

JULY, 1953

REPORTS & BULLETINS
(1939-1942)

of

ORNITHOLOGICAL SOCIETY
OF NEW ZEALAND.

REPRINT OF CYCLOSTYLED ISSUES OF SOCIETY.

The Ornithological Society of New Zealand, Incorporated.

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REPORTS AND BULLETINS

(1939-1942)

OF

ORNITHOLOGICAL SOCIETY OF NEW ZEALAND.

REPRINT

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Except for a few obvious corrections of mis-spellings, any alteration to the original text is included in brackets. Otherwise the reprint is unrevised.

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ANNUAL REPORT
of the
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for the year 1939-1940.

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C.A.F.—C. A. Fleming, 226 Remuera Road, Auckland.
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R.H.—Rowland Hutchinson, Remuera, Auckland.
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Miss M. McBride, 15 Buick Street, Petone.

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LIST OF MEMBERS (Cont.):

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 R. H. Traill, Halfmoon Bay, Stewart Island.
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 P. F. Yerex, Army Headquarters, Wellington.
 E.H.
 F.G.G.P.—F. G. G. Peake, Otago Museum, Dunedin.
 J.R.
 H.T.W.

INTRODUCTION.

After much preliminary work your executive committee is now able to present the first Annual Report of the Society. From preliminary circulars members will be aware of the aims and objects which may be summarised in the words of Clause 2 of the Constitution:

"The object of the Society is to encourage, organise, and carry out field work on birds on a national scale. The collecting of specimens of birds or their eggs plays no part in the activities of the Society, which is concerned with the study of living birds in their natural state. Though in favour of bird protection the Society is not actively concerned with this work, which is the province of an already existing body."

Until the first annual meeting was held in May, 1940, the Organising Secretary had had to do practically all the work and in some districts Regional Organisers had not even been appointed. Consequently there has been some delay in the task of collecting and collating the reports on birds submitted by members. There has been a good response especially in locality lists and these have been summarised as far as possible in the accompanying schedule in species. This list should not be regarded as a complete statement of distribution as it includes only observations submitted by members and takes no account of other information which may be available in published form elsewhere. It is hoped in subsequent years to make the record more comprehensive so that the Annual Report of the Society will give some fair indication of the distribution and status of native and introduced birds.

In addition to short notes and species lists supplied by

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members there are a number of special studies which deserve more extended notice. It is hoped that members will all eventually undertake some such intensive local investigations on the lines of those here recorded for White-eyes, Penguins, Brown Duck, etc. From several of these special reports the importance of banding is apparent and members are asked not only to keep a look out for banded birds but also to consider the possibility of some banding experiments of their own. As far as possible, the executive will endeavour to send out from time to time suggestions to observers. In passing, the importance of recording the exact dates of observations and approximate numbers of birds may be stressed.

With its small membership and nominal subscription of 5/- the Society will have some difficulty in carrying out its extensive programme unless

members are prompt in the payment of their subscriptions, notifications of any changes of address, and set endeavour to enlist new members. With some members already on active service and all affected by the present conditions of war and the uncertain future we cannot hope to do much more than keep the newly-formed Society alive. It is the only organisation in New Zealand dealing with the study of birds in the field. Many of its members are already members of the more comprehensive Royal Australian Ornithologists' Union and although it is not practicable to bring about an affiliation it is felt that the active stimulus to bird study by a local organisation in New Zealand should result in increased New Zealand membership, and interest, in the R.A.O.U.

SUMMARISED REPORTS.

In the following there have been listed only the species of birds mentioned in members' reports. The list is therefore in no way a complete distributional picture of any of them. Enough reports have been received however, to show the possibility of a more complete account being obtained in future years.

Vernacular and scientific names for the most part follow those used in Oliver's "New Zealand Birds" (1930).

NORTH ISLAND KIWI (*Apteryx mantelli*).—Waipu watershed, Mangatoroto and Kara districts, N. Auckland, still in moderate numbers. Also on Kawau Island. Eggs found near Whangarei, 1938-39. (C.A.F.) Little Barrier Island, common.—(R.H.)

STEWART ISLAND KIWI (*Apteryx lawryi*).—has been at Pegasus and Mason Bay, January, 1937. Marks indicated that they were fairly common though these marks stay a long time in the peaty soil and so would probably lead to an over-estimation of the number of birds present.—(L.E.R.)

LITTLE GREY KIWI (*Apteryx owenii*).—Wakapuwa, nr. Nelson. One reported leaving the mud flats during a spell of dry weather in the summer.—(P.M.) Dead male found near Takaka, May, 1940.—(E.F.S.)

LARGE SPOTTED KIWI (*Apteryx haasti*).—Seen and heard, Gouland Downs—(E.F.S.) Male killed near Greymouth, winter, 1940.—(R.A.F.)

KIWI (sp.?)—Heard on the Canterbury side of the main divide in beech forest and river beds up the Poulter, Hawdon and Mingha rivers.—(E.P.)

YELLOW-EYED PENGUIN (*Megadyptes antipodes*).—Otago Peninsula. 70 breeding birds, 30 non-breeding birds and a number of visitors. Otago birds have been caught at various points as far north as the Ashburton River mouth. Breeds at points further south and in many places round Stewart Island.—(L.E.R.)

BIG CRESTED PENGUIN (*Eudyptes sclateri*).—Otago Peninsula, April, 1937, 39 and 40. Moulting. The usual numerous stragglers and moulters reported on eastern beaches from Otago to Cook Strait, April-July.—(R.A.F.)

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CRESTED PENGUIN (*Eudyptes pachyrhynchus*).—Palliser Bay, a rare straggler.—(R.H.D.S.) Seen at Pegasus and Halfmoon Bay, Stewart Island, January, 1937, Catlins Coast, January, 1939. Kaka Point, August, 1937. Shag Point, February, 1939, Dunedin coastline, January and February, 1937-40. Karitane, Hampden, Moeraki, Waikouaiti, February, 1939.—(L.E.R.) Nesting, Jackson's Bay, Westland.—(H. Lowcay, per R.A.F.)

"VICTORIA" PENGUIN (Rockhopper) (*Eudyptes chrysocome*).—Seen each autumn on the Dunedin coast, 1937-40. Also at Karitane, Shag Point, Waikouaiti, February, 1939. Otago Peninsula, 26/11/37, adult came ashore in good health.—(L.E.R.)

ROYAL PENGUIN (*Eudyptes schlegeli*).—Waikouaiti, February, 1939, moulting.—(L.E.R.)

LITTLE BLUE PENGUIN (*Eudyptula minor*)—Common on Otago Peninsula and at Stewart Island. Found one dead at the mouth of Pelorus Sound, January, 1932.—(L.E.R.) Hen and Chicken Is., Nov. 25th to Dec. 8th, 1939, many large young and two nests with birds incubating eggs.—(C.A.F.) Doubtless Bay, 1937, nests abundantly. Waikawau, Coromandel Pen., Dec. 1936, chick found. N. Hokianga Head, nests common.—(S.D.P.) 90 Mile Beach, May, 1940, two corpses. Spirits Bay, May, 1940, three pairs in a cave, no eggs. Maoris hunting them for food at Hooper's Point. (R.B.S.) Appear to be becoming fewer in the bays between Nelson and Separation Point. Many burrows formerly occupied now empty and no indication of fresh ones being made. Possibly due to increasing number of stoats.—(P.M.) Mahina Bay.—(E.W.H.) Coromandel, quite common, nesting.—(P.H.W.) Palliser Bay, scarce.—(R.H.D.S.)

WHITE-FLIPPED PENGUIN (*Eudyptula albosignata*).—Breeding plentifully on Banks Peninsula.—(R.A.F.) Otago Peninsula, January, 1940, a live bird caught.—(L.E.R.)

CRESTED GREBE (*Podiceps cristatus*).—Westland, January, 1940. Lake Windmere, probably three pairs. L. Wakapo and L. Ianthe, one pair each. L. Kanieri, one pair reported (R.B.S.) Lakes Lyndon, Te Anau and Fergus.—(B.J.M.)

DABCHICK (*Podiceps rufopectus*).—Lake Rotoiti, 14/4/39, twelve pairs, three with one young each.—(C.A.F.) Lake Rotoiti, summer, 1937-38, about fifty pairs, L. Okaro, three pairs.—(G.A.B.) In lagoon behind Spirits Bay.—(A.H.W.) Westland, L. Kanieri, Jan., 1940, one pair with two young. Three other birds, perhaps full grown young (R.B.S.) Wairarapa Lake, rare, decreasing.—(R.H.D.S.) Otago Harbour, 8/6/40, one picked up dead, covered with oil.—(F.G.G.P.)

DIVING PETREL (*Pelecanoides urinatrix*).—N.-W. Chicken I., 9/12/39, of many burrows only three occupied by well-grown chicks.—(C.A.F.) Wairarapa district, rare; at least one killed at Castlepoint Light-house.—(R.H.D.S.) Common on islands in Foveaux Strait.—(L.E.R.)

WHITE-FACED STORM PETREL (*Pelagodroma marina*).—Wairarapa district, rare.—(R.H.D.S.) Common on islands in Foveaux Strait and off the Otago Peninsula.—(L.E.R.)

CAPE PIGEON (*Daption capensis*).—Fairly plentiful round Stewart Island. Come at night to feed on the fish-flats from the cleaning shed at Pegasus, but gone by daylight.—(N.J.J.) Off the mouth of Otago Harbour 14/5/38 and 4/6/38—(B.J.M.) Off Lyttelton Heads, 25/5/40—(R.A.F.) Seen following the fishing boats into the mouth of Otago Harbour. A lady passenger on the Penang, which reached Dunedin in June, 1938, told me that she saw more off the Otago coast than anywhere in the southern seas. Four seen at Halfmoon Bay wharf, Jan., 1939. Not seen at Pegasus, Jan., 1937, but two seen on the trip down.—(L.E.R.)

GIANT PETREL (*Macronectes giganteus*).—Monaco, near Nelson, May, 1940. Sick bird came ashore. After being kept for a week it recovered and flew off.—(P.M.) Otago Peninsula, often seen off shore.—(B.J.M.) Have seen as many as six follow a steamer into the mouth of the Otago

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Harbour, 22/9/39. One found dead at the Spit, Otago Harbour, February, 1939. Many blackfish stranded at the mouth of Paterson's Inlet, Stewart Island, Dec., 1938, and large number of Giant Petrels had assembled to feed upon them.—(L.E.R.)

BROAD-BILLED PRION (*Pachyptila vittata*).—Wairarapa district, one or two have been picked up dead inland.—(R.H.D.S.) Immature birds are picked up near Christchurch late in December.—(R.A.F.) Common on islands in Foveaux Strait.—(L.E.R.)

DOVE PRION (*Pachyptila desolata*).—Wairarapa district, often found on beaches and inland. One in Masterton.—(R.H.D.S.)

FAIRY PRION (*Pachyptila turtur*).—90 Mile Beach, May, 1940, one corpse.—(R.B.S.) Dunedin, 18/2/40 and 21/4/40, two corpses.—(B.J.M.) Common on islands in Foveaux Strait.—(L.E.R.)

PRION sp.—Mouth of Otago Harbour, 16/10/38 and 30/10/38. None seen 23/10/38.—(L.E.R.) Mouth of Otago Harbour, 30/10/38. Large numbers of Prion flying low over the water and often plunging below the surface for two or three seconds.—(B.J.M.)

BULLER'S SHEARWATER (*Puffinus bulleri*). — A fresh specimen found on Lyall Bay beach, 12/5/40 after some days of stormy weather. This is the second specimen recorded in this area, the other being the type specimen found in 1884.—(W.R.B.O.)

FLESH-FOOTED SHEARWATER (*Puffinus carneipes*).—Hen and Chickens Is. 6-9/12/39. Found on the Large, N.W., and S.W. Chickens but not on the Hen, though they were there in January, 1937. Burrows empty or with a single bird or with a fresh egg and a bird. They came in from the sea about 7.30-8.15 p.m. Noisy at night.—(C.A.F.)

SOOTY SHEARWATER (*Puffinus griseus*).—Hen I., 25/11/39-4/12/39. Small colony with clean fresh eggs, some laid during the period. Birds silent at night.—(C.A.F.) 90 Mile Beach, 10-11/5/40, hundreds passing northward in unbroken line. 15/5/40, only one seen. Many seen dead or dying. The wings of nine were measured, average 290 m.m., range 247 to 315 mm Okarito, Jan., 1940, considerable colony nesting on a mainland bluff. (R.B.S.) Between S. cape and S.W. cape of Stewart Island 22/9/39, one bird. Three days later a dozen were seen in the same locality. (N.J.J.) Winton, May, 1940, one seen flying. Several found at Lumsden and liberated on a lagoon (D.M.) Glenary, Waikaia, a dead one reported a few years ago (G.S.G.) Wairarapa district seen at times off the coast. (R.H.D.S.) Nests on the coast near Dunedin. Near Shag Point, 1/4/38, huge numbers resting on the water and flying south (B.J.M.) Arrive off Otago Heads at the end of September each year. Stoats or ferrets interfere with the local nesting birds. (L.E.R.)

FLUTTERING SHEARWATER (*Puffinus gavia*)—Hen. I., 25/11/39-3/12/39. Very noisy at night, many adults seen but no young. Large and W. Chicken Is., 9/12/39, a few of the burrows had large downy chicks. (C.A.F.)

ALLIED SHEARWATER (*Puffinus assimilis*).—Hen. I., 25/11/39-3/12/39. Several adults in worn plumage, not plentiful. No young found. (C.A.F.)

BLACK PETREL (*Procellaria parkinsoni*).—Masterton, April, 1938. One picked up alive. (R.H.D.S.)

PYCROFT'S PETREL (*Pterodroma pycrofti*).—Large Hen and Chickens Islands, 24/11/39 to 9/12/39. Birds mating and about to lay. Scattered burrows, some with one or two birds in by day. Eight single birds with incubated eggs. One washed up on Mangowai beach in the last week in November, 1939. (C.A.F.)

GREY-FACED PETREL (*Pterodroma macroptera*). — Hen and Chickens Islands, 25/11/39—9/12/39. Some burrows vacated but most with chicks losing their down. They were out of the burrow at night but visited by the parents. Motu Harakia, Noises I., 6/8/38, eggs up to ten days incubated. (C.A.F.)

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WHITE-HEADED PETREL (*Pterodroma lessoni*).—90 Mile Beach, May, 1939, one corpse. (R.B.S.)

PETREL sp.—90 Mile Beach, May, 1940. Petrel flashing white underneath noted off shore. (R.B.S.) Dark coloured petrel, white underneath, seen in Foveaux Strait, Jan., 1939. (B.J.M.)

WANDERING ALBATROSS (*Diomedea exulans*).—Wairarapa Lake, Jan., 1933. One found alive. A few others have been recorded inland.

(R.H.D.S.) Immature bird found inland at Hororata, January, 1939.
(R.A.F.) Occasionally seen off Otago Heads. (L.E.R.)

ROYAL ALBATROSS (*Diomedea epomophora*).—Have nested since 1919 on Taiaroa Head, Otago Peninsula. Four chicks have been reared and 19 birds have been ringed. Probably 30 birds visit the place. A Royal Albatross of another race died on the beach near Taiaroa Head. Wing spread 9ft. 2ins. Too decomposed when I saw it to be sure of the species but the markings on the wings were quite different from the local birds. probably a Campbell Island bird. (L.E.R.)

BULLER'S MOLLYMAWK (*Thalassarche bulleri*).—Pirinoa, Oct., 1934. One found alive. (R.H.D.S.) Seen at Otago Head and at Stewart Island where they follow the fishing boats. (L.E.R.)

WHITE-CAPPED MOLLYMAWK (*Thalassarche cauta*).—Seen off Otago Head and at Stewart Island, where they follow the fishing boats. (L.E.R.)

MOLLYMAWK sp ?.—Stewart Island. Becoming more plentiful and now follow the fishing boats into the mouth of Halfmoon Bay. About two years ago they would not come within two or three miles of it. (N.J.J.)

BLACK SHAG (*Phalacrocorax carbo*).—Colony on Lake Waikare, Lower Waikato, a few with the Little Black Shags. (C.A.F.) S. Hokianga Heads, 1937, three nests. (S.D.P.) Skull Creek, Whangarei Harbour, roost. (W.S.) 90 Mile Beach, May 1940, only three on the beach. Spirits Bay, May 1940, two seen. Westland, January 1940, common. Manukau and Tamaki, common (R.B.S.) Nelson, 16/8/39, flight of at least 90 over the harbour (P.M.) Clevedon, Auckland, not many (H.R.McK.). Kimbell, rare (K.S.G.). Mahina Bay (E.W.H.). Common near Otautau and on Aparima, Oreti, Waiau and Waikaia Rivers. Rookery at Belmont (D.M.). Wairarapa district. Fairly common, much persecuted but numbers unchanged (R.H.D.S.). Common round the coast of the Otago Peninsula (L.E.R.).

PIED SHAG (*Phalacrocorax varius*).—Awanui Harbour, Oct., 1938, a few in a colony of Little Pied Shags (G.A.B.) Waimamaku, 1936, colony of Black and Pied Shags. Torere, Bay of Plenty, 1939, sixteen (S.D.P.) Skull Creek, Whangarei Harbour, roost (W.S.). "Northern Block," North Auckland Peninsula, fairly plentiful, breeds near Te Paki, Waikuku Beach and Tom Bowling Bay. (A.H.W.). 90 Mile Beach, May 1940, eighteen seen including parties of five and eleven. Manukau, infrequent. Coast beyond Whitford and Clevedon, common (R.B.S.). Clevedon, fair numbers on coast and river (H.R.McK.). Waihou R., November, 1939, four nests with young. (J.R.). Opuia, a number of nesting colonies. In the last few years they have taken to nesting throughout the year. Most young in July. A nesting pair takes over a nest as soon as the previous one has finished (A.B.D.). Wairarapa Lake, rare (R.H.D.S.). One seen at Broad Bay, Otago Harbour, for several weeks in the autumn of 1939 (L.E.R.).

LITTLE BLACK SHAG (*Phalacrocorax sulcirostris*).—Lake Waikare, Lower Waikato, 22/3/36. Colony on an island in willows overhanging the water. About 200 nests, half occupied. Few with eggs, clutch 2-4. Young in all stages. Downy chicks like the White-throated chicks but with less extensive wing margins. Abundant remains of carp and eels. In January, 1937, the colony was about the same size but moved to a new place. Most nests with eggs, clutch 2-5. Adults seen away from the breeding ground, in Waikato River at most seasons, 12 at Whangarei Harbour, 39 at Orakei, Auckland, and odd birds at Bethel's Lake, West Coast, and Lake Takapuna. The adult has a brilliant

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emerald green eye and the gular region and the warts on the face violet. Filoplumes possibly present at all seasons and in all ages. (C.A.F.) Skull Creek, Whangarei Harbour, roost (W.S.). Clevedon, Auckland, not many (H.R.McK.).

LITTLE PIED SHAG (*Phalacrocorax melanoleucus*).—Lake Waikare, Lower Waikato, 22/3/36. Two in the Little Black Shag Colony (C.A.F.). Awanui Harbour, Oct., 1938. About 150 of both types. About 50 occupied nests in mangroves (G.A.B.). Skull Creek, Whangarei Harbour, roost (W.S.). 90 Mile Beach, May 1940, one at Ahipara and one by a pool among the dunes. Westland, Jan., 1940, common. All very uniform on the white-throated type, none of the little pied type or intermediates. Papatotē and Puhinui, very common. Birds of either type, very few intermediates seen. Puhinui, 12/12/39, attempting to nest (R.B.S.). Nelson; increased during the past year. Some stayed about the Port all winter. (P.M.) Wairarapa Lake area, fairly common (R.H.D.S.). Otago Harbour, about 80, Papanui Inlet, about 20. Common in the inlets of Stewart Island. (L.E.R.).

STEWART ISLAND AND BRONZE SHAGS (*Phalacrocorax chalconotus*).—Off Otago coast and round the northern coast of Stewart Island from Mason's Bay to Patterson's Inlet (L.E.R.). Centre Island, Foveaux Strait, 1934 (R.A.F.).

SPOTTED SHAG (*Stictocarbo punctatus*).—Bethel's Beach, West Coast, 11/6/39, incubating. Nest material carried. No young seen. Noises I., 6/8/38. Nest building in progress, 4 well grown young and three clutches of fresh-looking eggs. October, 1939, all stages of young and eggs. Oaia I., off Muriwai, 23/10/39, twenty birds seen. 17/6/39, downy chick washed up. (C.A.F.). Westport, January 1940, two flying off-shore (R.B.S.). Nelson Bay, hundreds (P.M.) About three thousand on Otago Peninsula. Some always seen at Moeraki, Kaka Point, Curio Bay, Karitane and Purakanui (L.E.R.).

BLUE SHAG (*Stictocarbo steadi*).—Stewart Island, seen at Mason Bay, Pegasus and Patersons Inlet, January, 1937. Probably two hundred altogether (L.E.R.).

GANNET (*Morus serrator*).—Oaia I., off Muriwai. Adults fishing off-shore all winter. 29/7/37, a few on the island; 16/9/39, more; 23/10/39, 168 counted, mostly sitting. 10/3/40, dark young seen. 23/3/40, two immature washed ashore. The number of adults ashore decreased during April, minimum counted 24, but counted 120 on 4/5/40 in stormy conditions. 21/1/40, immature washed up at Milford, East Coast, perhaps too young to fly. (C.A.F.) Cape Kidnappers. The caretaker estimates the colony to consist of about 3,500 adults. (S.D.P.). 90 Mile Beach, May, 1940, regularly seen off shore. Spirits Bay, five or more seen. (R.B.S.) Clevedon, Auckland, plentiful. (H.R.McK.) Mahina Bay (E.W.H.). Coromandel, numerous. Nests on islands about four miles from the mainland. The main colony is on two adjacent points of Green Island, there being two smaller ones on outlying rocks about a mile away. At least 1000 or 1200 birds. The area of the main colony is about half an acre with the nests very close together. Birds are at the nesting grounds all the year round, many in June. Nesting begins about September and most of the eggs are hatched before the end of November. The chick is hatched naked, soon grows wisps of dark down and when about as big as one's fist white down appears. The nests are low conical heaps of white guano, and debris with sometimes a little seaweed. (P.H.W.). Wairarapa district, seen in small numbers off the coast. (R.H.D.S.) Several seen almost weekly for a mile or two inside Otago Harbour and a little less frequently in Wickliffe Bay. 8/12/36, about 30 birds apparently building nests on the far islet at The Nuggets, Otago. On the flat islet to the left were three pairs, evidently an overflow. (L.E.R.) Dunedin, 8/5/38. Immature birds seen fishing offshore. 21/4/40, two dead immature washed ashore, Nuggets, Otago, 17/1/40. About a dozen sitting on top of the conical rock, apparently the nesting site. (B.J.M.)

BLACK TEAL (*Fuligula novaeseelandiae*).—Increasing in the Rotorua-Rotoiti area. Flocks of 300-400 counted in April and May, 1939.

In May about 15 females had well developed white frontal patches, many had none. Numbers on Cambridge Lake in the non-breeding season decreased. May, 1933, over 100; May, 1937, 20; May, 1939, about 20. (C.A.F.). Lake Rotoiti, 1937-38. About 400 birds in the breeding season. (G.A.B.) Incubation 30 days. Clutch 5-6 laid alternate days. Yearlings lay in December, older birds begin in October. Nest in colonies very close to the water. (M.E.F.). Fairburn, near Doubtless Bay, November, 1937, two pairs. (S.D.P.) Seen near Spirits Bay but not recently. (A.H.W.). Westland, January, 1940, a few seen. 22 at Okarito (R.B.S.) Small parties (7-15) on Avon and Victoria Lake, Christchurch, in spring and summer (R.A.F.)

PARADISE DUCK (*Casarca variegata*).—Waitangi R., Westland, January, 1940. Two broods seen, five and three young. (R.B.S.). Kimbell, Fairlie, common (K.S.G.). Castlerock and Atholl districts, a few. Mossburn district, common. Prospect, near Mararoa, very common. Monowai and Wairaki R., a few. (D.M.). Glenary, Waikaia, common. (G.S.G.) Wairarapa Lake area, two or three hundred, rare elsewhere in the district. (R.H.D.S.)

GREY DUCK (*Anas superciliosa*). Spirits Bay, May, 1940, ten on pool behind beach. Okarito, January, 1940, fairly abundant (R.B.S.) Mangere, breeding (P.C.B.). Nelson, seems to be getting scarcer (P.M.). Clevedon district, Auckland, not uncommon. (H.R.McK.) Glenary, Waikaia, common. (G.S.G.) Fairburn, near Doubtless Bay, November, 1937, 50 seen. (S.D.P.) Whangapoua, Coromandel, 11/5/40, flock of 11. Manukau Harbour, 17/5/40, counted 30. (P.C.B.) Kimbell, Fairlie, common. (K.S.G.) Southland, plentiful where there are sanctuaries. Thornbury, Winton, Sunnyside, Nokomai Valley and the Oreti, Orawia and Aparima rivers. One paced in a car flew at 40 m.p.h. for three miles. (D.M.) Wairarapa district, common, slight decrease. (R.H.D.S.)

GREY-TEAL (*Querquedula gibberifrons*).—Wairarapa district. Rare. Seen at Masterton for three successive years. Formerly only a pair, now six or eight. (R.H.D.S.). Lake Ellesmere, May 1940. (R.A.F.)

BROWN DUCK (*Elasmonetta chlorotis*).—Fairburn, near Doubtless Bay, November, 1937. Mob of 30 on stream. Kirikopuni, N. Auckland, 1937, several seen (S.D.P.). Stewart Island, seen several seasons. (L.E.R.)

SHOVELLER (*Spatula rhynchotis*).—Fairburn, near Doubtless Bay, November, 1937, two pairs. (S.D.P.) Wairarapa Lake area, common. (R.H.D.S.)

BLUE DUCK (*Hymenolaimus malacorhynchus*).—Toaroha R., Westland, January, 1940. One pair with a well-grown young one. (R.B.S.). Regularly seen on Walker Pass between Hawdon R. and Otehaki R. (E.P.). Tararua Ranges: Occurs in small numbers in the headwaters of streams. (R.H.D.S.) Brockenburn, Manapouri, seen in headwaters of torrents, 1930. (L.E.R.)

MALLARD (*Anas platyrhynchos*).—Wairarapa district, constantly being liberated. (R.H.D.S.) Lake Ellesmere, appear equally common with grey duck. Washdyke Lagoon, more plentiful than greys. (R.A.F.)

CANADA GOOSE (*Branta canadensis*).—Plentiful on the Oreti River above Lumsden. (D.M.) In Otago Lake District. (L.E.R.) Canterbury foothills. (R.A.F.)

BLACK SWAN (*Chenopsis atrata*).—Kimbell, Fairlie, rare. (K.S.G.). Mahina Bay. (E.W.H.). Wairarapa Lake, fairly common, rare elsewhere in the district. (R.H.D.S.) Lake Waiholo, sometimes in large numbers; also on small lagoons in the Dunedin district. Very large numbers on Washdyke Lagoon, Timaru. (B.J.M.)

BLACK-FRONTED TERN (*Chlidonias albistriata*).—Muriwai, 10/3/40, five non-breeding in immature plumage, the most northerly winter record. Small numbers said to reach Waikanae River mouth each winter. (C.A.F.) Common throughout Southland. Nest on the river bed above

Lumsden (D.M.). Glenary, Waikaia, 11/6/39, two return; 21/6/39, large numbers return (G.S.G.). Palliser Bay, non-breeding visitor in winter in small numbers (R.H.D.S.). Otago and Southland river beds and a few at the head

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of Pattersons Inlet, Stewart Island (L.E.R.). In breeding plumage again on Canterbury rivers by 12th June (R.A.F.).

CASPIAN TERN (*Hydroprogne caspia*).—Seen on three occasions in Otago Harbour and once on Waikouaiti River alongside the main road. Also at Clifden on the Waiau River, January 1938. (L.E.R.) Mangowai, 24/11/39, three groups each with about 60 nests, all stages from eggs to running young. Dec., 1936, estimated at 100 pairs all in one colony; 20/12/39, the colonies had been swamped and most of the nests destroyed; 375 adult breeding birds in one colony. (C.A.F.) Awanui Harbour, October, 1938, about 50 birds nesting. Whangapoua Harbour, odd nests. Increasing inland at Rotorua. Present all the year. One nest in November, 1936. (G.A.B.) Washdyke, Timaru, 1/11/38, 18 nests on shingle bank. Just hatching, 11 young and 24 eggs. Clutches: 2 with 1, 15 with 2, 1 with 3. Washed off soon after by storm. Dunedin district, near Waitati, 22/4/38, immature; Karitane, 19/8/39, one. Occasionally along the coast. (B.J.M.) Coromandel, often seen in pairs (P.H.W.). Wairarapa district, breeds on Spit, increasing. (R.H.D.S.). Clevedon, Auckland (H.R.McK.). Mahina Bay (E.W.H.). Otautau, one seen. Aparima and Oreti rivers, occasionally (D.M.). Waimamauku, near Hokianga, Jan., 1937, 50 on beach, appeared to have bred but one pair mating (S.D.P.). Mata, near Whangarei, about 360 birds nest regularly; lay in September. A large proportion of the eggs and young are lost by flooding (W.S.). Parengarenga Heads, about 30 pairs breeding, one mile south (A.H.W.). 90 Mile Beach, May, 1940, 26 on the whole beach. January, 1940, odd birds seen at Hokitika and Okarito. Colony of about 30 birds at Waitangi only 5 nests with eggs and young. Preyed on by Black-backed Gulls. Odd birds often up the Tamaki R. Regularly seen at Manukau. Usually 10-12, even in the breeding season at Puhinui; Clevedon, 16/12/39, counted 20 with breeding *S. striata*. (R.B.S.)

ARCTIC TERN (*Sterna paradisea*).—Waikanae, 23/1/39. Single bird believed to be this species (C.A.F.).

FAIRY TERN (*Sterna nereis*).—Apparently bred in the following localities in the last three years: Pakiri; Ruakaka; Kaipara; Raglan; Porangahau; Waipu Cove; Ocean Beach, Whangarei; Nguruguru; Mangowai. One pair at each place. (C.A.F.) Mata, near Whangarei, occasionally seen but not known to breed anywhere near (W.S.). "Northern Block," N. Auckland Peninsula, never seen (A.H.W.).

WHITE-FRONTED TERN (*Sterna striata*).—Large colony on a small island off Whangapoua Harbour (G.A.B.). Coopers Beach, Doubtless Bay, 12 pairs nesting. N. Hokianga Heads, colony of about 250 pairs. Cape Kidnappers, many thousands on Black Reef, overflowing on to the gannet colony. (S.D.P.). Mata, near Whangarei, about 20 nest with Caspian Tern; lay in November. Another nesting place near Onerahi. (W.S.). "Northern Block," N. Auckland Peninsula: No colonies known, but the bird is quite frequent (A.H.W.). 90 Mile Beach, May, 1940, odd parties all along the beach, about 575 in all. Westland, January, 1940, common at Westport. Flock of over 200 regularly at Hokitika, but no sign of nesting. About 120 at the mouth of the Arahura R. At least 500 pairs nesting on the beach at Okarito. Mataitai, 16/12/39, colony of about 20, three nests with one egg each. (R.B.S.). Manukau Harbour, 7/5/40, large numbers wintering, about 300 near Onehunga. Large nesting colonies on the Ninepins off Manukau Heads. 15/5/40, 70 in three flocks along the coast between Tapu and Thames. None seen there 24/12/38, 3/1/39, 26 and 28/3/40 and 10/5/40. Several hundred seen there September, 1935. (P.C.B.). Clevedon, Auckland, on coast, not regular (H.R.McK.). Mahina Bay (E.W.H.). Glenary, Waikaia, arrive in July (G.S.G.). Wairarapa

district, rare off the coast, not known to breed (R.H.D.S.). Waitaki Mouth, very large nesting colony on the shingle. Nuggets Point, Otago and Otago Peninsula, nests on rocks, also on the mole at the mouth of the harbour. 28/3/39, huge numbers on the mole. Pipikarite Beach, 7/4/39, large flock on shore. Otago Harbour, 28/6/40, one seen. (B.J.M.) Common in places from Otago to Stewart Island (L.E.R.).

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BLACK-BACKED GULL (*Larus dominicanus*).—Three flocks counted March 23rd to April 7, 123 and 37 immature, 315 and 34, 82 and 19 (C.A.F.). Dunedin, 8/5/38, out of a flock of 123 three were immature. 15/5/38, out of 83, 7 were first year birds, 8 second, 7 third and 61 adult. Oamaru, 22/5/38, out of 38, 33 were first year, 4 second, 1 third, and none adult. Adults were about in the harbour close by. Karitane, 4/9/38, out of 107, 17 were first year, 3 second, 6 (?) third, and 81 adult. Extremely common in the Dunedin district, nests along the coast. (B.J.M.) Stewart Island, seen sparsely scattered along the coast to Pegasus. (L.E.R.). Isolated pairs nest round Lake Rotorua. (G.A.B.). "Northern Block," N. Auckland Peninsula, breeding (A.H.W.). 90 Mile Beach, May, 1940, seen all along the beach. Spirits Bay, May, 1940, only four seen. Westland, January, 1940, common. Nesting among Caspian Tern at Waitangi River. (R.B.S.). Clevedon district, Auckland, plentiful, breeding (H.R.McK.). Opotiki, one or two occasionally (N.P.). Mahina Bay (E.W.H.). Coast near Levin, several nesting colonies of 40 or 50 birds (H.T.W.). Otautau, many years ago they nested at a peat bog. (D.M.). Coromandel, odd pairs nest (P.H.W.). Wairarapa district, common inland and on the coast, breeds in various places, increasing (R.H.D.S.). Increasing in Canterbury (R.A.F.).

RED-BILLED GULL (*Larus novaehollandiae*).—Takapuna, 28/1/40, 120 adults and 10 young of the year, other counts similar (C.A.F.). Mangere area, November to January, about 100, the winter population about 1500. Does not nest within 50 miles. First seen in fully mounted plumage and bright red bills in early April. (P.C.B.). "Northern Block," North Auckland Peninsula, vast numbers present but no nesting colonies known. Probably come from large colonies on the Three Kings. (A.H.W.). 90 Mile Beach, May 1940, seen all along the beach (P.C.B.). Clevedon, Auckland, plentiful (H.R.McK.). Opotiki, huge flocks feeding grass fields by day and fly seaward at sunset (N.P.). Mahina Bay (E.W.H.). River-ton (D.M.). Coromandel, does not nest (P.H.W.). Wairarapa district, scarce (R.H.D.S.). Dunedin district, common. Nuggets Point, Otago, 17/1/40. All stages from eggs to flying young. (B.J.M.). Common at Stewart Island (L.E.R.). Plentiful on whole coastline of Banks Peninsula from Taylor's Mistake to Birdlings Flat (R.A.F.).

BLACK-BILLED GULL (*Larus bulleri*).—Rocky islands off the mouth of Whaka Stream, Lake Rotorua, 75-100 pairs with some Redbills (G.A.B.). Westland, January 1940, all the small gulls seen were Blackbills. No nests found. (R.B.S.). Kimbell, Fairlie, common in winter and spring (K.S.G.). Lumsden district, plentiful and breeding. About May, 1939, thousands flew up the Oreti R. every night. They were coming from farms lower down where they were feeding on the larvae of the Porina moth. (D.M.).

ARCTIC SKUA (*Stercorarius parasiticus*).—Nelson, a small number frequent the Bay and harass the terns. Not so numerous last summer as the one before. (P.M.)

***SEA HAWK (*Catharacta lonnbergi*)**.—A pair on most islands and rocks and headlands of Stewart Island. (L.E.R.)

McCORMICK SKUA (*Catharacta maccormicki*).—Stragglers picked up dead at Foxton by Major Wilson, and Muriwai by Mr. C. A. Fleming in autumn of 1940. (R.A.F.)

TURNSTONE (*Arenaria interpres*).—Manukau Harbour, 17/3/40, 40 with a few assuming the breeding plumage, 20/3/40, 60. None seen later. (P.C.B.). Manukau Harbour, 28/3/40, counted 60, some in breeding plumage. (R.B.S.). Nelson district (P.M.).

