Ducks included mallard (Anas platyrikynchos), grey (A. poicilorhyncha), "teal" and paradise (Tadorna variegata), the latter with young, on the coast, in early November. Blue duck (Hymenolaimus malacorhynchus) are restricted to mountain streams. and were seen on those flowing from the Princess and Cameron mountains. Black swan (Cygnus atratus) are on all the lakes. Bush hawks (Falco novaeseelandiae), not plentiful, are limited to high country. Only two wekas (Gallirallus australis) were seen, one at Lake Innes, the other on the west side of Wairaurahiri River, which seems to mark their eastern limit at present. Pied ovstercatchers (Haematopus finschi) frequent Te Waewae Bay, and the black species (H. unicolor) are plentiful along the rocky south coast. Black-backed gulls (Larus dominicanus) were breeding; red-billed gulls (L. novaehollandiae) and terns (Sterna striata) were present, but no skuas were seen. The number of pigeons (Hemi-phaga novaeseelandiae) increased when shrubs came into berry; kaka (Nestor meridionalis) are generally distributed and abound; keas (N. notabilis) were on the Lake Hakapoua tops at 2,000 feet; no parrakeets (Cyanoramphus) were recognised. Moreporks (Ninox novaeseelandiae) plentiful: little owl (Athene noctua), certainly identified at Port Craig; bellbirds (Anthornis melanura), tuis (Prosthemadera novaeseelandiae). fantails (Rhipidura fuliginosa), tits (Petroica macrocephala), rifleman (Acanthisitta chloris), yellowhead (Mohoua ochrocephala), and robins (Miro australis) are plentiful; creepers (Finschia novaeseelandiae) present. Thrush and blackbird (Turdus ericitorum and T. philomela) seen at the Waitutu; sparrows (Passer domesticus) at Port Craig only (deserted buildings); chaffinches (Fringilla coelebs) and goldfinch (Carduelis carduelis) in the second-growth of milled bush.

Other vertebrates seen were: Three sea leopards (Port Craig and Aan River), fur seals (Sandhill Point), and occasional sea lions; opossums (at Helmet Hill only); bush frogs (? species) in coastal swamps at the Rowallan and Port Craig; and bush rat skulls in middens at Sandhill Point. Stoats are present, at least towards the east of the area.

OCCURRENCE OF GREY NODDY IN N.Z. WATERS.—The grey noddy **Proceisterna cerulea albivitta**, given specific status (**P. albivitta**) by Murphy and Oliver, breeds in the Kermadecs, Lord Howe and Norfolk islands, and Oliver records two records from northern New Zealand. While returning from Sydney to Auckland I observed two birds at close quarters at 4.30 p.m. on October 16, 1949. This was about 20 hours béfore the ship rounded Three Kings. The birds flew backwards and forwards beside the ship, at times very close, for nearly two minutes.—J. M. Cunningham, Masterton.

HABITS OF WHITE HERON.

By L. K. Clark, Christehurch.

The following observations were made in the White Heron Sanctuary Roto Creek, Okarito, on December 10, 1948:—

I found the herons (Casmerodius albus) nesting in a large sprawling kowhai tree overhanging the black, swamp-fed Roto Creek.

Associated with the herons and nesting side by side with them were many white-throated shags (**Phalacrocorax melanoleucos**). Nests of both herons and shags seemed similar except in regard to size, the heron having the larger nest. In appearance, the nests were very rough, being composed of a round-shaped platform of interwoven twigs. The friendship between white heron and shag seems accounted for because the heron with its fearsome bill, affords protection for the shag, whereas the shag helps in providing food for the heron.

Nineteen white herons were seen on or near the kowhai tree, five of them were young still within the nest. Shags were in far greater numbers, there being between forty and fifty birds in the vicinity. The small number of heron nestlings was due to the fact that the breeding season was well advanced and some of the young birds had left the nests. An average of about twelve birds are produced each year. The young are covered with a yellowish white down, with a tuft of fine white feathers from the base of the beak to the top of the head. By six weeks of age the birds have their feathered plumage and are ready to fly. It takes, however, three years for the young heron to reach full adulthood, mate and start its own nest building. The birds seemed quite friendly—more so than the shags, and could be approached without undue alarm being created.

In August, 1947, towards the mouth of the Big Wanganui River, South Westland. I saw a white heron catching and devouring silver eyes (Zosterops lateralis). The silver eyes were feeding on insects in the low bushes along the riverbank—the heron stood like a statue in the shade of one of the bushes until the birds gradually approached to within two or three fect of the heron. Immediately the heron began to sway its neck backwards and forwards, at the same time moving forward. Suddenly there was a flash and the heron would have the silver eye. He next proceeded to swallow it head first, feathers and all, in several large gulps. The whole action occurred in a very short time. The silver eye seemed mesmerised for an instant by the swaying movement of the heron's neck.

Three times this took place that afternoon. Often the heron would be unsuccessful and would get in what appeared to be a great rage over missing his prey.

RINGING SCHEME.—Rings for use by members have now been received; the scheme may be said to have been officially commenced with the ringing of the first bird on February 27, 1950. It is not intended that all birds shall be ringed at random, and the society is at present authorised to ring the following protected birds: Caspian tern, whitefronted tern, black-billed gull, red-billed gull, gannet and stilt. It is emphasised that it is an offence to handle protected birds for any purpose without permission, and practically all native and some introduced birds are protected. Members are referred to "New Zealand Bird Notes," October, 1949, for details of the scheme, and those wishing to ring may apply to a member of the ringing committee, giving their plans in broad outline as described. The ringing committee consists of Mr. J. M. Cunningham, Dr. R. A. Falla, Mr. H. R. McKenzie (who has recently been appointed to take Mr. R. B. Sibson's place) and Dr. K. A. Wodzicki.—J. M. Cunningham, convener, March 1, 1950.

VISIT TO LITTLE BARRIER IN NOVEMBER, 1948.

By H. R. McKenzie, Clevedon.

This visit was made at the time of year which had been covered by previous very full accounts. I am, therefore, condensing this report by dealing with the birds in groups instead of individually. The visiting party consisted of my wife, Mr. W. P. Mead, of Castlecliff, Wanganui, and myself. A great deal of help was readily given by Mr. and Mrs. Parkin, of the Island, and Mrs. B. Hall and Mr. J. Jessup, visiting botanists. Mr. Mead's chief object was the photographing of the stitchbird. He made the most persistent efforts but gained almost negligible results. This was due to the great number of tuis. It had been expected that the stitchbirds would be feeding on the flax (**Phormium tenax**). However, the tuis kept the numerous bellbirds almost entirely clear of the flax blooms and the stitchbirds had to stay in the bush altogether. A memorable feature of the visit was a trip round the Island by boat and outboard motor, conducted by Mr. Parkin, with Mr. Mead and myself. The scenery was so grand and of such rugged type that one marvelled at the hardihood of the men who have traversed its sharp ridges, high steep cliffs and deep ravines. It certainly looks a safe place for the birds.