GOLDEN PLOVER (*Pluvialis dominicus*).—Manukau Harbour, 13/3/40, counted 8; 20/3/40, 130; 6/4/40, 30; none seen later (P.C.B.). Manukau Harbour, 16/12/39, 11; 25/2/40, counted 15; 17/3/40, 22, some black below (R.B.S.).

NEW ZEALAND DOTTEREL (*Pluviorhynchus obscurus*).—Breeds at Pakiri, Muriwai, Mangowai, formerly at Waikato Heads and Ngunguru. Eggs seen

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19/10/37, 25/11/38, 24/11/39, 20/12/38, 21/12/39 (C.A.F.). 90 Mile Beach, October 1939, four pairs. Doubtless Bay, October 1938, four pairs. Mangowai, December 1939, three pairs. Pakiri, October 1939, eight pairs. Ngunguru, January 1937, 2 pairs (G.A.B.) N. Hokianga Heads, and three miles north, 1937, a good number breeding. S. Hokianga Heads and three miles south, three pairs. Waimamaku, large numbers had bred. Waikawau, Coromandel, one pair only (S.D.P.). Wairarapa district, very rare. Only seen once, on Onoke Spit (R.H.D.S.). Stewart Island, seen at Pegasus, Mason Bay and Patersons Inlet, January, 1937 (L.E.R.).

GODWIT (*Limosa lapponica*).—Waitati, near Dunedin, 4/9/38. Over 100 (B.J.M.) Patersons Inlet, Stewart Island (L.E.R.)

KNOT (*Calidris canutus*).—Manukau Harbour, 25/2/40, counted 24; 28/3/40, many, some in full breeding plumage (R.B.S.).

AUSTRALIAN CURLEW (*Numenius cyanops*).—One mile north of Muriwai Stream, 16/9/39. Sight identification supported by measurement of footprints (C.A.F.).

PIED STILT (*Himantopus leucocephalus*).—Pakiri, 10-12 pairs nested from 1936 onwards, perhaps not in 1939. Nests round Rotorua Lake and on island. Awanui Harbour, October 1938, 40-50 birds but nests not seen (G.A.B.). Pakiri, October, 1937, 12 nests. S. Hokianga Heads, but not north, 12 pairs nesting. Waimamaku, 12 pairs nesting (S.D.P.). Mata, near Whangarei, up to 6 pairs nesting. Partially black ones have been seen. (W.S.). "Northern Block," N. Auckland Peninsula, perhaps a dozen pairs breed, some near Spirits Bay. Many more present in winter (A.H.W.). 90 Mile Beach, May, 1940, 8 at Ahipara and 12 near Te Pahi. Westland, 27/12/39—11/1/40, only 4 seen. Manukau Harbour, Favona-Westland region, November, February and April, hundreds. Heard flying over Mangere at night in late February only (R.B.S.). Aparima and Oreti Rivers, near Lumsden, common. Takitimu Mts., near Mossburn, January and February, 1940, reported to be common and one black one seen (D.M.). Glenary, Waikaiti, 8/8/39, returned to breed (G.S.G.). Wairarapa district, fairly common, breeds on shingle river beds (R.H.D.S.). Dunedin district: Green Island Lagoon, 26/6/38, 193; Waitati, 19/8/39, a dozen. (B.J.M.). Karitane Lagoon, round Lake Waihola, large numbers round Lake Kaitangata, a few round Tomahawk Lagoon. A nest at Port Molyneux, Lake Waihola and inland from the Otago coast in dry areas. (L.E.R.).

BLACK OYSTERCATCHER (*Haematopus unicolor*).—A pair seen at Shag Point, December, 1938. One seen on two occasions on Otago Peninsula, 1938. Three near Owaka, 1938. On Stewart Island seen at several points from Pegasus to Halfmoon Bay and Mason Bay. Mob of 40 at the Neck, near Halfmoon Bay, January, 1939 (L.E.R.).

PIED OYSTERCATCHER (*Haematopus finschi*).—Mobs seen in the off-season at Karitane, Owaka and Otago Harbour on several occasions (L.E.R.). Waitata, near Dunedin, 25/8/38, counted 150; 4/9/38, counted 100. (B.J.M.)

NORTH ISLAND OYSTERCATCHER.—(For further notes on Oystercatchers, please see report of special study.)

NORTH ISLAND WEKA (*Gallirallus greyi*).—Waipu, Ruakaka, Mangapai, Whangarei Heads, Ngunguru, Kara, 1936 and 1937. Heard abundantly, rarely seen. Waipu, August 1939, heard but not so frequently. Kara, August, 1939, reported that they suddenly vanished some 18 months

previously and have not been seen since. Not seen in two shooting seasons in Whangarei and Heads districts where they were abundant in 1937. Pahi, Kaipara, present about 5 years previously, not seen in May, 1938. (C.A.F.). Dargaville, 1937, Ngunguru Rd., Kamo, Kara Rd., November, 1937, Titoki, 1937, heard every night. Mangatapere, Manganui, Matapouri and Doubtless Bay, 1937, many records, nests

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without eggs, 17/11/37. (S.D.P.). Mata district, near Whangarei, abundant and increased to 1935; disappeared in 1936, small numbers 1938; 1940 scarce; nesting season August to January. (W.S.). "Northern Block," N. Auckland peninsula, not seen in 25 years. (A.H.W.).

SOUTH ISLAND WEKA (*Gallirallus australis*).—A number used to live between Nelson and Separation Point. They decreased within the last few years and were replaced by much smaller birds having the characteristics of the N. Island Weka. These also disappeared from the coastal region though calls are still heard at high levels. They are very common at Totaranui, but gone from Torrents Bay and Astrolabe. A possible reason is pig-dogs left in the bush. Stoats have been known to take their young. (P.M.). Very common on Bench Island, off Stewart Island; seldom seen at Halfmoon Bay; fairly common at Patersons Inlet and common at Pegasus. Pupu Springs, Nelson Province, January, 1929, one seen. (L.E.R.)

BANDED RAIL (*Hypotaenidia philippensis*).—Mata district, near Whangarei, abundant and appears to be increasing. Most records of chicks in November. (W.S.) "Northern Block," North Auckland peninsula, plentiful in suitable places. (A.H.W.) Middlemore golf course, 25/10/39, one. Westfield, 7/11/39, one (R.B.S.) Wairarapa district, very rare, formerly common. (R.H.D.S.).

SPOTLESS CRAKE (*Porzana plumbea*).—Aorangi I., Poor Knights, 7/12/38, four nests with chipping eggs and one chick. Probably 12 pairs. (C.A.F.) Kawakawa, North Auckland, 1937, one seen. (S.D.P.) "Northern Block," N. Auckland Peninsula, seen several times. (A.H.W.)

MARSH CRAKE (*Porzana pusilla*).—Masterton, seen nearly twenty years ago, but not seen since. (R.H.D.S.). One caught Greymouth, winter, 1940. (R.A.F.)

PUKEKO (*Porphyrio melanotus*).—Nesting dates and clutches: 24/8/38, 5 eggs; 18/12/38, 5 eggs; 18/12/38, 2 eggs; 21/12/38, 1 egg; 24/12/38, 4 eggs; 15/2/40, 9 eggs. (P.C.B.). Mata district, near Whangarei, not seen till 1937, when they arrived in numbers from the south along the flats. Increased since arrival and are abundant. (W.S.) Te Pake Stream, May 1940, several seen. Westland, January 1940, common in suitable country. (R.B.S.) Mangere, breeding (P.C.B.) Kimbell, Fairlie, rare (K.S.G.) Opotiki, plentiful near town (N.P.) Southland, Five Rivers, Otautau, Dipton, plentiful. Castlerock, Gore, Waikoura, Waikaia, a few. (D.M.) Glenary, Waikaia, common (G.S.G.) Coromandel, decreasing owing to draining, very few now (P.H.W.) Wairarapa district, fairly common (R.H.D.S.). Dunedin district, a few on the Taieri Plain (B.J.M.). A few on Otago Peninsula, round Lake Waihola, round Lake Kaitangata and Otanomomo (L.E.R.).

WHITE EGRET (*Egretta alba*).—Whangapoua Harbour, Coromandel, June 1940, one has been there several months (G.A.B.). Parengarenga, single bird several winters (A.H.W.). Okarito, Jan. 1940, several seen near breeding site (R.B.S.). Nelson, one or two on the mudflats during the winter for some years past. Two this winter, a large and a small bird. One seen to catch a sparrow (P.M.). Waikaia, one about five years ago, stayed a few days (D.M.). Wairarapa district, rare visitor (R.H.D.S.). Methven, 6/5/40, one seen (newspaper report). One or two have frequented the Christchurch Botanical Gardens every winter since 1933. (R.A.F.)

WHITE-FACED HERON (*Notophoxyx novae-hollandiae*).—Okarito, January, 1940, at least three seen. Mentioned by resident as if quite normal there. (R.B.S.).

REEF HERON (*Demigretta sacra*).—North of Whangapoua Harbour, January, 1939, several pairs nest in caves. Goat I., off Kawau, October, 1937, three pairs nesting (G.A.B.). Doubless Bay, Onerahi, Whangarei Harbour, Motuihi I., Mangonui Inlet, nesting (S.D.P.). "Northern Block,"

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N. Auckland Peninsula, frequent. Scattered nests. (A.H.W.). Puhinui, 19/11/39, one; Mataitai, 16/12/39, six; Kawakawa, near Clevedon, 16/12/39, three (R.B.S.). Nelson, a pair nearly always nest at Fifeshire Rock in the harbour (P.M.). Clevedon, Auckland, plentiful on the coast; nests in pohutukawa on a small island (H.R.McK.) Mahina Bay (E.W.H.). Castlerock, May 1939, one for a few days (D.M.). Coromandel, rather rare (P.H.W.). Wairarapa district, on the east coast breeds at Castlepoint (R.H.D.S.). Dunedin district, commonly seen round the coast and in the harbour and inlets (B.J.M.).

BROWN BITTERN (*Botaurus poiciloptilus*).—Pakiri, October 1937, 4 seen (S.D.P.). Te Paki Stream, May 1940, one; Spirits Bay, May 1940, 3 seen; Papatoetoe crater pool, 30/12/39, 12 flushed, 3 nests found; Puhinui, probably two or three pairs breed (R.B.S.). Mangere, breeding (P.C.B.). Clevedon Auckland, one seen by river at wharf (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Lumsden, common; also seen at Kauana, Otautau, Sunnyside (D.M.). Glenary, Waikaia, rare (G.S.G.) Wairarapa district, not uncommon (R.H.D.S.). Glenavy, near Waitaki R., 2/11/38, three; Toko Mouth, 21/1/40, one (B.J.M.). Seen at Taieri Mouth, Lake Waihola, near Palmerston South, near Balclutha, and near Mason Bay, Stewart Island (L.E.R.). Breeding at Brooklands, on Waimakariri and Lake Ellesmere (R.A.F.).

PHEASANT (*Phasianus colchicus* X *p. torquatus*).—Clevedon district, Auckland, not uncommon (H.R.McK.). Wairarapa district, always being liberated but does not increase (R.H.D.S.). Dunedin district, being liberated; one seen on Taieri Plain (B.J.M.). Flag Swamp, 1939, one seen (L.E.R.).

BROWN QUAIL (*Synoicus australis*).—Doubtless Bay, May, 1940, typical of scrub country (R.B.S.). Mangere, breeding but not common (P.C.B.). Clevedon district, Auckland, not common (H.R.McK.).

SWAMP QUAIL (*Synoicus ypsilophorus*).—Wairarapa Lake area, scarce (R.H.D.S.).

CALIFORNIAN QUAIL (*Callipepla californica*).—Mangere, breeding but not common (P.C.B.). Nelson district (P.M.) Clevedon district, Auckland, not uncommon (H.R.McK.). Fairlight, Caroline and Ophir, Central Otago (D.M.). Wairarapa district, fairly common (R.H.D.S.). Lee Stream, near Dunedin, one seen (B.J.M.). Harrington Point, near Dunedin (L.E.R.).

PIGEON (*Hemiphaga novaeseelandiae*).—Common in Waipori Gorge, near Dunedin, Catlins Bush, Otago Lakes district, and at Stewart Island (L.E.R.). Hen Island, 25/11/39—5/12/39, 5 nests with eggs, 1 building, several with young flown. Common also on Chickens Islands (C.A.F.). Westland, January, 1940, common (R.B.S.). Nelson, not so plentiful this year, probably owing to a fire which destroyed the broom, whose flowers are an important food for the pigeon. A pigeon can easily outfly a harrier (P.M.). Clevedon district, Auckland, not uncommon. Mostly in Otau and Orere bush hills (H.R.McK.). Kimbell, Fairlie, rare (K.S.G.). Bush country, ten miles from Opotiki, scarce (N.P.). Mahina Bay (E.W.H.). Sunnyside, Belmont, Glenburn, Blue Cliff, Tuatapere, plentiful; Lumsden, June, 1940, 2, usually 1, there from August to October; Kawarau Gorge, December, 1939, about a dozen seen in a few minutes; one seen eating young shoots of willow at Lumsden (D.M.). Glenary, Waikaia, common (G.S.G.). Coromandel, formerly very rare but is definitely increasing (P.H.W.) Wairarapa district, fairly common (R.H.D.S.). Dunedin district, fairly common in bush, not infrequent in the city (B.J.M.).

ROCK PIGEON (*Columba livia*).—Masterton, a few about the buildings (R.H.D.S.). On sea cliffs near Dunedin (B.J.M.). In the dry inland belt from Dunedin to Oamaru (L.E.R.) Breeding abundantly in cliffs of Banks Peninsula and Weka Pass (R.A.F.).

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BUSH HAWK (*Falco novaeseelandiae*).—Waiotapu, 1937, nest in firebreak in pine plantation (G.A.B.) Nelson, plentiful in wooded areas (P.M.). Mahina Bay (E.W.H.). Takitimu Mts., Sunnyside, Belmont, Te Mara, Waikaia, Waikoura, Pukemaori, reported to be plentiful on the Milford Track and to be killing tuis there. One seen to carry up a stoat, drop it and follow it down (D.M.). Glenary, Waikaia, common (G.S.G.) Wairarapa district, not uncommon in the bush; occasionally in open country in winter (R.H.D.S.). Breeding in Canterbury foothills from Waimakariri Gorge to Hurunui, Oct.-Dec., 1939 (R.A.F.)

NANKEEN KESTREL (*Falco cenchroides*).—Castlepoint, May, 1936, one individual (R.H.D.S.).

HARRIER (*Circus approximans*).—90 Mile Beach, May, 1940, seen all along the beach over the dunes; common all over the scrub country; Westland, January, 1940, common in open country; Manukau Harbour district, well distributed; 19/11/39, nest with four recently hatched young; they left the nest about 16/12/39 (R.B.S.). Mangere, breeding (P.C.B.). Nelson, plentiful; as many as 20 seen together close to domestic ducks which did not fear them in the least. They will wade into shallow water to fish; though they have been seen hovering low over the water as though about to take something they have not been seen actually to catch a fish this way (P.M.) Clevedon district, Auckland, common (H.R.McK.) Kimbell, Fairlie, common (K.S.G.) Waihou River, November, 1939, nest with four fresh eggs (J.R.). Common all over Southland (D.M.) Glenary, Waikaia, common (G.S.G.) Coromandel, decreasing steadily for the last four or five years (P.H.W.). Wairarapa district, common (R.H.D.S.) Dunedin district, common (B.J.M.)

MOREPORK (*Ninox novaeseelandiae*).—Hen and Chickens Is., Dec., 1939, very abundant. Eggs and young, clutch 2 and 1. Nests in holes of broken-off branches. Two on the ground under buttress roots (C.A.F.). Mata, near Whangarei, abundant (W.S.). Spirits Bay, May, 1940, evidently well distributed. Westland, January, 1940, common in bush. (R.B.S.). Whangapoua, Coromandel, 26/3/40, numerous; much calling at night; 10/5/40, very silent (P.C.B.). Clevedon district, Auckland, not uncommon (H.R.McK.). Opotiki, several; seen to chase blackbirds and thrushes (N.P.). Mahina Bay (E.W.H.). Cass district, Canterbury, not more than two heard at one time, usually one (E.P.). Otautau, Orepuki, Lilburn Valley, Sunnyside (D.M.). Glenary, Waikaia, rare (G.S.G.). Coromandel, decreasing (P.H.W.). Wairarapa district, scarce, decreasing (R.H.D.S.). Canterbury, decreasing (R.A.F.). One in Dunedin suburb 2/5/40 (B.J.M.)

BROWN KAKA (*Nestor occidentalis*).—Poor Knights, twice seen; Hen, Chickens, Great and Little Barrier and Mayor Islands, plentiful; N. Auckland, no records; Waitakereis, rare; in bush south of Auckland but only abundant at Lake Waikaremoana; East Cape district, 1935, very rare (C.A.F.). "Northern Block," N. Auckland peninsula, unknown, but three recently seen in Mangamuka Bush (A.H.W.). Clevedon district, Auckland, rare, only seen flying high (H.R.McK.). Tararua Ranges, scarce (R.H.D.S.).

GREEN KAKA (*Nestor meridionalis*).—Nelson, 11/1/40; seen feeding on rata (P.M.). Halfmoon Bay, Stewart Island, 18/3/39, dozens about, but nearly all gone by March 1st (E.W.H.). Lilburn Valley, one seen; Pukemaori, reported to have been common six years ago but now gone (D.M.). Manapouri, one seen above Hope Arm, Easter, 1932; Stewart Island, common; very numerous at Halfmoon Bay, January, 1939 (L.E.R.). Remains of one which had been eaten by a sea hawk (*C. antarctica*) found on an island off Stewart Island, January, 1939 (B.J.M.). Dunedin district,

a newspaper report of one at East Taieri eating fruit in an orchard, 4/5/40.

KEA (*Nestor notabilis*).—Kimbell, Fairlie, rare (K.S.G.). Near Homer Tunnel (B.J.M.). Head of Franz Joseph Glacier, 1928, and ranges above Makarora, Dec., 1934 (L.E.R.) Mt. Cook Region, March, 1940, (R.A.F.).

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RED-FRONTED PARRAKEET (*Cyanoramphus novaeseelandiae*).—Hen Is., Dec., 1939, several nests, one with 5 eggs (C.A.F.). "Northern Block," N. Auckland Peninsula, not present, but reported years ago on second-hand evidence (A.H.W.). Tararua Ranges, scarce (R.H.D.S.). Bench Island, off Stewart Island, Jan., 1939, and various places on Stewart Island (L.E.R.). Ten Mile Bush, Lake Te Anau, Nov., 1939 (B.J.M.).

YELLOW-FRONTED PARRAKEET (*Cyanoramphus auriceps*).—Hen. I., Dec., 1939, only one pair seen. Nest still empty 4/12/39 (C.A.F.) Reported as common in certain districts of Nelson Province; pair seen pursued by a bush hawk (P.M.) Piano Flat, 23/11/39, Glenary, Waikaia, common in bush a few miles away (G.S.G.). Tararua Ranges, scarce (R.H.D.S.). Bench Island, off Stewart Island, Jan., 1939 (L.E.R.).

ROSELLA (*Platycercus eximius*).—Dunedin, flocks inhabit the slopes of Mt. Cargill (B.J.M.).

BUDGERIGAR (*Melopsittacus undulatus*).—Mangere, flock of 8 lived wild but apparently could not stand the winter; last seen March 29 (P.C.B.) Rotorua, Christmas, 1938, nest with three eggs (J.R.). Dunedin district, one or two seen (B.J.M.).

SHINING CUCKOO (*Lamprococyx lucidus*).—Hen I., 25/11/39, abundant; warbler's nest with one egg and one cuckoo (C.A.F.) Mangere, breeding, but not common; Puketutu Is., 28/2/40, young one killed on telegraph wire (P.C.B.). Tawanui, Catlins, Otago, 27/9/36, first call of year; Papatowai, Catlins, 28/9/38, first heard but may have been earlier; Slope-down, near Clinton, 22/9/38; Waipati, Catlins, first heard but reported earlier. Very common in the forests of Otago and Southland during the summer. In N. Auckland seem to be heard in the spring but not later. (J.J.). Clevedon district, Auckland, common (H.R.McK.) Kimbell, Fairlie, rare (K.S.G.) Mahina Bay (E.W.H.). Matamata, 12/3/39, bird seen eating insects from summer beans in the garden; 22/3/39, bird seen about a mile away (J.R.). Halfmoon Bay, Stewart Island, plentiful in summer; 24/9/39, one heard, and after that they gradually became more plentiful (N.J.J.). Sunnyside, one seen; Glenburn, near Otautau, often heard (D.M.). Glenary, Waikaia (G.S.G.). Wairarapa district, fairly common (R.H.D.S.). Dunedin, 29/10/38, first heard; between 10/12/38 and 5/1/39, heard almost daily; only heard once or twice in the city last summer (B.J.M.) Female with egg ready to lay, killed near Christchurch, 8/12/38 (R.A.F.).

LONG-TAILED CUCKOO (*Urodynamis taitensis*).—Halfmoon Bay and Pegasus, Stewart Island, Jan., 1937 (L.E.R.). Only abundant where whitehead is common (C.A.F.) Toaroha Valley, Westland, Jan., 1940, several seen (R.B.S.). Clevedon, Auckland, heard at night. Ness Valley, 2/10/39, 8.20 p.m., called three times; 2/3/40, 11.00 p.m., called once (H.R.McK.). Mahina Bay, Stewart Island, March, 1939 (E.W.H.). Stewart Island, abundant at Mason Bay and on the islands but of late years scarcely seen at Halfmoon Bay; seen to arrive earliest at Mason Bay (N.J.J.). Clifden and Sunnyside, one seen; Lumsden, 1/8/39, one heard; Castlerock, Aug. and Sept., 1939, one seen several times (D.M.). Piano Flat, 23/11/39, 2 seen (G.S.G.). Wairarapa district, scarce (R.H.D.S.).

AUSTRALIAN DOLLAR BIRD (*Eurystomus orientalis*).—Early spring, 1923, one record, body seen (A.H.W.).

KINGFISHER (*Halcyon sanctus*).—Hen I., 25/11/39, commoner than in 1935 or 1937. Two nests with eggs in natural holes in trees (C.A.F.). Spirits Bay, May, 1940, common near the shore; Doubtless Bay, May, 1940, exceedingly common in all northern mangrove swamps; Westland, Jan., 1940, rather scarce (R.B.S.). Mangere (P.C.B.). Clevedon district, Auck-

land, common (H.R.McK.). Kimbell, Fairlie, rare (K.S.G.). Mahina Bay (E.W.H.). Tuatapere, common; Otautau and Dipton, a few (D.M.). Glenary, Waikaia, rare (G.S.G.). Coromandel, nests in fair numbers round the coast, not much in evidence till autumn (P.H.W.). Wairarapa district, not common but generally distributed (R.H.D.S.). Dunedin district, often seen round coast; near Bluff, several were seen on

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telegraph posts dropping down at intervals to catch crabs from the mud at low tide (B.J.M.).

RIFLEMAN (*Acanthisitta chloris*).—Little Barrier, Volcanic Plateau and East Cape districts (C.A.F.). Hokitika, January, 1940, common (R.B.S.). Mahina Bay (E.W.H.). Little Barrier I., a pair seen, apparently the first record (E.H.). Manapouri, Dec., 1939, very common; Sunnyside and Belmont, common; Glenburn, a few (D.M.). Glenary, Waikaia, common (G.S.G.). Wairarapa district, fairly common in bush areas (R.H.D.S.). Dunedin district, common in bush; seen nesting in the city (B.J.M.). Nests common in small patches of bush on the Otago Peninsula (L.E.R.).

BUSH WREN (*Xenicus longipes*).—Stewart Is., (E.W.H.). Thought to have been identified at Glenary, Waikaia (G.S.G.).

PIPIT (*Anthus novaeselandiae*).—90 Mile Beach and Spirits Bay, May, 1940, common; Westland, January, 1940, common along dunes (R.B.S.). Clevedon district, Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Mahina Bay (E.W.H.). Wairarapa district, generally distributed (R.H.D.S.). Dunedin district, common along shore (B.J.M.).

FERNBIRD (*Bowdleria punctata*).—Swamps in northern Waitakerei Ranges, near Huia, Muriwai, upper reaches of Maungatawhiri R., Papatootie, Milford, Pakiri, and many localities in the Gumlands; 26/10/37, nest with two eggs; 1/11/37, two young just flying; 6/11/37, three callow young and one clear egg; 14/12/39, three young beginning to be feathered (C.A.F.). Awanui Harbour, plentiful, Oct., 1939; Waiotapu, Nov., 1938, nest with young (G.A.B.). Records near Mangowai and Taumararui (S.D.P.). "Northern Block," N. Auckland Peninsula, very general throughout (A.M.W.). Puhinui, 14/12/39, heard and seen (R.B.S.). Stewart Island, March, 1939 (E.W.H.). Wairarapa Lake, seen nearly twenty years ago but not since (R.H.D.S.).

GREY WARBLER (*Pseudogerygone igata*).—Spirits Bay, May, 1940, common; Westland, Jan., 1940, abundant (R.B.S.). Mangere, breeding (P.C.B.). Mt. Te Moeheu, Coromandel, one heard singing at 2800 feet near the summit; old nest at 2400 feet (P.C.B.). Clevedon district, Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Opotiki, plentiful (N.P.). Mahina Bay (E.W.H.). Hen I. (E.H.). Levin, 17/7/3, nest nearly completed; one egg laid but deserted (H.T.W.). Otautau, Tuatapere, Sunnyside, plentiful (D.M.). Glenary, Waikaia, rare (G.S.G.). Coromandel, seldom seen except in bush (P.H.W.). Wairarapa district, common (R.H.D.S.). Dunedin district, common; 2/10/38, nest apparently full size; another begun 10 yards away; old nest pulled to pieces to build the new one; 18/10/38, all trace of old nest gone; the second nest was built but apparently deserted (B.J.M.). Bench I., off Stewart Island, nesting Dec., 1938 (L.E.R.).

YELLOW-BREASTED TIT (*Petroica m. macrocephala*).—Hokitika, Jan., 1940, very common (R.B.S.). Halfmoon Bay, Stewart Island, 8/10/39, started to build, took 4 days; October 19th, started sitting; Nov. 3rd, hatched; Dec. 22nd, young flew; four eggs, all hatched; nest made of moss, hair and feathers; female did most of the sitting, fed by the male; male only sat for $\frac{1}{4}$ to $\frac{1}{2}$ an hour or so; young fed first on what looked like crane-flies, later on small grubs. The birds disappeared when the young had flown, but returned later (N.J.J.). Southland, well distributed though not very numerous (D.M.). Glenary, Waikaia, common (G.S.G.).

Dunedin district, common (B.J.M.). Common in Catlins and on Stewart Island; on Bench Island, off Stewart Island (L.E.R.).

WHITE-BREASTED TIT (*Petroica toitoi*).—Hen and Chickens Is., increased since 1935. Poor Knights, absent. Motuihi I., and Waitakerei Ranges, rare. No other records for N. Auckland. Found in Hunua and Coromandel Ranges and southwards. Hen I., 25/11/39 to 10/12/39, two nests building, 1 with four eggs, 1 with two young; many young flying (C.A.F.). National Park common. State Forest Plantations, Waiotapu, fairly plentiful. Rangataua, a few. A nest with eggs and one with young, Oct., 1939 (G.A.B.) Otaia Hills, very rare (H.R.McK.). Wairarapa district, not uncommon in bush areas (R.H.D.S.). Mahina Bay (E.W.H.).

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NORTH ISLAND ROBIN (*Miro longipes*).—Rotorua district, fairly plentiful in certain large areas of bush, but absent in some likely places. East Coast district, absent. Huiarau-Waikaremoana-Urewera area, rare. Reported in the Kaimanawa Ranges and plentiful in parts of the Tongariro bush. Not known north of Rotorua area except on Little Barrier Island (C.A.F.). National Park, Oct., 1939, three or four pairs (G.A.B.).

SOUTH ISLAND ROBIN (*Miro australis*).—Eglinton and Lilburn valleys, several seen; Piano Flat, many reported (D.M.). Glenary, Waikaia, common (G.S.G.) Dunedin district, one seen above Whare Flat in 1938 (B.J.M.). Hope Arm area, Manapouri, Easter, 1930 and 1931 (L.E.R.) Karamea (E.F.S.).

FANTAIL (*Rhipidura fuliginosa*) (includes *flabellifera*).—Spirits Bay, May, 1940, common (R.B.S.). Mangere, breeding (P.C.B.). Westland, Jan., 1940, generally distributed, hardly as common as in the North Island; one black one seen near Hokitika (R.B.S.). Nelson, increasing in plantations but disappearing in the city; black individuals with various degrees of white and one completely black observed (P.M.). Clevedon district, Auckland, common (H.R.McK.). Kimbell, Fairlie, both pied and black common in winter (K.S.G.). Opotiki, pied plentiful (N.P.). Mahina Bay, pied (E.W.H.). Hen I., (E.H.). Otautau, June, one black and one pied: Sunnyside, Belmont, Glenburn, Piano Flat, common; Castlerock, Five-rivers, Takitimu Mts., Lilburn Valley, Tuatapere, Orepuki, Blue Cliffs, a few (D.M.). Glenary, Waikaia, pied common, black rare (G.S.G.). Coromandel, goes to bush to nest, comes out in the autumn; more common than grey warbler (P.H.W.). Wairarapa district, scarce though generally distributed. Black ones rare (R.H.D.S.). Dunedin district, common, though may be absent in winter; have seen several near Temuka when they had not been seen in Dunedin for a long time; they seem to be seen more often in the bush in winter than in the city where they are common in summer; more than twice as many pied as black (B.J.M.). Common in Catlins and Stewart Island (L.E.R.).

WHITEHEAD (*Mohoua albicilla*).—N. Auckland, only on Little Barrier I.; present on Te Aroha and Pirongia Mts., and abundant in the bush on the volcanic plateau and E. Cape districts (C.A.F.). Rangataua and Okataina Lake, fairly plentiful; nests found October and November, 1939 (G.A.B.). Bush country 10 miles from Opotiki, small flock seen at 1700 feet (N.P.). Mahina Bay (E.W.H.). Tararua Ranges and east coast bush areas, fairly common (R.H.D.S.).

WHITE-EYE (*Zosterops halmaturina*).—Spirits Bay, May, 1940, very common in flocks. Westland, Jan., 1940, abundant (R.B.S.). Mangere, not breeding in large numbers (P.C.B.). Nelson, decreasing each year; a number seen feeding on the flower of the koi, which flowers in winter (P.M.). Clevedon district, Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Opotiki, plentiful and nest; noticed that they left when some moreporks arrived (N.P.). Mahina Bay (E.W.H.). Orepuki, Otautau, Sunnyside, Piano Flat, Ermedale, Takitimu Mts., common; Castlerock, May, flocks of hundreds in turnip fields (D.M.). Glenary, Waikaia, only in winter when snow is about; returned 31/7/39

(G.S.G.). Coromandel, common (P.H.W.). Wairarapa district, common (R.H.D.S.). Dunedin, common (B.J.M.).

TUI (*Prothemadera novaeseelandiae*).—Hen and Chickens Is., Nov. and Dec., 1939, two nests with eggs (C.A.F.). Mata, near Whangarei, very abundant. Has increased in the last few years (W.S.). "Northern Block," N. Auckland Peninsula, not present (A.H.W.). Westland, abundant in suitable country (R.B.S.). Nelson, increasing (P.M.). Clevedon district, Auckland, not uncommon (H.R.McK.). Bush country, 10 miles from Orepuki, plentiful at low elevation (N.P.). Mahina Bay (E.W.H.). Sunnyside, common. Orepuki, several seen. Glenburn, one seen chasing a pigeon (D.M.). Glenary, Waikaia, rare (G.S.G.). Coromandel, decreasing (P.H.W.). Wairarapa district, fairly common, increasing in settled areas; breed in *Pinus radiata* (R.H.D.S.). Dunedin district, a few in the bush areas, often in the city in winter. Common in Catlins and Stewart Island (B.J.M.).

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BELL-BIRD (*Anthornis malanura*).—On all important islands but not the N. Auckland mainland. Small numbers seen at Peach Cove, Whangarei Heads. South of Auckland, abundant on the volcanic plateau. November to December, 1939, nests with young flown and one with three eggs on Hen and Chicken Is. (C.A.F.). "Northern Block," N. Auckland Peninsula, not present (A.H.W.). Westland, Jan., 1940, abundant (R.B.S.). Nelson, increasing and now enters the city in winter. At Astrolabe where there is one on the average to each small bay, they had a new song nearly every year while retaining the bell notes (P.M.). Mahina Bay (E.W.H.). Sunnyside, Glenburn and Piano Flat, a few. One reported seen with greenfinches near Lumsden. No native bush for miles (D.M.). Glenary, Waikaia, rare (G.S.G.). Tararua and Rimutaka Ranges, scarce, but generally distributed (R.H.D.S.). Dunedin district, common. In one part of Dunedin they have two very well marked songs as well as the descending bell-like notes. There are usually four of these notes but sometimes three or five. Two or three miles away birds have been noted singing songs recognisably of the same type as these two but different in detail. During a visit to Stewart Island, Dec. 1939, and Jan. 1940, the bellbirds were rather silent and the only familiar song heard was the four descending notes, on one occasion only. On Bench Island during the same period only one well-marked song was noted and it was quite unlike the Dunedin songs. In a Dunedin garden between 1/5/38 and 20/5/39 bellbird song was listened for on 293 days. The three songs were heard on the following numbers of days: 176, 61 and 62, the last being the four descending notes. On 5 days during August a quite different song was heard but never before or since. Both sexes sing. (B.J.M.)

SADDLEBACK (*Creadion carunculatus*).—Hen I., Dec. 1939. Appeared to be somewhat less plentiful than in 1935 and 1937; 3 nests, one with fresh eggs, one with deserted eggs and one with half-grown chicks. Feb. 1935, pair seen up Kopuapounamu R. beneath Raukumara Peak, the most recent record on the mainland (C.A.F.).

ORANGE-WATTLED CROW (*Callaeas cinerea*).—Pegasus, Stewart Island, one seen, Jan. 1937 (L.E.R.).

BLUE-WATTLED CROW (*Callaeas wilsoni*).—Kopuapounamu headwaters, E. Cape district, February 1935. In moderate numbers. Also present in Mamaku bush, and its continuation towards Coromandel. No recent records north of Auckland except near Mangopai, where the bush has since been felled (C.A.F.).

GREENFINCH (*Chloris chloris*).—Mangere, breeding. Common (P.C.B.). Clevedon, Auckland, rare (H.R.McK.). Kimbell, Fairlie, rare (K.S.G.). Mahina Bay, only goes about 100yds. into the bush (E.W.H.). Wairarapa district, not uncommon (R.H.D.S.). Dunedin district, common (B.J.M.).

CHAFFINCH (*Fringilla coelebs*).—Mangere, breeding. Common. Spring song heard from July 5th onwards (P.C.B.). Clevedon district,

Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Mahina Bay, only goes about 100 yards into the bush (E.W.H.). Glenary; Waikaia, common (G.S.G.). Wairarapa district, common (R.H.D.S.). Dunedin district, common (B.J.M.).

LESSER REDPOLL (*Acanthis cabaret*).—May 1940, well distributed over the extreme north of the N. Auckland Peninsula (R.B.S.). Kimbell, Fairlie, rare (K.S.G.). Waiau R., at Sunnyside, early May, 1940, a few reported (D.M.). Glenary, Waikaia, common (G.S.G.). Wairarapa district, not uncommon (R.H.D.S.). Dunedin district, common. Bench Island, off Stewart Island, December, 1938. (B.J.M.).

GOLDFINCH (*Carduelis carduelis*).—Mangere, breeding, common (P.C.B.). Clevedon, Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Mahina Bay (E.W.H.). Little Barrier I., several near homestead (E.H.). Coromandel, seems to be increasing (P.H.W.). Wairarapa district, fairly common (R.H.D.S.). Dunedin district, common (B.J.M.). On islands off Stewart Island, January, 1939 (L.E.R.).

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HOUSE SPARROW (*Passer domesticus*). — Mangere, breeding, common (P.C.B.). Clevedon, Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Mahina Bay (E.W.H.). Wairarapa district, common (R.H.D.S.). Dunedin district, common (B.J.M.).

YELLOW HAMMER (*Emberiza citrinella*).—Mangere, breeding. Common (P.C.B.). Clevedon district, common (H.R.McK.). Kimbell, Fairlie, rare (K.S.G.). Paraparaumu Beach, entirely absent this winter (W.K.). Mahina Bay (E.W.H.). Glenary, Waikaia, common (G.S.G.). Wairarapa district, fairly common (R.H.D.S.). Dunedin district, common (B.J.M.).