CROSSING FROM LEIGH ON 16/11/48.

Several hundreds each of fluttering shearwater, flesh-footed shearwater and Cook's petrels were observed, the latter being mostly nearer the Island as seems usual. Over a hundred of the busy little diving petrel were scattered over the last six miles. Less in numbers were the giant petrel, 12 or so, white-faced storm petrel, 6 or more, some gannet, black-backed gulls and two white-fronted tern.

RETURN FROM LITTLE BARRIER ON 28/11/48.

Fluttering and flesh-footed shearwater were again each in hundreds. The diving petrel were scattered right across, over 200 in number. There were several gannets and black-backed gulls, one white-faced storm petrel halfway across and one young Arctic skua, light phase, chasing terms near Leigh.

NATIVE BIRDS ON THE ISLAND.

These were thriving and it was considered that tuis, stitchbirds and riflemen had increased. Tuis were frequently seen fluttering on the outside of wind-pressed growth to disturb moths. This may indicate pressure on the food supply owing to numbers. Bellbirds and whiteheads were as numerous as before, while kaka, pigeon and red-fronted parrakeet were in good numbers. Less numerous but in good proportion according to territorial habit, were pied tit, fantail, grey warbler, longtailed cuckoo, kingfisher, North Island robin, morepork, harrier, and large pied shag. The kiwi is hard to estimate in numbers but is certainly doing very well. The more scarce birds were shining cuckoo, of which few were heard in proportion to the apparently suitable area, and the silver eye, of which one only was seen once, singing strongly on a tree in the orchard. From the shores of the island were seen Buller's shearwater, a few far out, red-billed gulls in small parties, Cook's petrel, fluttering shearwater and gannets. Little blue penguins came ashore in great numbers at night and Cook's petrel flew up to the heights from dusk onwards. Some black petrel remains were found on the high country and a single sooty shearwater carcase had been found fresh by Mr. Parkin on the shore in August, 1948, and kept until we arrived.

INTRODUCED BIRDS.

House sparrow, thrush, blackbird, starling and hedge-sparrow had noticeably increased. The less plentiful were skylark, up to eight seen, and chaffinch, about 10 pairs. Single birds of a species were greenfinch, one on a dead tree calling "Che-e-e-se", and a redpoll, a female in breeding plumage, feeding and calling. I believe that this is the first redpoll record for the island.

BREEDING.

Breeding was much in evidence though no special effort was made to find nests. Young flying bellbirds were seen everywhere, but only one young tui and one brood of whiteheads were found out of the nest. Most of the riflemen seen were flying young. The chaffinches, hedgesparrows, thrushes, blackbirds and house-sparrows all had eggs and young in nests. The blue penguin chicks ranged from small to nearly halfgrown. A small colony of about 20 nests of white-fronted tern was observed from the boat at Lion Rock, along the coast to the west. The birds were sitting. On the trip round the Island two or three black-backed gulls were seen on nests. The total seen on this trip was 14, all adults. A morepork, found earlier, was sitting on two eggs and hatched them while we were there. One of the best thrills of the visit was the finding of a whitehead's nest with three beautiful rose-pink eggs. These hatched before we left. Other birds were, of course, breeding, but the nests or young were not seen. The pet red-fronted parrakeet "Sammy," was suspected of having a nest but she could not be successfully followed to it. After the loss of her three chicks last year it was hoped that she would have better luck this time. The rearing of "Sammy" from a naked chick with a broken leg is typical of the devotion shown by Mr. and Mrs. Parkin to the birds of Little Barrier Island.

BIRDS ON STEWART ISLAND .- In January, 1949, Mr. W. Martin, of the Dunedin Naturalists' Field Club, visited the southern area of Stewart Island, and the following bird report is compiled from notes received from him: Native pigeons (Hemiphaga novaesseelandiae) were very common near the freezer at Port Pegasus, where they were feeding on the konini berries. A flock of 60 was noted at Halfmoon Bay flying overhead late in the evening of January 28. Kakas (Nestor meridionalis) were not numerous but were seen occasionally at Pegasus Bay and on the Tin Range. Parrakeets (Cyanoramphus spp.) were much more often heard than seen. Tuis (Prosthemadera novaeseelandiae) and bellbirds (Anthornis melanura) were very numerous. Kiwis (Apteryx australis) were seen by several members of the party on the Tin Ridge, and their holes were numerous in muddy areas to the north of Pegasus. One solitary weka (Gallirallus australis ?) was noted on an island in Port Pegasus and none on the mainland. Other land birds were few. It is possible that the orange wattled crow (Calleas cinerea cinerea) is still present, but it is two or three years since one was recorded. Of the petrels present the mutton bird (Puffinus griseus) was the one most commonly noted. Vandalism is rife at Pegasus. Fully one-third of the bush area and scrub at Pegasus has been burnt off at one time or another, the explanation given being that it was easier to get at the deer. The human menace far exceeds the deer menace in this area.

LARGE PIED SHAGS VICTIMISED BY HARRIER, Little Barrier Island.—Towards the shag nesting colony on August 1, 1944, I saw a number of pied shags (Phalacrocorax varius) wheeling in circles and screaming, with a harrier (Circus approximans) attacking and apparently shepherding them. It alighted on the ground so I went to investigate. The harrier left but I found five newly broken egg shells on the ground within a few feet. A sixth egg was in a grassy crevice and was intact. Since then I have on several occasions found broken egg shells, minus contents, on the ground, the last occasion being on 17/8/47, when ten broken eggs were counted at the mouth of Tirikakawa Stream. They were lying within a radius of six feet, all with the contents missing. I consider that a harrier must have been responsible in each case.—C. H. Parkin, Little Barrier Island.

BIRDS OF CODFISH ISLAND.

By R. K. Dell, Dominion Museum, Wellington.

Codfish Island lies off the north-western end of Stewart Island, separated from the West Ruggedy Mountains by a strait, some two miles wide. Somewhat oval in shape, the island runs from N.E. to S.W. with its major axis about 3½ miles long. The backbone of the island consists of a main ridge from which numerous subsidiary ridges branch off. Comparatively small streams have carved out steep sided valleys in a more or less radial pattern. The only stream system of any consequence is that flowing into Sealer's Bay. Near the mouth this stream flows sluggishly through a comparatively wide-floored valley.

Most of the island is encircled with steep cliffs rising to some 650 feet in places. Along the shore, boulder beaches are not infrequent. The half-mile sweep of Scaler's Bay is the only true beach. Behind this beach extends an area of consolidated sand dunes which rise landward to merge almost imperceptibly with the coastal ridge.

During the period of 1820-30 a settlement of sealers with Maori wives was established on Codfish giving a name to the main bay. The only sign of their sojourn is the mint and fennel growing in places on the dunes.

Most of the island is covered with a rimu-kamahi-rata association similar to that found on Stewart Island. This bush, especially on the ridges is surprisingly dry, being fairly open and wind swept. The higher ridges carry a **Dracophyllum**-manuka scrub. The coastal cliffs are covered with mutton bird scrub. The dunes of Sealer's Bay bear a scattered plant cover of dwarfed manuka, **Coprosma**, **Pittosporum**, flax, bracken, etc.

No sign was seen of introduced predaceous mammals. No deer were in evidence and the wild cattle recorded by Poppelwell have gone. Rats were not plentiful but opossums were in evidence all over the island and are affecting the plant cover considerably. It will be seen from the above that Codfish provides a considerable range of possible bird habitats with a minimum of introduced predators.

Few naturalists have visited Codfish and fewer still have recorded their observations. Poppelwell described the plant cover in 1911 (Trans. N.Z. Inst., Vol. 44, p. 76), Major R. A. Wilson and the late Mr. E. F. Stead spent 17 days on the island towards the end of 1934, and Stead published two short notes, on the fern bird and Cook's petrel respectively besides two semi-popular newspaper articles on his trip. In 1948 Dr. R. A. Falla spent a few hours ashore.

By courtesy of the Department of Internal Affairs, the writer was enabled to spend eight days during November, 1948, on Codfish Island. The party consisted of the following: Messrs. J. D. Corboy, R. I. Kean, C. M. Schofield, R. H. Traill, G. M. Turner and the writer. The following notes on the birds of the island are based on the combined observations of members of the party but wherever possible identifications were checked by the writer who takes all responsibility for the following notes. Dr. R. A. Falla has kindly identified petrel remains which were brought back.

Major R. A. Wilson generously made available notes made on the Stead-Wilson expedition, and also lent the writer newspaper clippings of Stead's articles on Codfish. This information has proved very valuable for comparison.

SPECIES OBSERVED.

Eudyptes pachyrhynchus.—One small breeding colony of this crested penguin was located on the northern coast. The young birds which were the most evident were fully feathered, lacking only the crest, and were fully grown. Several adult birds were observed. Old nesting sites were located under huge boulders some little distance above high tide mark.

Megadyptes antipodes.—The yellow-eyed penguin was a common nesting bird. Concentration was fairly heavy, especially in the vicinity of beaches or streams. From these suitable landing spots trails radiated inland, usually along the ridges, forking constantly to cover a fairly wide area. Nests were common in low fern, among rocks, in the scrub or on the forest floor, and some were a considerable distance inland. All nests examined contained two eggs and all showed signs of considerable incubation.

Eudyptula minor.—The little blue penguin was very plentiful on Codfish, being encountered in numbers at night along the coast, coming well up the stream in Sealer's Bay and generally penetrating some distance inland. Numbers of birds were observed during rough weather, close inshore and some of these landed in mid-afternoon. A few birds were encountered at the nests by day.

Pelecanoides urinatrix.—Diving petrels were found in burrows at Sealer's Bay. The burrows were situated a few feet above high water mark in consolidated sand dunes and less commonly higher up on the dunes. The burrows were comparatively deep and the whole habit seems unusual. A single egg was present in the burrows investigated. Judging from the remains around the local skua's nesting sites, the diving petrel together with the prions forms a major part of the skua's diet, at least at this season of the year.

Puffiinus griseus.—No mutton birds were seen ashore, but there were signs of considerable nocturnal activity around extensive burrows on suitable areas of the western coast. In addition, in late afternoon, huge flights were seen passing to the east from the northern coasts of the island. Stead records this species nesting in December—January.

Pterodroma inexpectata.—A single corpse of the mottled petrel was picked up in the bush on the western slopes. Stead records this species nesting in numbers in December.

Pterodroma cookii.—A single dead Cook's petrel picked up from fairly dense bush some distance in from Sealer's Bay is the basis for this record. The late Mr. Stead first recorded this species as nesting on Codfish Island in 1936 (Trans. Roy. Soc. N.Z., Vol. 66, p. 315) and estimated there were over twenty thousand burrows. Our visit was a little early in the season to have encountered numbers of this species. Wing 238mm, tarsus 31.5mm, toe 40mm.

Pachyptila vittata.—Remains of the broad-billed prion were found around the skua's nests and Stead records them as breeding on off-shore islets.

Phalacrocorax varius.—The pied shag was not plentiful on Codfish. Three nests were observed near Sealer's Bay, built in the branches of the common coastal shrub, Senecio rotundifolia. Although six adult birds were usually to be seen in the vicinity and three nests were present only one nest was occupied. This contained two newly-hatched young and a single egg. All three nests were constructed of small branchlets of Dracophyllum longifolium. Observations on the occupied nest were commenced one morning about 8.30 o'clock. For about half an hour the beak was opened and shut rapidly several times. Then, while the beak remained half open, a series of convulsive contractions of the muscles commenced. This culminated in a retching process during which food material appeared to be forced up to the top of the throat. The whole procedure was repeated several times taking in all about a quarter of an hour to complete. The parent bird then moved towards one side of the nest, allowing the two young to emerge from beneath her. Now at the end of the regurgitation process the retching was somewhat prolonged, the head and neck were bent down with the beak wide open and the young bird with outstretched neck almost disappeared down the throat of the parent. At the conclusion of each feeding phase the parent shag raised her head and literally shook the young bird out. She then recommenced the regurgitation process and proceeded to feed the other chick. Each young bird was fed three or four times before the parent again settled down on the nest. It appeared that the material fed to the young must have been pre-digested for a considerable time.

Leucocarbo chalconotus.—Both the Stewart Island shag and the bronze shag were observed through glasses to be nesting on a small islet cff the southern end of Sealer's Bay. Birds were constantly on the wing departing from and arriving at the island and against the skyline along one ridge the typical nests could be seen silhouetted. No accurate estimate of numbers could be obtained but it appeared that the nesting population was considerable. In the literature two breeding areas have previously been recorded, Otago Peninsula (Seymour) and Kane-te-toa, an islet off Stewart Island (Guthrie Smith, etc.). Mr. Stead was successful in landing on this islet off Codfish and photographed this breeding colony of the Stewart Island shag. Stead's estimate was in the vicinity of 60 nests.

Phalacrocorax melanoleucus.—The white-throated shag was observed on several occasions around the coast but there is no evidence to show that this is a breeding species on Codfish.