CIRL BUNTING (*Emberiza cirrus*).—Wairarapa district, rare (R.H.D.S.).

SONG THRUSH (*Turdus philomelus*). — Mangere, breeding. Common. 17/4/40, first real song. Early nest record: 30/6/34, four eggs; 3/7/34, three eggs and four eggs; 15/7/39, five eggs; 25/7/35, three young (P.C.B.). Clevedon district, Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Mahina Bay, only goes about 200 yards into the bush (E.W.H.). Little Barrier I., about a dozen near homestead (E.H.). Christchurch, normally begins to sing about the end of the third week in May, this noted during the past four years (E.P.). Glenary, Waikaia, common. 2/9/39, nests found (G.S.G.). Coromandel, fairly plentiful, the same as blackbird (P.H.W.). Wairarapa district, common (R.H.D.S.). Dunedin district, common. While counting blackbirds (see under blackbird) 80 thrushes were recorded. This number is probably too low as they are less conspicuous. First song 18/5/38 and 11/5/40 (B.J.M.).

BLACKBIRD (*Turdus merula*).—Mangere, breeding. Common (P.C.B.). Clevedon district, Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Mahina Bay, only goes about 200 yards into the bush (E.W.H.). Waikaia, Jan., 1939, white blackbird, chased by sparrows (D.M.). Glenary, Waikaia, common; 2/9/39, nests found (G.S.G.). Coromandel, fairly plentiful, same as thrush (P.H.W.). Wairarapa district, common (R.H.D.S.). Dunedin district, common. Counts made from a car, Aug 13, 19, and 20, 1938—95 males and 39 females (B.J.M.).

HEDGE SPARROW (*Prunella modularis*).—E. Tamaki, late, 1937, nest with eggs. First record for Auckland for the present observer (S.D.P.) Spirits Bay, May, 1940, seen twice (R.B.S.). Mangere, breeding, but not common (P.C.B.). Clevedon district, Auckland, common (H.R.McK.). Kimbell, Fairlie, rare (K.S.G.). Mahina Bay, only goes about 150 yards into bush (E.W.H.). Wairarapa district, fairly common (R.H.D.S.). Dunedin district, common. Bench I., off Stewart Island, nesting, Dec., 1938 (B.J.M.).

SKYLARK (*Alauda arvensis*).—Mangere, 14/4/40, first heard singing (P.C.B.). Clevedon, Auckland, common (H.R.McK.). Kimbell, Fairlie, rare (K.S.G.). Wairarapa district, common (R.H.D.S.). Dunedin district, common. Singing dates: 7/5/38, 17/5/38, 3/7/38, 6/8/38 (B.J.M.).

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STARLING (*Sturnus vulgaris*).—Mangere, breeding, common (P.C.B.) Nelson, increasing. Bird with one leg seen for about six years (P.M.). Clevedon, Auckland, common (H.R.McK.). Kimbell, Fairlie, common (K.S.G.). Paraparaumu Beach, large numbers of starlings fly in flocks to roost on islands 3 or 4 miles out to sea. This habit begins about March. This year there seem to be two or three times as many as usual. During heavy westerly winds many failed to cross and returned to roost in mainland plantations (W.K.). Mahina Bay, only goes about 50 yards into the bush (E.W.H.). Hen I., three families of young seen (E.H.). Glenary, Waikaia, they go away for a few weeks in winter and returned 30/6/39 (G.S.G.). Coromandel, more common in winter. Roosts on islands 4 miles out (P.H.W.). Wairarapa district, common (R.H.D.S.). Dunedin district, small parties roost in bushes on coastal cliffs. Not very numerous. Oamaru, fair-sized roost in large trees in the Gardens (B.J.M.).

MYNA (*Acrodothores tristis*).—Papakura, near Clevedon, reported (H.R.McK.). Wairarapa district, scarce. A few in most towns (R.H.D.S.)

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WHITE-BACKED MAGPIE (*Gymnorhina hypoleuca*).—Kimbell, Fairlie, common (K.S.G.). Cass district, first noticed about 1932. Present population not more than two pairs (E.P.). Glenary, Waikaia, one seen (G.S.G.). Wairarapa district, fairly common (R.H.D.S.). Travelling north from Dunedin they are usually seen first at Otaia. Glenary, 2/11/38, one. Hampden, 22/11/38, a pair. Several between Oamaru and Ngapara and in the hills behind Duntroon, 20/11/38. Common behind Timaru and up as far as the top of Burke's Pass, but none seen beyond, 23/8/39 (B.J.M.).

BLACK-BACKED MAGPIE (*Gymnorhina tibicen*).—Neighbourhood of Cheviot (R.A.F.).

* SEA HAWK (*Catharacta antarctica*).—A small islet off Halfmoon Bay, Stewart Island, inhabited by a pair of skuas. The remains of the birds on which they had fed were collected and they occurred in the following numbers: Diving petrel (*P. urinatrix*), 109; Storm petrel (*P. marina*), 87; Fairy prion (*P. turtur*), 44; Broad-billed prion (*P. vittata*) 16; Kaka (*N. meridionalis*), 1. All except the kaka nested in considerable numbers on the islet. (B.J.M.).

** STARLING (*Sturnus vulgaris*).—Small islet a few miles off Halfmoon Bay, Stewart Island, Jan., 1939, small starling roost in bushes. Also nests in cracks in the rocks (B.J.M.).

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SUMMARY OF SPECIAL INVESTIGATIONS

In addition to short notes and species lists supplied by many members there are a number of special studies which deserve more extended notice. It is hoped that members will all eventually undertake some such intensive local investigation as are here suggested. Comment on, or extension of, those recorded in the following pages would be welcomed for next year's report.

1. BANDING OF WHITE-EYES (*Zosterops lateralis*).

Professor Marples in Dunedin and Mr. C. A. Fleming in Auckland carried out banding experiments. In the former case all captures and returns are recorded between 21st April and 10th October and relate therefore to winter flocks; in the latter the banding is carried into the nesting season and includes some fledglings.

(a) **Banding Results and Weights and Measurements of White-eyes at Dunedin.**

Numbers banded:—

1938, Aug. 31st to Sept. 10th	32 White-eyes
1939, June 25th to Oct. 10th	30 White-eyes 8 Bellbirds
1940, Apr. 21st to June 30th	105 White-eyes
Apr. 21st to April 28th	4 Bellbirds

Returns: White-eyes

1938. Three, two next day and one five days later. Two retrapped in subsequent years as follows: Banded 30/8/38, two retrapped 2/6/40; banded 3/9/38, retrapped 12/8/39, again 27/8/39, and again 16/5/40.
1939. Two retrapped, one twice. Three retrapped in subsequent year as follows: Banded 12/8/39, retrapped 14/5/40; banded 23/7/39, retrapped 28/4/40; banded 18/10/39, retrapped 28/4/40.
1940. 21 retrapped, 9 once, 7 twice, 2 four times, 2 six times, 1 seven times. Intervals between banding and retrapping anything between one day and fifty-nine days.

Bellbird

Banded 23/4/39, retrapped 10/5/40.

All banding and trapping done at the same spot in a garden near the centre of Dunedin.

Measurements:

Length of beak from the feathers above the nostril to the tip—200 White-eyes. Length of wing—200 White-eyes.

Beak.		Wing.	
8.5	15	57	2
9.0	91	58	2
9.5	71	59	15
10.0	22	60	29
10.5	1	61	53
		62	52
		63	35
		64	12
	<hr/>		<hr/>
	200		200

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Weights.

The birds were weighed to the nearest quarter of a gram, 29 after July 1st 1939, and the rest before June 30th, 1940. From the data so far obtained they seem to increase in weight in the winter, being heaviest about the end of June. These figures should, therefore, give a fair idea of the winter weight.

11.0	1	}	4
11.5	3		
12.0	9	}	28
12.5	19		
13.0	23	}	50
13.5	27		
14.0	39	}	72
14.5	33		
15.0	26	}	33
15.5	7		
16.0	10	}	11
16.5	1		
17.0	1	}	2
17.5	1		
	<hr/>		
	200		

(b) Banding and Study of White-eyes at Auckland.

Large volume of field observations have accumulated with reference to the Remuera property in which the fantail's observations were made. Only a few aspects here summarised.

Banding.—38 adults were banded between August 25 and November 31st, 1939, with numbered aluminium bands and coloured celluloid bands for sight identification. Wings were measured; of 31 measurements, there was one of 68 mm., two of 65 mm., 4 of 64 mm., 3 of 63 mm., 12 of 62mm., 4 of 61 mm., none of 60 mm., 2 of 59 mm., 2 of 58 mm., 1 of 57 mm., though it is probable that males are in general larger than females, yet the matings known show overlapping. Matings known: 65 & 58, 61 & 62, 61 & 61, 61 & 57, 65 & 62, 64 & 62.

General Cycle.—Flocking in winter. Breaking into pairs in early spring—1st in song heard on 28th June on territory (eggs for this pair laid about 23rd Oct. in this territory). Such early signs of territory and pairing seen early morning and evening. Not until Oct. could garden be mapped into territories. From middle of Oct. some adjustment of territories noted—(change of singing tree by male and replacement at former place by another male, etc.). Building by some pairs in early Oct.—2 nests found but eggs not laid, due to storm blowing down one and desertion of other and subsequent change of territory.

Late Oct.—most pairs building. Eggs laid in last week and from then on to Dec. Clutch 3, of which all chicks usually leave the nest successfully but only two survive first few days (invariable experience with five pairs). Incubation period about 10 days (no accurate dates available). Young in nest for 10 days (eggs hatched in one case on 14th Nov., young flew on 24th).

Returns from Banding: 20 of 36 birds banded have been recorded subsequent to capture; some frequently; some retrapped. Probably most of the birds trapped subsequent to Aug. were local breeding birds. In April, 1940, trapping recommenced and 3 of the 1939 birds (all adults) were retrapped before the 20th.

Movement of Individuals: A pair banded on 26th Aug. were found nesting 400 yards away on 1st Nov. (in a distant garden). Individuals with known nests or territory have not been seen further away from them than about 50 yards.

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Banding of Young.—The short time spent by the young in the nest has been responsible for my failure to band more than half of the broods found—only 9 were banded although 5 broods were recorded.

Density of Population: The accompanying sketch map of the area shows the territories mapped on Oct. 16th, mainly on the basis of singing birds, most of which were banded. The numbers of the banded birds are included within the circles which are not to be considered the exact limits of territory. When underlined, the nest of the pair was found later or the young were banded after flying.

Second Broods? No definite case recorded. Possible in view of early and late nests recorded. A brood still being fed by parents on 20/12/40 is in this category.

2. PENGUINS.

As many penguins of at least seven different species appear frequently on our coasts, especially in the autumn, it seems desirable that some effort should be made to record these occurrences. It is, however, a matter of some difficulty to recognise the species, particularly of the crested birds. If a member finds a penguin and is not certain of its identity the following procedure is recommended if possible:—

- i. Photograph the under-flipper pattern of the bird.

- ii. Photograph the whole bird or the head, **only side on**, so that the position of the markings on the head can be clearly seen.
- iii. Note the colour of the eye.
- iv. If the bird is moulting note whether the moult is beginning or finishing on the head, but do not take into account the crest feathers of the crested birds.
(N.B. Photograph the bird in the shade or on a dull day.)
- v. If it is not possible to photograph the bird, make sketches to show the above points as clearly as possible.
- vi. Examine the legs of the bird to see if it is ringed. If the bird is alive make a careful note of the numbers and letters on the ring, if it is dead remove the ring and return it to Mr. L. E. Richdale, Zoology Department, Otago Museum, Dunedin, to whom all communications on the subject of penguins should be addressed.

3. BROWN DUCK (*Elasmonetta chlorotis*).

The steady decline in numbers of this duck, once so widely distributed in the three main islands, makes all observations relating to it important. Reports indicate a concentration of the remnant in the Far North from the Whangarei district northward, and at Stewart Island.

The most southern of the Auckland district records are from Waipu Cove and Langs Beach in 1931 (M.E.F.) but in these localities none were present in 1936-1937 or 1939 (C.A.F.). Mr. C. A. Fleming's notes of a week's study from 12th August, 1937, on the streams of the Waipu River watershed mention that in mobs of from 20 to 50 birds many drakes were in full plumage but others were showing traces of eclipse. Some mated pairs had not begun to nest, but in other cases the females were sitting. The well-made nests of grass, with a varying amount of down, were in a variety of situations—in long grass, dead manuka, roadside ditches. When near the streams they were usually, but not always, above

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normal flood level. The usual clutch was from 5-7 eggs, and at the time of observation some had hatched. That there is some later breeding is shown by the fact that in December, 1936, at Ruakaka 6 ducklings under a week old were seen. Another family of six had reached maturity by the same date and the plumage of the parents still in attendance was by that time practically the same in both sexes.

Decline in numbers over six years until none were present in 1939 is reported from Maungaturoto (M.E.F.). A fair breeding population under strict protection on the property of Mr. D. Wood, Kara (10 miles west of Whangarei), has also shown some decline. Non-breeding mobs alone in the height of the nesting season numbered upwards of 168 birds in August 1937, but in August 1939 the corresponding mob was only 45 birds strong, all drakes in eclipse except one duck in moult.

Mr. Fleming's summary is as follows:

"The brown duck appears to be confined to its own watershed—once they have disappeared from a river system they fail to reappear though they may be present a few miles away. Within the watershed appear to breed in higher reaches, and move down with families to tidal areas (if any) where flocks of non-breeding birds occur. Nest on ground and appear to approach nests by walking—contrast grey duck. Drakes, alone or several, await sitting ducks in rivers below nests. Laying in July-August and later (note young ducklings in December). Clutch 5—7 usually reduced as ducklings age, and with the journey downstream to the flocks—often to two birds.

Predators: Weka ?—No sign of any but deserted and flood destroyed eggs found eaten by weka. Note that weka had gone from some areas in 1939.

Harrier.—No evidence.

Man.—Burning of long grass and other activities known to destroy some nests. Shooting in some localities—was at worst before brown duck showed signs of diminishing.

Stoat and Weasel.—No data on first appearance in North Auckland. Definitely in Waipu area in 1939. In Whangarei area for long period. Possibly would account for killing of sitting ducks. Suggest brown duck suffers more than grey duck because latter flies to nests.

Still believed to be watersheds in North little affected—near Kaitaia; near Bay of Island; Ngunguru.

After disappearance (as in whole North Island), odd birds or pairs—very rare—turn up at various times in scattered localities (Auckland Domain; Lake Takapuna, Cambridge Lake). Small numbers believed to persist and breed on few peninsular-like areas and islands (Whangaparoa—present in 1939. East Coast District—doubtful second-hand records in 1936—Mayor Island, 1936).

4. BLACK TEAL (*Fuligula novaezelandiae*).

(a) Summary from extensive observations of M. E. Fitzgerald:

Rotorua-Rotoiti-Waikato Districts.—In clean fresh waters, shunning muddy creeks and swamps. Dive for food, even day-old chicks going down 6–8 feet. Young at 3 months old are very dark brown—almost sooty black, then males rapidly assume mature glossy head and yellow eye. Only change in females throughout the year is a lightening or fading as the summer advances. Prenuptial white frontal band of female appears in April and is at full from June to nesting time (Nov. to Jan.), usually fading during incubation.

Nesting: One record of interest. Female hatched on January 10th, which went to nest and laid her first egg on December 1st following.

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Incubation is 30 days. Generally mobs are together; in autumn and winter they are in parties of 20 to hundreds of birds at selected feeding grounds—in spring move off to nesting places. Eggs average 3oz. in weight. Clutch 5-6 laid on alternate days. Nests in colonies and very close to water. Older birds begin to lay in October and if nest is destroyed will try again. Yearlings wait till December.

(b) Notes by C. A. Fleming:

The population of Rotorua-Rotoiti area appears to be in a healthy state and increasing. The flock seeking sanctuary in a bay near the Ward Baths in May (shooting season) is some gauge of the population.

May, 1933—estimated 100 birds present

May, 1934—uncounted but numbers greater

April, 1939 (before shooting commenced)—estimated 500 near Ward Baths and at same time saw three flocks (estimated 300, 20 and 5 respectively) on the north shore of Rotoiti.

May, 1939—Ward Bath flocks counted as 410 birds about 15 of the females had well developed frontal patches of white—many had none.

The birds repairing to Cambridge Lake in the non-breeding and shooting season appear to have markedly decreased. These birds are believed to breed at Horahora.

May, 1933—'hundreds'—probably over 100, at Cambridge Lake.

May, 1937—20 counted.

May, 1939—about the same number (20); uncounted.

5. OYSTERCATCHERS (*Haematopus* spp.).

In the absence of a critical field study of oystercatchers in all parts of New Zealand it is assumed that three species or distinct forms, besides the Chatham Island bird, can be recognised.

(a) The inland pied oystercatcher (*Haematopus finschi*) nesting on riverbeds and uplands of the South Island, migrating in winter to the coasts and to North Island estuaries.

(b) The Black oystercatcher (*Haematopus unicolor*) frequenting mainly rocky coastline from Stewart Island north along the west coast of the South Island and up the east coast of the North Island to the Bay of Plenty.

(c) The North Island oystercatcher (*Haematopus reischeki*) which is a coastal breeder on sandy shores along the whole west coast of the North Island and down the east coast to the Bay of Plenty. It is a bird of variable plumage, some being black like *unicolor*, a few pied, but larger and having less white than *finschi*, and many intermediate (R.A.F.)

From reports, the following summary is culled:—
Pied Oystercatcher (*Haematopus finschi*).

Nests on riverbeds reported from Mossburn and Lumsden (D.M.). Glenary, Waikaia, where the birds were first noted for the season on 4 August, 1939 (G.S.G.). Rakaiia, Waimakariri, Ashley, Waiiau, Hurunui (E.F.S. and R.A.F.). Winter flocks in Canterbury begin to increase from a non-breeding nucleus about mid-December, reaching a maximum in winter—about 3,000 at mouth of Waimakariri, June 1940 (R.A.F.). Flock of 150 at Waitati 25/8/38 had decreased to 100 by 4/9/38 (B.J.M.). Pair seen on Hokitika River and 16 at Okarito in January, 1940 (R.B.S.). Large flocks, several hundred birds, on Kaipara Harbour, February, 1940 (G.A.B.).

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6. BANDED DOTTEREL (*Charadrius bicinctus*.)

Reports indicate that this species is still an abundant breeder from North Auckland to Southland.

It is estimated that there are about 100 pairs breeding in the northern block which is cut off by the sandy isthmus of the Ninety Mile Beach, the nesting sites being mainly inland from the sandy beaches. After the nesting season numbers are much increased and scattered flocks frequent beaches and Parengarenga Harbour. The period of increase is during late February and early March at which time small parties have been met with at night sleeping along a roadside. (A.H.W.).

Observations on Ninety Mile Beach itself give an estimate of 150-160 birds scattered along the shore, more concentrated at stream outlets 9th to 15th May, 1940 (R.B.S.).

Pairs are reported nesting in ploughed fields in the Whangarei district (S.D.P. and W.S.). Many coastal breeding records from Bay of Plenty. at Matata nests of 10 pairs averaged 400 yards apart (S.D.P.). Nesting activity at other North Auckland localities are summarised by Mr. C. A. Fleming as follows:

Nov. 22, 1938, 3 pairs in full colour; nesting suspected, one flood-destroyed nest found.

9/5/39, 8 birds on breeding ground—1 with fair bands associated with 1 with none. 3 others faint bands, rest with none.

5/6/39, not seen at Muriwai (public holiday).

17/6/39, not on breeding ground but 3 encountered 2 miles up beach (1 well banded, 1 fainter, 1 barely showing trace).

7th and 29th/7/39—Both dates in very windy weather and no birds seen at breeding ground.

Early August, 1939, E. G. Turbott recorded 1 pair of dotterel in full plumage on breeding ground.

16/9/39, pair in full plumage feeding vigorously on breeding ground. Female just distinguishable with less distinct bands.

24/10/39, male darting at female and running chases—courtship? December, 1939. About six birds breeding (chicks on December 24).

The above records were made to test the claimed migration to Australia. From October on breeding continues to January in some cases (nest of eggs, Rotorua, January 22nd, 1939). In February and March and April non-breeding birds in flocks (young and old in eclipse) are frequent at Manukau and other harbours. Some remain at Rotorua till May tho' the whole population is not present all winter (C.A.F.).

From inland in the North Island we have a record of about 30 birds nesting at Reparoa in October, 1938 and 1939, and the following valuable summary of Mr. M. E. Fitzgerald's observations:

Rotorua District:

Nest: Usually filled with material slightly lighter than the surrounding grey (of pumice, etc.). Often a marker 15-20 inches away—a stone or wood or shrub, but nothing obstructs surrounding view. Hen incubates as a rule, but cock occasionally on cold day when female disturbed—on both fresh and chipping eggs male will sometimes appear to "order" female back on to nest. Not observed feigning injury.

Chicks: Never three alike; yellowish background always goes with bold large markings on back. Others have white background with minute dark markings giving grey effect; or white with bold markings. Yellows assume juvenile plumage with greyish belly and faint band indications while greys develop pure white belly and breast.

Incubation Period:

Nest A: partly inc. 27/10; hatched 17/11; 21 days.

Nest B: partly inc. 28/10; hatched 16/11; 19 days.

Nest C: fresh eggs 15/11; hatched 12/12; 27 days.

i.e.: not less than 28 days.

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Season: Nests of eggs and chicks in October; and eggs as late as January. December nests probably result of casualty to first.

Laying Dates (including some C.A.F. records): October 6th, 6th, 25th, 18th, 18th, 18th, 27th, 2nd, 17th. September 27th, 28th, 2nd week, 1st week, 2nd, 19th, 26th, 28th, 7th. Jan. 2nd. November 5th, 25th, 15th, 15th. December 6th, 12th, 20th.

Are present in small numbers in the Central North I. in April and assume breeding plumage during May to July, with males ahead of females. Bands fade in February and by the end of that month the birds are in bands as if ready to depart. Absent in March and early April.

Development of Chicks: From hatching, in 19 days feathering is well shown, in 7 months juvenals' bands appear and are complete in males by 8 months; in female by 3 weeks to a month later. Preparing to mate in 9 months. Lose colour in 12 months and are in full eclipse again 13 months from hatching. (M.E.F.)

From more southern localities it is reported that banded dotterel are increasing in the Wairarapa (R.H.D.S.), decreasing in Canterbury, especially on areas invaded by the Australian magpie (E.F.S.), present on the riverbeds of Aparima, near Otautau and the Oreti, above Lumsden (D.M.); seen at the following Westland river mouths in January, 1940: Hokitika, 2; Arahura, 4; Waitangi, 2; Okarito, 1 (R.B.S.).

Notes on winter movement and distribution are provided by the following three contributors:

i. C. A. Fleming at Muriwai.

Regular trips up the 30 mile beach from Muriwai to S. Kaipara Heads have been made on the following dates. The numbers of both banded dotterel and wrybill show a general increase as if by influx of southern populations. The numbers are somewhat affected by strong onshore winds when the small waders are fewer. () indicate incomplete counts.

Date.	Dotterel
Dec., 1939	c. 3 pairs
Feb. 21, 1940	None seen
Mar. 10, 1940	10
Mar. 23, 1940	(13)
Mar. 31, 1940	25
Apr. 7, 1940	(23)
Apr. 21, 1940	37
May 5, 1940	6
May 11, 1940	(4)
May 24, 1940	0
June 9, 1940	4

ii. **P. C. Bull at Mangere.**

Mangere (Orangi Mudflats, between Puketutu Id. and Ihumatao Peninsula and 2 cow paddocks on south side of Ascot Road).

Numbers and Migration:

Feb. 27. 6 wild birds in eclipse in estuary at Puketutu.

		Percent. full plumage
Mar. 31 (spending high tide in paddock)	50	0
Apr. 1	50	0
10	250	0
14	100	
17	500	
24	550	1%

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		Percent. full plumage
Apr. 25 (spending high tide in paddock)	1000	
28	400	4%
May 3	500	
10 (on mudflats)	70	
16 (on paddock)	500	30%
21	50	
25	68	10%

The above counts are in most cases approximate counts. The suggestion that an autumn through-migration occurs is supported by the above figures and by the varying percentage of birds in full plumage. On May 3 the flock gave a shrill chattering sound, not unlike that of godwits in flight, which may have migratory significance. During April the dotterel were always to be found in one closely-grazed paddock about 600 yards from the sea and 50 feet above the mudflats. During May they at times used adjacent paddocks, perhaps owing to the top-dressing or shortening by grazing of the grass in the original one, to the frequent presence of people and cows, of large numbers of redbilled gulls. At the end of May they almost invariably used a small, more swampy paddock sometimes used by stilts. In the paddocks the birds grouped together and rarely appeared to feed—on the mudflats they invariably were feeding.

Voice: 1. Shrill chattering of the flock heard only on May 3rd may be cry. 2. Single note habitually uttered in flight. 3. Rapid combination of 2 so as to sound like a true song, from pairs quarrelling on the mud—probably associated with the breeding season.

Daily Movements: Birds from the paddock regularly visited the mudflats at a time governed by the tide, but affected by other factors. Wind and rain prolonged the stay in the paddock, disturbance made them leave earlier (e.g., the mob of gulls which arrived at the paddock at 7 a.m. each morning). The condition of the tide (neap or spring) also affected their stay. They definitely came up to the paddock every high tide in the daytime; probably also at night, as they were heard in flight. When leaving the field they flew off in small flocks, the whole movement occupying 15-20 minutes. The following table of times of departure shows the dependence on tide:

Date.	Time of Departure.	Approx. time of High Tide.
May 2	9.30 a.m.	6.00 a.m.
May 3	9.50 a.m.	6.50 a.m.
May 6	11.20 a.m.	9.10 a.m.
May 8	2.30 p.m.	10.45 a.m.

iii. **P. C. Bull at Whangapoua.**

Whangapoua Har. (Coromandel Peninsula) May 11: 5 in eclipse in paddock of young grass where they were reported regularly (up to 30 in wet weather). They apparently make regular trips from the paddock to sea (2 miles away) as observed at Mangere.

May 13: 3 dotterel on the ocean side of Matarangi Peninsula. 30 on the sandy mud of the gently shelving harbour side at low tide. All in eclipse, though Mangere birds had in some cases good bands by this date. Possibly the Matarangi Peninsula is a breeding place.

7. **NEW ZEALAND DOTTEREL (*Pluviorhynchus obscurus*).**

Counted meticulously. 50-60 would seem to be the population. A few were donning breeding plumage. They were usually in small scattered parties, e.g., 3, 4, 7, 9. Fed busily on sand exposed by receding tide. Also sleeping high and dry on the beach when the tide was low. Distributed over the whole beach from Ahipara-Scott Point; though it was noted that there were hardly any where the beach is backed by vegetation-covered dunes. [May 9-15, 1940 (R.B.S.)]

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8. **WRYBILL PLOVER (*Anarhynchus frontalis*).**

Still breeding as elsewhere recorded on beds of Rakaia, Waimakariri and Ashley Rivers (E.F.S.).

Winter range and distribution indicated in following observations from Muriwai (C.A.F.):—

Date	Wrybill
Dec., 1939	Nil
Feb. 21., 1940	3
Mar. 10, 1940	5
Mar. 23, 1940	(15)
Mar. 31, 1940	None seen
Apr. 7, 1940	(1)
Apr. 21, 1940	23
May 5, 1940	8 (strong west gale, no small waders in afternoon)
May 11, 1940	(4)
May 24, 1940	26
June 9, 1940	82

In previous years small flocks of up to 30 birds have been seen in the Manukau, viz: 1/2/39, March 1937, 24/3/36, April 1937.

Manukau Harbour: 25 May, 1940, flock of 15, very tame, dark breast bands just beginning to show. 5 July, flock of 15, breast bands well developed (P.C.B.).

9. **GODWIT (*Limosa baueri*).**

From the year's reports it is proposed only to list the numbers recorded in various localities on various dates.

Ninety Mile Beach: Only 36 seen, none in breeding plumage 9-15th May, 1940 (R.B.S.).

Whangarei Harbour: About 300 remained winter, 1939 (W.S.).

Manukau Harbour: (particularly the mudflats lying between Puketutu I. and Ihumatao Peninsula).

Feb. 27, 1940: 500 flying over Puketutu—the last large flock seen and migration must have occurred soon after.

Mar. 20: 200 on mudflats.

May 25: 150 on mudflats. Since March 10th the numbers have been fairly constant at about 120. All are in "eclipse," and apparently non-migratory. (P.C.B.)

Whangapoua Harbour:

May 13: About 30 on harbour side of Matarangi Peninsula; all seemed in eclipse and apparently non-migratory. (P.C.B.)

Muriwai:

March 10: 140 birds; a few in red plumage, apparently migration not yet occurred.

May 24: 25, all in eclipse. (P.C.B.)

Muriwai to South Kaipara: (Figures in brackets indicate that only part of the beach was covered.)

21 Feb.	350	7 April	Nil
10 March	228	21 April	35
23 March	(11)	5 May	35
31 March, 100 (many in red breeding plumage)		24 May	37
		9 June	41

(C.A.F.)

Okarito Lagoon: Some hundreds present Dec.-Jan., 1939-40. (R.B.S.)

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

The following observations were made by C. A. Fleming:

The tradition that Chatham Island population of this species leaves the group in winter was the incentive to counting and observation of mainland birds in winter of 1939. After breeding season, young and old congregate on sandy coasts often some miles from breeding ground, and spend time at high tide sitting on shell banks. This behaviour apparently covers moulting. Waikanae R.: January 1939, mob of about 200 birds—young and old (Kapiti breeders?). A single Arctic tern was with them—see elsewhere. 8th April, 1939, between Milford and Waiwera (N. Akld.) several mobs (200, 250, and smaller numbers). Fair percentage of young. No adults had streamers.

15/4/39—Tapu, Coromandel, 240 birds on beach—only 4 showed dark backs of immature birds—some in adult plumage (judged young already moulted—very doubtful). None with streamers; all with broad white foreheads—a few with flecks on black heads. Flock joined by parties of few birds from sea, with fish. Others left periodically. General habit of preening and dropping moulted feathers.

3/6/39.—75 birds only present; still moulting. 2 or 3 showing juvenal backs. No streamers.

(In July, 1936, an adult was washed up with streamers fully grown.)

7/7/39. 12 birds present.

29/7/39. No flocks present; a few seen at sea and a dead bird (wounded at breast) found near creek with moulted feathers and droppings indicating that flock was present at some time of day (night). The dead bird had small but adult testes (male), fine fish bones in proventriculus; moult conspicuous on breast, where new feathers were suffused with pink glow. Streamers were quite conspicuous (new feathers). Head with few white flecks.

18/8/39. No flock on beach.

16/9/39. Again no flock on beach but a dead bird—immature male with adult plumage except for slight brownish mottling on wing border, and dark tail without streamers. Testes small but light coloured as if developing. No flocks in October.

Two birds found dead in June, 1937, had already developed streamers and one had lost the white-flecked head. Apparently casualties are due to cats or dogs which catch the birds, gorged or resting at night, but do not maul the bodies.

There is thus little evidence for migration away from coasts, but indication of more pelagic habits, possibly resting ashore at night. Mangowai: 24/11/39, one colony of 20 pairs, all with eggs, was adjoining a Caspian tern colony. A second colony, of about 170-200 birds with eggs, was about $\frac{1}{4}$ mile distant and isolated from others.

Additional Observations.

The trips from Muriwai to South Kaipara Heads begun in February, 1940, are a much more satisfactory index of tern movements than the 1939 records:

Feb. 21	March 10	March 23	March 31	April 7	April 21	May 5
662	7	(19)	350	(80)	300	800

The population is larger than that which the only breeding colony at present known within 30 miles could support. Variation in numbers present on the beach seems somewhat dependent on weather conditions. Strong westerlies appear to force larger numbers of birds on to the beach than are present in calm weather. As before () indicate incomplete counts. (C.A.F.).

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11. PUKEKO (*Porphyrio melanotus*).

The following study was made by P. C. Bull:

Mangere: 30 acres swamp and 20 acres rush-covered flat. Whole swamp practically dry in January.

Population before shooting season: 1939, about 24; after shooting, 16.

Population before shooting season: 1940, about 35; after shooting, 22.

Another small swamp a mile to the west often has about 12 birds not included in above figures though birds probably move from one to the other. When swamp dries in summer many leave and spread over countryside, many to rushes bordering the harbour, others frequently seen along hedgerows.

Food: Gizzards of birds shot in May, 1939, invariably contained vegetable matter—mainly roots of swamp plants, some young grass, and grass roots.

Nesting: Dates and clutches:

Aug. 24, 1938	.....	5 eggs	Dec. 21, 1938	.....	1 egg
Dec. 18, 1938	.....	5 eggs	Dec. 21, 1938	.....	4 eggs
Dec. 18, 1938	.....	2 eggs	Feb. 15, 1940	.....	9 eggs

Adaptation to Open Shooting Season: Before May are in open paddocks and wander to edge of swamp if approached. If followed, fly up in ones and twos from the swamp at close range. Since shooting started they cannot be approached within 200 yards and when surprised in the swamp run rather than fly. Also the population has become more scattered.

12. HEDGEHOGS AND GROUND-NESTING BIRDS.

From observations made by P. C. Bull.

The hedgehog was unknown in Mangere before 1932, but since then has become very numerous throughout the district. During December, 1938, I located about 12 lark's nests in my immediate neighbourhood to see if hedgehogs destroyed any appreciable number. Of the 12 nests for which I have complete results:—

- 1 was destroyed by a hedgehog (I actually discovered the animal eating the eggs, in mid-afternoon).
- 6 were raised successfully
- 2 fell victims to their situation,
- 3 were destroyed by unknown agencies.

As rats are numerous in the district these last cannot be all attributed to hedgehog depredations.

The exact results were:—

Date of Finding.	Contents	No. of days under observation.	Distance from hedgehog cover.	Probable result.
18/12/39	3 young 1 egg	4	30yds. excellent cover	Left safely.
20/12/39	1 egg	15	20yds. steeply uphill	Destroyed by cow hoof.
22/12/39	2 eggs	13	70yds. not likely	Eggs smashed
22/12/39	3 eggs	13	70yds. over the hill	Deserted
25/12/39	3 young 1 egg	10	18yds. not likely	Left safely.
26/12/39	1 egg	17	30yds. excellent cover	Destroyed
26/12/39	2 eggs	1	20yds. but grass long	Hedgehog ate eggs in daylight
10/1/40	2 eggs	1		
19/1/40	2 eggs	6	14yds. steeply downhill	Left safely.
Page Thirty-two.				
20/1/40	2 eggs	11	20yds. steeply downhill	Left safely
20/1/40	2 eggs	1	Long grass & rushes	
20/1/40	2 young	3	70yds. steeply downhill	Left safely
24/1/40	3 eggs	7	10yds long grasses and rushes	Flooded
25/1/40	1 young	6	50yds. splendid cover	Left safely

13. ARRIVAL DATES OF SHINING CUCKOO IN SOUTHLAND AND OTAGO.

From observations by Mr. J. Johnson.

Notes extracted from my diaries concerning the date each year of the first call heard by me of the pipiwhaururoa.

1936 was my first year in Southland and Otago.

1936, 27th September. Tawanui, Catlins. Note: I was camped at Tawanui throughout all this period and this was the first call heard here.

1937, 28th September. Papatowai, Catlins. Note: This call was heard in the evening of my arrival at Papatowai from Invercargill. As it was my first call heard this year the date was noted but the bird could have been here earlier.

1938, 22nd September. Slopdown (16m. S.W. of Clinton). Note: I was camped at Slopdown all this period and this was definitely the first call in the neighbourhood.

1939, 14th September. Waipati, Catlins. Note: This call, the first I had heard this year, was heard during the evening of my arrival in camp. I drew the attention of one of my men to the call and he said he had heard it previously but could not give me a definite date.

14. POSSIBLE EXISTENCE OF THE TAKAHEA (*Notornis hochstetteri*).

By D. Matheson.

Circumstantial reports of two birds, one larger than the other, come from the Milford Track, but so far they lack confirmation.

15. BLACKBIRDS (*Turdus merula*).

A study of nesting blackbirds has been submitted by Mr. R. Gurr, Dunedin, but owing to the present difficulty of reproducing his graphs and sketches its publication has been held over.