Stictocarbo punctatus steadi.—Odd birds of this species were seen from time to time. As small breeding colonies of the blue shag were observed in the Ruggedy Passage, the presence of these birds on Codfish is not unusual.

Anas aucklandica chlorotis.—A fairly careful search for the brown tcal revealed a single specimen well up the stream at Sealer's Bay.

Circus approximans .--- A single harrier was seen by Mr. R. H. Traill.

Falco novaeseelandiae.—Mr. R. H. Traill heard the call of the bush hawk on one occasion but no birds were seen by our party. Stead recorded two nesting pairs.

Haematopus unicolor.—Pairs of black oystercatchers were encountered on most beaches of any size. Though the birds kept close company no signs of nesting were seen.

Larus dominicanus.—Pairs of black-backed gulls were seen scattered along the coastline but no nests were found.

Larus novaehollandiae.—Occasional red-billed gulls were observed in Sealer's Bay. On a small stack in the north-west corner of the island a small colony appeared to be preparing nesting sites. At any rate they exhibited strong territorial behaviour. This stack was right alongside a seal rookery.

Sterna striata.—On the same stack a small colony of white-fronted tern was nesting. It was not possible to gain access to the stack but c. 40 birds were in evidence and several single eggs were seen.

Catharacta skua lonnbergi.—A pair of southern skuas was nesting on a headland near Sealer's Bay. A used nest was located and the two adults attacked intruders in the usual fashion but the chick managed to elude detection. A younger bird (the chick of the previous year?) kept company with the two adults.

Gallirallus australis.—The Stewart Island weka was established as a separate species by Grant in 1905 under the name G. scotti. This name is now usually used in a subspecific sense. This bird was plentiful everywhere on Codfish. Young birds in down were encountered in company with adults. All available ecological niches seemed to be occupied by this forager, the leaf mould of the forest floor being everywhere disturbed by their probing beaks. During low tidal periods numerous birds were encountered foraging among intertidal rocks. No melanistic phases were seen though all members of the party observed all wekas encountered, paying special attention to this feature.

Hemiphaga novaeseelandiae.—The pigeon population of Codfish, though in a healthy condition was not very high.

Nestor meridionalis.—Kakas seemed to be abundant and signs of their attack on rotting wood were met everywhere.

Ninox novaescelandiae.—Mr. G. M. Turner located a morepork nesting in a hollow tree. The call was heard occasionally at night.

Cyanoramphus novaeseelandiae and **C. auriceps.**—Parrakeets were, as usual, heard rather than seen. Sight records were, however, obtained for both the red-fronted and yellow-fronted species.

Eudynamis taitensis.—The characteristic call of the long-tailed cuckoo was heard constantly though no sight records were obtained.

Acanthisitta chloris.—Riflemen were encountered in thick forest on the higher levels.

Bowdleria punctata wilsoni.—In 1936 the late Mr. Stead established a new subspecies of fernbird for the Codfish Island population (Trans. Roy. Soc. N.Z., Vol. 66, p. 312). Fernbirds were comparatively abundant on the fixed dunes at Scaler's Bay among **Photmium** and **Coprosma** scrub, though the area suitable for this species is not extensive.

Pseudogerygone igata.—Grey warblers were not abundant on Codfish. Only two birds were seen and the song was only occasionally heard.

Petroica macrocephala macrocephala.—The yellow-breasted tit was common, especially in coastal vegetation. The normal sexual plumage differences were observed.

Rhipidura fuliginosa.—The pied fantail also was predominantly a bird of the coastal fringe. Moderately common. No black forms were seen.

Finschia novaeseelandiae.—The brown creeper was perhaps the commonest bird of the forested areas. The birds were still in small flocks so it is presumed that breeding had not commenced.

Prosthemadera novaeseelandiae.—Tuis were quite plentiful but by no means as evident as they were at Halfmoon Bay, Stewart Island. In this latter locality birds from a wide range had apparently assembled in a comparatively small area and were busily engaged feeding on fuchsia flowers. On Codfish there was no concentration of this nature, most of the fuchsias, if not already dead, being severely damaged by the opossum.

Anthornis melanura.—The bellbird was another common bird ranging over the whole island but commonest along the coastal strip, even in the wind-swept scrub of the western coast.

INTRODUCED BIRDS.

Fringilla coelebs.—Numbers of chaffinches were observed from time to time on the dune area at Sealer's Bay.

Passer domesticus.—A surprising record is that of the common sparrow, at least several pairs being present on the dune area at Sealer's . Bay.

Emberiza citrinella.—Occasional yellowhammers were seen on the dunes.

Prunella modularis.—The song of the hedge-sparrow was heard in one area of fairly heavy bush.

Turdus ericetorum.—A bleached skeleton with a few attached feathers found on the dunes at Sealer's Bay provided the sole record of the song thrush. This specimen was almost certainly a straggler.

Stead recorded blackbirds, redpolls (neither common) and two or three pairs of white-eyes. None of these species was recorded by our party. Other species which might have been expected to be present but were not seen were the robin, kiwi and yellowhead.

GREY DUCK'S NEST SITE .-- Walking along the main street of Whakatane with a friend my attention was attracted by a grey duck (Anas poicilorhyncha) flying low along the main thoroughfare. Watching, I saw her alight on the cliff face just behind the street. Within a few seconds she had taken wing again. This manoeuvre was carried out several times but on each occasion she settled lower down the face. Finally she reached a level very little higher than that of the road and as she seemed to return to this point each time I decided to investigate. Here we discerned the plaintive piping of ducklings and found in the gutter of the main street a downy bundle. It was apparent that the anxious adult bird had got them safely down from that lofty nest but on account of traffic and pedestrians was unable to get them across the street to the river. Gathering up the nine youngsters we deposited them safely on the other side. For several minutes they remained huddled together, frightened and bewildered until the adult bird swept overhead in wide circles. At last, in response to their pipings, she alighted, and the last we saw of them in the gathering dusk was the bird marching towards the river with her family crowding just behind her.-S. D. Potter, Auckland.