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Map of N.Z. showing some of the localities from which records were received.

[A Title Page precedes Page One in the Original.]

ANNUAL REPORT
of the
NEW ZEALAND ORNITHOLOGICAL SOCIETY
for the Year 1940-41.

OFFICERS:

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Vice-Presidents: (N.I.) Dr. W. R. B. Oliver.
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Dunedin: Professor B. J. Marples.
Recorder: Mr. C. A. Fleming.

MEMBERS OF THE SOCIETY:

The initials in front of the names indicate those members who have contributed notes for this report.

Cadet A. L. M. Allan, R.N., c/o P. C. Bull, Ascot, Mangere, Auckland.
Mrs. Alston, Glen Road, Kelburn, Wellington.
Miss N. Baker, Halfmoon Bay, Stewart Island, N.Z.
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G.A.B. G. A. Buddle, 7, Havelock Street, Auckland.
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J. M. Cunningham, 39, Renall Street, Masterton.
Miss E. Curle, District High School, Wyndham.
A. B. Deeming, Opuia, Bay of Islands.
The Secretary, The Forest and Bird Protection Society, Box 631, Wellington.
R.A.F. Dr. R. A. Falla, Canterbury Museum, Christchurch.
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G. Graham, The School House, Taieri Beach.
School Group, Glenary School, Waikaia.
L.G. L. Gurr, 12, Baker Street, Dunedin.
School Group, Kimbell School, Fairlie.
E.W.H. E. W. Hursthouse, Mahina Bay, Eastbourne, Wellington.
N. J. Jensen, Halfmoon Bay, Stewart Island.
J.J. J. Johnson, Kaingaroa Forest, Rotorua.
J. Jones, c/o R.A.O.U., 170, La Troube Street, Melbourne.

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A. Kirk, Government Youth Centre, Lower Cuba St., Wgtn.
W. Knight, Paraparaumu Beach.
L. W. McCaskill, Training College, Christchurch.
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C.W.McL. C. W. McLatchie, Hilderthorpe, N. Otago.

- B.J.M. Prof. B. J. Marples, Dept. of Zoology, The Museum, Dunedin.
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- W.E.M. W. E. Moore, Christ's College, Christchurch.
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- R.B.S. R. B. Sibson, King's College, Otahuhu, Auckland.
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J. H. Sorensen, Southland Museum, Invercargill.
- E.S. E. Stead, "Ilam," Riccarton, Christchurch.
- R.H.D.S. R. H. D. Stidolph, 114 Cole Street, Masterton.
Mrs. Stidolph,
K. Thompson, Huia Dam, Huia.
Mrs. I. Tily, 30, Stonelaw Terrace, Dunedin.
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E. G. Turbott, Auckland Museum, Auckland.
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A. H. Watt, Te Kao, North Auckland.
- H.J.W. H. J. Wenham, Durham Street, Levin.
- A.S.W. A. S. Wilkinson and Mrs. Wilkinson, Kapiti Island.
S. Wilkinson, Paraparaumu Beach, Wellington.
P. H. Wood, Tuki Tuki, Colville.
Dr. Wodzicki, Box 280, Wellington.
Major P. F. Yerex, Waiouru Military Camp.

INTRODUCTION.

The appearance of the second annual report of the Ornithological Society of New Zealand indicates that members have continued their support and interest by contributing useful observations from all parts of the country.

The publication is again late owing to the somewhat tardy arrival of members' notes covering the period ending 30th June, and to the fact that the Committee is dependent on voluntary office help and duplicating, which cannot always be done to strict time-table. Contributions which were received too late for incorporation in this publication have been held over for the first quarterly bulletin.

The general notes still tend to reflect intensive observation

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in a few districts rather than to give a comprehensive survey of conditions of bird life throughout the country. Again, the special studies are such as to merit in many cases fuller treatment than the space in this report will allow; but the new policy of issuing quarterly bulletins and limiting the special studies to pre-arranged projects should give more satisfactory results in future.

THE TASMAN NATIONAL PARK.

A short time ago it was suggested that the Society might decide to associate itself with the request to be made that the Government should declare an area of land near Nelson a National Park under the name of the Tasman National Park. The Committee discussed this question, and considered it desirable to bring it before the members of the Society, and

when the position is clarified after consultations with the local body authorities, the Society will give its approval in the form of a motion.

The area suggested is in the Torrents Bay district. It is almost 40,000 acres in extent, and consists of Crown lands and State Forest. It is mainly sloping, little altered since the visits of Tasman, Cook and D'Urville, but a variety of scenery is included. In few places could such a large area of untouched bush be so easily set aside for preservation, and this district is one of especial interest from the point of view of the fauna and flora.

The aim of our Society is the field study of birds, and there is no doubt that it will wish to give every support to a proposal which is designed to keep a large tract of land as unaltered as is still possible, where the native birds can be studied in something approaching their original surroundings.

MEMBERSHIP.

With a membership of 70 the Society is now fairly representative of bird observers. Members are reminded of the need for regular observation and contribution of notes, and of prompt payment of subscriptions due.

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REPORT OF RECORDER.

The indexing of books and pamphlets in members' libraries is progressing and it is hoped, ultimately, to use the index as a basis for the loan of books. The Recorder will be glad to receive further book lists from members, comparatively few having been received so far. Gifts to the Society's records in the form of photographs, reprints, books or manuscripts of ornithological interest, will be gladly received. A list of such material, which is available for consultation, will be published from time to time in the Society's publications.

The recorder wishes to acknowledge the following presentations:—

MR. E. W. HURSTHOUSE: Manuscripts and notes on *Eudypula*, "The Breeding Behaviour of Penguins," B. Roberts. British Graham Land Expedition Scientific Reports, Vol. 1; current and back numbers of the "Emu."

MAJOR BUDDLE: A number of photographic negatives of New Zealand birds.

ANONYMOUS DONOR: Page from the M.S. diary of T. H. Potts; photographs of extinct bird bones; original water-colour and pen-and-ink sketches illustrating early papers on New Zealand birds by J. F. McCardell, F. E. Clarke, Sir W. L. Buller, J. Buchanan and F. Nairn.

C. A. FLEMING, Recorder.

BOOK REVIEW.

Watching Birds, by James Fisher. Pelican Books, 1940. 1/2d.

Here is a most excellent little book which should be possessed and studied by everyone who is interested in bird watching, and its price, in spite of 35 maps and illustrations, is low enough to place it within reach of everyone. As stated in its introductory paragraphs, the book is written by a scientist for amateurs, and its object is to introduce the study of birds to those who have no zoological training. In addition to brief accounts of the structure of birds and their classification, "introducing the bird watcher to the birds," there are chapters on such subjects as migration, numbers and courtship, and an especially valuable account of territory and the breeding-cycle. All of these are illustrated by interesting maps and drawings. Chapters are also included on the tools of bird watching and on what you can do. Parts of these are less useful to people in New Zealand as they deal with books, etc., relating to Great Britain, and some of the methods of note-taking described, though excellent, are perhaps too ambitious for most people to carry out. As the book is intended for English readers, many of the examples mentioned will be unfamiliar. This is not a serious disadvantage and it has, moreover, the very useful effect of drawing

attention to the problems which require study in New Zealand. We are in the fortunate position here of having a practically virgin field on which to work, and the experience of the northern hemisphere to guide us. To mention three striking examples, of which maps are given in the book. There are six sub-species of Wren in Great Britain and the adjacent islands, and a similar state of affairs is found here with the Tui and other birds. There are two forms of the Common Guillemot in the North Atlantic, one common in the south, the other in the north. We have several dimorphic species, such as the Fantails, pied and black; but their relative numbers have not yet been worked out. The Northern Gannet is the only numerous bird whose world population is anything like well-known. Our Southern Gannet is very similar, but no survey of its breeding-colonies has yet

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been made. These are only three of a number of problems discussed by Mr. Fisher which should give a lead to bird watchers in New Zealand, and his book as a whole should prove a great help to our Society in getting to work along modern lines.

B.J.M.

SUMMARIZED CLASSIFIED NOTES.

NORTH ISLAND KIWI (*Apteryx mantelli*). Once on Ruahines. No recent reports except on Whareti, over 10 years ago. (C.A.F.). Kukumui Hills, south of Whangarei. Pair caught in a hole, winter 1940. Often heard. Tangihua Mts. S.W. of Whangarei, very common. (W.S.)

YELLOW-EYED PENGUIN (*Megadyptes antipodes*).—Chaslands Beach, 1938. (J.J.)

CRESTED PENGUIN (*Eudyptes* sp.). Te Wae Wae Bay, 1937. (J.J.)

BIG CRESTED PENGUIN (*Eudyptes sclateri*). Adult male commencing moult, New Brighton Beach, 21/4/41. Sub-adult female (?) completed moult, Avonside, Christchurch, May, 1940. At sea about 50 miles off south Canterbury coast, May, 1941, shoals totalling many hundreds, swimming and porpoising. 2 adults full plumage including tail, stained with oil waste, Sumner, 29/6/41. (R.A.F.) Cape Campbell, Marlborough. 11/7/40. Two seen. (L.B.M.)

LITTLE BLUE PENGUIN (*Eudyptula minor*). Young one under 10 days old, found at Nelson 4/1/41. (P.M.). One found dead North Brighton, 1/1/41. Adults moulting in nesting burrows have been killed by dogs, bodies found Feb., 1941. (R.A.F.). Mahina Bay, Wellington. Further notes on the nest site already described in the "Emu," Sept.-Oct., 1940. Male killed on the day the first egg was laid. Eggs laid Sept. 3rd and 5th. Female sat for 16 days. Left that night and did not return till the following night. It went on sitting and leaving the nest spasmodically till the 38th day. Left that night and did not return. The incubation period on the two previous occasions was 38 days. (E.W.H.). Motuihi Island. 2 dead birds Feb.-March, 1941. (P.C.B.)

WHITE-FLIPPED PENGUIN (*Eudyptula albosignata*). Nesting grounds at Diamond Harbour examined by Mr. G. Guy. Numbers as usual and other nesting areas discovered, Nov., 1940. (R.A.F.)

CRESTED GREBE (*Podiceps cristatus*). L. Fergus, Eglinton Valley, 12/1/41. A pair with a small riding youngster. At the other end of the lake was another adult behaving as if it might have a sitting mate. (R.B.S.)

DABCHICK (*Podiceps rufopectus*). Ward Baths, Rotorua, 6. Blue Lake, several; Hamurana, 2; Okere, 4. Other parts of Rotoiti, 6; Rotoehu I; Rotoma, 7; Okataina, several; all April, 1941. (C.A.F.). L. Fergus, Eglinton Valley, 12/1/41. A pair with a small riding youngster. Roto-ngaio, L. Taupo Lagoon, 25/3/40, 1 pair. Pouto Pools, N. Kaipara, c. 40 birds mostly in pairs on pools hidden among sand-dunes and the beginning of grass-land. May, 1941. (R.B.S.). Ohau Channel, Jan. 1940, 3 pairs, one pair with 2 well-grown young living in the channel. Rere-whakaitu, 9/11/40, several pairs seen, 2 recently washed-out nests, one

with a single egg remaining. L. Okaro, 6/11/40, 2 pairs, one with young (G.A.B.).

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DIVING PETREL (*Pelecanoides urinatrix*). Occasionally killed by flying into lights at Stewart Island. Jan., 1941 (R.B.S.). Poor Knights, small colony, Nov., 1940, well-grown chick visited by both parents but not together. (P.C.B.).

GREY-BACKED STORM PETREL (*Garrodia nereis*). Wanaka, 2/3/41. One found alive in a garage. Female. The stomach contained some seeds, probably from the lake. (B.J.M.).

WHITE-FACED STORM PETREL (*Pelagodroma marina*). Several seen close inshore in thick fog, east coast of Stewart Island, Jan., 1941. (R.B.S.). Poor Knights, Nov., 1940, single adult found ashore on Aorangi. (P.C.B.).

CAPE PIGEON (*Daption capensis*). Nelson Harbour, 18/10/40. One appeared after a northerly gale, apparently in good condition. (P.M.). A few seen between Halfmoon Bay and Pegasus, Stewart Island, Jan., 1941. (R.B.S.).

GIANT PETREL (*Macronectes giganteus*). Female, white phase, found dead at Dory Beach, S. Canterbury, May, 1941. (R.A.F.). The colony in Port Pegasus is flourishing. (R.B.S.). Whangarei Harbour, Oct., 1940. Single bird during easterly gales. (W.S.).

BROAD-BILLED PRION (*Pachyptila vittata*). 5 adults picked up dead, New Brighton Beach, 10/8/40. About 100 immature specimens dead on New Brighton Beach, 1/1/41 (R.A.F.). Petrels, presumably of this species, flew round lights in foggy weather in Jan. on Stewart Island. They were continually calling ye-ye-ye-ye-er. (R.B.S.). No sign of this species on Whero after 2/1/39 and 1/1/41. Those seen between Dec. 26 and last record were only a few remaining chicks. (L.E.R.).

SALVIN'S PRION (*Pachyptila salvini*). 1 corpse, W. coast near Dargaville, 7/5/41. (R.B.S.).

FAIRY PRION (*Pachyptila turtur*). A few seen just outside Wellington Harbour, 23/12/39 and 28/12/40. 1 corpse Bethels, 15/4/41; 2 corpses near Dargaville, 7/5/41. (R.B.S.). Whero Island, Dec.-Jan., plentiful. (L.E.R.). Poor Knights, Nov., 1940. Breeding in vast numbers all over Aorangi, from the boulders along north shore to clefts in rocky peaks. Most had young chicks; odd eggs seen. Adults come in from 8.15 p.m. One parent remains during day if chick is very young. Often only one parent at nest up to 11 p.m. Captured adults vomit pink substance with colourless shrimp-like organisms. (P.C.B.).

PRION sp. Nelson. After a terrific storm one was seen floating exhausted at Astrolabe. Possibly storm-bound from Stephen Island where they breed. Not usual to see them on the Astrolabe side of Nelson Bay (P.M.). Otago Harbour, 19/10/40, 3 seen in the mouth of the Otago Harbour. (L.E.R.). Dozen off Sandfly Beach within 50 yards of shore, 28/10/40. 13/10/40 several in Otago Harbour mouth, diving right under and ducking head under while flying. None swimming with head under. Gradually disappeared at 3 p.m. 27/10/40, one seen.

FLESH-FOOTED SHEARWATER (*Puffinus carneipes*). Several seen in Cook Strait 23/12/39 and 28/12/40. A few, Bay of Islands, 15/5/41. 2 corpses, juvenile, one with wing only 250 m.m., Pakiri, 22/5/41. (R.B.S.).

BULLER'S SHEARWATER (*Puffinus bulleri*). A few seen at sea in North Canterbury Bight, 29/4/41. (R.A.F.). 3 corpses, May 7th, west coast near Dargaville; 2 corpses, Ngunguru, 18/5/41; 1 corpse, Ruakaka, 19/5/41.

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Average wing of six birds 299 m.m. (varying between 295 and 306). (R.B.S.). Colonies on Aorangi and Tewhiti Rahi (Poor Knights). Adults

on fresh eggs, Nov. 30; often 2 adults together in burrow in day. (P.C.B.)

SOOTY SHEARWATER (*Puffinus griseus*). Numerous on North Brighton and adjacent beaches in Nov.-Dec. and Jan., 1940-41. (R.A.F.). Huge numbers round Stewart Island in mid-Jan. In foggy weather they were sitting on the sea in solid rafts off the Breaksea Islands, and on Jan. 27th, a stream of them, probably running into hundreds of thousands, passed S.E. off the Bluff. Foveaux Strait was almost dead calm. A few on May 6th off Kaipara Heads going north. None seen on subsequent days. 6 corpses only on 50 miles of beach. (R.B.S.). Taieri I., 17/1/41. New holes being dug. One egg chipping. 25/2/41, 3.30 a.m. Watched two birds sitting on the ground, both calling loudly and rubbing their heads together, sometimes one putting its head under the other's chin. Presently one mounted the other and appeared to copulate, being on only a few seconds. After it descended the lower bird moved off a foot or two, stood straight up, but still, I think, with the tarsi on the ground, and flapped its wings quickly but softly for two or three seconds. They resumed calling and head-rubbing and then the lower bird went into an adjacent burrow. The upper bird moved to another burrow and called loudly with another bird whose head was just visible within. After a pause it followed the original lower bird into its burrow, and less violent calling was to be heard within. They remained in the burrow at least until all the other birds had left (by 4.30) as proved by a fence of sticks placed across the hole, so, presumably, all day. (B.J.M.)

SHORT-TAILED SHEARWATER (*Puffinus tenuirostris*). One came ashore alive but enfeebled at N. Kaipara, on 6/5/41. Another found dead 7/5/41, wing 265 m.m. (R.B.S.).

FLUTTERING SHEARWATER (*Puffinus gavia*). Nelson. Do not occur in the vicinity of Astrolabe in the months of December and Jan. On Feb. 12th they first reappeared in parties of half-a-dozen sitting on the water. In all, about 300 on 18/4/41. They were reported to be thick on the water and to have young birds amongst them. (P.M.). 2 corpses, North Brighton 1/1/41. (R.A.F.). Abundant in Cook Strait, especially near land, 23/12/39. Forsyth and Chetwode Islands and S. of French Pass, 28/12/40. Entrance to Tory Channel and for two or three miles up Queen Charlotte Sound, 2/2/41, 1 just inside the entrance to Wellington Harbour. 6/5/41 1 corpse N. Kaipara Hds. 14-23/5/41 thousands in the Bay of Islands and along the Hauraki Gulf coast off Ngunguru, Ruakaka, Mangawai, Pakiri. Often as close inshore as to be over the breakers. (R.B.S.). Poor Knights, nesting high on rock faces. Full-grown downy young, Nov., 1940. Adults arrive after 8.30 p.m. (P.C.B.).

BLACK PETREL (*Procellaria parkinsoni*). Hokitika, 1/1/41. Adult found alive. Punakaiki, 27/1/41. Another adult found alive. (R.A.F.)

GREY-FACED PETREL (*Pterodroma macroptera*). Lyttelton Harbour, 22/11/40. Bird found exhausted. (R.A.F.). One youngster almost ready to leave the nest and showing scarcely any trace of down found in a burrow on Terakihi, off Waiheke, 23/12/40. Probably some scores of nests on this small island. (R.B.S.). Poor Knights, one adult flew ashore 1/12/40. (P.C.B.).

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WHITE-HEADED PETREL (*Pterodroma lessoni*). 1 corpse, N. Kaipara Heads 6/5/41. (R.B.S.).

MOTTLED PETREL (*Pterodroma inexpecta*). A biggish grey petrel, possibly this, glimpsed in fog off the E. coast of Stewart Island, Jan. 1941. 3 corpses, 1 Bethels, 13/4/41, 2 W. coast near Dargaville, 7/5/41. Wings 260, 257, 265 m.m. (R.B.S.).

COOK'S PETREL (*Pterodroma cooki*). A distinctive, rather high-pitched call was heard several times on an islet off Stewart Island where *P. griseus* were coming in in thousands. It may have been Cook's Petrel. The call was ti-ti-ti-ti. (R.B.S.).

PYCROFT'S PETREL (*Pterodroma pycrofti*). Aorangi Island, Poor Knights, Nov., 1940. Often heard in small numbers. One caught to establish identity. (P.C.B.).

WANDERING ALBATROSS (*Diomedea exulans*). 4 or 5 juveniles in Cook Strait, 18/12/40. (R.B.S.).

ROYAL ALBATROSS (*Diomedea epomophora*). 1 white albatross with black in the wings, may have been this species, Tasman Bay, 23/12/40, 1 almost certainly a Royal just outside Half Moon Bay, Stewart Island, 24/1/41. (R.B.S.).

BLACK-BROWED MOLLYMAWK (*Thalassarche melanophrys*). Immature, just fledged, picked up at Gebbie's Valley, 15/4/41. (R.A.F.).

BULLER'S MOLLYMAWK (*Thalassarche bulleri*). Several swimming and flying near the wharf, Port Chalmers, 1/6/41. (R.A.F.). Common in Jan. off Stewart Island. Generally gives way to the larger *T. cauta*. (R.B.S.)

WHITE-CAPPED MOLLYMAWK (*Thalassarche cauta*). 3 or 4 Cook Strait, 28/12/40. Common round Stewart Island in Jan., especially near fishing-boats. Corpses: 1 at Muriwai with a fish-hook in its mouth and line attached, 27/4/41; 1 N. Kaipara, 6/5/41. (R.B.S.). 1 corpse, Otago Heads, 19/2/41, wing 670 m.m., culmen (tip to feathers) 132 m.m. (B.J.M.).

BLACK SHAG (*Phalacrocorax carbo*). In six months in S. Hawkes Bay every Black Shag seen was noted. Though anglers report this species as abundant in the Manawatu and other trout streams, there were only 42 recorded in this area, and less than 100 in the whole district. Odd birds seen at Kumeroa, Mangatiwainui, Mangatainoka, Dannevirke, Manga-puaka, Wanstead, Purimu Lake, Blackhead (coast) and lakes behind Blackhead. Flocks (over 12) at Manawatu near Tamaki Junction and north of Kumeroa, where there are regular roosting-places, and at Poanui, N. of Pourerere, where, on 23/5/41, numbers of birds had fine white flank patches and were making regular trips with nesting-material from Poanui to a point at least 2 miles north, where undoubtedly there is a nesting-colony. A further colony is reported at Hatuma Lake, south of Wai-pukurau. Muriwai counts throughout 1940 show scarcity from April to September, suggesting that this period covers the breeding-season. (C.A.F.). Nelson. 24/5/41, 2 or 3 hundred passed from the direction of the Waimea Plains towards Wellington. They flew in V-formations, eight birds in each. 23/6/41. A large number appeared in the morning, apparently from the direction of Wellington, rested on the rocks and water for a short time

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and then departed. (P.M.). Ruakaka (J.J.). Glenary, Waikaia, 15/2/41, 8 seen (E.W.C.). Starlings and Black Shags roosting together on the cliffs at S. Hokianga Hds. Common at Gisborne, e.g., 12 on the jetty. (R.B.S.). Rangitaiki R., not common. (J.J.).

PIED SHAG (*Phalacrocorax varius*). Astrolabe, Nelson, 19/1/41, 1 immature arrived and fished off the bays for a few weeks. (P.M.). Thinly distributed Aug.-Sept. along Bay of Plenty-Matata-East Cape. Beach count, N. Kaipara to Maunganui Bluff, 15, 7-8/5/41. Not uncommon about Hokianga Hds. (R.B.S.). Motuihi Island, often seen singly; Poor Knights, 1 seen Nov., 1940. (P.C.B.).

LITTLE BLACK SHAG (*Phalacrocorax sulcirostris*). Single bird, Panmure Basin, 16/8/40. (C.A.F.). Several in Whakatane River, e.g., 7 together 7/9/40. Matata Lagoon, 1; Hakanoa Lake, Waikato, 3/11/40. My diary reads, "Moving about the lake was a flock of c. 60 of these birds, doing massed diving. Occasionally, those at the rear of the group would fly 20yds. or so to get to the front. Most remarkable was the way the flock kept together as it methodically fished the whole water." The same characteristic massed fishing has been observed in Australia. (v. Emu, Vol. 38, p. 362. Serventy. Notes on Cormorants.) (R.B.S.).

LITTLE PIED SHAG (*Phalacrocorax melanoleucus*). Southern Hawke's Bay (1940-41). Manawatu, very few. Mangatoro, about 6 seen. Few at Wanstead and Porangahau. Only one bird, in perhaps a dozen seen, showed signs of whiteness on the belly. (C.A.F.). The proportion of the white-throated to the little-pied at Pouto Pools, N. Kaipara, was about 6 or 7 to 1. At Waipu, about 3 or 4 to 1. White-throated were found to be well distributed along the Bay of Plenty coast, especially at river estuaries. A few little-pied were also seen. (R.B.S.). Riverhead. (J.J.)

STEWART ISLAND AND BRONZE SHAGS (*Phalacrocorax chalconotus*). 19/10/40, 44 seen on rocks at Taiaroa Head; many were juvenals. Others had rudimentary nests and some neck-twinning was taking place; none of the nests came to anything. (L.E.R.). Exceptionally large numbers on channel marks in Otago Harbour and about two dozen (both plumages) on roosting cleft in Taiaroa Head, May, 1941. (R.A.F.).

SPOTTED SHAG (*Stictocarbo punctatus*). Bethel's, 14/4/41. c. 30 were visible on the cliffs. They were in good fresh plumage. 2 seen flying past Tarakihi, off Waiheke, 23/12/40. Oamaru, 29/1/41, 3 on harbour rocks. (R.B.S.). Whangarei, 1 reported seen Nov., 1940 (W.S.). Taieri Island, 25/1/41, several roosting. (B.J.M.).

BLUE SHAG (*Stictocarbo steadi*). Several seen at Port Pegasus, 24/1/41. (R.B.S.).

GANNET (*Morus serrator*). Feeding offshore at Blackhead, Southern Hawke's Bay, May, 1941. (C.A.F.). Frequently seen at Astrolabe in December. (P.M.). 2 adults fishing off Sumner, 25/5/41. 1 adult fishing in Otago Harbour, 1/6/41. (R.A.F.). Common off-shore all round N. Auckland and Bay of Plenty coast. Occasionally above Onehunga Bridge, Manukau. Stewart Island, where they are scarce: 1 at head of Paterson's Inlet 21/1/41, 2 in Half Moon Bay, 23/1/41. (R.B.S.). Taieri Beach, 12/1/41. Very strong and cold off-shore wind. Many birds in the river mouth, including about 100 gannets, all adult. When first seen they were

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resting on the water, but later they flew, and dived actively in one spot. (B.J.M.). Whangarei Harbour, Jan., 1941. Numerous adults and one immature. (W.S.). Motuihi Island, often off-shore in small numbers. Poor Knights; odd birds fishing: large colony on Sugarloaf to south. (P.C.B.).

PARADISE DUCK (*Casarca variegata*). Rare in Manawatu watershed; recorded Kumeroa (pair) and Upper Manawatu near Norsewood (dead male). Much commoner in Tukituki and east coast drainage systems, e.g., Takapau Plains, Waipukurau, Waipawa, Purimu Lake (several), Upper Purakaitai (pair), Lower Purakaitai (6), Porangahau Harbour (c. 32), Pourerere (pair), Clareinch Sta., near Mangakuri (3). (C.A.F.). Common at Manapouri and up the Eglinton Valley. (R.B.S.).

GREY DUCK (*Anas superciliosa*). Not abundant in the Manawatu watershed, more so in the east coast systems (e.g., Porangahau). The region is, on the whole, poor in standing water and many areas of water lack breeding cover. Hamurana, Rotorua, 14/4/41, over 400. (C.A.F.). Levin, fairly common. A few days after the shooting season commences, the centre of Lake Horowhenua (a sanctuary) is black with resting birds. 1/6/41. Again inspected, not as many as on former occasions. 2/6/41, 50 counted as the flock rose from Buller Lake. (H.J.W.). Believed to be decreasing near Nelson. On a dam where there used to be a lot in winter now only a few pairs are observed. (P.M.). Skull Creek, Whangarei, Aug., 1940, 3 pairs nested. Whangarei Harbour Sanctuary, May, 1941, about 120. June, about 140 (W.S.). Rangitaiki River, not common (J.J.)

GREY TEAL (*Querquedula gibberifrons*). Hamurana, 14/4/41, 1 definitely seen, possibly 2 more. The Curator of Fish and Game at Rotorua reports confirmed presence at Rotomahana, Rerewhakitū and Reparoa. (C.A.F.). 1 accidentally shot, Lake Ellesmere, 7/5/41. (R.A.F.).

BROWN DUCK (*Elasmonetta chlorotis*). Said to have disappeared from Wanstead region "many years before the Great War, 1914." (C.A.F.) A small family party feeding in the kelp at Ulva, Stewart Is., Jan., 1940. (R.B.S.). Skull Creek, Whangarei, 1940, 6 families located. Ducklings in down in mid-Jan., 1941. Many in the sanctuary bordering the main road near Waipu. ((W.S.).

SHOVELLER (*Spatula rhynchotis*). Fairly well distributed though not in large numbers. Records from Kumeroa, half a mile N. of Manawatu Gorge, Oruakeritaki River, Purimu Lake, Hamurana, 14/4/41; 24 drakes coming into plumage, most accompanied by ducks. (C.A.F.). c. 20 on shallow pools, Te Puia, E. Cape. 1 pair, Matata Lagoon, Bay of Plenty, Sept., 1940. 3/11/40 during a day's searching on the Waikato Lakes, the only water where Shoveller were seen was L. Whangape, on which were 2 pairs and 3 males. (R.B.S.).

SCAUP (*Fuligula novaeseelandiae*). Seems to have disappeared from the Wanstead region (S. Hawke's Bay) "many years before 1914." Rotorua, 13/4/41, more than 480, Hamurana 17, Okere 11, other parts of Rotoiti, more than 80, in four flocks. (C.A.F.). Small flock up to 14 birds Victoria Lake, Christchurch, April-May, 1941. (R.A.F.). Lake Hayes, 9/1/41, c. 70. Many females with broods, the largest being 6, most broods only 2 or 3. Lake Wakatipu, Queenstown, c. 50 very tame. Frankton, a few including

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a brood of 6. L. Fergus, Eglinton Valley, a party of 12 on Jan. 12th. Pouto Pools, N. Kaipara. One pool had over 60 and another 25 in mid-May. Other possible pools not visited. Obviously a strong colony here. (R.B.S.).

BLUE DUCK (*Hymenolaimus malacorhynchus*). Though several suitable streams in the Ruahine Ra. were traversed to their headwaters, no Blue Duck were seen. Residents report them as still present in parts of the range and less definite reports come from the streams of the Waewaepa Ra., S. Hawke's Bay. (C.A.F.). Karioi, 1928 (J.J.).

MALLARD (*Anas platyrhynchos*). Reported Wanstead, Hawke's Bay, May, 1941. Several dozen on L. Rotorua, April, 1941. (C.A.F.)

BLACK SWAN (*Chenopsis atrata*). Some hundreds appeared in Nelson Haven on July 20th. (P.M.) Noted at Purimu Lake and plentiful at Hatuna Lake. Cygnets in down, Rotorua, 14/4/41 (C.A.F.). Dunedin. Tomahawk Lagoon, 10/2/41, two; 24/2/41, three; 28/6/41, two, one black, the other with belly, tail and body under the wings white, the rest black. (L.G.).

BLACK-FRONTED TERN (*Chlidonias albigularis*). Adult already in breeding plumage, Rakaia River, 1/7/40. (R.A.F.) Glenary, Waikaia, 1-19/12/40. Eggs and young in various stages. The birds will swoop and knock the hats off intruders. (E.W.C.). Muriwai, 10/3/40, five; 17/11/40, one. All off-plumage. (C.A.F.)

CASPIAN TERN (*Hydroprogne caspia*). Mangowai breeding-station, 24/11/40, in two colonies, first mainly eggs, some newly-hatched chicks. The older colony had been flooded, many rotten eggs present, a dozen fledged young had survived from the first hatching, a few fresh eggs and newly hatched chicks from later attempts. Approx. 170 pairs, i.e., same as 1939. Rotorua, 14/4/41, 8 or more. Muriwai, 1940. Regular counts show odd birds up the beach all the year, especially near Kaipara Heads. A maximum in the breeding-season suggests the proximity of an unrecorded colony. S. Hawke's Bay, odd birds on the coast from Porangahau to Pouerere. A few reach Waipawa up the Tukituki River. (C.A.F.). Distributed all along the Bay of Plenty coast, coming up rivers and creeks. Only 1 seen at Gisborne in Sept. L. Waikare, Waikato. 1 on Nov. 3rd, an interesting inland record. In winter 30-50 may regularly be seen in Manukau at high tide, resting on shingle spits near Pukitutu I. Beach counts: Pouto, N. Kaipara to Maunganui Bluff, May 6-7, 26. Waipoua R. to

Hokianga Heads, May 10th, 10. Rawene, Hokianga, 10 at full tide on reclaimed flats. Distributed all along the Hauraki Gulf coast. At Mataitai, near Clevedon, the unusually large assemblage of more than 84 was seen on July 12th on a shingle spit at full tide. (R.B.S.). Oamaru, 25/8/40, Two seen. (B.J.M.). Mangawai, 21/10/40. Colony of 3-400 nesting this year at the S. end of the beach. No young yet hatched. Little change in the condition of this colony during the last 5 years, and according to reports it is much the same as it was 60 years ago. (G.A.B.). Mata colony, Whangarei. About 120 adults in Aug. Nesting site swamped at high tide. All but 12 pairs left in Dec. 30/12/40-8/1/41, 18 eggs hatched and 3 unhatched when a gale swamped the site. All but three young ones rescued and replaced later. In another storm 5 were rescued, one other survived the storm, the rest were drowned. (W.S.). Motuihi Island several often seen. (P.C.B.).

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FAIRY TERN (*Sterna nereis*). Mangowai, 24/11/40. Pair, aggressive to other birds, making mating flights and frequenting a scrape.— (C.A.F.)

WHITE-FRONTED TERN (*Sterna striata*). Odd birds only on the E. coast between Porangahau and Purerere, Southern Hawke's Bay. Mangowai, 24/11/40, no colonies found. Muriwai. Regular counts 1940 show abundance after the breeding season, minimum during breeding-season, winter numbers varying but greatest during westerly gales. Young still demanding food June 30th (C.A.F.). Manukau Heads, 17/4/40, c. 80 Aug.-Sept., 1940. Very few seen along Bay of Plenty coast between Matata and E. Cape. Over 60 on jetty at Gisborne. Beach counts: N. Kaipara Heads, 6/5/41, c. 250. On the following days only about 40 seen between there and Maunganui Bluff. Waipoua R. to Waimamuka R. Over 96. A few off Hokianga Heads. Much commoner off the Hauraki Gulf coast, Bay of Islands to Pakiri, May. (R.B.S.). Shag Point, 25/4/41. Many sitting on the rocks. (B.J.M.). Motuihi Id. Up to 30 seen, Feb., Mar. Poor Knights, Nov., 1940, seen but not found breeding. (P.C.B.).

BLACK-BACKED GULL (*Larus dominicanus*). Adults and immature up the Manawatu as far as the Tamaki Stream junction, and up the Tukituki at least as far as Takapau. Abundant along the coast from Purerere to Blackhead, S. Hawke's Bay, summer, 1940-41. Muriwai. Regular counts, 1940, show two peaks of abundance, before and after the breeding-season, suggesting passage. Residents laid about Nov. 17th. Mangowai, 24/11/40. One fresh egg. Rotorua, 14/4/41, a dozen or so. (C.A.F.). Hilderthorpe, N. Otago. Come up from the Waitaki R. to the coast in the morning and return in the evening. (C.W.McL.). Nelson. Several attempted to breed on launches. (P.M.). Taieri Id. Many gulls' nests. 17/1/41, only 8 fledglings still unable to fly. (B.J.M.). Motuihi Id., Numbers rose 12 to 100. Feb.-Mar. Poor Knights, Nov., 1940, one pair. (P.C.B.).

RED-BILLED GULL (*Larus novaehollandiae*). Rotorua, 14/4/41, over 400, many immature. S. Hawkes Bay. Not common between Porangahau and Purerere. (C.A.F.). Port Nelson, very common. Not in the vicinity of Astrolabe though a few follow the fishing boats. They are much fed and are very tame at Nelson. One seen with a thin projection hanging down below the lower mandible, of the same colour and texture as the bill. Photographed. (Appears to be due to tearing of throat with fish-hook. Eds.) (P.M.). Motuihi, numbers rose 0 to 180 Feb.-Mar. Poor Knights, Nov., 1940, 50 to 100 regularly but not breeding. (P.C.B.).

BLACK-BILLED GULL (*Larus bulleri*). Rotorua, 14/4/41. Less than 15, none immature. (C.A.F.). Winter flocks frequenting Victoria Square, Christchurch, have considerably increased during the winter. (R.A.F.). An interesting find on the Bay of Plenty coast in Sept., 1940, was this species as follows:—Mouth of the Rangitaiki R., 1 pair which showed aggressiveness and attempted to keep a little sand-spit clear of Red-bills. Mouth of Tarawera R., one pair. On the next day, two—possibly

a pair—were seen at Matata Lagoon. Common at Oamaru in Jan. Queenstown, 10/1/41, c. 40. Common in the rivers south of L. Wakatipu. (R.B.S.).