NOTE ON THE BREEDING LOCALITIES FOR THE BLUE SHAG (Stictocarbo punctatus steadi).—This southern representative of the spotted shag was first described by Oliver in 1930. Nothing seems to have been recorded of its breeding habits until the late Mr. E. F. Stead (N.Z. Bird Notes, Vol. 3, p. 79, 1948) recorded the species as nesting on sea cliffs around the entrances to Port Pegasus, Stewart Island, and gave some account of its nesting habits. In November, 1948, the writer, en route to Codfish Island (1/11/48) and on the return trip (8/11/48) passed through both the Inner and Outer Ruggedy Passages. On the sea cliffs of both passages blue shags were observed nesting. Observations were limited as the fishing boat on which we were travelling could not be easily manoeuvred but approximately a dozen birds and about 20 nests were observed. There are numerous suitable breeding localities in this area and with time no doubt other nests could be located. The nests were much as described by Stead but were not so high above sea level. They were all perched on ledges all of which would have been inaccessible to humans. The nests were on the whole rather well spaced. It seems very likely that many more colonies exist around the rocky Stewart Island coast. In this respect, it is of interest that old residents of Halfmoon Bay claim that this species formerly nested in numbers on cliffs and in sea caves in Paterson Inlet itself. The birds certainly stili roost in this area .--- R. K. Dell, Wellington.

SOCIETY'S LIBRARY—Amongst the books presented to the Society from the duplicate stocks of the Auckland Institute and Museum Library are Guthrie Smith's "Bird Life on Island and Shore," and Marriner's "The Kea." An anonymous donor has given A. C. Bent's "Life Histories of North American Wild Fowl, order Anseres (part)."

PHOTOGRAPHIC STUDIES OF BIRDS IN N.Z.-III.

GOLDFINCH.

The goldfinch (Carduelis carduelis) introduced into New Zealand ever 80 years ago, is generally distributed throughout the country in districts suitable to its habits. It is a bird known to almost everyone and the illustration herewith is a fine study of an adult standing on the side of its nest in an apple tree.

Any members who have not seen the goldfinch in their district should report its absence but it is so widely spread that there can be few, if any, districts where it does not occur. Information on its feeding habits are of interest and observations in this regard should be of value in assessing its economic position. It is generally regarded as being a beneficial species.

It is of interest to recall that the goldfinch has found its own way to several of the outlying islands belonging to New Zealand, such as the Chathams, Auckland and Campbell islands. To reach them entailed à flight of several hundreds of miles over the ocean.

CIRL BUNTING.

Among the rarer of the introduced birds of New Zealand is the cirl bunting (Emberiza cirlus) which was turned out in this country in small numbers about seventy years ago. At present, as far as is known, it has a restricted distribution, the limits of which are ill-defined and members seeing this bird should report its presence, numbers and any other relevant information.

A study of the photograph of a cirl bunting and its nest, in this issue, clearly shows the main distinguishing mark of the male of this species when compared with the male of the yellowhammer (E. citrinella) its nearest relative and the only bird with which it is likely to be confused—the black throat and mark through the eye. In the yellowhammer the throat is yellow. Another difference in plumage is the colour of the rump, which is olive-brown in the cirl bunting and chestnut in the yellowhammer. The females of each species are very much alike but the colour of the rump is a reliable guide.

The mapping of the present distribution of the cirl bunting in New Zealand is a task in which all members can contribute by reporting its presence or absence. The cirl bunting has been reported from the Taranaki, Wellington, Canterbury and Otago districts but recent information on its distribution is lacking.--R.H.D.S.

BIRD NOTES, KARITANE DISTRICT, MAY 13 to 20, 1949.-Unusual numbers of kingfishers (Halcyon sanctus) were noted along the river and tidal creek, perched on posts and overhead wires. Crabs' legs, etc., were littered over the decking and handrail of a small traffic bridge between the wharf and the Merton store. A pellet containing crabs' claws was found beside the other crab rejects. One small blue penguin (Eudyptula minor) stood on the Spit in a hunched attitude. A reef heron (Demigretta sacra) was watched fishing at low tide opposite the Spit in company with ten pied oystercatchers (Haematopus finschi) and a couple of kingfishers. Its long bill quested in all crannies in the rock-wall and speared quarry in the pools. On Puketeraki Beach many shags (? sp.) were observed on outlying rocky islets. The gull population, both the black-backed (Larus dominicanus) and the red-billed (L. novaeholland-iae) was smaller than in summer. During a trip to Nenthorn, a paradise duck and drake (Tadorna variegata) were seen on a lagoon near Macrae's. Pipits (Anthus novaeseelandiae) were also seen on this trip .--Mrs. J. A. Moore, D.N.F.C.



Photo copyright: K. V. Bigwood. GOLDFINCH AT NEST, CHRISTCHURCH.



Photo copyright: K. V. Bigwood. CIRL BUNTING AT NEST, CHRISTCHURCH.

THIRD RECORD OF MCCORMICK'S SKUA ON N.Z. COAST

By R. B. Sibson, Auckland.

Falla (Emu. XL., p. 119) has shown that there are only two acceptable records of McCormick's skua (Catharacta maccormicki) for New Zealand both being casualties on the long west coast of the North Island. The discovery of a third specimen also from the west coast is therefore a matter of considerable interest and worthy of recording in some detail.

The finder was Peter Williams, one of a group of boys whose interest in pelagic birds was aroused in 1946 when large numbers of gale-exhausted petrels provided plenty of material for study. On leaving school, his interest was maintained and from his home at Rawene trips were sometimes made to Mitimiti Beach, just north of Hokianga. From him I recently received a collection of carefully-prepared remains of birds, most of which had been found on the Miti-miti Beach. The commonest shearwaters and petrels were well represented, but two skulls immediately caught the eye as being out of the ordinary. One was of a white-chinned petrel (Procellaria acquinoctialis) a species seldom found storm-wrecked; the other, with a culmen of approximately 50 m.m. clearly belonged to one of the larger skuas. This skull was then shown to Mr. E. G. Turbott, and when it was compared with the useful series of skua skins in the Auckland War Memorial Museum, there seemed to be no species to which it could be assigned except **Catharacta maccormicki**. It was next sent to Dr. R. A. Falla who confirmed the identification. The fragmentary condition of the specimen when found made precise dating impossible. It may have succumbed to the winter gales of 1946, when southern great skuas (Catharacta skua lonnbergi) were known to be present on the west coast-one was actually caught in a hawk trap at Awhitu-or it may have come ashore early in 1947.

According to Murphy (Oceanic Birds of South America), "little is known about the normal pelagic range of the South Polar skua, but it is highly probable that the season of its complete and definite winter migration away from the breeding grounds is spent almost altogether in the pack-ice." The same author also has a note that it "apparently wanders at times into the North Pacific"; and Alexander (Birds of the Ocean) mentions that it has accidentally reached Ceylon. This skull provides concrete evidence that McCormick's skua, which to quote Murphy again, "undoubtedly holds the distinction of being the southernmost bird on the globe," has ranged nearly to lat. 35 S in New Zealand seas.

The value of ornithological beachcombing on the New Zealand coast is being more and more realised not only because information is being gained on the seasonal migrations of many oceanic birds which breed on the islands of the subantarctic, but also because little by little something is being learnt about the occurrence in the New Zealand region of elements of the truly antarctic fauna. Recent examples which may be cited are a southern fulmar (Fulmarus glacioloides) and a Weddell's seal, both from Muriwai.