SEA-HAWK (*Catharacta lonnbergi*). 3 seen off Otago Heads, 28/5/41. (R.A.F.). Nelson. No appearance of these birds (which were in the vicinity of Astrolabe for a year or more) during the Christmas months. (P.M.)

ARCTIC SKUA (*Stercorarius parasiticus*). Muriwai, single birds, 31/3/40 and 5/5/40, both days when terns were abundant. (C.A.F.). 4 French Pass, 23/12/39, 1 Akaroa 23/1/40, 1 Muriwai 5/5/40. Frequently seen off

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Waiheke, Dec. 21-25. 1 Hokianga Hds., 11/5/41. 1 Bay of Islands, 15/5/41. (R.B.S.).

NORTH ISLAND OYSTER-CATCHER (*Haematopus reischeki*). Mangowai, 24/11/40. One pair and an odd bird. Pakiri, 25.11.40, single pair, several scrapes but no eggs. S. Kaipara Hds., 1940. Up to 4 birds seen till June, thereafter a pair mating on breeding-ground, 15/9/40, nest with 2 eggs, 4/1/41. (C.A.F.).

SOUTH ISLAND PIED OYSTER-CATCHER (*Haematopus finschi*). Muriwai, 15/9/40, single bird. (C.A.F.). Two nests, Upper Rakaiia, Oct., 1940. (R.A.F.). Glenary, Waikaia, 15/2/41. Only 2 remaining. (E.W.C.). Pounaweia, Catlins, 27/5/41, 56 on mud-flats. 28/5/41, 123 on mud-flats. (L.G.).

BLACK OYSTER-CATCHER (*Haematopus unicolor*). Hooper's Inlet, Otago Peninsula, 20/10/40. Two seen. (B.J.M.). Pounaweia, Catlins, 27/5/41. 6 feeding together on rocks and in pools, Owaka Head. (L.G.).

TURNSTONE (*Arenaria interpres*). Mangowai. 24/11/41, 7. Muriwai, 17/11/41, 2 seen. (C.A.F.).

BANDED DOTTEREL (*Charadrius bicinctus*). Skull Creek, Whangarei. A number nested on the pasture land bordering the creek. (W.S.). Several nests Upper Rakaiia, Oct., 1940 (R.A.F.). Rotorua, National Park, Puketitiri, Ruakaka with 2 young, Oreti Beach, 1939. (J.J.). Rotorua, 14/4/41, over 20 flocked. Muriwai 1940 and autumn 1941. Breeding population with young reinforced by passage birds in March, April, and again at the end of June. Faint traces of chest band on a few on April 7th, first full plumage May 5th, increasing numbers coloured till August. First eggs of two pairs laid approximately Sept. 12th. Most failed to rear first clutches. Jan. 4th most adults and young flocked, one pair still on territory. Large populations breed on the Manawatu R. bed and Tukituki and tributaries. Counts of 8 miles of the Manawatu in Dec. when they were breeding showed densities reaching 5 pairs per mile, but averaging 3-4 pair. Numbers of family parties increased from few in early Dec. to many at the end of this month. On 7/1/41 few dotterels were left on many breeding-areas and flocks of up to 40 birds were noted on 11/2/41 lower down the river. As with the Stilts, the impression was gained that the post-breeding flocks were moving down the river. No records between 11/2/41 and the end of May in S. Hawke's Bay. (C.A.F.). National Park, 25/9/40, about a dozen birds, mostly males, no sign of nesting observed. Reporoa Oct., 1940. Many pairs nesting, several young observed. Rotorua, 3/11/40, 8-10 pairs nesting near Postmaster Bath. Muriwai, 18/9/40, 4 pairs seen, 2 nests located. (G.A.B.). Taieri Beach, 16/1/41, one bird seen. (B.J.M.).

NEW ZEALAND DOTTEREL (*Pluviorhynchus obscurus*). Pakiri, 28/10/40. At least 12 full-plumaged but still half flocked. A few new scrapes and a deserted incubated egg suggesting loss of early nests by high tides. 25/11/40, 2 nests with eggs and one flooded nest. Adults fading. One pair with downies. Mangowai, 24/11/40. 10 pairs and over two broods of flying young, increase over 1939. Most nests recently flooded,

several derelict eggs, some fresh scrapes and one new nest with 1 egg. Muriwai, winter, 1940. Regular counts on 30 miles of beach reveal few or no birds from Feb. to April, increasing in May and 20-30 in June-Sept. Only 10 have been seen in

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the breeding-season, possibly because some nest out of sight in the dunes. First trace of colour May 11th; many full-plumaged in June. First present on breeding-grounds on July 28th. Vigorous mating and copulation on Sept. 15th. Nest with eggs hatching on Jan. 4th. 1941 counts by P.C.B. support autumn scarcity and winter increase. (C.A.F.).

WRYBILL (*Anarhynchus frontalis*). Muriwai, 1940. First seen (4) 4th Jan. Thereafter varying but generally increasing numbers till April. High numbers, maximum 82 until Sept. 15th (23 present). No later records. Numbers less in off-shore winds, greater on falling tide. Chest band first noted on May 5th. 25% had band on June 9th. All on Aug. 18th. (C.A.F.). Three nests Upper Rakaia, Oct., 1940. One nest Ashley R., Nov., 1940 (R.A.F.).

JAPANESE SNIPE (*Capella hardwickii*). Taieri Beach, 7 and 13/1/41. A bird, undoubtedly a snipe, seen on three occasions in a marsh. Probably this species. (B.J.M.).

KNOT (*Calidris canutus*). Mangowai, 24/11/41. Several hundred. Muriwai only seen in small numbers 17/11/40 and 21/2/41. (C.A.F.).

BAR-TAILED GODWIT (*Limosa lapponica*). Mangowai, 24/11/40. 5-700 flocked with Knot, etc. Muriwai: Counts show 3-400 in summer, decreasing in March 30-40 wintering, increase (85) in Nov. (C.A.F.). Otago Harbour, 4/1/41, 20 feeding with Stilts. (B.J.M.). Motuihi Channel 2 flying S. (P.C.B.).

HUDSONIAN GODWIT (*Limosa haemastica*). 27/11/40, Mr. Ridland and I recorded (for first time in N.Is.) a bird sitting in field at full tide with stilts 3 miles from mouth of Waikato River. (R.B.S.). Clear view of a single bird among a flock of Bar-tailed Godwit at Mangowai, 24/11/40. Smaller, contrasting colours, dark wing, white alar band and rump, black tail. (C.A.F.).

CURLEW (*Numenius cyanopus*). One seen at Muriwai, Jan. 4th, 1941, at exactly the same spot as in Sept., 1939. (C.A.F.) Seen in Godwit flock on several occasions during past years. (W.S.).

PIED STILT (*Himantopus leucocephalus*). Mata, Whangarei, Aug., 1940. About 50 looked as if intending to nest with Caspian Tern. 8 pairs later. None actually laid owing to flood tides. (W.S.). 4 adults, St. Andrews, S. Canterbury, 27/5/41. (R.A.F.) Breeding abundantly on the Manawatu R. and some of its larger tributaries. Counts in Dec. along 8 miles of the Manawatu gave an average of 5 to 6 pairs per mile and a density of 8 pairs per mile along some stretches. Full clutches of eggs found on 9/12/40, 18/12/40 and 7/2/41 (2 on the last date, several on the other dates). By the last date, however, most pairs had young flying and were becoming less aggressive, while some few had young as early as the first week of Dec. On 10/2/41 Stilts heard flying at night some miles from the river, suggesting movements, which were supported by observations on the Manawatu just east of the Gorge (11/2/41), where flocks of 12-70 birds had congregated in numbers far greater than the breeding population of the area. It appeared that flocks formed after the breeding season were tending to move downstream to the sea. From Feb. 11th till the end of May no more stilts were recorded on the Manawatu nor on the Tukituki and its tributaries, which are other breeding grounds. (C.A.F.). Pakiri, 18/10/40, 4 nests with eggs, 1 incomplete. (G.A.B.). 28/10/40, 2 additional full clutches. Adult

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population 7-8 pairs. 25/11/40. Most pairs reared fledged young, some with downies and two full clutches of eggs. Rotorua, 14/4/41. Over 75,

some family parties. Muriwai, rare, 1 pair 15/9/40, and one immature 17/11/40. (C.A.F.). Levin, 20 or 30 birds on shores of L. Horowhenua throughout the whole year, probably breeding, but no nests found, no special search made. Numbers appear constant. (T.H.W.). Oroua Downs, Ruakaka (J.J.). 27/10/40. Few near mouth of Waikouaiti R. 23/1/41-2/2/41. Heard every evening at Purakanui but not seen by day. 10/2/41 heard flying N.E. over Dunedin. 2/6/41. Over a dozen at Hooper's Inlet, Otago Peninsula. (I.T.). Glenary, Waikaia, 5/10/40. About 50 pairs nesting. One killed by a hawk. (E.W.C.). Clevedon district. Reported by Mr. Duder, 60 years resident at mouth of Clevedon R., that a small party have been in residence for about a year. Previously, he had seen only odd birds or pairs which did not settle. Near Miranda, Thames Estuary, about 50 27/1/41. Kawa Kawa Bay, Clevedon, 1 bird, only one seen in district. Mataitai, 23/3/41, about 50. Clevedon, 12/6/41, 2. Kawa Kawa Bay, various dates, pairs and odd birds now often seen. Evidently becoming newly established. (H.R.McK.) Dunedin, Green Island Lagoon, 29/12/40, 2-300. Taieri Beach, about 8 pairs breeding. 7/1/41. One nest with eggs hatching; no others with eggs. 15/1/41. Adult standing and calling while three small chicks wandered about some 20 yards away. Presently they all went to the parent, whose incessant cry apparently had not altered. The adult sat on its heels so that there was still a gap under its body, and the young stood under it for about 10 minutes. Then it stood up and they scattered again. Three fully fledged young about, also, usually with two adults. 1/2/41, Otago Harbour. About 40; only 2 immature. 10/2/41, Taieri Beach. Only three young found, one able to fly, the others with well-developed feathers, the larger nearly flying. 18/2/41, Harrier seen standing in water by an injured stilt which, presumably, it had attacked. The gut of the Stilt was in a diseased condition, so it may have been weakened. Stilts at Taieri Beach frequently chased harriers in the air. (B.J.M.).

SOUTH ISLAND WEKA (*Gallirallus australis*). Nelson. Completely disappeared from Astrolabe bays. Seen in deserted farmlands above Astrolabe. Extremely scarce in bush round Nelson city. Suggested that they have never increased since opossum trapping was carried out in the reserve. (P.M.).

BANDED RAIL (*Hypotaenidia philippensis*). Whakatiri, Clevedon, 24/4/41 in mangroves, 1 bird. Puhoi, N. Auckland 15/4/41 in mangroves, 1 bird. Once plentiful in Clevedon district, now quite rare. (H.R.McK.). Puhoi, 28/10/40. Swanson (inland) 4/1/41, Portland Rd. swamp, Remuera, 1/6/41. Pakiri, 25/11/40. (C.A.F.). Mata, Whangarei. Very numerous. Dec., 1940, nest with 5 eggs. Bird sat very close. 5 chicks hatched and left the nest within 3 hours. (W.S.).

SPOTLESS CRAKE (*Porzana plumbea*). Poor Knights, 24/11/40. Found to be very plentiful during a week's stay on the island. 16 occupied nests, 4 with young, nest deeply concealed in grass or sedge. Estimated 100 pairs. (G.A.B.). Taieri Beach, 16/1/41. Single bird disturbed from rushes several times. It flew only a few yards with its legs hanging down. Twice it perched in bushes. Several nests, saucer shaped, about 3 or 4 inches across, made of grass and rushes, placed in clumps of rushes a few inches above the water. In one case the grass arched over in a thin dome. All empty. Perhaps belonging to the crane as no other possible bird was known to be about. (B.J.M.).

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SPOTTED CRAKE (*Porzana pusilla*). Near Foxton, 2/5/41. One watched for some time feeding in the raupo on the edge of the lake. (G.A.B.)

PUKEKO (*Porphyrio melanotus*). Very local in the Manawatu watershed, much more widely distributed and abundant in the east coast streams and Tukituki tributaries, S. Hawke's Bay. (C.A.F.). Levin. Fairly plentiful in swamp areas throughout the district. Appears to be decreasing. Edges of Lakes Horowhenua and Buller usually inhabited by flocks of 20-30.

(T.H.W.). Glenary, Waikaia, 5/2/41. 16 eggs in one nest. (E.W.C.). Mammui, Ruakaka, Waiotapu, 1940 (J.J.). Clevedon district. Small numbers at Ardmore and Ness Valley. 17/9/40, nest with 5 eggs, 4 hatched between 8th and 12th October. (H.R.McK.). Whangarei. Numerous. Seen eating a 5-inch flounder, 7-inch eel, and a frog. Saw a cat catch a half-grown young one. (W.S.).

WHITE HERON (*Egretta alba*). Single bird winters Panmure Basin. Present 16/8/40. Then without breeding-plumes. (C.A.F.). Nelson. Has not returned to old haunts near Richmond. One seen at Motueka and another at Riwaka, July 20th. One has been at Riwaka since late summer. (P.M.). Kaitangata, 24/4/41. (O.D.T.). Glanfield, Otautau, 5/5/40. (J.J.). 1 reported at Ashburton, May, 1941. No record from Christchurch Botanical Gardens for first time for 8 years. (R.A.F.).

REEF HERON (*Demigretta sacra*). Single birds at Pouterere and Blackhead, S. Hawke's Bay, May, 1941. (C.A.F.). Nelson. Increasing. Nest in vicinity of harbour. Several nests on a small island. (For details see special report). Ruakaka, 1931. (J.J.). Dunedin, Green Island Lagoon. Bird seen 29/12/40 and 14/1/41. Taieri Island, 25/1/41. Birds seen. Several caves apparently used by them for roosting. In one very low cave was a nest made of sticks about 10 feet in. An empty egg-shell, apparently normally hatched, was found. The nest was clean, but there was much excreta round the mouth of the cave. Shag Point, 24/4/41, bird seen. (B.J.M.). Whangarei Harbour, 1940-41. Very common. (W.S.). Owaka Head, 27/5/41. Bird seen. (L.G.). Motuihi Isd., Feb.-Mar., 1941, 2 pairs. (P.C.B.).

BITTERN (*Botaurus poiciloptilus*). Levin. Fairly rare, 1 seen Dec., 1939, at Buller Lake. 1 seen winter, 1938 at L. Horowhenua. (T.H.W.). S. Hawke's Bay. Not recorded in the Manawatu watershed. Seen at Wanstead, Purimu Lake and Pouterere Stream, May 1941. (C.A.F.). One found dead, Amberley, N. Canterbury, 19/7/40. One accidentally shot, Timaru, 7/5/41. Still frequently seen in many parts of Canterbury. (R.A.F.). Nelson, Riwaka Harbour, 20/7/41. (P.M.). Taieri Beach, constantly seen. (B.J.M.).

PHEASANT (*Phasianus colchicus*). Very rare in S. Hawke's Bay, recorded at Kumeroa, Wanstead and behind Pouterere, 1941. (C.A.F.). Dunedin, 14/5/41. Female seen near Kuri Bush. (B.J.M.). Mata, Whangarei. Nest attacked by a stoat. (W.S.).

BROWN QUAIL (*Synoicus australis*). Mata, Whangarei. Increasing during the last two years but still less abundant than 7 years ago. (W.S.). Roxburgh, Jan., 1941. Fairly common in the hills. (E.W.C.). Kaingaroa, rare, only 2-3 seen. (J.J.). Poor Knights (? species) seen occasionally (P.C.B.).

CALIFORNIAN QUAIL (*Callipepla californica*.) S. Hawke's Bay. Fairly plentiful wherever there is suitable cover along the Ruahine foothills and

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eastwards to the coast. (C.A.F.). Levin area, scarce. (T.H.W.). Nelson, 10/11/40. Pair with new-hatched chicks. 12/11/40. Another covey hatched out. Astrolabe. One or two pairs. Nelson, July. Covey of 25 seen. (P.M.). Dunedin, near Taieri Mouth, 18/1/41. Two seen. (B.J.M.). Mata, Whangarei. General decrease, Jan., 1941. Stoats twice seen attacking families. May, 1941, large coveys all over the Takahewai Hills. (W.S.). Wellington, Karori district. Breeding, rare. Whistle note first heard 5/10/40, last heard 18/1/41. (H.L.S.). Kaingaroa Plains, common, flocks up to 30. (J.J.).

PIGEON (*Hemiphaga novaeseelandiae*). Fairly general in bushed Ruahine foothills and sporadically in relict bush patches in Manawatu watershed and Waewaepa Range. (C.A.F.). None seen on coastal plain round Levin during past 4 years. Seen on ranges behind Levin, Otaki Gorge and Akatarawas, not common. (T.H.W.). Less common round

Nelson waterworks since the broom was burnt. Appeared to arrive back at Astrolabe on 6/10/40. Not more than three pairs in the bays at Astrolabe. (P.M.). Queenstown. A pair apparently indulging in sexual flight reported 27/7/41. (L.G.). Bush east of Lake Rotoma, 23/1/38, several seen. (H.R.McK.). Dunedin. Seen at all times of the year. Seen feeding on the flower buds of broom in Oct., and the leaves of laburnum in Jan. The laburnum was finally stripped bare of leaves. (I.T.).

ROCK PIGEON (*Columba livia*). Shingle Creek, 14 miles from Roxburgh. Flock of 16. (E.W.C.).

BUSH HAWK (*Falco novaeseelandiae*). Ruahine Range, reported by settlers along the eastern foothills from Manawatu Gorge to Maketetu R. Occasionally seen, e.g., carrying prey, blackbird or rat, in last week of Jan. E. of the ranges not seen but reported on Waewaepa Ra. (C.A.F.). Kaingaroa Plains, not common. (J.J.).

HARRIER (*Circus approximans*). S. Hawke's Bay, 1940-41. Counts of birds seen in an area of 50 square miles in Dec., 1940 (around Woodville) when pairs seemed to be localised round nesting areas, showed a density of at least 1 pair per 2 square miles. Similar abundance throughout the region. In March, on Whangai range, one seen to swoop on a running hare, full grown. The hare yelped as the harrier grasped the small of its back with its talons. The wings were poised and the head held high for balance. The hare, struggling, was lifted several inches, but was too heavy for carrying. The bird seemed to lose balance, for the hare got away and headed out of sight with the harrier in pursuit. The harrier did not use its beak at all. (C.A.F.). Levin. Fairly common in whole district. Have been seen flying over Levin town. Usually found over scrub, farming and sand-hill areas. (T.H.W.). Whangarei district. Slight increase in 1940-41. (W.S.). For attacks on Stilts see under Stilt. Kaingaroa Plains, common. (J.J.). Motuihi Island, frequent visitors, feed on abundant rabbits. Poor Knights, 2 pairs. (P.C.B.).

MOREPORK (*Ninox novaeseelandiae*). Plentiful in cover in Manawatu watershed, noted abundantly at Kumeroa, Woodville and Mangatoro. Appeared rarer towards the east coast. (C.A.F.). Levin. Scarce but not rare. (T.H.W.). Returned in March as usual to the Cliffs, Nelson. (P.M.). Dunedin. Heard at Caversham, June, 1940. (I.T.). Mata, Whangarei. Abundant. (W.S.). Kaingaroa Plains, common. (J.J.). Motuihi Is., heard (P.C.B.).

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LITTLE OWL (*Athene noctua*). Catlins, Longwood Ra., 1939. (J.J.). Dunedin. Heard every night during most of the year. Certainly heard more frequently than ever before. (I.T.).

KEA (*Nestor notabilis*.) Temple Basin. Arthur Pass. Aug., 1939. 6 seen at 4000ft., 1000ft. above vegetation. (E.W.C.).

YELLOW-FRONTED PARRAKEET (*Cyanoramphus auriceps*). Puketitiri, 1927 (J.J.). Nelson. Heard twice in May, 1941, in Dun Mt. bush where they have been absent for some years. (P.M.).

RED-FRONTED PARRAKEET (*Cyanoramphus novaezelandiae*.) Poor Knights, Nov., 1940. Numerous. Frequenting nesting-holes but no eggs found by Dec. 1st. Feeding on seeding sow-thistle along cliff edges and on seed-heads of sedge. (P.C.B.).

SHINING CUCKOO (*Lamprococcyx lucidus*). During Dec. and early Jan. seen and heard very abundantly in all wooded and scrubbed portions of the Manawatu watershed. Apparently still mating till Dec. 24th. Young bird still with warblers at Tirau, 16/4/41. (C.A.F.). Heard at Riwaka, 10/10/40. Heard at Astrolabe for first time 10/10/40. (P.M.). Dunedin. First heard 29/9/40. Heard daily in Oct., Nov. and Dec. Young one seen 24/2/41. (I.T.). Dunedin, 26/10/40, first heard. Reported in Press 3 or 4 weeks ago. 17/2/41 bird seen. (B.J.M.). Piano Flat, Waikaia. Report of 20 seen eating black caterpillars, Nov., 1939. (E.W.C.). Kaingaroa Plains, common in summer. (J.J.).

LONG-TAILED CUCKOO (*Urodynamis taitensis*). Becoming scarcer. Not heard at the Cliffs, Nelson, as it used to be for many years on arrival and generally also on departure. Not heard at Astrolabe last year. (P.M.). Mamaku Plateau, Te Wae Wae Bay, Catlins, 1939. Rotoiti, 1940. (J.J.). Mamaku bush 21/1/38, numerous. Waioeka Valley, 26-27/1/38, several. Called at Clevedon at 8.30 p.m., 3/11/40 (H.R.McK.). Dunedin, 20/2/41. Newspaper reports tail feather from bird sent in from Outram. (B.J.M.).

KINGFISHER (*Halcyon sanctus*). Rare and local in the Manawatu watershed where it appears to be confined to portions of the riverbed or stream gullies which are bushed. In the E. coast drainage systems and the Tukituki watershed the species is much more abundant, as also on the coast between Porangahau and Pourerere, but nowhere as common as in N. Auckland. (C.A.F.). Levin. Fairly common in country districts. Noticeable increase in latter years. One seen to catch a mouse by the edge of the road. When disturbed by a passing car it flew low with the mouse in its bill, but soon dropped it and did not return. (T.H.W.). Glenary, Waikaia. June, 1941. 1 seen. (E.W.C.). Plentiful, Heathcote Estuary, 20/6/41. Reported frequently from Akaroa and other bays of Banks Peninsula. (R.A.F.). Dunedin. Pair seen each month between April and Sept. in the town, near the Bullock Track. (I.T.). Commonly seen round Otago Harbour. (B.J.M.). Pounaweia, Catlins, 27/5/41. 4 seen fishing from rata trees by the mudflats. (L.G.). Kaingaroa Plains, rare. (J.J.). Motuihi Id., probably less than 6 prs. Poor Knights (Nov. 1940), 1 pair seen. (P.C.B.).

RIFLEMAN (*Acanthissita chloris*). Recorded at all points visited on the Ruahine Range between Manawatu Gorge and Norsewood. E. of the range to the coast, heard doubtfully in bush in the foothills of the Waewaepa Ra. and seen in tall manuka, with a few beech trees, on the Whangai Ra. near

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Te Uri Rd. Possibly present in other bush patches in S. Hawke's Bay. (C.A.F.). Common in the high-level bush above Nelson city. (P.M.). Puketitiri, Hawke's Bay, Catlins, Otago, Longwood Ra., Southland, Te Wae Wae Bay. (J.J.) Te Waimate, plenty for a short while in early winter but none in summer. (E.C.S.).

PIPIT (*Anthus novaeseelandiae*). Abundant everywhere from river beds to hill country except in bush in S. Hawke's Bay. Pairs with young flying in Jan. (C.A.F.). Kaingaroa Plains, common, flies in flocks of 4-5; 3 paced by car, 35 m.p.h. (J.J.). Poor Knights (Nov., 1930) one seen. (P.C.B.).

FERN BIRD (*Bowdleria punctata*). Seen in swamps at Astrolabe, where the species was discovered in 1827. The swamp was burnt out a few years ago. (P.M.). Whangapoua, Coromandel, 28/6/41. 6-8 eggs and a number heard calling. Ngukuru, 11/11/40, a nest with 4 fresh eggs in the heart of a clump of rushes. (G.A.B.). Riverhead, Kaingaroa, 1940 (J.J.). Aongatete, near Tauranga, 28/1/38. Adult with 2 young nearly full-grown. (H.R.McK.). Mata, Whangarei. Common on gum-fields. (W.S.). Kaingaroa Plains, rare. (J.J.)

GREY WARBLER (*Pseudogerygone igata*). Very abundant and widespread in S. Hawke's Bay. Song eased up in March-April but never ceased. (C.A.F.). Levin. Fairly common in bush districts. Song noticeably different in Otaki Gorge from that of the Levin district, 15 miles distant. Spread over settled coastal area round town from patches of bush and Tararua R. during winter months. (T.H.W.). Nelson. Begins to sing in July. (P.M.). Dunedin. 28/2/40, pair seen feeding a young Shining Cuckoo. (I.T.). Wellington, Puhipuhi, Waipoua, Ruakaka, Riverhead, Rotorua, Kaingaroa, Main Trunk, Puketitiri, Golden Downs, Hanmer, Catlins, Slopedown, Wakatipu, Te Wae Wae, Longwoods. (J.J.). Hildershorpe, N. Otago. Present all the year. (C.W.McL.). Te Waimate. One with a white stern and tail last year. Not seen this year. (E.C.S.). Poor Knights, Nov., 1940, absent. (P.C.B.).

YELLOW-BREASTED TIT (*Petroica macrocephala*). Numbers unchanged in Nelson district (P.M.). Southland, Catlins, Golden Downs, Hanmer. (J.J.).

WHITE-BREASTED TIT (*Petroica toitoi*). Ruahine, eastern foothills, generally distributed. Rare east of the range in S. Hawke's Bay. Noted in relict bush patch in upper Mangawhero Stream, S. of Wanstead, 20 miles E. of the range (C.A.F.). Otatau Hills. Two seen lately, now known to be not so rare. (H.R. McK.). Rotorua, Waipoua, Main Trunk, Kaingaroa, Puketitiri. (J.J.). Motuihi Id. not seen Feb.-Mar., 1941. (P.C.B.).

NORTH ISLAND ROBIN (*Miro longipes*). Mamaku. As abundant as in previous years. 16/4/41. In good song, one pair but most individuals isolated. (C.A.F.). Main Trunk, N. end of Kaimanaroa Ra. (J.J.). Waimarino (Nat. Park), 24/9/40. 4-5 pairs in area of bush $\frac{1}{2}$ -mile square. Maraeroa, 30/10/40, 6-8 pairs located in a day's walk in rimu-totara bush. At this time the birds were mostly in the high tree-tops, singing freely. The song frequently lasted 15-20 mins. Mamaku, 2/11/40. Fairly plentiful. (G.A.B.).

SOUTH ISLAND ROBIN (*Miro australis*). Nelson. Numbers unchanged. (P.M.). Golden Downs, Southland. (J.J.).

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FANTAIL (*Rhipidura fuliginosa*). Mainly near water in S. Hawke's Bay, but fairly common. Brood flew, Kumeroa, 16/12/40. Remuera, 1940. Pair together all winter, song noted especially in August. 9/8/40, female began building in bamboo, completed 3/9/40; 1st egg, 4/9, another 7/9/40. Nest liable to wind movement and one of the eggs gone on 17/9 after a gale. Rebuilt immediately. Date of first egg three weeks earlier than in 1939 (for same pair) corresponds with earlier kowhai flowering, oak leafing and generally early spring. Second nest almost finished 23/9 (male fed female), 1st egg 26/9, then daily till 4th egg, 29/9. Eggs again lost 9/10 after rain. Brood eventually reared before Christmas. Another Auckland pair had eggs by 16th Aug. (C.A.F.). Fairly common in bush areas round Levin, spreads over the settled coastal areas in early winter. One seen to catch a fly with its beak, snatch it with its right foot, and then devour it. (T.H.W.). Kaingaroa Plains, common. (J.J.). Motuihi Is., numerous. Poor Knights (Nov., 1940) absent. (P.C.B.). Dunedin, Black Fantails noted, one with a great deal of white about it and another with white patches on the sides of its head. (I.T.)

WHITEHEAD (*Mohoua albicilla*). Fairly general along the eastern Ruahine foothills. East of the range small numbers found in two small bush patches (Mangawhero Stream headwaters and near Wanstead). (C.A.F.). National Park, 24/9/40. Not plentiful. Maraeroa, 30/10/40, plentiful but no occupied nests found. (G.A.B.). Kaingaroa, common (J.J.)

BROWN CREEPER (*Finschia novaeseelandiae*). Frequently seen in bush near Nelson. Invariably the flocks are accompanied by White-eyes and other birds such as Tits. They seem to exhaust the possibilities of a tree and move on to another long before the White-eyes do. (P.M.).

WHITE-EYE (*Zosterops lateralis*). Common in all cover in S. Hawke's Bay. (C.A.F.). Levin. Common. During winter months spreads over settled areas in flocks. (T.H.W.). Glenary, Waikaia. Never seen in summer even in the bush. Appear in large numbers in winter but only in cold weather. (E.W.C.) Christchurch. Observed eating berries of strawberry tree, spindleberry, elderberry, barberry, *Cotoneaster sorotina*, asparagus, lonicera, *Coprosma pittosporum*, and cabbage tree. Winter flocks more conspicuous than in Auckland. (M.G.). Nelson. Diminishing rapidly in numbers. (P.M.). Near Dunedin, 28/8/40. Flock of about two dozen singing "canary" song. 16-17/10/40. Pair together gathering cobwebs. 23/11/40. Flock of about 30. Young ones appear at the bird table towards the end of Dec. 16/2/41. Still feeding young. 19/3/41. Back again in the garden in flocks. In April after snow in the hills they seemed to in-

crease in numbers at the bird table. (I.T.). Kaingaroa Plains, not common (J.J.). Motuihi Id., common. Poor Knights (Nov., 1940) absent (P.C.B.)

TUI (*Prothemadera novaeseelandiae*). S. Hawke's Bay. Well-distributed both in bush and plantations. Reported increasing in the last decade. Flying young still fed by parents in second week of March, 1941, at Mangatoro. Wellington, first heard at Karori Reservoir, late June. Remuera, visited garden late June, 1941. (C.A.F.) Levin, 2 or 3 permanent in bush surrounding L. Buller; otherwise scarce on coastal plain. Fairly common in bush on Tararua Ranges. (T.H.W.). Reported by residents of the Cashmere Hills, Christchurch, to be more abundant as winter visitor in gardens, June, 1941. (R.A.F.) Dunedin. Seen frequently July to Nov. 11th, 1940. Returned in mid-Jan., 1941, and about constantly since. (I.T.). Whangarei district. Hundreds winter in the bush, especially on the inland

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sides of the Tangihua Mts. and the Takakowai and Kuhumui Hills. They scatter in spring and are widespread in summer. (W.S.) Waingaroa Plains, not common. (J.J.)

BELL BIRD (*Anthornis melanura*). In S. Hawke's Bay restricted to Ruahine bushed areas, no record to the east of the range. (C.A.F.) Common at Astrolabe. Certainly not on the decrease, possibly slightly on the increase. (P.M.). Visiting gardens for bluegum and tree lucerne, Governors Bay, June, 1951. (R.A.F.). Dunedin. Common at all times. (I.T.). Mamaku Bush, 21/1/38, 1 adult and 1 full-grown young. Hongi's Track, 23/1/38, 2 seen. Waioeka Valley, Opotiki, 23/1/38. Full dawn chorus heard and some birds seen. (H.R.McK.). Kaingaroa Plains. Common. (J.J.). Motuihi Id. Quite numerous. (Feb.-Mar.). Poor Knights (Nov., 1940). Very numerous, nesting. Young first fed on nectar, later insects. (P.C.B.).

BLUE-WATTLED CROW (*Callaeas wilsoni*). Mamaku, 2/11/40. Song heard on several occasions, reported by bushmen to be fairly plentiful at times. (G.A.B.). Mamaku Plateau, 1928 (J.J.). Otau or Moumoukai Bush. Reported to be present. Have heard the call but have not yet seen the bird. Ness Valley, reported seen a few years ago. Clevedon Reserve, one reported seen about 6 years ago. (H.R.McK.).

GREENFINCH (*Chloris chloris*). Rare in S. Hawke's Bay. Present in Wellington. (C.A.F.). Levin. Fairly rare. Seldom seen in town areas. Usually seen in flocks in farming areas in winter. Rarest of all finches in this district. (T.H.W.). Nelson. Never very numerous. (P.M.)

CHAFFINCH (*Fringilla coelebs*). Common throughout S. Hawke's Bay. Autumn song, snatches on 15/5/41. Wellington. First full song 27/6/41. (C.A.F.) Levin. Fairly rare. Occasionally seen in town gardens in winter, usually seen in farming area. (T.H.W.). Nelson. Fairly common. It has been noticed that for the past few seasons cock chaffinches have remained around the house. At one time only the female would appear round the feeding-ground in winter. Now both are present. Query whether the instinct to flock is becoming less with birds around the city. (P.M.). Kaingaroa Plains, not common, often in large flocks. (J.J.).

REDPOLL (*Acanthis cabaret*). Plentiful in Manawatu watershed. Large flocks formed in Feb. (C.A.F.). Open country round Nelson. Perfect albino with rosy crest, Appleby, 23/5/41, in Nelson Museum. (P.M.) Motuihi Id. doubtful identification. (P.C.B.).

GOLDFINCH (*Carduelis carduelis*). Fairly plentiful in S. Hawke's Bay, flocking in Feb. (C.A.F.). Levin. Whole district, common, March, flocks of 20-30 in town eating seeds of Cosmos and Marigold. 21/2/41 nest with young in advanced stage. 5/3/41, young left the nest but in the same tree. 6/3/41, no sign of presence in the neighbourhood. (T.H.W.). Nelson. Very common though not so plentiful as in former years. Feeding on Zinnias, 14/6/41. (P.M.). Dunedin. Still feeding young 19/3/41. (I.T.). Glenary, Waikaia, 20/10/40. First seen since summer. (E.W.C.). Kaingaroa Plains, common. Flies in small flocks. (J.J.). Motuihi Id., odd individuals. (P.C.B.)

HOUSE SPARROW (*Passer domesticus*). S. Hawke's Bay. Breeding near houses only but later 31/1/41 in flocks in open country. (C.A.F.). Levin. Very common in whole district. (T.H.W.). Nelson. Plentiful though being

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poisoned. Seen catching white butterflies. (P.M.). Dunedin. 23/8/40. Report of a bird going on laying when its eggs were taken until it had laid 21 eggs. Bird noted hanging by its leg which was entangled in the material of the nest. A female pecked at the material round the leg of the imprisoned bird and three times seized it by the bill and swung fluttering, pulling on it. (I.T.).

YELLOW HAMMER (*Emberiza citrinella*). Levin. Not common. Usually seen in flocks in winter. (T.H.W.). Nelson. Very common. (P.M.). Kaingaroa Plains, not common. (J.J.).

CIRL BUNTING (*Emberiza cirrus*). Small autumn flocks, Burwood and Hornby, near Christchurch, April, 1941. (R.A.F.). Dunedin. Occasionally seen. (I.T.).

SONG THRUSH (*Turdus philomelus*). Nelson. Not so plentiful at the Cliffs as in former years. In full song by the beginning of July in spite of intense cold. (P.M.). Te Waimate. Absent from April to mid-June, plenty again in July. (E.C.S.). Dunedin. 30/4/41. First song, rather hesitating. (B.J.M.). Nest seen with 11 eggs, all of one type, apparently laid by one bird. No attempt at incubation. (H.R.McK.). Mata, Whangarei. Increase during last few years. Collect in bush on hill slopes in winter and scatter in summer. (W.S.) Wellington. Low throat notes heard 29/3/41, 7/4/41 and 30/4/41. First real song 6/5/41. (H.L.S.). Kaingaroa Plains, not common. (J.J.). Poor Knights (Nov., 1940), none seen, but one old nest. (P.C.B.).