NESTING OF BLUE SHAG.—In Halfmoon Bay, Stewart Island, this week I found the blue shag (Stictocarbo punctatus steadi) nesting on West's Point. There were nine nests, three eggs in three nests, and two and one in the other six nests. The birds were sitting (November 10, 1949). I thought that this shag nested much earlier. The nests were on rocky ledges facing the sun. When in the dinghy next day, I saw nine of these shags feeding together in a group not far from the nesting site.—Mrs. Olga Sansom, Invercargill.

CONTRIBUTION TO GANNET CENSUS.

XV.-HORUHORU, January 21, 1949.

By P. A. S. Stein, Auckland.

Fine, clear, very hot day. Light N. breeze. Very heavy swell with high waves. Too rough to land at 11 a.m. Swell had moderated by 2 p.m. Landed at south tip of island and clambered round to Central Terraces. Twenty-six adults took off as we landed and 26 stayed with young chicks. Most of the chicks were well into their second plumage (222) but 24 were still at the fluffy down stage (all white). Two of these were being fed by one adult. In addition there were eight naked chicks, six of which were under a week old. There were four eggs, two of which were hatching.

On the South Ridge were 7 adults, 66 second plumage chicks, 18 fluffy and 3 dead-looking eggs. The North Ridge had 43 adults of whom four stayed to shelter their day-old chicks from the sun. There were 70 second plumage, 12 fluffy chicks, and three eggs. The North Cliff chicks may have mixed in with this lot. Birds and weather had done a lot of damage to the vegetation and all separate nests had been trampled into a shapeless mess. We counted on the North Stack 15 adults, 60 second plumage and 10 fluffy chicks. It was too rough to get over to count the eggs. About half-a-mile to the N.E. we could see c. 150 adults floating, not fishing. There were three dead adults on the rock.

I have numbered the sections of the Rock from north to south as was done by C. A. Fleming in his account of 2/10/46 (N.Z. Bird Notes, Vol. 2, No. 5, page 109). H. R. McKenzie advises me that he meant to adopt this order in his report of 12/12/48 (N.Z. Bird Notes, Vol 3, No. 6, page 159) but accidentally transposed the numbers. Fleming, McKenzie and I have decided to use the north to south order as given below. The figures in parentheses are those obtained by H. R. McKenzie and party. Those marked "large chicks" were in down except for something less than 5% which were going into second plumage.

	North Stack I.	North Cliff II.	North Ridge III.	Central Terraces IV.	South Ridge V.	(near)	Total
Adults	15		43	52	7	150	267
Chicks-							
2nd Plumage	60		70	222	66		418
(Large)	(64)	(20)	(82)	(261)	(69)		(496)
Down	10		12	24	18		`64´
(Small)	(6)			(6)	(3)		(15)
Naked			4	8			12
Hatching				2			
	(4)						
Eggs			3	2	3		8
	(25)	(7)	(6)	(58)	(15)		(111)

REDPOLLS (Carduelis cabaret) and STRAWBERRIES.—In 1941 I grew Royal Sovereign strawberries. There were perhaps 1000 plants which were covered with lin. mesh string net. The season was very wet and cold, but the berries swelled. When they were still hard and green, before any sign of ripening, the redpolls came in numbers and picked off and ate the seeds. I could see the berries going brown on top where they failed to swell, but they grew normally on the underside. When I went past the beds a few redpolls would fly up to the net from underneath and get through the meshes. On examining the fruit, I found the seeds had been taken out and the shells lying on the ground beside the berries. These fruits were useless and usually rotted on the side on which the birds had been working. This incident has not happened again, but for some years since I have grown a different variety of strawberry.—W. H. Davidson, D.N.F. Club.

WINTER NESTING, 1949.

By H. R. McKenzie, Clevedon.

The number of nests found this winter (1949) is unusually large and I doubt if so many have been known to occur in one year at this season. All of the nests mentioned were found without any search being made so that they must represent only a small proportion of the total about this part of the country.

I submit the following carefully authenticated reports:-

THRUSH (Turdus cricetorum).

Mr. D. E. Alexander, Otau, Clevedon:-

5/6/49.-Nest; five eggs.

7/6/49-Four eggs hatched; one addled.

1/7/49-Chicks all left the nest when looked at. They returned that night to the nest.

2/7/49-Left nest finally.

4/7/49—Some chicks seen. None seen after this date. Cold wet weather could have killed them, or they may have crossed to the other side of the river. The first egg must have been laid on approximately 19/5/49.

Mr. M. F. Henry, Headmaster, Milson School, Palmerston North.

16/6/49-Nest in tree on school boundary; three eggs.

17/6/49—Four eggs. Later, accidentally dislodged by some boys before hatching.

Mr. L. P. Sladdin, Clevedon.

18/6/49 .- Nest; four eggs; later water-logged and deserted.

Mr. H. R. McKenzie. Clevedon.

25/6/49.-Nest, four eggs, in tree in garden.

2/7/49.-First chick hatching.

9/7/49.—Nest empty. Chicks probably taken by a morepork (Ninox novaeseelandiae) which was about the garden.

Mr. M. J. Thorn, Clevedon.

29/6/49—Bird on nest 18 feet up in a Cupressus macrocarpa; inaccessible. 11/7/49—Feeding young.

18/7/49—Two dead chicks on ground, 22 and 26 feet from point directly below nest. The feathers were breaking through at the ends of the large quills so the chicks would be about six days old when killed.

A pair of minahs (Acrodotheres tristis) living at the spot suspected of taking out the chicks and dropping them. This habit of the minah is described in "Mike the Minah," Mrs. Louisa Clark Williams and Francis X. Williams, Honolulu. Paul Porter, "The Elepaio," Vol. 8, No. 1, July, 1947, describes the visiting of sparrows' nests by minahs in Honolulu and the subsequent finding of two fledgling sparrows on the ground.

Masters L. Grey and K. Fawcett, Clevedon.

2/7/49.-Nest; four eggs; destroyed.

Bull, "Notes on the Breeding Cycle of the Thrush and Blackbird in New Zealand," The Emu, Vol. 46, Nov., 1946, gives his earliest nests as 1/7/34, 3 and 4 eggs. McKenzie, N.Z. Bird Notes, Vol. 2, No. 3, January, 1947, records a nest on 20/7/46 with four chicks three or four days old. Wilkinson (Mrs. A. S.), and Stidolph, N.Z. Bird Notes, Vol. 1, No. 7, Dec., 1944, record a first egg laid on 29/7/44. Stidolph in the same issue records two nests, also on 29/7/44, of two and three eggs, the first laying dates of which would be approximately July 28th and 27th respectively.

In the case described by Mr. D. E. Alexander it will be noted that the chicks left the nest 24 days after hatching. This is much longer than the usual period of 13 to 15 days. From my own observations of the nest on 25/6/49 at my home the parent, owing to the cold wet weather at this season, has to broad the chicks almost constantly so that they must receive less food and therefore develop more slowly. Another very interesting point in Mr. Alexander's account is the return of the chicks to the nest for the night of 1/7/49. I have not previously known this to happen. The report of Mr. M. F. Henry is remarkable in that the locality is so far to the south for pre-season laying.

BLACKBIRD (Turdus merula).

Masters L. Grev and K. Fawcett, Clevedon.

2/7/49.-Nest, three chicks about five days old. Destroyed. The date of laying of the first egg would be approximately 13/6/49.

P. H. Crum, Clevedon.

1/8/49-Nest; two eggs; destroyed in cutting hedge.

H. R. McKenzie, Clevedon. 23/7/49.-Nest begun in home garden. Building carried on spasmodically until 5/8/49.

5/8/49-First egg.

6/8/49-Second egg.

7/8/49-Bird not on nest. Perhaps deserted.

8/8/49-Eggs sucked, as if by rat.

Other early unpublished records:

2/8/44—Pair building. 26/8/44—Two eggs in nest.

10/9/46-Two chicks in nest in home garden about eight days old.

15/9/46-Two young flying at Ardmore.

The blackbird usually nests later than the thrush. Bull, 1946, gives the first date of egg-laying as August 27, and states that he has had no winter laying. Mrs. I. Tily, N.Z. Bird Notes, Vol 3, No. 4, January, 1949, p. 106, gives the date of a first egg as 28/8/47, very early for Dunedin. McKenzie, in the same issue, writes, "26/7/47—A new unfinished nest, apparently deserted; 3/9/47, two tiny chicks, long dead, in the now finished nest."

Bull, 1946, found with the thrush an appreciable gap between the winter laying and the orthodox spring laying. This is borne out in the present observations which also indicate a similar gap in regard to the blackbird.

SUMMARY OF EARLIEST DATES.

- Thrush.—First egg laid approximately 19/5/49 (five eggs found on 5/6/49, four of which hatched on 7/6/49). Four other nests with eggs laid in June.
- Blackbird.—First egg laid approximately 13/6/49 (three chicks about five days old found on 2/7/49). Two further nests with first eggs laid on 1/8/49 and 5/8/49. This is apparently earlier than other published records, even though much later than the one mentioned above.

HIGH NESTING OF PIED TIT (Petroica toitoi) AND OTHER NOTES .- On 27/10/49 two bushmen felled a large rimu and on examining the trunk and head to crosscut it, they found a pred tit's nest in a small hole in a branch, containing three young birds ready to fly. They took the little birds out of the nest and set them on a tree-stump a short distance away. The two parent birds who had been watching them handle the little ones started feeding them right away. The nest was over sixty feet from the ground, and how they survived is a mystery. On 26/10/49 my mate and I felled a large totara and in falling it knocked a nest of the grey warbler (Pseudogerygone igata) to pieces; but the two eggs were so well bedded in the feather lining that they did not break. The nest was lined with feathers of pigeon, tui and parrakeet. Recently three matais have been felled containing nests of the starling (Sturnus vulgaris). Hundreds of nests must be destroyed every spring by felling operations in the native bush .--- R. St. Paul, Minginui.

AFFINITIES OF SOME NEW ZEALAND BIRDS.

In "American Museum Novitates," No. 1417 (1949), Ernst Mayr continues his "Notes on the Birds of Northern Melanesia," and discusses the taxonomic problems of Pacific Island rails. Rails are notable colonisers of isolated oceanic islands where predators are absent. Many island rails have lost the power of flight, partially or completely. Their unstable morphology has led to the establishment of many genera based on single species. "Such classification," writes Dr. Mayr, "fails to recognise the function of the generic name in binomial nomenclature, namely to indicate relationship. A revision of the family with the arrangement of the species into related groups is badly needed." Such a revision, in Dr. Mayr's view, is likely to result in synonymising a number of genera, including (among New Zealand forms), Nesolimnas (with Rallus), Tribonyx (with Gallinula) and Notornis (with Porphyrio, along with Porphyrula). Gallirallus is considered related to Rallus philippensis.

The widespread banded rail (Rallus philippensis) is a most successful Pacific colonist, and the Chatham Island rail (''Nesolimnas'' dieffenbachii) is so clearly a member of the same group that ''it would be unnatural to separate this group generically.'' In the words of Jean Delacour, dieffenbachii is but ''a modified philippensis, hardly more different than macquariensis,'' a conclusion independently reached by the present writer after examining the unique type in 1948, and indeed evident from Buller's plate.

Mayr quotes Delacour's conclusion that the weka is also related to **philippensis.** "The head pattern is the same if less bright and also the breast barred; grey throat and foreneck and belly. All have similar ruddy primaries, barred with black." This is a conclusion which New Zealand ornithologists can test by field comparison of voice, habits and behaviour.

Mayr recognises six races of banded rail in the Bismarck-Solomon Island area, but Pacific populations of the pukeko (**Porphyrio porphyrio**) are so variable that only one subspecies can be recognised from the Admiralty Island to Samoa and New Caledonia, a conclusion which (in the absence of adequate study material) must influence the recognition of the alleged subspecies **chathamensis** Forbes in the New Zealand region.

In recent letters to the writer, Dr. Mayr stated his conclusion that the brown creeper (Finschia novaeseelandiae) is quite closely related to the Australian genus Sericornis (scrub wrens) and that the whitehead and yellowhead (Mohoua) are presumably also related. "Actually, there are many resemblances between Finschia and Sericornis in the structure of the bill, of the feet, and in the colour of the tail feathers and other parts of the plumage." Dr. Mayr expressed the hope that this conclusion would be tested by comparative field studies.

The whitehead, yellowhead, and creeper have been classified as Certhiidae and Luscinidae (Hutton), Certhiidae and Paridae (Buller), Timeliidae and Paridae (Buller), Paridae (Hutton, Mathews and Iredale, Oliver), Campiphegidae (Mathews, 1931) and as a special family Mohouidae (Mathews, 1946). Most field observers agree that the three forms are related in habit and voice. If they are related to **Sericornis**, they are Australian warblers, at present classified in the subfamily Sylviinae, family Muscicapidae.

Other New Zealand birds which have been wrongly classified are the "thrushes" (Turnagra) which Dr. Mayr considers to be overgrown relations of the Australian genus (Pachycephala (thickheads and whistlers).