BLACKBIRD (*Turdus merula*). Wellington. First song, 1/7/41, and sporadically during next week. (C.A.F.). Levin. Common, breeding in whole district. (T.H.W.). Nelson. In full song by beginning of July. (P.H.). Te Waimate. Few only from mid-April to mid-June. Plenty again in July. (E.C.S.). Dunedin, 1/9/40, building; 2/9/40, first nest found. Pair built five nests, laid 21 eggs and reared only 1 young. July, Males claiming territory. (I.T.). Wellington 22/6/41. Heard singing. Not heard again till 13/7/41. Weather cold and sunny. (H.J.S.). Dunedin. 4/7/40. Male singing sub-song. 5/7/40. Singing from top of pole. 21/8/40. Two males fighting, female standing by emitting piercing screams. The males fighting fiercely, locking beaks and flying at one another. Sometimes one would be on top of the other and would hold on for quite a long time. The birds seemed to peck mostly at the region above the eye. When I approached they did not seem to be disturbed but just went on. Several feathers were flying. (L.G.). Kaingaroa Plains, common. (J.J.). Motuihi Id., 2 partial albinos. Poor Knights (Nov., 1940). Very numerous, 7 nests. (P.C.B.).

HEDGE SPARROW (*Prunella modularis*). Very plentiful throughout S. Hawke's Bay. Song almost ceased in late summer but re-commenced in frosty weather, April 10th, and continued through May. Wellington, June-July, full song. (C.A.F.). Levin. Fairly rare. Usually seen in town gardens. (T.H.W.). Nelson. Common in gardens. (P.M.). Clevedon. First reported about 6 or 7 years ago but may have been overlooked before. Seem to be increasing. Leave the garden in spring and return in Feb. (H.R.McK.). Dunedin. 26/7/40. First song. 3/8/40. Song frequently heard. (I.T.). Te Waimate. July. Not seen for months but expect them back soon. (E.C.S.).

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Kaingaroa Plains, not common. (J.J.).

LARK (*Alauda arvensis*). S. Hawke's Bay. Very abundant in all open country. Eggs on, Jan. 7th. (C.A.F.) Nelson. Common. In autumn migrates from nesting site. (P.M.). Glenary, Waikaia, 5/6/41. First song.

(E.W.C.). Kaingaroa Plains, not common (J.J.) Motuihi Id. less common than on mainland. (P.C.B.).

STARLING (*Sturnus vulgaris*). S. Hawke's Bay. Very plentiful. Nesting in houses and especially in holes in trees, banks and cliffs. Small flocks in Dec. and vast numbers together in autumn and winter had roosts in pines and swamps. (C.A.F.). Nelson. Very common. One heard to copy the call note of a cock quail perfectly. Roost in winter on rocky islands off the coast between Nelson and Takaka. (P.M.). Christchurch, 12/7/40. Pair seen examining a nesting hole and the cock observed to tread the hen. 26/7/40. Large flock on the Waimakariri River-bed (E.F.S.). Roost on Tokamapuna Islet near Kapiti, in scrub. In a westerly gale they skim the water; when it is fine they fly high. (A.S.W.). Kaingaroa Plains, common. (J.J.). Motuihi Id., flocks moving to and from other islands Feb.-Mar. Poor Knights, Nov. 1940, fairly numerous, feed on shore, nest in cliff faces. (P.C.B.).

MYNAH (*Acrodothis tristis*). Present in most settlements in S. Hawke's Bay, not Woodville 1940-41. Restricted to townships except between Takapau and E. Coast, where they are in the country. (C.A.F.). None in Levin area. The southern limit on the west coast apparently is Palmerston North. Seen there in fairly large numbers. (T.H.W.).

WHITE-BACKED MAGPIE (*Gymnorhina hypoleuca*). In the whole of S. Hawke's Bay one of the most conspicuous and abundant birds. Pairs and parties with young from Dec. to Feb. when there was a tendency for larger groups to be formed (largest flock, 25). The magpie dominates the harrier but is dominated by the Rook. Density greatest in pasture-land with pine belts, but absent only in the bush. Near Norsewood the species is reported to be a recent arrival and to have increased greatly during the last few years. (C.A.F.). Levin. Common in country districts, noticeable increase in latter years. Single harrier often seen to be attacked by 2 or 3 magpies. 14/6/41. Magpie seen to catch a mouse in its beak and fly off. 19/7/41. Flock of 14. (T.H.W.). Pair nested in Hagley Park, Christchurch, and reared two young. Sept.-Oct., 1940. (R.A.F.). Increasing and each year reported from new districts. Now in the Taieri. Report of a fight in mid-air with a hawk which was brought down. (I.T.).

ROOK (*Corvus frugilegus*). Quite a large number occur at Omakere, S. Hawke's Bay, where, apparently, there is a rookery. Nearby, on ploughed fields and pasture lands, parties of 10-20 were foraging in May, 1941. (C.A.F.). Christchurch rookeries were concentrated at Sunnyside and Hornby, Sept.-Dec., 1940. (R.A.F.).

SPECIAL REPORTS.

WHITE-EYE INVESTIGATION.

The White-eye was selected as a subject for special study, not because of any remarkable features, but because its abundance makes it possible for every member of the Society to co-operate in observing it. All notes, accompanied wherever possible by dates, times, numbers, weather conditions and other precise data, will be welcome. The following questions are suggested as with alternative: Are they present at all times

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of the year? Is there any evidence of local movements? In what types of country are they found, and at what seasons? Is their distribution affected by the height of the land? At what times do roosting and feeding begin and end? In what positions are the nests placed? Height, aspect, cover, etc., etc.

The White-eye and the Blackbird also are being studied from the point of view of their reproductive habits, and their differences at different latitudes. As many observations and dates for both species are required, as follows:—

SONG.

1. Beginning of song.
2. More or less regular singing.
3. Full song.
4. End of song.

MATING AND NESTING.

1. Mating.
2. First sign of building of nests.
3. First egg; number of eggs and dates when laid.
4. Hatching. Length of incubation.
5. Length of time between hatching and leaving nest.
6. Mortality in the egg and nesting stages.
7. Second layings, if possible. Same observations as above.
8. Moulting; beginning and end.
9. Flocking, if any.

Please send communications regarding White-eyes to Prof. Marples, the Museum, Dunedin, and Blackbirds to Dr. Wodzicki, National Bank Chambers, Wellington.

INTERIM REPORT ON BANDED DOTTEREL MOVEMENTS.

Organizers: R. H. D. Stidolph and C. A. Fleming.

The Banded Dotterel occurs as a breeding bird throughout New Zealand and the Chatham Islands. It has been found regularly in South-eastern Australia and Tasmania, chiefly in the non-breeding season, and less frequently in West Australia, Norfolk, Lord Howe and Kermadec Islands. As there is no evidence of nesting in Australia, a migration is believed to occur across the Tasman. The routes taken and the times and places of arrival and departure are not known and are the chief objects of this investigation.

The aim of the investigation is to provide documented observations on the distribution of the Banded Dotterel throughout New Zealand at all times of the year. For this purpose detailed and continuous observations at stated representative localities are better than generalizations based on impressions of what happens over a wider area. If series of detailed studies from places scattered all over New Zealand are available, they will serve as a factual basis for interpretation and discussion when similar data are available in Australia. Up to the present the following series of observations are to hand, all from the North Island, to which this report is therefore restricted.

1. Wairarapa River Beds, Lake and Coasts of Palliser Bay and East Wellington. (R.H.D.S. 20 years' observations.)
 2. Manawatu and S. Hawke's Bay Rivers. (C.A.F., a summer's observations.)
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3. West Wellington coast and Kapiti. (Various workers—more details wanted.)
 4. East Cape district (incomplete—C.A.F. and R.B. Sibson).
 5. Rotorua and nearby parts of Volcanic Plateau. (M. E. Fitzgerald—4 years' notes.)
 6. Manukau Harbour. (1½ years complete, P. C. Bull. Several incomplete years, C.A.F.)
 7. Muriwai Beach. (1½ years complete, P.C.B., C.A.F. and R.B.S.)
 8. Parengarenga Harbour. (A. H. Watt, several years' notes.)

BREEDING DISTRIBUTION.

In addition to these observations bearing upon seasonal changes, there are many less extended observations allowing the breeding distribution of the species in the N.Id. to be outlined. (1) The greatest density is on the shingle-beds of rivers draining both sides of the main divide of the N.Id. from Wellington to East Cape. (2) Quite large numbers nest on the pumice uplands, river flats and lake shores of the central Volcanic Plateau. (3) Scattered and usually smaller populations breed at river mouths on dunes, spits and beaches on the coast (Wellington, Bay of Plenty, N. Auckland). There is some indication that birds of group (1) regularly begin laying in mid-August and do not have eggs later than mid-November, whereas in the other two groups no egg-dates before mid-September are known, but eggs are recorded into December and even January.

MOVEMENTS.

Towards the end of the breeding season (December) flocking of adults and young of all populations begins and most are flocked by February. At this time river-bed populations appear to move down-stream and in all localities there is a movement towards coastal lacustrine and estuarine conditions where large flocks congregate in March, April and early May. The river-beds are almost wholly vacated by mid-Feb. Rotorua loses most of its birds by March, but some stay on in the lacustrine conditions there—at least into April. Coastal breeders usually do not have to move far from breeding grounds to reach estuarine conditions. (Note: The first post-breeding movements apparently are coastwards and not necessarily northwards.)

The coastal and estuarine flocks of the southern half of the N.Id. decrease till mid-May; thereafter there are only rare records until July, but it seems probable that a few birds persist in such coastal areas throughout the winter. In N. Auckland harbours, however, flocks have been increasing while they decrease further south. The first arrivals in Manukau are in early January; but the biggest increase occurs in April, when observations (O.S.N.Z. Report I.) suggest that increasing numbers are passing through the harbour. By May, the exceptionally large flocks have given way to a lower but steady wintering population. Muriwai Beach, a little further north, also lies in the passage route of dotterels (and other migrants). Here a small breeding population is reinforced by passage birds in March-April, but the numbers are down to normal again in May and early June. In Parengarenga (Far North) the first increase is noted in late Feb.-March and fairly large numbers winter in the harbour.

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In May-June, therefore, the position is: Riverbeds totally vacated, Southern coast and Rotorua almost so: steady, fairly large, populations in North Auckland harbours, but indications that others have passed further afield.

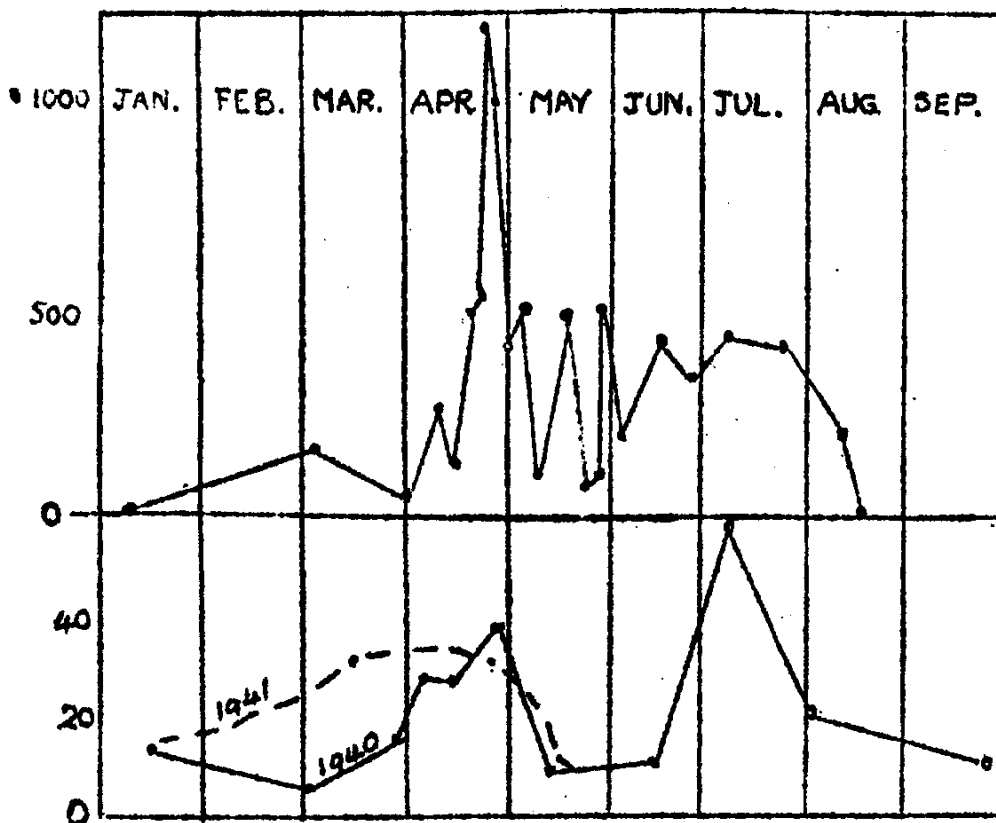
The return migration is first evident from the marked increase again at Muriwai in early July, suggesting a second, return, passage. Birds are back again at the Rotorua breeding-grounds in June, more in July, when they first reappear on Southern N.Id. riverbeds, increasing in August. There is no indication that returning birds pass through Manukau Harbour but here the last of the wintering birds disappear suddenly in August (approx. 9th), and at Parengarenga the same thing occurs at almost the same date. By September breeding is in full swing in most places.

MOULT. (Including M. E. Fitzgerald's observations on marked birds.)

Breeding adults lose colour in February and the post-breeding flocks (March-April) are almost homogeneous in immature and non-breeding plumage. Odd birds with bands have been seen in April, and the percentage of "coloured" birds in wintering flocks increases thereafter. Individual birds take approximately 25 days to gain and lose full colour (females a little later than males). Young hatched in November-December and feathered during January have acquired full colour by the following July, mating and ready to breed in their first August. The harbour-wintering birds in the North are almost all in full plumage by August, when they leave, as are first arrivals on the breeding-grounds.

DESIDERATA.

1. South Island data from representative inland and coastal localities.
2. More details from North Island, e.g., Bay of Plenty, Taranaki, etc., to ascertain limits between areas of winter scarcity (Wellington) and of winter abundance (Auckland).
3. More breeding-season data—earliest and latest egg dates for all localities: possible correlation between duration of season and extent of migration, or latitude.
4. Numbers at stated localities, at least monthly for a year, sufficient for representation by graphs, are most helpful.
5. Evidence of birds leaving or arriving from overseas is badly wanted.
6. Ultimately, leg-ringing operations will be necessary.



Upper.—Graph of numbers of Dotterel at Mangere, 1940 (P.C.B.) showing fluctuations in population wintering in Manukau Harbour. Until the peak of numbers in April, the figures probably represent birds passing through the harbour. Thereafter there appears to be a steady wintering population, the numbers fluctuating according to tidal conditions.

Lower.—Graph of Dotterel numbers at Muriwai showing the 2 periods of abundance probably due to the passage of migrant birds. A small number remain to breed.

THE TUI (*Prosthemadera novaeseelandiae*).

Details of Nesting at The Cliffs, Nelson (Mrs. P. Moncrieff).

Tuis at Astrolabe are not common like Bellbirds and have not increased. Nested in October in *Pinus radiata* at 40ft. (inaccessible). Duck feathers collected from ground in farmyard. After breeding, a rat removed lining leaving outer structure of fir needles.

The birds fed on sugared water all winter and spring. On November 12, 2 young birds near sugar cups were found, one perching precariously, the other with a stiff wing unable to fly. Adult tuis visiting sugar ignored these young short of giving brief inspection. Strongest nestling able to reach honey water and feed; later fed by adult who eyed other but did not approach. Later, injured young tried to approach parents but fell to ground, ignored by parents. Other nestling returned to nestle next to it until almost dusk when stiff-winged bird was put in warm basket but was dead next morning. The writer suspects the effect of refined sugar and this year will give nesting birds diluted honey.

Surviving young continued about syrup cups when parents took less trouble over him and on Nov. 16 abandoned squealing nestling note for broken attempts at adult sounds. After nesting tuis leave The Cliffs, but cock returns to honey pots in cold weather. 8/6/41, squealing notes like nestling indicated presence of mate. Daily since then present with 2 others, one, a young cock, attacked by old cock. 14/7/41, female systematically hunting blight off oleander trees and landed on window after flies.

During nesting (21/10/40) between 1.8 p.m. and 3.24 p.m. a detailed account of the pair's activities was kept. Trips to the nest alternated with feeding at sugar-pots, song from the male, flights hawking for insects and feeding of hen by cock, 11 trips to nest by cock occurred at 1 to 23 minute intervals, averaging 19 minutes. (P.M.).

THE WHITE THROATED SHAG

(*Phalacrocorax melanoleucos brevirostris*.)

The attention of members is drawn to the problem of the proportions of black-bellied (white-throated) to white-bellied (little pied) shags in different parts of New Zealand. Both forms, with intermediate, occur in most parts of the country, but the relative numbers of each vary from place to place, and the few counts available suggest that there may be a fairly regular change from north to south, in the proportions of the types. The problem resembles that of the two forms of Guillemot in the Atlantic (see Fisher's "Watching Birds," reviewed elsewhere). All flocks or breeding aggregations of these shags seen should be counted and the numbers of the various forms recorded, together with the locality. (C.A.F.)

THE REEF HERON (*Demigretta sacra*).

The common "Blue Heron" which occurs in New Zealand is widespread in the tropical Pacific and northern Australia, and interest attaches to its southernmost breeding places in New Zealand. Reports to hand indicate that the greatest numbers breed in Northern New Zealand and Cook Strait, but that smaller numbers breed along the east coast of the South Island as far south as Taieri, while birds usually are present as far south as Port Pegasus, Stewart Island. Any information from members relating to the presence or breeding of this bird in Southern New Zealand would be welcome. (C.A.F.).

[A Title Page precedes Page One in the Original.]

BULLETIN
OF THE
ORNITHOLOGICAL SOCIETY OF NEW ZEALAND
NUMBER I. YEAR 1941-42.

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Some Nesting Biographies, J. M. Cunnigham.

INTRODUCTION.

This Bulletin is the first issued under the new scheme of publication whereby, instead of a single annual report composed for the most part of classified notes, bulletins shall be issued at more frequent intervals and contain more general articles. It is intended that four bulletins shall appear each year, and though this may not be possible at present, it will be aimed at as soon as circumstances permit. Classified notes will be held over and published all together in the last bulletin of the year. A number, which arrived too late for inclusion in the last annual report, are already in hand. Correspondence from members wishing to make suggestions, exchange views and ask for advice will be welcomed. We hope that the more frequent publication will bring members more into touch with one another, and make the Society more united and active. Don't merely read the publications when they arrive; follow up the suggestions and make others of your own; write articles; ask questions; and, if possible, take part in the co-operative efforts. Don't forget that special investigations are on hand for this year—details of one are given in this bulletin—make sure that your personal observations are sent in to the organisers. In the case of distribution studies, evidence that a bird is not found in a district is as important, if not more important, as evidence that it is.

The attention of members is drawn to the fact that subscriptions are due at the beginning of the year, i.e., on July 1st. There are still a large number of subscriptions due for the current year and a few for the previous one. It is hoped that all members will continue to support the Society so that we may carry on during the war period and be able to expand our activities when better times return. It should be emphasised that the subscription of 5/- is only a minimum one; larger ones will be most welcome. The Society needs more members, more subscriptions and more donations. Please help in any way you can.

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RECORDER'S REPORT.

The indexing of New Zealand ornithological literature has proceeded so that over 200 authors and over 1000 books and papers on ornithology are now included. The response of members to the appeal for book lists has not yet been sufficient to warrant the beginning of a lending system. The Society now receives the current numbers of the "Emu." Members desiring to consult them should apply direct to the Hon. Secretary, enclosing stamps for postage.

C. A. FLEMING, Recorder.

INQUIRY INTO THE STATUS AND DISTRIBUTION OF THE DABCHICK (*Podiceps rufopectus*).

Members of the Society are asked, as far as lies in their power, to examine likely waters in their districts.

The following questionnaire will serve as a guide to the kind of information required:—

Name of water.

Area.

Height above sea-level.

Type of water (e.g., bush surrounded; swamp surrounded; clear: peaty; muddy; shallow or deep, etc.).

Number of birds.—Breeder or visitors.

Any evidence of migration?

Any evidence of flocking out of the breeding season?

Have human operations, e.g., bush-felling or settlement, altered the character of the water?

Is the water liable to change its level from flooding, more than previously?

Are Great Crested Grebes also present? (Relevant to S.I. only.)

Size of broods.

Enemies.

Do you know of any areas where the dabchick has occurred only rarely and is not a resident?

In areas where dabchicks are absent, have you any evidence as to their former presence, and date of disappearance?

What waters do you know where the dabchick is certainly not resident?

In all matters concerning this inquiry communicate direct with R. B. Sibson, King's College, Otahuhu, Auckland.

If dabchicks are not present in your district do not fail to send in information to that effect.

3.

NOTE CONCERNING THE BANDED DOTTEREL INVESTIGATION.

Coloured celluloid bands (budgerigar size) suitable for marking young dotterel, can be obtained from local aviculturalists or from Hutchison Bros., Auckland, (at 1/3 per dozen). A limited number are available without charge to members who are at all likely to be able to catch dotterel chicks during future nesting seasons. Apply to R. H. D. Stidolph, Cole St., Masterton. It is hoped to restrict each colour to a definite breeding district. Do not put bands on any dotterel without communicating first with the organiser of this investigation, or confusion will result.

MOVEMENTS OF RED-BILLED GULLS IN THE AUCKLAND DISTRICT.

By P. C. BULL.

(Owing to Mr. Bull's absence overseas, this report has been condensed by the editors to enable publication.)

The following report is based on more or less regular "counts" of a common species throughout the year; similar regular counts by other members in the future may modify or confirm the conclusions reached. "Migrations" include both daily and seasonal movements, the latter connected with breeding, the former chiefly connected with obtaining food. Four general classes of movement may be recognised.

I. The Spring Movement.

All breeding adults migrate in spring from the wintering to the nesting region. The chief breeding place of Auckland Red-billed Gulls is at Moko-hinau Island, some 50 miles to the north, though birds from the Three Kings, Bay of Plenty and other colonies (including unrecorded ones) may enter the region. At Mangere, in Manukau Harbour, daily visits to paddocks are made by decreasing numbers of birds in June and July, except when unusual conditions (of weather, or owing to ploughing) bring them in irregularly. This cessation of regular winter visits is shown in Graph III. That a passage movement begins after midwinter is also suggested by

the somewhat insufficient counts from Muriwai Beach at this period where there are for a time increased numbers of gulls between the periods of winter and summer scarcity (Graph I.). The spring movement to the breeding ground is apparently a slow drift over a long period. There are few left in the Manukau by August and September and thereafter, though even during the breeding season small numbers of gulls are present, particularly at wharves, sewers and abattoir outlets. Such birds may be chiefly in their first year.

II. Movements at the Nesting Ground.

At a small colony at Tutukaka, movements of the adults were restricted and largely governed by the tides. Though the vast Mokohinau colony has not been visited, there is evidence that

4.

gulls from this concentration move well away from the islands to forage. At the Poor Knights in November, irregular but considerable numbers appeared daily, probably foraging parties from Mokohinau.

III. The Autumn Movement.

After the breeding season migration occurs from nesting places to the wintering regions—chiefly Manukau Harbour and Thames estuary. In the Manukau Harbour, Red-billed Gulls are once more in numbers after the first week in February, but the counts from Muriwai and Motuihi Island suggest that passage movements are still going on in April. Continuous observations at Motuihi Island (in the Hauraki Gulf somewhat east of the direct line from Mokohinau to the Manukau) were made in the autumn of 1941, and show an obvious through-migration which has not been seriously affected by the new food supply provided by waste disposal at the island. The following notes on the daily observations supplement Graph II.:—

January 26	cries of gulls heard
„ 28	several groups of 15-20 gulls drifted over the island.
„ 29	12 on beach; apparently all adult.
February 1	8 on beach.
„ 3	15-20, feeding on scraps; all adult.
„ 7	50 on beach.
„ 12	60. First immature bird seen.
„ 13	100. Several immature.
„ 17	120.
February 20—March 15.	Many apparently left the island; 70 left.
March 31	Over 200
April 6	150
„ 8	100. Many young.
„ 10	60. Probably normal winter population.

Graph II. bears a striking resemblance to that of the Muriwai numbers for the same period. (Graph I.) Muriwai is also to be regarded as an intermediate region, but it is not certain where the Muriwai birds breed. The autumn maximum occurs at the same time at both localities and it is clear that both places lie on the passage route of birds moving from breeding to wintering ground.

At Motuihi the relative numbers of immature and adults varied greatly. Apparently the young collect together with one or two adults and frequent artificial sources of food—parks, sewers or refuse dumps—showing little of the regular daily movements that characterise the large winter flocks of adults. The percentages of young in autumn flocks observed may be listed:—

	% Young	Locality.	Remarks	Total No. in flocks.
28/1/40	8%	Takapuna		130
16/2/41	0%	Oneroa, Waiheke	Two different flocks	15
	10%		"	50
18/2/41	95% (approx)	Motuihi Id.		50
19/2/41	10-90%	Young increased in wake of boat from Central Wharf to North Head		35
22/2/41	50% (approx)	Motuihi Id.		50
9/3/41	30%	Muriwai		53
8/4/41	100%	Motuihi	On lawn after rain	18
10/4/41	12%	Motuihi	On rocks at low tide	30
28/4/41	72%	Albert Park	Feeding on scraps	26
29/4/41	58%	Auckland Dmn.	3 groups with individual %s of 71, 28, 68%	54
1/5/41	1% (approx)	Mangere	True winter flocks	500
1/5/41	5%	Mangere	in Manukau Harbour	100

By April the Motuihi population was fairly constant—probably winter residents. Of them some 20 immature birds became very tame, feeding on lawns. Of these 4 were found dead and 2 believed to have died, within 10 days of cold windy weather—a 20% mortality in 10 days.

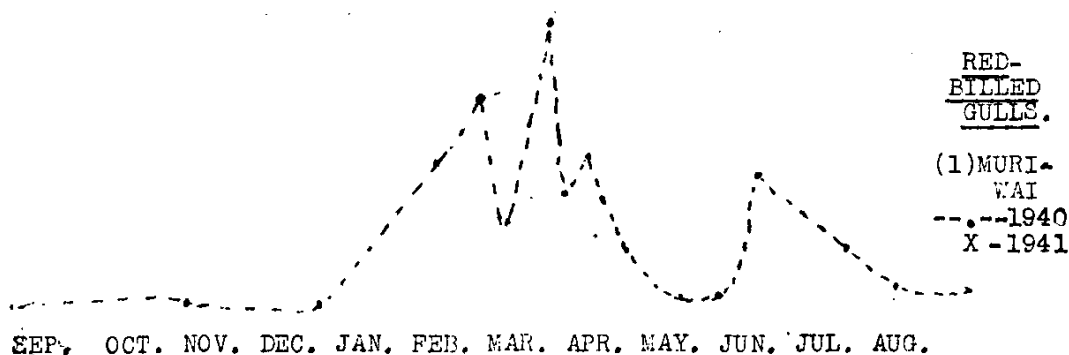
The first arrivals at both Mangere and Motuihi are adults, immature birds not appearing till later. The large Manukau flocks never contain more than 5% of immature (except possibly near the freezing works).

IV. Movements at the Wintering Ground.

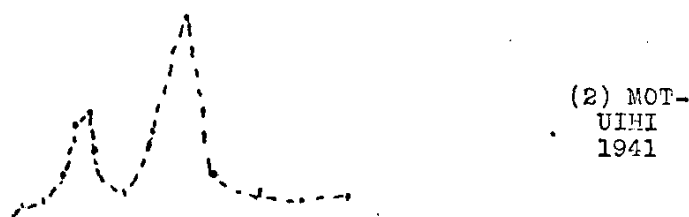
Such movements are daily and governed by feeding requirements. Tide conditions also influence the number partaking in and the duration of the regular visits made in the early morning to paddocks. During such visits the gulls work methodically across the paddocks as if feeding. The visits begin when autumn rains soften the ground, and end with late winter hard frosts; they occur from daylight till about 7.30 a.m. though the birds leave earlier when the tidal flats are uncovered. In addition, there are regular movements of 10 miles extent from Onehunga (at high tide) to Ihumatao when the tide uncovers the mud banks, and movements from Manukau to the East Coast estuaries take advantage of the differences of tide on the two coasts. Rough weather or rain causes an inland movement irrespective of tide or time of day, as does the attraction of newly ploughed fields.

6.

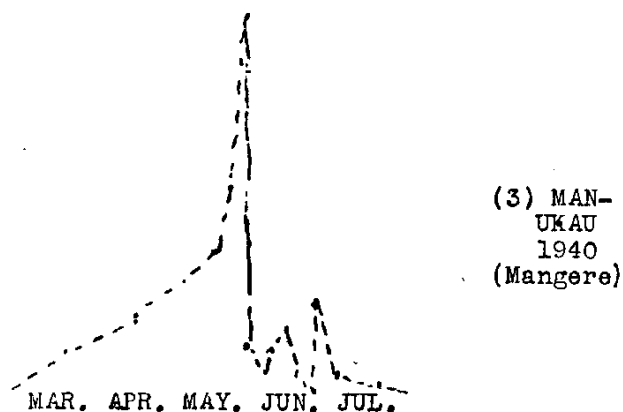
GRAPH I.



GRAPH II.



GRAPH III.



7.

SEABIRD CENSUS ALONG THE THAMES COROMANDEL ROAD

by P. C. Bull.

Frequent trips along this road during the last few years have offered opportunity to make the following censuses of seabirds. Successive counts in a short period vary greatly, owing to differences in tide and weather. Migration is, however, revealed by the figures for stilts and gulls. The movements of White-fronted terns are obscure and seem particularly susceptible to weather and tidal conditions. If nearby colonies were known their presence along the coast in the breeding season and well up the river estuary soon after the new year might be explained.

Records of shags apply chiefly to the Thames beacons; of stilts to the mudflats at Thames and Manaia; of gannets to off-shore waters in which they were fishing, their numbers varying with visibility. As the road does not always follow the coast, the stretch is not the best possible for such counts.

Date	W-f. Tern.	Stilt.	Red-b Gull.	Black- back Gull.	Caspian Tern.	Black Shag.	Pied Shag.	White- thr. Shag.	Gan- net.
30/12/38	0	-	70	30	-	2	-	-	-
3/1/39	32	-	-	-	-	1	-	-	-
26/3/40	-	5	-	-	3	11	-	-	-
27/3/40	-	43	192	147	12	6	-	1	-
11/5/40	0	-	-	-	-	-	-	-	-
15/5/40	72	-	-	-	-	-	-	-	20-30
17/8/40	30	15	-	-	-	15	-	3	few
21/8/40	-	-	-	-	1	12	-	3	many
29/12/40	28	0	8	10	-	10	1	-	-
3/1/41	5	-	25	30	4	4	1	-	7

NOTES ON FANTAILS AT NELSON.

Fantails have increased during the last year. The difference in the marking of individual Black Fantails continues to be of interest. Some have regular markings on both sides of the head, others have none at all and are coal black. A leaden-coloured bird is reported from Mapua, 19/7/41 (a freak?). The fantails at Astrolabe were moulting their inner tail feathers 28/1/41. At this stage it is hard to tell a Pied Fantail at a glance as the inner white tail feathers are absent. At The Cliffs in July, 1941, three were seen going to roost together, two pied and one black, but they separated during the day. Of these two pied individuals one has learnt to come into the verandah and ask for flies. The method is as follows: Arrived on an adjacent tree it chirps to catch the writer's attention. The latter then catches a blowfly or other insect and holding it in hand waves it to and fro to show the fantail that it is about to be released. As soon as the fly leaves the hand the fantail swoops down and in most cases secures it. If not very hungry it will allow the fly to es-

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cape. It has also learnt that at the dinner hour blowflies are attracted by the smell of cooking. At 12.30 on most days it will arrive at the back door and sitting on a convenient tree overlooking the position, swoop down on blowflies as they come and go outside the gauze door.

It is noticeable that fantails have difficulty in dealing with blowflies, which are rather too big for them. On first securing them they beat them against a branch with their beaks. They may then hold them in their claws and pick viciously at them. But this is not enough and they will frequently let the fly go, to swoop at it again. After many such batterings and releases to secure in a more favourable position, the fantail eventually reduces the fly to a stage when it can be swallowed.

MRS. P. MONCRIEFF.

NOTES ON THE FIELD CHARACTERS OF THE HUDSONIAN GODWIT.

The Hudsonian Godwit, *Limosa haemastica*, was recorded for the first time in the North Island by N. Ridland and myself near the mouth of the Waikato River, 2/11/40. This record appears on p.13 of the Second Annual Report of the Society. As we were able to watch the bird at a range of 20 yards or less the following notes were made: It is about the size of a male Bar-tailed Godwit, *L. lapponica baueri*, and beside Stilts, as we saw it, looked quite a dumpy short-legged bird. Even when resting its black tail is its most conspicuous feature, and when it flies this shows still more clearly in contrast to the white rump. There is a whitish alar bar moderately conspicuous in flight.

General colouring a brownish grey, with light mottling on the wings and some of the coverts tipped with light gray or white. Neck and throat brownish grey, underparts whitish, with a fairly distinct line of demarcation between the grey and white at the chest. Head: dark line through eye with a pale streak above and below, crown, medium brown. Legs dark;

Bill slightly upturned, dark towards tip, lighter on lower mandible with a pinkish tinge at the base. R. B. SIBSON.

SOME NESTING BIOGRAPHIES.

Pied Fantail.

- 29/9/40 Nest discovered, 4 eggs, birds sitting.
26/9/40 4 eggs hatched (a.m.)
9/10/40 2 chicks leave.
10/10/40 2 remaining chicks leave.

Remarks: Locality in Lemonwood, 4 feet, edge of stream, town garden. One parent had only one leg. During gale, both birds sat on nest together.

Summary: Eggs 4, hatched 4, left nest 4, survived first week 3. Time of young in nest—14 and 15 days.

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Grey Warbler.

- 21/9/40 Building.
23/9/40 Rim made of Toi-toi fluff.
27/9/40 Building has ceased.
3/10/40 Since building ceased song also stopped and birds were not seen—nest believed deserted. However, 3 eggs found today.
4/10/40 4 eggs.
5/10/40 Sitting.
21/10/40 2 chicks, 2 eggs.
22/10/40 3 chicks, 1 egg.
23/10/40 4 chicks.
9/11/40 Chicks left a.m.

Remarks: Locality, at top of young Matipo, 6 feet. Vicinity of old nest, town garden.

Summary: Eggs 4, hatched 4, left nest 4. Survived 12 days, certainly 4; 24 days certainly 2. Parents alone after 4 weeks. Incubation 17, 18, 19 days. Time of young in nest, 17, 18, 19 days. Length of feeding after leaving nest up to 3 weeks.

Hedge Sparrow.

- 20/10/40 Nest discovered, 4 eggs and 1 chick.
(1) 21/10/40 3 eggs and 2 chicks.
31/10/40 2 chicks left nest.
Summary: Eggs 5, hatched 2, left nest 2.

- 29/12/40 Nest discovered, 6 inches above last, 3 eggs.
(2) 13/1/41 2 chicks, probably hatched yesterday.
20/1/41 2 chicks gone; may have left 2 or 3 days ago.
Summary: Eggs 3, hatched 2, left nest 2.

Remarks: Both nests by same pair apparently. Locality 3ft. 6in. in bushy shrub resembling Cypress.

Blackbird.

- 20/8/40 First song.
(1) 21/9/40 Found nest, 5 feet, in Cryptomeria, female sitting.
22/9/40 4 eggs, cold, deserted. Incubated probably a week.
Summary: Eggs, 4.

- 21/9/40 Nest in flowering currant, 5ft. 6in.
24/9/40 1st egg laid between 10 and 12 a.m.
25/9/40 2nd egg laid between 10 and 11.30.

- (2a) 26/9/40 3rd egg laid between 12 and 12.30.
27/9/40 Bird sitting.
10/10/40 2 hatched, 1 egg left.
18/10/40 2 chicks left. Possibly yesterday afternoon.
Summary: Eggs 3, hatched 2, chicks leave nest 2. Incubation 14 days.
Time in nest 7-8 days.

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- 23/10/40 Old egg thrown out and nest repaired today.
29/10/40 1 egg.
(2b) 4/12/40 4 eggs, bird sitting. A week ago nest was empty again.
Egg laid 29/10/40 evidently deserted.
14/12/40 3 hatched, several days old.
Summary: Used nest second time. Laid one egg (deserted?). Eggs 4,
hatched 3.

- (3) 28/9/40-1/10/40 4 eggs laid in this period, deserted, nest in Pho-
tinia, 20 feet.

Song Thrush.

- 28/9/40 Discovered nest in Photinia, 10 feet, 4 eggs.
9/10/40 2 hatched, 2 eggs.
(1) 10/10/40 4 hatched.
21/10/40 Left nest early.
Summary: Eggs 4, hatched 4, chicks leave nest 4, time in nest 11
and 12 days.

- (2) 9/11/40 Nest in oak, over stream, height 12 feet.

7/2/41 Nest in matipo, 2' 6", decayed willow stump and news-
paper used in lining.

- (3) 11/2/41 1 egg.
12/2/41 2 eggs; deserted.

Starling.

- 9/9/40 Commenced building, in box erected for purpose in open
situation.
26/9/40 1 egg, yesterday's ?
27/9/40 2 eggs.
28/9/40 3 eggs.
(1) 29/9/40 5 eggs, (2 in one day), bird sitting.
11/10/40 2 chicks hatched a.m., 3rd hatching p.m.
13/10/40 4 chicks dead. The 5th egg was discarded a week ago,
and laid at side of nest.
15/10/40 Discarded egg removed.
17/10/40 I cleared box.
19/10/40 rebuilding; deserted.
29/10/40 Cleared box.
31/10/40 More straw in box.
Summary: Eggs 5, 2 laid in one day, hatched 4, deserted. Incubation
time 13 and 14 days.

J. M. CUNNINGHAM.

[A Title Page precedes Page One in the Original.]

BULLETIN
OF THE
ORNITHOLOGICAL SOCIETY OF NEW ZEALAND
NUMBER II. YEAR 1941-42.

Issued May 18th.

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INTRODUCTION.

The working year will be ending next month, and the next issue of the Bulletin will be the last for the current year. It will be published as soon as possible after July 1st, and will contain the year's short classified notes. Members are earnestly requested to send in their notes at the earliest possible moment so that publication shall not be delayed, and to send them in in the standard form for publication. This is of great assistance to the editors. Longer notes suitable for inclusion in bulletins next year will be specially welcome. Make an effort to take an active part in the work of the Society by sending notes and by joining in the investigations. Four special investigations are being carried out, and though everyone may not have information to supply about dabchicks or banded dotterel, blackbirds and white-eyes are found everywhere and are familiar to everyone. The study of their breeding seasons is not only of local interest but fits into a worldwide survey of breeding seasons, which so far is deficient in southern hemisphere records. A short note on the breeding season investigation is included in this issue and a more detailed one will appear later.

A new feature of this issue is a brief note on the contents of the latest number of "The Emu." This journal often contains papers on New Zealand birds as well as ones of general interest, reviews of ornithological literature, etc., and so is certainly not of interest only to residents in Australia itself. The O.S.N.Z. is now a member of the R.A.O.U. and recent numbers of The Emu are available for loan to members on application to the Hon. Secretary, together with stamps for postage. It is hoped that all members who are seriously interested will themselves become full members of the R.A.O.U. and keep in touch with and help to strengthen ornithology in Australasia as a whole.

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REVIEW.

"Notes on the Southern Robin, *Miro australis*," by L. E. Richdale. (Obtainable from the author, 21, Skibo Street, Dunedin. Price 1/-, Post Free).

This eight page pamphlet gives an account of the breeding of a pair of robins in captivity in a large aviary at Gore. Nest building took about two weeks and was carried out by the female only. Incubation lasted twenty days and was also carried out only by the female, and the young left the nest three weeks after hatching. An interesting account is given of the behaviour of the male, who fed the female and drove her back to the nest if she left it, but only began to feed the chicks himself when they were ten days old. He also collected food and hid it in various places about the

aviary, to be delivered to the nest later either by himself or by the female. Some three weeks after the young left the nest the male became so pugnacious that the whole family had to be separated.

The keeping of native birds in captivity is illegal, and these birds were confiscated by the authorities and released. It is to be hoped that those responsible will bear in mind the important and so far uninvestigated question of the distribution of the different sub-species of birds throughout our group of islands, and make sure that if birds are released it is only done in the locality from which they came.

The pamphlet concludes with a discussion of the attitude of the Department of Internal Affairs towards the keeping of native birds in captivity, and the bearing of the whole matter on the broad question of the protection of birds in this country. The pamphlet is illustrated by two excellent photographs of robins taken by the author.

THE EMU.—Vol. xli., pt. 4, April, 1942

The latest number of the Emu, just received, contains one New Zealand paper, "Supplementary Notes on the Royal Albatross, Part II.", by L. E. Richdale, which gives further details of the author's study of the nesting colony of these birds on Otago Peninsular. Among several papers on Australian birds there are two of general interest which may be mentioned, "The usurpation of nests, nesting sites and materials" by N. Favalaro, and "Nest borrowing amongst birds," by P. A. Bourke. The subjects of these are indicated by their titles, and, though the examples given will be unfamiliar species to New Zealand ornithologists, perhaps similar behaviour will be noted in this country. Amongst the reviews is one of a paper by E. Mayr and D. Amadon on "Geographical Variations in *Demigretta sacra* (Gmelin)." Amer. Mus. Nov. No. 1144, Oct. 13th, 1941, with map. An appeal was made in the second annual report of this Society to members to send in notes on the Blue Heron in connection with this study by Dr. Mayr. This bird has a white phase as well as the dark one, but in S. Australia and New Zealand the birds are almost exclusively dark. There is a suggestion that the New Zealand population originated from S. Australia.

3.

INVESTIGATION OF THE BREEDING SEASON OF THE BLACKBIRD AND THE WHITE-EYE.

The object of this investigation is to collect accurate information about the breeding habits of these birds and especially to determine the effect of geographical position, that is to say of different lengths of day, upon the dates of breeding. Observations are therefore required from all parts of the country, especially from the extreme north and extreme south. Everyone will have some information even if only a few dates, so send in whatever you have no matter how scanty. Preliminary breeding activities have already begun, but much remains to be noted if members remember to look out for it and to note it down. Exact dates are required for early and late singing, fights (the sexes involved to be noted), nest building, egg laying, hatching and fledging of young. Also details of the number of eggs laid and hatched and of young fledged, and the number of nests built by the same pair. Please send in notes to Count Wodzicki, The Consulate General of Poland, Wellington or to Professor Marples, The Museum, Dunedin. Fuller information about the investigation will be gladly sent on request. We want as many reliable dates as possible, so please make notes and send them in.

WHITE HERONS IN THE OKARITO DISTRICT,

by R. A. FALLA.

In December, 1941, the writer was given an opportunity of accompanying the Commissioner of Crown Lands, Westland, and a representative of the Conservator of Forests, on a visit of inspection to the only known nesting area of the White Heron.

The area is in swampy country north of the Okarito Lagoon and conditions there many years ago are described in published records of Mueller, Potts and other observers.

The object of the recent visit was to determine the position of the nesting colony, to estimate the nesting requirements of the birds, so that these might be taken into account when milling and other industrial claims in the district were being regulated. Full details of these matters have been submitted to the Government and measures for the proper protection of the herons are likely to be taken. The present communication therefore deals only with the general status of the colony and the habits of the birds as observed.

On the day of our visit, 11th December, 1941, no White Herons were observed at Okarito township nor at such parts of the lagoon as we could see on the journey northward. There were, however, in the neighbourhood of Okarito township several White-faced Herons (*Notophox novaehollandiae*). After careful enquiry from a number of residents I am satisfied that the common "Blue Crane" of South Westland is not *Demigretta sacra*, which is practically unknown, but *Notophox novaehollandiae*. It seems likely that it has been a common breeding species there during the whole period of European settlement, and before, and that it has somewhat similar winter dispersal habits to those of the White Heron. Local observers consider that it has always been a much more plentiful bird than the White Heron.

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The nesting place of the White Heron was found by our party on the banks of the stream on which earlier observers have found heronries. The present site is, however, somewhat lower downstream than the earlier records. As seems invariably the case, the herons are associated with and outnumbered by nesting shags of the small species (White-throated and little Pied Shags, *Phalacrocorax brevirostris* and *P. melanoleucus* which may be considered as one species). Of the latter there were some 11 nests in use and of the herons four nests. The creek is wide at this point and all the nests were in low trees, the shags in kamahi and kowhai and the herons on the crown of tree ferns (black and silver punga) overhanging the water and well sheltered from wind by the tall stands of kahikatea behind and around them. The nesting season was much further advanced than we had expected to find it. Eight adult birds in ornamental nesting plumes were present, two young from one nest were already flying strongly, two more were able to fly but not well, another was able to leave the nest and scramble about, and only one, in down, was still in the nest. The first eggs in this colony must therefore have been laid in September. The shags had well-grown young nearly able to fly. It is evident that the main nesting requirements are suitable trees adjacent to open space over water and high permanent shelter from wind. Food can be brought from a distance by both shags and herons.

There is little doubt that a few more herons may nest wherever the small shags form an undisturbed colony in sheltered places, and I was reliably informed of one heron nest about four years ago with shags at Canoe Point on the Okarito. However, such conditions are now rare in the district and the present area must be considered the only suitable place.

BIRDS ON ISLANDS AROUND STEWART ISLAND. By E. Stead.

(Notes made during visit between November 28 and December 3, 1941.)

GREEN ISLAND.

FANTAIL (Pied) (*Rhipidura flabellifera*). Not plentiful. Broods of young seen late November, 1941.

GREY WARBLER (*Pseudogerygone igata*). Not plentiful.

WAX-EYE (*Zosterops halmaturina*). Not plentiful.

YELLOWHEAD PARRAKEET (*Cyanoramphus auriceps*). A few dozens.

REDHEAD PARRAKEET (*C. novaeseelandiae*). Only two or three seen.

BROWN CREEPER (*Finschia novaeseelandiae*). Very plentiful. Nesting latter half of November, 1941. Egg clutch 2 or 3.

PIED TIT (*Petroica macrocephala*). Egg clutch 3 or 4, usually 4. Plentiful.

SOUTH ISLAND ROBIN (*Miro australis*). Plentiful, egg clutch 2 or 3.

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BELLBIRD (*Anthornis melanura*). Plentiful, clutch 3.

TUI (*Prothemadera novaeseelandiae*). A party of them came occasionally from Ruapuke Island. None breeding on Green Island.

PIGEONS (*Hemiphaga novaeseelandiae*). A party of six came on several occasions from Ruapuke. Did not nest on island.

HARRIER HAWK (*Circus approximans*). Several birds came regularly from Ruapuke to feed on Dove Petrels. We found two nests, both deserted; probably the result of interference by skuas.

WEKA (*Gallirallus australis*). Plentiful. Probably mainland type. Saw one "black" one which was not the usual Stewart Island black.

BANDED RAIL (*Hypotaenidia philippensis*). Had been plentiful, according to reports, but we saw none. Probably destroyed by weka.

GREY DUCK (*Anas superciliosa*). Saw three flying over the swamp in the centre of the island.

BLUE PENGUIN (*Eudyptula minor*). Plentiful.

YELLOW-CROWNED PENGUIN (*Megadyptes antipodes*). Plentiful.

BLACK-BACKED GULL (*Larus dominicanus*). Two or three pairs resident.

SOUTHERN SKUA (*Catharacta lonnbergii*). About 12 pairs nesting.

MUTTON-BIRD (*Puffinus griseus*). Not very numerous; probably only a few thousand on the island.

BROADBILLED PRION (Whalebird) (*Pachyptila vittata*). Many thousands of these were nesting on the island, but any reliable estimate of their numbers was difficult to arrive at owing to their similarity to the Dove Petrels. Nor could any reliance be placed on the relative numbers of the skeletons in the skuas' middens, as the Whalebirds begin to nest early in September, and the Dove Petrels not until the middle of November. The Skuas had, therefore, at the beginning of December, been killing Whalebirds for four months, and Dove Petrels for only two. Moreover, from instances in which, among fresh skeletons there were almost equal numbers of the two species (which was certainly not the case over the whole population); it seems that the skuas have a preference for Whalebirds, or find them easier to catch.

DOVE PETREL (*Pachyptila turtur*). These can be no doubt that Green Island is the chief home of this species in the Stewart Island area. With a reasonable knowledge of the outlying islets with the exception of Bench Island, I should say that there are probably more Dove Petrels and Whalebirds on Green Island than on all the others put together. The Whalebirds begin laying in the second week in November.* At the end of November the earliest Whalebird chicks were beginning to get their feathers while the Dove Petrels were still laying. We found many cases where the Dove Petrels had cleaned out burrows deserted by Whalebirds, scratching the addled eggs on to the surface of the ground outside. By the checks we were able to make it seems certain that the number of these two birds on Green Island is of the order of millions. There were large areas of the island where the average density of the burrows was over one per square yard. Two hundred acres so populated gives about a million nests.

[*This should be September.]

Twice we saw huge aggregations of these birds in the late afternoon. On calm evening just before sunset they came from the open sea into the channel between Green Island and Ruapuke. They swept past the point below our hut in a stream a quarter of a mile wide and so dense that we estimated that from fifty to one hundred birds were passing per second. This flight lasted for half an hour, by which time there were great rafts of birds scattered over the channel. Later, in the dusk when these flocks took flight it was like huge clouds of smoke drifting over the sea. Through field glasses each flight was an indescribable jumble of flashing white underparts and darker backs.

On another afternoon when a heavy wind got up suddenly, the birds again traded round this point, the nearest of them not twenty yards from the shore. Here we could separate the two species, and we arrived at the conclusion that there were about twenty-five dove petrels for every whalebird. But there is no certainty that this is the proportion in which the two species nest on the island. Actually I came away with the idea that there were probably about twelve dove petrels' nests for every whalebird's.

(I have used throughout the name "Whale bird" for *P. vittatus* as I have no doubt that it was the profile view of its head that gave this bird its very appropriate trivial name, and not its association with whales. The Dove Petrel (*P. turtur*) too, received its trivial name from its appearance and not from any association with doves.)

RARE WADERS IN THE FIRTH OF THAMES. By R. B. SIBSON.

On October 27, 1941, on the west side of the Firth of Thames, I was able to visit at full tide, a shingle bank where waders were known to assemble. To my surprise, since it was the middle of their breeding season in Canterbury, a party of Wrybills (*Anarhynchus frontalis*) (22) was still present. They behaved with the tameness which they customarily show at their high tide roosts and so I was enabled to view at a distance of a few yards a Curlew Sandpiper (*Calidris testacea*) and four Red-necked Stints (*Calidris ruficollis*) which were associating with them.

Although of much the same size as the Wrybills, the Curlew Sandpiper stood out at once by reason of its decurved beak, longer legs and browner grey. It was a pale bird, almost white underneath and brownish grey above, with no outstanding plumage features except a white eye stripe. When it flew among the Wrybills it was not easily picked out, and I found it difficult to see the diagnostic white rump. Judging from its colourless plumage I should say it was a bird of the year. This would seem to be the first record of Curlew Sandpiper for the North Island.

Of the Stints, two showed distinct traces of red about the neck, and were, I imagine, adults not completely moulted out of breeding plumage. The other two were much paler and were probably birds of the year. In size they were midgets, even beside wrybills.

On November 9, Messrs. H. R. McKenzie, J. St. Paul and I visited the same shingle bank again at full tide and found eighteen Wrybills and presumably the same four Red-necked Stints present. The Curlew Sandpiper had gone.

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At Easter, 1942, Messrs. H. R. McKenzie, P. H. Wood and I camped at Miranda for the purpose of observing waders. On April 6 full tide found us strategically placed on the shingle bank mentioned above. At one end were about 130 South Island Pied Oystercatchers (*Haematopus ostralegus Finschi*)—among which was an albino—at the other a flock of Wrybills, estimated at 700 on the average of three independent counts, and with them two Red-necked Stints. Both of these were in almost full breeding plumage with richly mottled backs and wings and well developed red neck bands. Excellent views were obtained at less than ten yards, and a thin, weak note "chit-chit" was heard.

On April 5, a visit was made to the flats at the mouth of the Piako River. Stilts, Godwits, Knots and a few Wrybills were crowded together on the narrow strip of mud left between the tide line and the salicornia. The stilts and wrybills were very passive, but the restive Godwits and Knots quickly took wing and flew about. Clear above the chatter of the Godwits came the rippling call of a Whimbrel (*Numenius phaeopus* ? *varegatus*). The call was repeated several times and it is possible that more than one bird was present. I had one good view of a Whimbrel in flight with some Godwits, and had the impression that it was a little larger in the body than they. The decurved beak, of about the size of the beak of a female Godwit, was very distinct. There are few, if any, records of Whimbrel for the mainland of the North Island.

A Curlew (*Numenius cyanopus*) was seen on three successive days—on April 4 and 6, just south of Miranda; on April 5, at the mouth of the Piako. There should be no mistaking this large curlew. We first heard its call, a slow, deliberate “ker-woik,” and as it flew leisurely past us, its massive decurved beak, hardly less than 7in. in length, put identification beyond doubt. In flight with Godwits it appeared twice their size. It was a restless bird, flying up and down the shore when the tide was full, and sometimes disappearing out over the waters of the Firth, only to return again shortly. It would temporarily join any passing flock of waders, Godwits, Knots or Stilts, but would quickly leave them and go off alone, uttering its melancholy call.

SOME OBSERVATIONS ON BLACK-BILLED GULLS (*Larus Bulleri*) by R. B. Sibson.

The Rotorua lakes or some of them have long been known as the only breeding place of *Larus Bulleri* in the North Island. The following observations show that:

- (a) There may be an odd pair nesting away from the volcanic plateau;
- (b) There is a definite migration from some undetermined locality to the coast—certainly of the Firth of Thames and perhaps of the Bay of Plenty.

BAY OF PLENTY.—On September 8, 1940, W. Ridland and I saw a pair at the mouth of the Rangitaiki River. They showed territorial

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aggressiveness and tried to keep the sand spit which they were occupying, clear of Red Billed Gulls. Shortly afterwards another pair was seen at the mouth of the Tarawera River, and on the next day, a pair was noted at Matata Lagoon. These places are not far from the headquarters of *Larus Bulleri* on the volcanic plateau. It seems possible to explain the presence of these gulls in these places in one or two ways, either:—

- (a) They were outlying breeding pairs extending the range from the Rotorua colony, or
- (b) They were birds which had wintered on the coast and had not yet returned to their breeding grounds.

FIRTH OF THAMES.—Considerable numbers winter here. They were first noticed on August 3, 1941, when between 250 and 300 were present, the tide being full, at the mouth of the Miranda Creek. All observations since have been made at the mouth of this creek near full tide. When the tide is out it is difficult to see any at all, as they evidently feed out over the main waters of the firth. As spring advanced their numbers steadily declined. With the approach of winter, Black Billed Gulls have reappeared in the same place. The following counts have been made:—

1941: Aug. 3, 250–300; Oct. 12, 160; Oct. 27, c. 50; Nov. 9, 10 plus; Nov. 30, 15; Dec. 31, nil.

1942: Jan. 12, nil; Feb. 8, nil; March 8, nil; April 4, 14; April 6, c. 100.

The sudden increase between April 4 and April 6 is probably explained by the arrival of birds from their breeding grounds, coinciding by good luck with a time when they were under observation.

It is interesting to speculate upon the origin of these Black Billed Gulls in the Firth of Thames. It seems probable that they came from Rotorua. If this is so the Rotorua population must run into several hundreds. On September 9 and 10, I counted about 200 Black Billed Gulls in the evening on the rocks behind the Ward Baths, and by day a few birds had been seen at Hamurana Springs and Okere Inlet, and two pairs at Rotomahana. Yet, on October 12, 160 or more were still present at Miranda. Confirmation of a movement away from Rotorua comes from Mr. C. A. Fleming who was at Rotorua in mid-April, 1941. He says that of 135 gulls counted, only 8 were Black Billed. In all, there were 400 or more gulls but no higher percentages of Black Billed were noted.

I have been told that there is a small and rather inaccessible lake on Tongariro where "small" gulls nest. These might well be *Larus Bulleri*, and if so, they might be expected to winter in the Firth of Thames or the Bay of Plenty.

Lastly, in view of the fact that the Firth of Thames is a favourite wintering place for many South Island birds, e.g., Wrybills, Oystercatcher and probably Stilts, the possibility must not be ruled out, that some of the South Island Black Billed Gulls also find their way there.

9.

NOTE ON BIRDS OF THE TAUPO DISTRICT. By K. A. Wodzicki.

The undersigned spent in the beginning of March 5–12 March, 1942 some time at Full James Fishing Camp; it is situated on the south bank of the Waikato River, within 10 miles of Taupo on the edge of the Kaingorea Plains. [Kaingaroa Plains.]

This country consists mainly of a scrub manuka forest, on poor volcanic soil, the left bank of the river chiefly being covered with large afforested areas of introduced pine trees. Another area some distance from Full James is also covered in this afforestation, and together these two afforested areas amount to several thousands of acres.

The Waikato River still retains at this point the character of a powerful mountainous stream, with many picturesque rapids. Further down, about 20–25 miles from Taupo this river comes into a flat type of country, slows its current and forming large belts has more suitable swampy conditions for many water and wader birds. Finally, 7 miles south of Taupo there are the famous Rotokaua Sulphur Fields with the Rotokaua Lake.

The bird life in this district is largely connected with these various biotops forming thus in an area of a few miles distance very different ecological conditions. Our outings covered a radius of about 10 miles along the Waikato River or to the south, and also in other directions. The following is a list of birds observed in the above-mentioned various areas of that territory:—

A.—MANUKA AND AFFORESTED AREAS.

1. CALIFORNIAN QUAIL (*Calipepla californica*).—Especially well adapted to the manuka scrub forest country, keeping close to roads or other open spaces. Along 5–6 miles of road there were 4 parties of 8–12 each, including both adults and some of the juveniles already flying. They frequently visit the roads and Full James Camp was regularly visited by one party in the morning; they seem to keep to their respective territories.
2. NEW ZEALAND HARRIER (*Circus gouldii*). Whilst plentiful close to Lake Taupo, less abundant in this region. However, saw 4–5 birds within a 10 miles radius of Full James.
3. PIPIT (*Anthus novaeseelandiae*). Ranks third in this district. Especially abundant close to open roads, firebreaks and other cleared spaces. During a half-day tramp at least 30 birds observed.

4. GREY WARBLER (*Gerygone igata*). Is much less abundant; no more than 6-7 birds observed during the trip mentioned above. Noted a very incomplete melody of song as compared with birds in Wellington district at the same time of year.

5. NORTH ISLAND TIT (*Petroica toi-toi*). Scarce; only two birds seen.

6. PIED FANTAIL (*Rhipidura flabellifera*). This form of the fantail represents one of the most numerous species in the manuka country. Mostly in small flocks of 5-7 birds including several juvenile. More abundant in small gulleys and close to the Waikato,

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but plentiful elsewhere; in one day's tramp about 50 birds were observed.

7. WHITE-EYE (*Zosterops lateralis*). Comes next in numerical order, moving everywhere in small parties.

8. BELLBIRD (*Anthornis melanura*). Saw one adult and one young bird, but about 4-5 birds within a radius of 10 miles still singing, some of them inside the edge of afforested areas.

9. CHAFFINCH (*Fringilla coelebs*). Is scarce in the manuka country but rather plentiful in afforested areas, which forms one of its favourite haunts on the Continent.

B.—WAIKATO RIVER AND ROTOKAUA LAKE.

1. BLACK SHAG (*Phalacrocorax carbo*). Is fairly plentiful; every day 5-6 either roosting or flying along the river to and from Lake Taupo, and also saw several on Lake Rotokaua.

2. WHITE-THROATED SHAG (*Phalacrocorax brevirostris*). One odd bird seen.

3. PARADISE DUCK (*Casarca variegata*). One pair on Puete River estuary but without young.

4. GREY DUCK (*Anas superciliosa*). Several birds flying along the river every day; about one hundred birds, both adults and juvenile on Rotokaua Lake; most of them in moult, but very cautious like the Paradise Duck; probably a lot of shooting is going on.

5. SHOVELLER (*Spatula rhynchotis*). About 100 birds on Lake Rotokaua, though for the great distance this record must be considered as probable only.

6. BLACK SWAN (*Chenopsis atrata*). Rather scarce as only 8 birds observed on Lake Rotokaua.

7. BITTERN (*Botaurus poiciloptilus*). Single bird on Puete River estuary.

In concluding these few field observations, I wish to stress the following points which may be of interest from a more general viewpoint. Of the 17 species of birds observed in this part of the Taupo district six only belong to introduced species and only two of them—the White-eye and the Californian Quail—seem to find suitable conditions in the primitive manuka scrub forest and are represented in respectively larger numbers. And finally, besides the presence of more or less ubiquitous Harrier and some of the water birds, the Fantail and the Pipit are the two species which seem best adapted to these peculiar ecological conditions.

NOTES ON CUCKOOS. By B. J. Marples.

In addition to the two common New Zealand cuckoos, the Shining Cuckoo (*Lamprolaima lucidus*) and the Long-tailed Cuckoo (*Urodynamis lucidus*) Oliver in his "New Zealand Birds" mentions a single occurrence of an Oriental Cuckoo (*Cuculus optatus*) at Te Anau in 1902. On September 17, 1951, a specimen of the Pallid Cuckoo (*Heteroscenes*

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pallidus was sent in for identification from Craig Flat, on the banks of the Molyneux River some five miles above Beaumont. It was a male weighing

84 grms. The following are its measurements in millimeters: Wing 191, tail 162, tarsus 19.0, toe 24.5, culmen 22.0, testes, right 4.0x3.0, left 5.0x3.5. Scattered contour feathers were in moult. Its stomach contained 28 black hairy caterpillars and 4 others, and a few earthworms chaetae. No internal parasites were found.

This is apparently the first record of a straggler of this species reaching New Zealand, but more interesting is the history of this bird as supplied by Mrs. Adams, the sender. It had been seen about Craig Flat for three years, but seemed to carry out a seasonal migration, as it appeared before May and departed about October, only to return again next autumn. In spring it whistled and would approach quite close if replied to. If it was moving south for the breeding season, as one would expect, it is curious that it should have established its winter quarters towards the south of the South Island. In flight it is described as having a gliding action, scarcely moving its wings, and was not observed on the ground as it habitually perched on the tops of posts. In general appearance it is a grey bird, about 13 inches long, with a long tail.

Another isolated straggler which has apparently not been previously recorded is a specimen of a Channel-billed Cuckoo (*Scythrops novaehollandiae*). This is a large bird, about 2 feet long, with a massive downwardly curving bill. It is grey with a large conspicuously barred tail. The specimen is in the Otago Museum and was presented by Mrs. Thompson, of Invercargill, in December, 1924.

A record of a young cuckoo reared by thrushes was made by Miss Sadler, of Thames, in September or October, 1940. The cuckoo was seen to remove an egg from the thrush's nest, fly off carrying it in its beak and drop it on the ground. It was then seen to carry its own egg from the ground and put it in the nest, the actual laying of the egg not being observed. The egg resembled those of the thrush. The thrushes hatched before the cuckoo. One morning all three thrushes were found out of the nest, one being dead. The two live ones were replaced but next morning they were both out again and were dead. The cuckoo was reared by the foster parents. The observer was uncertain as to the species of the cuckoo but thinks that it was a Long-tailed Cuckoo as it was about as large as a thrush.

A Pallid Cuckoo has also been seen by Dr. Falla at Okarito in December, 1941, and by E. L. Kehoe at Greymouth in March, 1942.

B U L L E T I N
of the
ORNITHOLOGICAL SOCIETY OF NEW ZEALAND.
NUMBER III. YEAR 1941-42.
Issued October 24th.

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MEMBERS OF THE SOCIETY.

The initials in front of the names indicate those members who have contributed short notes for this bulletin.

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A. B. Deeming, Opuā.
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2.

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- 3.
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- E.C.S. E. C. Studholme, Te Waimate, Waimate.
K. Thompson, Huia Dam, Huia.
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R.H.T. R. H. Traill, Half Moon Bay, Stewart Island.
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- H.T.W. H. T. Wenham, Durham St., Levin.
A. S. Wilkinson, Kapiti Island.
Mrs. A. S. Wilkinson, Kapiti Island.
S. Wilkinson, Paraparaumu Beach, Wellington.
Major R. A. Wilson, Lethenty, Bulls.
- K.A.W. Dr. K. A. Wodzicki, Consulate General of Poland, Box 280,
Wellington.

P.W. P. Wood, Tuki Tuki, Colville.
Mrs. I. Woodhouse, Blue Cliff Station, St. Andrews.
Major G. F. Yerex, Army Headquarters, Wellington.

INTRODUCTION.

This, the third and final bulletin for the year 1941-42, contains the short classified notes which have been received during the year. In many cases it is only possible to publish short summaries of the notes which were sent in, but these are filed and will be available in future and may become very valuable. As was recently stated by Dr. Serventy, "well prepared and frequent local lists, even from well-known areas, can be rich mines of material." Some of the longer notes are being held over for inclusion in later Bulletins.

The attention of members is specially directed to the article in this Bulletin dealing with daily note-taking. It is so easy to take a general interest in birds but to make only vague and unsystematic notes, or none at all. If, however, a scheme such as this is carried out, everyone, no matter how busy they are or where they live, can collect interesting and valuable information without interfering with their ordinary affairs in any way. Even those who are in the habit of making notes will find that the adoption of such a system adds greatly to the accessibility and value of their records. The object of our Society is to carry out field work on birds and every member can take an active part. No bird is too common to be worthy of attention.

Attention is also drawn to the special investigations. The response of members to these has so far been disappointing. Make sure that any contributions which you can make, positive or negative, reaches the organiser. If you can observe banded dotterel or dabchick, or collect information from others about them, please do not fail to do so and to send it in. Early laying dates and clutch sizes, especially of introduced birds, are requested by the organiser of the clutch size investigation (Dr. Falla) and a further statement on the breeding season inquiry is included in this Bulletin. Get the habit of observing, counting and making notes, and send them in. The nesting season has begun and now is the time to look out specially for data for these investigations or to try out for oneself a system of daily

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song or other activity records.

Membership still continues to increase and the thanks of the Society are due to those members who have obtained new recruits. Still more are needed and everyone is urged to get as many as possible.

It is highly desirable that as soon as circumstances and finances permit, we have our Bulletins printed instead of typed. The advantages of having a printed periodical are obvious, and it would no doubt attract a considerable number of new members. It has consequently been decided to open a special "Publication Fund," and contributions are invited to it. Since the Society was founded a total of £12 5s. has been donated, and this will form the nucleus of the fund, to which future donations and perhaps a proportion of each subscription will be added. Of this sum, £9 has been donated, since the appeal was made in the June report, by the following members to whom acknowledgment with the thanks of the Society is made: Miss Baker, 5/-; Mr. T. Cockroft, 10/-; Mr. A. B. Deeming, 5/-; Mrs. C. A. Fleming, 5/-; Dr. Gribben, 15/-; Mr. W. Knight, 5/-; Mr. R. H. D. Stidolph, 10/-; Major R. Wilson, £5; Dr. K. A. Wodzicki, 10/-; Mr. P. H. Wood, 5/-; S/Lt. Allan, R.N., 5/-; S/Lt. Bull, R.N., 5/-.

REPORT OF MEETING.

The Otago Branch of the Royal Society decided to devote one of its monthly evening meetings to the O.S.N.Z. and the Secretary was invited to prepare a programme. The meeting was well attended and four new members joined shortly afterwards. After a general account of the field

study of birds and the aims and objects of the Society by the Secretary, three short communications were made, one on the nesting activities of a pair of blackbirds (I.T.), one on a detailed study of the development of blackbird nestlings (L.G.) and one on the annual periodicity of singing of the bellbird, grey warbler and fantail (B.J.M.). Mr. Richdale also spoke on the activities of the Society and showed a film of his field work at Stewart Island. There were also a number of exhibits, including some of the historical MSS. in the possession of the Society, a set of nests constructed by one pair of blackbirds in one season (I.T.), a map showing the starling and sparrow roosts of Dunedin (O.U. Biol. Soc.) and a home-made mechanism for recording on a smoked drum, rotated by a clock, the movements of a perch (B.J.M.). Subsequently this mechanism has been set up at a blackbird's nest and is at present making a record of the times at which the bird enters and leaves the nest during incubation.

REVIEW.

The *Emu*, Vol. XLII., pt. 1, July, 1942. This number does not contain any papers from New Zealand, but one, "Photography in the Swamps—The Marsh Crake," by C. E. Bryant, deals with a bird which is found in this country also. A paper, "Petrel Notes from Western Australia" by F. L. Whitlock and H. M. Whittell, dealing with the bodies of petrels cast up on the beaches, will be of interest to members who have a chance to pursue this line of study. It is to be hoped that all members who find specimens in this way will endeavour to identify and measure them.

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(instructions will be sent on request), and if at all unusual to send them in to one of the museums for expert examination. Another paper of interest is "The Winter flocking of the Pied Currawong" by N. J. Roberts. This deals with an Australian species, but as an account of flocking habits it will be useful to anyone interested in this aspect of bird life.

PHOTOPERIODICITY INVESTIGATION.

The following remarks may give to the members of our Society a more adequate picture of the proposed study of photoperiodicity in New Zealand birds, than the short note published in the Second Annual Report of 1941.

For many years the close relation of the sexual activities of birds and of the amount of light, i.e., the length of the day, has been known to poultry-breeders. An investigation, published in 1930 by a member of the staff of the School of Agriculture, University of Cambridge, gives us an enlightening survey of the changes in maximum and minimum egg production in poultry in different countries of both hemispheres according to the changing length of daylight. Poultry-breeders have made many attempts in the past to obtain a higher yield in eggs, especially in winter months by introducing artificial light.

Due to the work of two American scientists, Professor Rowan, of the University of Alberta, Canada, and Dr. T. H. Bissonette, of Trinity College, Hartford, Conn., many facts of the greatest interest for ornithologists have been made known. By a prolongation of a quarter of an hour daily, by means of an adequate electric light, they were able to produce a significant change in the size of the testicles in different birds, and later even in some mammals such as the ferret. In experiments performed in severe climatic conditions of the North American winter, they were able to obtain there as early as January, testicles of a size normally found at the end of April or in May. Later, Rowan found similar conditions in London starlings roosting in the city on account of the street lighting having the same effect as prolonged daylight. These phenomena are explained as follows:—The light acts through the eyes on the anterior lobe of the pituitary, thus inducing the latter to produce the gonad stimulating hormones.

Simultaneously, Dr. Pontus Palmgren, an ornithologist of Helsingfors, Finland, was able to make the following very interesting observations on

some birds of his country which is situated between 60 and 70 degrees of North latitude. Watching the activities of several birds according to a specially elaborated method, both at Helsingfors (60° 9 mins. of Northern latitude) and at Petsamo (69° 25 mins. of Northern latitude) in the arctic north, where the daylight lasts almost 24 hours over a period of more than a fortnight, he found interesting differences in their behaviour; in the latter place the birds were singing for nearly 24 hours, with only a short interval of rest of one to two hours in the afternoon. The tremendous amount of light during the Polar day thus reduced the normal rest per night to one or two hours. It was also stated by Rowan, Bissonnette and Palmgren that the factor of light, playing such an important part on the fertility, may also have some effect on the migration of birds.

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In his letter to me of September, 1941, Professor Bissonnette made the following remarks:—"Of course there (i.e. in New Zealand) is much work to be done regarding photoperiodicity in birds and mammals. Each species should have its type of reaction known so that a broad view of the causes behind the correlation of cycles with seasons can be known, and normal cycles of gonadal activity must be known first. So I feel there is much you can do in this matter even if experimental work is impossible at first." In another letter he said, "I was greatly interested in your letter of December 17th and the outline of observations for your collaborating with field observers. The plan is very inclusive and will furnish much-needed data on any species. Is any bird banding done over there to learn of possible migrations of native or introduced birds? Apparently we have two different strains of Starlings in America now, just as they do in England, a migratory or visiting population and a fairly stationary or local strain. They are said to differ in amount of body-fat during winter . . . and perhaps the two strains may be with you. . ."

It is obvious that this country, owing to the long shape and similar climate of the two islands, is especially suitable for this investigation.

This investigation consists of field observations on three species, the White-eye (*Zosterops lateralis*), the Blackbird (*Turdus merula*) and the Thrush (*T. ericetorum*). It would be most desirable to have field observations simultaneously from Auckland or north of Auckland, Wellington, Christchurch and Otago or Southland districts on all these species. Observations on the same lines on any other native or introduced birds will also be welcomed.