I am grateful to Dr. Mayr for permission to quote relevant parts of his letters.--C. A. Fleming, Wellington. BITTERN CATCHING EEL.—It was on February 16th that I was shown some of the skill used by the bittern (Botaurus poiciloptilus) in obtaining food. I had been watching one from no great distance as it slowly made its way through the water not very far from the bank. Suddenly the bird's long bill plunged into the water, which immediately became churned as an eel some two feet in length was brought into view. Without any delay the bird made for the bank and there proceeded to batter and shake the eel into submission. The captive, however, proved very difficult to subdue, and time and again wound its sinuous coils in a snake-like manner around the bird's neck, a proceeding to which the bittern took strong exception, as on each occasion the elongated neck feathers were ruffed out and a long leg was immediately raised to brush off the slippery coils. Eventually, continued rough treatment overcame the eel's resistance and before long its struggles had weakened sufficiently to allow the victor to swallow it head first.—

BIRD LIFE IN THE UPPER SHOTOVER, Lake Lochnagar Region. More bird life than one would expect to see in the barren Central Otago back country was noted when Miss A. F. Edmond, a member of the Dunedin Naturalists' Field Club, and myself went for a tramp from Skippers to Lake Lochnagar, a distance of about 30 miles. We left Skippers on January 15, 1949, and arrived back there on January 19. The route was mainly over open grassy river flats with an occasional The following bird life was recorded :- Black shag patch of scrub. (Phalacrocorax carbo), 4; paradise duck (Tadorna variegata), 18 adult, 4 young; harrier (Circus appproximans), 6; S.I. oystercatcher (Haematopus finschi), 2 pairs; banded dotterel (Charadrius bicinctus), 6; pied stilt (Himantopus himantopus), 3 dozen; black-fronted tern (Chlidonias state (rinnancopus miniarcopus), 5 dozen; black-frontee tern (Cilidonias albistriata), 30; small gulls, probably the black-billed (Larus bulleri), 18; kea (Nestor notabilis), 1 heard; riflemen (Acanthisitta chloris), 2; yellow-breasted tit (Petroica m. macrocephala), 3; pied fantail (Rhipi dura fuliginosa), 2; yellowhead (Mohoua o. ochrocephala), 7; brown creeper (Finschia novaeseelandiae), 10; goldfinch (Carduelis carduelis), 4. The song thrush (Turdus criedrown) cod the blackhird (Thruse) The song thrush (Turdus ericetorum) and the blackbird (T. merula) were very common, and flocks of starlings (Sturnus vulgaris) and sparrows (Passer domesticus) were seen. A wild cat was noted on the track, and a musterer told us that cats and stoats take a big toll of the birds in this locality.-Mrs. E. M. Moore, D.N.F. Club.

NATIVE BIRD LIFE, POPOTUNOA, CLINTON.—On Popotunoa, a domed hill that overlooks Clinton, there is still a remnant of bush which was visited on August 28, 1948. Native birds recorded there were:— Two riflemen (Acanthisitta chloris) and about a dozen pied fantails (Rhipidura fuliginosa) were seen. Bellbirds (Anthornis melanura) and grey warblers (Pseudogerygone igata) were heard. An occasional pigeon (Hemiphaga novaeseelandiae) is recorded in this area.—Miss E. Sutherland, D.N.F. Club.

"Reactions of Some Passerine Birds to a Stuffed Cuckoo."—George Edwards, Eric Hosking and Stuart Smith. British Birds, XLII., p 13-19.

Wider interest in studies in bird behaviour is just awakening in New Zealand, and reactions of various species to other birds of the same species and also other species including predators and cuckoos can be readily watched and analysed under the controlled conditions of using stuffed birds placed in various positions, usually near a nest. A considerable number of papers on such experiments has appeared in overseas literature, and this, one of a well-illustrated series by these authors, will be read with interest by members contemplating similar studies in New Zealand, and also by those Australian members who are at present using stuffed birds to produce reaction displays.

Most birds were found to attack the stuffed cuckoo (Cuculus canorus) or to give distractive or lure displays, and it is interesting to note that at least two species did not use their usual alarm notes but uttered another sound apparently reserved for cuckoos. Attacks by different birds of the same species followed similar lines, and evidence that lure display results from nervous upset rather than a planned action is given by the fact that in his excitement the cock would often attack its mate or any unusual object with equal vigour. Reactions by both yellowhammers (Emberiza citrinella) and chaffinch (Fringilla coelebs) are described but no reaction at all was given by a blackbird (Turdus merula) though it attacked a stuffed jay (Garrulus glandarius) violently. Hedge-sparrows (Prunella modularis) avoided the nest altogether while the cuckoo was in position.

Behaviour and reaction patterns are largely inherited, and of English birds introduced into New Zealand, isolation of less than 100 years should not produce any genetical change in psychological any more than in physical characteristics. Nevertheless, it will be of value to make similar experiments using **C. canorus** at the nest of English birds introduced here. It would be necessary, however, to have a "control" experiment to make sure that any reaction was against the cuckoo as a cuckoo and not against the presence of any bird. In addition, the native longtailed cuckoo (Eudynamis tattensis) could be produced at the same birds" nests to test whether this cuckoo is yet recognised as such (this cuckoo has been recorded in some localitics of parasitising song thrush, greenfinch, etc.), and little is yet known of native birds' reactions to the native cuckoos.—J.M.C.

Snares Expeditions.—Literature on recent expeditions to the Snares Islands continues to swell, and of popular accounts that of Grace E. Barstow Murphy in "Natural History" (A Naturalist's wife in the Sub-Antarctic, Vol 57, Nos. 8, 9, 10, Oct., Nov., Dec., 1948, published by Amer. Mus. Nat. Hist.) gives an interesting sidelight into the human aspects of the December, 1947, camp. The story is charmingly written of the setting up of the camp in the rigorous conditions, and a happy atmosphere of the camp life is conveyed by many anecdotes. There are interesting notes of the scenery, plants, seals and birds in this wellillustrated article. In "Science" (Vol. 108, No. 2809, Oct. 29, 1948, published by Amer. Assoc. for Advancement of Science), Dr. Robert Cushman Murphy gives a concise account of the arrangements and scope of the expedition, and also explains the activities of the American Museum of Natural History in other parts of New Zealand. Another booklet of Mr. L. E. Richdale ("Wild Life on an Island Outpost," No. 8 of his "Wild Life" series) has appeared, and gives an account of his seven weeks in the Snares early in 1948. Vegetation and sea mammals are treated as well as the birds. The illustrations are of Mr. Richdale's usual high standard and include an excellent picture of the bush snipe, but they are all marred by the extremely bad reproduction.—J.M.C.

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