Any members who would like to assist Mr. C. A. Fleming and the undersigned in this investigation, are asked to write to the latter. Address: Care Consulate General of Poland, Wellington, when they will be supplied with further information and the necessary simple forms for field observations.

K. A. WODZICKI.

DAILY NOTE TAKING, by J. M. Cunningham.

J. M. Cunningham, R. H. D. Stidolph and S. B. Yelverton are carrying out a system of classified note taking which has much to commend it. It provides, at the expenditure of 2 or 3 minutes daily, a complete check on any regular habits which are of any interest, and has already disclosed information of great interest. It is the presence of and song of birds in relation to the weather and season which is the object of the study, and from the form of the notes it is easy to say, for example, when the first and last seasonal songs of each bird were, etc. Many members no doubt note the occasion of the first song but it is rather difficult to do so in the case of the last, unless one notes each day a song is heard. That is our principle. The desire to get full results also helps to sharpen one's perception, and not let any small event pass and after a time listening and watching while outside, becomes an involuntary habit.

A fair sized sheet is used with $\frac{3}{8}$ in. squares printed on—35 horizontally, one for each day of the month and one for each of 4 weekly

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summaries the full value of which has not yet been exploited, but when combined consecutively with the next year's should indicate visually any important differences. Vertically there are a varying number, depending on the number of birds under observation. Most birds require more than one line. In the case of J.M.C., the blackbird has 4: one for "sub," one for "part," one for "full" song, and one for additional (and variable) notes. If, for example, a full song is heard, a cross is made in the full song line under the date in question. In the 4th line, information such as fighting, moulting, etc., is entered by means of letters—"f.m.f." for "fight, male versus female," etc. The presence of blackbird is not entered in this locality as it is constant, but if it varied a line would be required for "presence," as the thrush and most others. Distinction is usually made between part and full song, "part" being generally a short or incomplete "full" song. This is noticeable in the case, e.g., of the chaffinch; in the case of the blackbird a sub song line is also necessary.

J.M.C. uses two coloured pencils: a blue one to denote "regular," a red one for "occasional" events, and the two in conjunction for "several." "Occasional" is taken to mean one or two odd songs or perhaps the bird was seen to be present once or twice a day, and several and regular explain themselves. In this form it is easy to read the results—to take a perfect but imaginary case. For the first week the "presence" line was blank. Next week there are several red crosses in this line. Third week sees blue crosses in this line and also there are red crosses in the "part song" line. These become more frequent, changing to blue, and moving into the "full song" line. The explanation is that the bird, which was at first absent, is coming round more frequently, becoming a resident, and that it gradually sings more as time goes on. Perhaps it may also be found that moulting is ending as the song commences. In any case, the sequence is clearly portrayed. If you want the date of the first real regular song, look for the first blue cross in the full song line and similarly with last song, first fight, etc.

N.B.—A second method, carried out by R.H.D.S. and S.B.Y., is to put letters instead of crosses in the squares and then one or two lines is enough for each bird, e.g., P for present, F.S. for full song, P.S. for part song, etc.

Once the information is all there it is possible to make a summary of it. Here in Masterton, a period is about to end and a summary has been made for the preceding three months, the results of which are given below. The next period will commence in July and is expected to include the first songs of the blackbird and others.

One or two lines are reserved for weather notes—in a rough form. R for rain; D, dull; S, sunny; C, changeable (includes rain and sun); H, hot; W, warm; T, temperate; C, cold, and this is sufficient to give a general picture, i.e., there may be a warm week which causes certain birds to sing out of season, or perhaps to fight.

The table is not intended to supersede other notes, but to have a space to note each event instead of writing in full and perhaps missing it. J.M.C.'s chart concerns only birds in his garden and the other notes are made on the way to work and school, thus covering a fair area. Anyone interested is invited to write to J.M.C. for any additional information and a sample completed chart will be sent on request. Suit- (Owing to lack of space in this Bulletin, it has been necessary to hold over the report mentioned above, and it will appear in the next issue.—Eds.)

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able paper can be obtained here at a small cost.

SUMMARIZED CLASSIFIED REPORTS.

NORTH ISLAND KIWI (*Apteryx mantelli*).—Heard 18 miles north of Waipu, in the Takahewai hills; also in the Kukumui hills nearby, where residents frequently see them. (W.S.) Moumoukai, Clevedon: Last one

seen 1914. Call heard up to 1916. Influx of stoats through temporary plague of rabbits probably to blame for extinction in this area. (J.W.St.P.)

LARGE GREY KIWI (*A. haastii*).—Several caught in opossum traps at Ikamatua, Westland, Sept.-Oct., 1941 (R.A.F.)

LITTLE GREY KIWI (*A. owenii*). Specimen with injured leg found at Camerons, Westland, and photographed by Mr. Mitchell, Sept., 1941. (R.A.F.)

KIWI (*A. sp.*)—Reported heard during the past year at Waihoa, Westland. (R.A.F.)

VICTORIA PENGUIN (*Eudyptes chrysocome*).—Adult ashore Birdling's Flat, ready to moult, 7/4/42. (R.A.F.)

CRESTED PENGUIN (*E. pachrhynchus*).—Messrs. Welman and Willett, of the Geological Survey, report (presumably this species) abundant between Paringa R. and Big Bay, Westland, Sept., 1941. In fresh plumage, singly or in small parties, encountered about 4 per mile, from the coast to 50 feet altitude, some at old nest sites with broken egg shell. Nesting observed as far north as Paringa in other seasons. Nest sites open in the bush. (C.A.F.)

BIG CRESTED PENGUIN (*E. sclateri*).—One adult moulted in sandhills, South Brighton, April 14—May 12, 1942. (R.A.F.)

LITTLE BLUE PENGUIN (*Eudyptula minor*).—Kapiti Island, 31/1/42. Several pairs have already completed the moult, as seen from many moulting places. Two well grown chicks. (K.A.W.) 13/2/42. One found at New Brighton Beach. (R.A.F.)

WHITE-FLIPPED PENGUIN (*E. albosignata*).—Normal breeding season on Banks Peninsula. (R.A.F.)

CRESTED GREBE (*Podiceps cristatus*).—Kanieri Lake, pair reported. Hans Bay, L. Wahapo, about 10 birds mostly in pairs on the lake. L. Ianthe, 1 pair. L. Mapourika, reported abundant. Nov., 1941. (C.A.F.) L. Gunn, Eglinton Valley, early Jan., 1942, pair with 2 young. (I.T.)

DABCHICK (*Podiceps rufopectus*).—L. Brunner, reported rare. Kanieri, 1 pair seen. L. Wahapo, 2 pairs. L. Mapourika and L. Wombat, reported. Nov., 1941. (C.A.F.)

WILSONS STORM PETREL (*Oceanites oceanicus*).—Mata, Whangarei. Bird seen, apparently this species. (W.S.)

SILVER GREY PETREL (*Priocella antarctica*).—Fresh plumaged immature bird picked up dead on New Brighton Beach, 5/6/42. (R.A.F.)

GIANT PETREL (*Macronectes giganteus*).—The following number of birds was observed at Ngauhauranga, Wellington Harbour; 1, 2, 1 and 3 on 21/9/41, 28/9/41, 19/10/41 and 18/4/42 respectively. (K.A.W.)

9.

FAIRY PRION (*Pachyptila turtur*).—Two corpses on the beach near Waikanae Estuary, 21/9/41. (K.A.W.)

FLESH-FOOTED SHEARWATER (*Puffinus carneipes*).—Ponui Islands, east, 15/3/42, about 12 flying about and resting on water. (T.M.R. and H.R.McK.)

SOOTY SHEARWATER (*Puffinus griseus*).—Ponui Islands, east, 15/3/42, one plainly seen, probably others in the distance. (T.M.R. and H.R.McK.)

SHEARWATER (*P. sp.*).—Many about the lower reaches and entrance of Whangarei harbour, where they rob Caspian and white-fronted terns and red-billed gulls. I have seen black-backed gulls rob the shearwaters. In rough easterly weather many come into the harbour, especially if it is misty. This was noted during several summers but I do not know if they are in the harbour in the winter also. The smell of shark liver attracts them from half a mile away. They fight frantically for it, even grasping the feeder's fingers if they are near the water. Hence they are easily

caught, but bite strongly and savagely if they are. They dive as deep as five feet for shark flesh but rarely eat it. They use both wings and feet in diving, the wings being in a half-closed position. They are frequently seen at night, but are then shy. (W.S.)

FLUTTERING SHEARWATER (*P. gavia*).—Clevedon, between Pahiki I. and mainland, 18/5/42, at night. Several hundreds, scattered singly and in loose groups up to 15 or so. One dazzled with the torch and caught by hand from boat. (H.R.McK.). Not seen in Hauraki Gulf this year till 3/7/41. (P.H.W.) 30/1/42, 5 birds in flight between Kapiti I. and mainland. (K.A.W.) 26/5/42, odd birds off Motunau I., N. Canterbury. One specimen from N. Brighton, 5/6/42. (R.A.F.)

SHORT-TAILED SHEARWATER (*P. tenuirostris*).—Since the mutton bird of the Bass Strait does not seem to be often recorded, the following may be of interest. On May 6, 1941, at North Kiapara Heads, I watched one come ashore but exhausted. Its measurements were: Wing 245, tarsus 43 and culmen 33mm. There were other mutton birds over the surf some of which may also have been *P. tenuirostris*. On the next day a second specimen was found dead: Wing 365, culmen 32 mm. On May 20, 1942, the remains of 7 of these birds were found along less than a mile of the beach at Te Henga; and on May 21, three more were picked up on the southernmost mile of Muriwai Beach. Of the ten found, two were comparatively fresh. The death roll along the west coast of N.Z. of migrating *P. tenuirostris* had evidently been heavy. It has, therefore, been possible to obtain measurements altogether from 12 birds. Wing, average of ten, 260 mm, limits 245–275. Culmen, average of eight, 33 mm, limits 32–34. Tarsus, average of nine, 47 mm., limits 45–51.

MOTTLED PETREL (*Pterodroma inexpecta*).—Ponui I. east, 15/3/42, about 15 grey coloured birds, larger than red-billed gull, short hooked beak. Feeding by fluttering along the water for 200 yards or so, then flying back and repeating. Falling into the water to secure food. Feeding against the wind, working singly. Museum specimens examined to confirm identification. (T.M.R. and H.R.McK.) 4/4/42, four off Ponui I., feeding. (T.M.R.)

10.

WANDERING ALBATROSS (*Diomedea exulans*).—Three juveniles in fresh plumage, one with slight down still adhering, found alive at Springston, Coalgate and Woolston respectively, 14/2/42. (R.A.F.)

CHATHAM ISLAND MOLLYMAWK (*Thalassarche cremita*).—Body of adult picked up at Rakaia Mouth, 16/2/42. (R.A.F.)

BLACK SHAG (*Phalacrocorax carbo*).—Mata, fairly common, often seen catching flat fish in the tidal creek at low water. Several small roosting places about on pines and macrocarpas near Whangarei Harbour. About 40–60 on the western side of the harbour. Nesting place on the eastern side, no large colonies. (W.S.) Castlepoint: 5/4/42, two or three. (J.M.C.) Still numerous on Lake Ellesmere. (R.A.F.) 4/10/41, one seen circling over Waiouru Swamp. Seen at Tokaanu, 24/10/41. (H.L.S.). In Wellington Harbour and up the west coast to Waikanae River Estuary, rather scarce. Thus in Port Nicholson, the total number seems hardly to exceed 10–12 birds. On Porirua Harbour numbers not exceeding 8–10 observed several times roosting; finally the Waikanae Estuary, visited nearly every month, shows different numbers, probably including some of the visitors from Kapiti and other estuaries, but not exceeding 30 birds. Small flocks were observed during visits to the following estuaries: Otaki Mouth, 22/3/42, 10 birds; Ohau Estuary, 19/3/42, 21 birds; Buller's Bush Lake, 8/11/41, 7 birds. Seems to be scarce in the Tararua Range valleys. One adult bird, Otaki Forks. Pretty common on the Waikato R. below Taupo, 4–7 shags a day, March, 1942. (K.A.W.). Small numbers generally distributed in Taramakau-Hokitika district, Oct.–Nov., 1941. Bird with flank patches above Springfield, 21/10/41. (C.A.F.) 20/5/42, Taieri Mouth. One with thigh patches and two without. (B.J.M.) Occasionally fly up Kaiwarra Stream, Karori. Waikanae Mouth, 5/7/41, and 9/8/42, 6–8.

21/9/42, 17 (A.K. and C.A.F.) Masterton, 5/5/42, 3 seen flying over. (R.H.D.S.)

PIED SHAG (*P. varius*).—Mata, Whangarei, 8% of Swanee River colony, approx. 12 birds. (W.S.) Ponui I., 4/4/42, young birds at the colony on N.E. corner scattered and learning to feed themselves. 100 approx. including a few young at a colony at Waiheke I., near Thumb Pt. (T.M.R.) Colony on N.E. corner of Ponui I., 15/3/42. About 130 young birds, well grown, taking practice flights in groups. No adults. (T.M.R. and H.R.McK.)

LITTLE BLACK SHAG (*P. sulcirostris*).—Mata, Whangarei, rare; 6–8 at Swanee River Colony, none elsewhere. Nesting place unknown. (W.S.)

LITTLE PIED SHAG (*P. melanoleucus*).—From mouth of Clevedon R. to Kawakawa Bay (about 4 miles) and out to Pahiki I., single birds and parties frequently seen. Largest parties 17 and 20, usually 5–10. Certainly over 20 birds in this area, very probably 30. All pure white-throated type, no odd colours seen. Never more than three little pied type seen at once, possibly the total here of this type. All pure type. (H.R.McK.) White-throated type generally distributed in Westland, Oct.-Nov., 1941. No white-breasted birds seen. (C.A.F.) Tokaanu, 24/10/41. Several seen. (H.L.S.) Mata, Whangarei. Swanee R. colony about 36 little pied (24%) and 50–60 white-throated (35%) in dense mangroves. Many white-throated with very undefined markings. Crayfish nippers left on the bank. (W.S.) L. Gunn, Eglinton Valley, Jan., 1942. (I.T.) Single white-throated bird on Waikato R., below Taupo, 8/3/42. (K.A.W.)

11.

SPOTTED SHAG (*Stictocarbo punctatus*).—Oamaru, 29/5/42. At least 1000, probably more, roosting on the breakwater. About 50 there at 15.00 and parties of up to about 20 arriving all afternoon. Between 16.40 and 16.45, 127 birds were counted alighting, and there were about 1000 there already. When disturbed they entered the water in a dense mass, and then flew away gradually in flocks round the headland. (B.J.M.) Adult female in nuptial plumage found at New Brighton 20/8/41. Number of immature birds noticed on the beaches near Christchurch 28/2/42. (R.A.F.) Colony on N.E. corner of Ponui I., 15/3/42, 10–12 among 130 young large pied, from three-quarters to full grown, about 2 of them possibly adult. (T.M.R. and H.R.McK.)

GANNET (*Morus serrator*).—Islands off Colville, Coromandel, 27/8/40 about one nest in three occupied; eggs but no chicks. Adorning nests with seaweed, etc. 25/11/40, One egg unhatched to every 20 or 30 nests. Oldest young losing the last of the white down, approx. full grown. 5/1/41, Very few unhatched eggs. Older chicks showing white on the breast and neck. 27/4/41. Only 2 young left, almost ready to fly. 24/5/41. Rocks deserted, no birds seen flying. 2/7/41. Returning to gulf. Patrolling the coast in small numbers. (P.H.W.) Castlepoint, 5/4/42, several seen. (J.M.C.) Feeding off shore, Port Nicholson, 20/9/41 single odd bird, and 19/10/41, two birds. Nine birds fishing off Otaki Estuary, 14/2/42. (K.A.W.)

PARADISE DUCK (*Casarca variegata*).—Oct., 1941, 10 near Waitaki R. Few seen at Ahuriri Valley, Luggate, Wanaka and L. Johnson. (I.T.) Okarito, not plentiful. (N.F.) Waikato R., Kaingaroa Plains, 7/3/42, one pair. Waikanae Estuary, one female ashore with gulls, 22/3/42. Pair associated with domestic geese, 6 in flight, 14/6/42. (K.A.W.) Milford, Jan., 1942. Numbers seen. (I.T.) Several pairs on Waiouru Plains. Pair seen feeding on scoria country, Waiouru Desert, 23/10/41. Seen at Utiku, 31/10/41. (H.L.S.) Common everywhere in South Westland, Aug.-Sept., 1941 (Messrs. Wellman and Willett, per C.A.F.)

GREY DUCK (*Anas superciliosa*).—Hokitika-Taramakau district, Oct.-Nov., 1941, moderately plentiful. (C.A.F.) Waikanae R. mouth, 5/7/41, small flock; 9/8/41, several pairs; 23/11/41, only 1 pair seen.

(A.A.K. and C.A.F.) Fairly common in the whole Horowhenua district, Levin. (H.T.W.) Large numbers seen L. Ellesmere 15/11/41, but outnumbered by mallard in same area. (R.A.F.). Not very abundant in small watersheds and ponds near Waikanae R. and up north. 200 in flight, Waikanae Estuary, 22/3/42. Several hundreds Ohau Estuary, 19/4/42. Common, Horowhenua L., but scarce on Buller's Bush L., 10 only seen 8/11/42. Odd bird in Tararua Range, Otaki Forks, 31/12/41. Waikato R., Kaingaroa Plains, common, and 100 moulting on Rotokaua Sulphur Lake 8/3/42. (K.A.W.) Mata. At least 6 pairs on freshwater creeks, average of 6 ducklings a pair. Skull Creek, Feb., 1942, about 23; 18/4/42, 65-70; 19/4/42, 94-100; 26/4/42, 21 after very heavy rain; 3/5/42, 43; 2/5/42, 70. (W.S.)

BROWN DUCK (*Elasmonetta chlorotis*).—Okarito, formerly hundreds now none. (N.F.) Waipu-Whangarei district, Aug., 1941. None seen where hundreds were a few years ago. Probably away nesting. None on Skull Creek or in the surrounding gullies. None seen at sanctuary north of Waipu, Dec., 1941, or April, 1942. One heard at sanctuary, Dec., 1941. Many footmarks and one drake seen at Ruakaka. These birds have disappeared rapidly at Mata owing to fires and cattle and probably stoats. They are still scattered over the Ruakaka and Waipu creeks, but not in any numbers. (W.S.)

12.

SHOVELER (*Spatula rhynchotis*).—Several seen at Tokaanu swamps, 24/10/41. (H.L.S.) Okarito (N.F.) Scattered pairs on Lake Ellesmere, 15/11/41. (R.A.F.) Rare in Taramakau-Hokitika district, but reported from L. Ianthe. Waikanae R. mouth 23/11/41, 3 pairs, one drake attempting to tread duck. Recent floods had possibly destroyed first nests. On isolated pond 3 drakes alone, 2 later joined on disturbance by ducks from cover of banks, presumably had nests. (C.A.F.)

BLACK TEAL (*Fuligula novaeseelandiae*). — L. Brunner, 3; L. Wahapo, 20 or more; L. Ianthe, reported abundant, Nov., 1941 (C.A.F.). L. Gunn, Eglinton Valley, Jan., 1942. (I.T.) Okarito, decreasing. (N.F.) Oct., 1941, Kawarau Falls, 4 young; Queenstown and L. Hayes. (I.T.)

BLUE DUCK (*Hymenolaimus malacorhynchus*)—Two seen in Fox R. just below glacier, Aug., 1941, by Messrs. Wellman and Willett. Reported pair below Franz Josef Glacier, winter, 1942. (C.A.F.)

MALLARD (*Anas platyrhynchos*)—Thousands in sight from W. shore of L. Ellesmere, 15/11/41, majority males in eclipse. (R.A.F.)

CANADA GOOSE (*Branta canadensis*).—Matukituki district. Reported common, attacking the crops. (I.T.)

BLACK SWAN (*Chenopsis atrata*).—Hilderthorpe, N. Otago, 30/7/41, first heard this spring, flying south, 7.30 p.m. (C.W.McL.). Swans, presumably from the Wairarapa, make periodic visits to the waters of Wellington Harbour, and often choose a day when there is a hard south wind blowing. They come in flocks, varying from 6 to 18, and settle a mile or more from the eastern shore of the harbour then begin to swim south for several miles against the waves. Unfortunately, I have never watched long enough to see how far they go, nor have I seen them leave the water on their return. I can understand them coming down to the mud flats at the mouth of the Hutt R. to feed, where they are occasionally seen, but I cannot think of any reason, unless to cleanse their bodies of insects, for their long swim in rough water. Has this feature of swan's life been previously noted? On the Swan R. in W. Australia I have seen hundreds of these birds but can recall no instance of having seen any at the mouth of the river where it meets the open sea. The Swan R. is practically fresh for about three months of the winter, otherwise is salt. (E.W.H.) Odd birds observed in flight several times between Kapiti I. and the mainland. Scarce on lakes in the Kaingaroa Plains, 8 on Rotokaua Sulphur Lake, 8/3/42, (K.A.W.) L. Ellesmere, 15/11/41, appeared to be the most abundant bird in sight, 2000-3000. Cygnets in down numerous, average family three, occasionally four. Reported by Mr. D. F. Hobbs to be nesting

on some sections in the S.W. area on the lake on 13/5/42. Two nests with 6 eggs, one with 3 newly-hatched young. (R.A.F.) 1940, about 5 cygnets at Ruakaka. Jan, 1942, about 6 on Whangarei Harbour. 12/4/42, about 30 on Whangarei Harbour. (W.S.) Okarito. (N.F.) Dunedin, Tomahawk Lagoon, 16/8/41, sitting on 3 eggs; 26/8/41, on 4 eggs; another pair with 6 young. 1/9/41, pair now with 3 young. Flock of 13-17 on the lagoon in August. (L.G.) 6/5/42. Two heard flying over Masterton at night. (R.H.D.S.)

13.

BLACK-FRONTED TERN (*Chlidonias albistriata*).—Visitor in varying numbers to the estuaries on the E. [W] coast of the N. Island. Waikanae, Otaki, Waikawa, usually a few odd birds. Once only, 1/6/42, at Waikanae, about 180 birds. (K.A.W.) 17/11/40, 1 on Muriwai Stream, 8/9/40 not in breeding plumage at mouth of Rangitaiki R., B. of P., seen to fly about half a mile up the river and back. 6/5/41, 1 juvenile over a pool at Fouto, N. Kaipara, 30 miles further north than the Muriwai Stream where five were seen. 10/3/40 (see Report 1939-40). The plumage of this bird when it settled seemed to me so striking that perhaps it is worth while mentioning a few of the salient points. Forehead whitish, crown greyish, a patch of black on the nape and reaching to the eyes; below this, round the neck, a white ring. At the base of the neck a dark line. Dark edging to the wings. Underparts white. General colour of upper parts greyish brown. A note like "swit-week," or "kit-week" was heard. One seen from road by bridge over R. Parnassus, 31/12/40. S. of L. Wakitipu and beginning at Kingston they were common along the rivers to Manapouri. Newly ploughed land had a special attraction for them. Up the Eglinton Valley about 12 were seen over newly ploughed land at Dunton Creek and 1 a little N. of Eglinton Flat, 10-13/1/41. Oamaru, 29/1/41, a few in the harbour where none were seen on Jan. 4th. (R.B.S.) Waikanae Mouth, 5/7/41. At least 18, all but one in full plumage, the exception in winter or immature plumage, accompanying a full feathered bird. 9/8/41, one in full feather. 21/9/41, none. (A.A.K. and C.A.F.)

CASPIAN TERN (*Hydroprogne caspia*).—Mangawai colony of about 170 pairs in two groups, one with eggs 22/10/40, the other with eggs 24/11/40. (S.D.P.) Hokitika, odd pairs, Oct.-Nov., 1941. (C.A.F.) Waikanae R. mouth, 5/7/41, 8, some in winter plumage, 9/8/41. 11 on 21/9/41. (A.A.K. and C.A.F.). Mata: First eggs about 7/9/41; 15/9/41, only about 60 birds and 4 nests with eggs. (W.S.) Visitor in varying but small numbers, never more than 20 birds at a time, at Waikanae, Waikawa and Ohau estuaries, Dec.-June, 1942. Mostly associated with black-fronted or white-fronted terns and red-billed gulls. (K.A.W.) 15/2/42. Flock of 20 on the beach at Colville. Unusual to see except in pairs or single. (P.H.W.) 6 near mouth of Hutt R., 16/4/42. Two resting, one each side of a black-backed gull. One attacked half-heartedly their relentless persecutors, the red-billed gull. (H.L.S.) Mata, 16/12/41, 170 at colony, about 85 pairs nesting. All eggs destroyed Dec. 17th. 6/1/42, 2 pairs nesting, no eggs. Colony deserted after next high tides. No chicks hatched on this colony, yet several immature birds seen. 15/3/42, all lost black heads, some with mottled ones but many with only a band of dark running through the eye and not quite meeting at the back of the head, about half to three-quarters inches wide. (W.S.)

FAIRY TERN (*Sterna nereis*).—One pair at Mangawai, 24/11/40; one pair at Pakiri, 25/11/40; sitting on egg, Pakiri, 21/1/41. (S.D.P.)

WHITE-FRONTED TERN (*S. striata*).—Colony of approx. 50 pairs near Pakiri, 2/1/41. (S.D.P.) Waitaki Mouth, 20/10/41, colony moved from the shingle bank to an island owing to change in the river mouth. 2-3000 birds courting and feeding in river mouth when whitebait were running. (C.W.McL.). Waikanae Mouth, 5/7/41, 2; 9/8/41, 6; 21/9/41, none. 23/11/41, 80-100 including some birds with "receding" white foreheads and dark primaries ? previous year's young. (A.A.K. and C.A.F.)

150 at mouth of Waikukupa R., Westland, Sept., 1941 (Messrs. Wellman and Willett). Hokitika R. mouth, numbers varied from 1 pair to 300 in Oct.-Nov., 1941, no sign of breeding. (C.A.F.) Clevedon district, fairly plentiful. (T.M.R. and H.R.McK.). Same observations as made with Caspian and black-fronted terns, although, especially at Waikanae Estuary, sometimes in very large numbers, about 300 adults and young birds 21/3/42 and 18/4/42. (K.A.W.) Taieri Mouth, 21/5/42, 50-100 on sand bank in river mouth, together with about 15 black-fronted tern. (B.J.M.) Nov., 1941, 2 colonies with 50 and 25 nests, 4 miles up the Lindis from its junction with the Clutha. (I.T.) 3/2/41. Considerable flock, including young, living on a stony beach, Coromandel. (P.H.W.) Oct., 1941, Waitaki Valley, 2 in lower Lindis Flats, 1 at Shotover. (I.T.) Castlepoint, 5/4/42, several counts at different times gave a number about 130. Others seen about a mile off shore, but they rarely came in. (J.M.C.) Mata, 16/1/42, 24 pairs, each sitting on 1 egg at the Caspian tern colony. No chicks hatched and the colony deserted after the tide had washed away the eggs. Several hundred nested at Ruakaka on sand dunes. Some chicks reared, but at Christmas the colony was destroyed by holidaymakers. (W.S.)

BLACK-BACKED GULL (*Larus dominicanus*).—Hororata, Feb., 1942, present in large numbers feeding on refuse. (U.G.) The most abundant bird off shore and also inland in the Wellington district and in the estuaries between Porirua and Levin, seems to be increasing in numbers lately. (K.A.W.) Levin: The most common sea bird along the coast. A few nesting colonies between the mouth of the Manawatu and Otaki Rs. among the sandhills. (H.T.W.) Castlepoint, 5/4/42, several dozen but not in flocks. (J.M.C.) Waikanae Mouth, July-Sept., 1941, 50-100 present. (A.A.K. and C.A.F.) Hokitika, Oct.-Nov., 1941, abundant. (C.A.F.) Masterton, April-June, 1942, several seen. (R.H.D.S.)

RED-BILLED GULL (*L. novaehollandiae*).—Colville; began to return to the beaches from the breeding grounds about the end of Dec. More numerous than usual on islands off Colville during autumn and winter. (P.H.W.) Second in abundance to black-backed gull, but mostly keeping close to estuaries in large flocks, sometimes 100-200 birds. (K.A.W.) Waikanae Mouth, 5/7/41, few; 9/8/41, c. 50; 21/9/41, a dozen. (A.A.K. and C.A.F.) A rough graph was kept of the numbers visiting the playing fields at King's Coll., Auck. during the time when the influx into Manukau takes place. Between the end of Jan. and Feb. 10th they increased from an odd bird or two to c. 240, at which figure they stayed more or less stationary till the end of the month. There was then a slight increase to c. 300 and this remained remarkably steady till mid-March. Coinciding with a wet spell, however, the figure rose to 650, two days later it was c. 1200, and on March 22nd, when the ground was sodden, over 2000 were present. On Feb. 17th, an estimate of the number on the Penrose-Westfield-Otahuhu part of Manukau Harbour was 5000-6000. May 11th, over Hokianga Bar at dead low water 1000 or more, with only very few black-backed gulls and 1 Arctic skua, were fishing. At dusk the birds gathered on the shore where they were joined by many flights coming down Hokianga from inland. (R.B.S.) Single bird among blackbills at Hokitika R. mouth, Oct.-Nov., 1941. (C.A.F.) Castlepoint, 5/4/42, 2 or 3 dozen with white-fronted tern. (J.M.C.)

BLACK-BACKED GULL (*L. bulleri*). Hororata, Feb., 1942. Only occasionally seen. (L.G.) Waikanae estuary seems to be the only place off the S.E. [S.W.] coast of the N. Island where odd birds appear. 4-6 birds,

15.

1/2/42. 2 birds 18/4/42. 3 birds 1/6/42 and 1 bird 14/6/42. (K.A.W.) Still plentiful in Canterbury, and large proportion of young following 1941 nesting season. (R.A.F.) Waikanae Mouth, 5/7/41, 8 or more, several young. Adults dropping feathers 9/8/41, 4-5, 21/9/41 none. (A.A.K. and C.A.F.) Hokitika R. Mouth, Oct.-Nov., 1941. Most were in immature plumage, out of about 30. (C.A.F.)

SOUTHERN SKUA (*Catharacta antarctica*).—One noticed off Banks Peninsula, 6/2/42. (R.A.F.)

ARCTIC SKUA (*Stercorarius parasiticus*).—Odd ones seen between Dec., 1940 and April, 1941, in Hauraki Gulf. (P.H.W.) Clevedon R. Estuary, 14/2/42, 1, light variety. Others seen further out throughout the season. 15/3/42. Several of both light and dark forms, chasing terns, flying about or resting on the water. (T.M.R. and H.R.McK.) Waikanae estuary, 2/2/42 and 22/3/42, 2 birds. Days on which white-fronted tern were abundant. (K.A.W.)

NORTH ISLAND OYSTERCATCHER (*Haematopus reischeki*).—Ohau R. estuary between dunes and tussock country, 19/4/42, 1 pair with young, pied though less than *H. finschi*. The larger of the adult birds, ? female, had some mottled white plumage, while the smaller bird was entirely black. (K.A.W.) A pair of pied birds nested at Ruakaka, 1 nest destroyed, the other successful, 2 eggs, 2 chicks. A pair have nested here for many years. (W.S.) Waikanae Mouth, 5/7/41 and 9/8/41, a white-breasted pair, a black pair and an odd black bird associating with a *H. finschi*. 21/9/41, 1 black pair remaining, closely associated and restricted to a spit where they have nested in past years. (A.A.K. and C.A.F.) Pakiri, 28/10/40. On breeding grounds but not nesting. 2/1/41, with newly hatched chicks. 24/11/40, 2 pairs not yet breeding at Mangawai. (S.D.P.) There is no doubt that this species sometimes has a white rump, with the white running up the back like an inverted V, as it does in *H. finschi*. For instance, at Muriwai, on March 9th, a group of four birds was seen which at first were thought to be *H. finschi*, but on closer examination were evidently a pair of *H. reischeki* with two full-winged young. One parent was clearly not *H. finschi* as it had a dark rump and lacked the white patch running back on the shoulder from the lower neck, which was conspicuous in the other parent. The young resembled the *finschi*-like parent till they flew, when it was seen that their rumps were not white. Again, at Waipu, on May 20th, a very representative group of *H. reischeki* was seen. One was black with a few brownish feathers, one superficially black but showing some smudgy white underneath, two more or less typical pied but dark rumped *H. reischeki* and lastly one very pied bird, with white inverted V on the rump, and a white shoulder patch and wing bars, but far browner than any of the other four, in fact its brownness was very striking. 1/3/42, 4 at mouth of Ohau R. 10/3/42 1 pair near Waipoua R. 22/3/42, 1 pair at usual place at Pakiri. (R.B.S.)

SOUTH ISLAND PIED OYSTERCATCHER (*H. finschi*).—Waikanae estuary, 22/3/42, odd bird. (K.A.W.) Okarito: Oystercatchers feeding on pipis. (N.F.) 4 seen at mouth of Waikukupa R., Westland by Messrs. Wellman and Willett, Sept., 1941. (C.A.F.) Waikanae Mouth, 5/7/41 and 9/8/41, single bird associating with a black one (*H. reischeki*). Absent Sept. (A.A.K. and C.A.F.) 13/1/42, 23 in field at Lumsden, evidently on way to the coast. 1, probably this species, was with godwits in Manukau, 20/10/40. c70 near Miranda, Firth of Thames, 13/7/42.

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BLACK OYSTERCATCHER (*H. unicolor*).—Waikanae Estuary, 21/9/41, pair of adult birds. 4/1/42, an odd bird only which later disappeared. (K.A.W.) 1 at mouth of Rangitaiki R., B. of P., 8/9/41 probably this species. Stewart Island, 17/1/42, c. 30 on Ringaringa Beach, 26/1/42 37. Nest with 3 eggs found on Ocean Beach 17/1/42. These had not hatched on Jan. 23rd. Fairly common at Port Pegasus. (R.B.S.)

TURNSTONE (*Arenaria interpres*).—Manukau, near Puketutu Island 4/3/42 two. 9/3/42, c. 65. 23/3/42, c. 6. 7/4/42, 7. At full tide they gathered at the same spot. (R.B.S.)

GOLDEN PLOVER (*Pluvialis dominicus*).—Manukau, near Puketutu Island. Usually associating with Turnstones, 4/3/42, 8 one rather black. 9/3/42, 22. 23/3/42, 28. 7/4/42 c. 18 of which 6 were in full black breeding plumage. (R.B.S.)

BANDED DOTTEREL (*Charadrius bicinctus*). — Taieri Mouth, 20/5/42, two. (B.J.M.) Okarito. (N.F.) Still unaccountably rare on suitable nesting areas in Canterbury. (R.A.F.) Ohiwa, 5/10/41. Nest with 3 eggs in slight depression in the sand on flat above high tide mark. Actually no nest at all. Eggs apparently fresh. (N.P.) Waikanae Estuary, like others were probably destroyed owing to high tide and changes in the river mouth. Ohau Estuary, 18/4/42, about 30 birds in scattered groups, including 5-6 in white winter plumage. Hokio Estuary, 18/4/42, 6-7 birds in groups of 2-3. None 14/2/42 at Otaki and Waikawa estuaries or Waikanae River from railway bridge to the estuary 20/12/41, although in all these places conditions seem to be very favourable. (K.A.W.) Jan., 1942. Many nesting on ploughed land and paddocks about Skull Creek, Mata. Very few on tidal flats. 7/4/42 saw only 1 on paddocks and c. 70 on tidal flats. 20/4/42, about 20 feeding with starlings on grass land. 20/5/42 at least 200 on tidal flats. Strong wind from south. 21/5/42, hardly any on flats. 22/5/42, saw large flock flying about over grass land. (W.S.) Matakaitai, Clevedon, 19/12/41 and 28/12/41, 12 in flock. None seen on two later trips. 30/5/42, 9 flying to fields from mudflat. Some seen lately on fields by farmer, perhaps a small resident colony. (H.R.McK.) Muriwai. Incubating 29/9/40. (S.D.P.) Glenary, Waikaia. 4 pairs on river bank. 1 nest without nest material with 2 eggs only. 1 egg missing, the other incubated. (E.W.C.) Odd birds at Hokitika R. mouth. Several pairs breeding in Taramakau R. bed, near Westbrook, and in the Greenstone R. below Blackwater Creek. Nov., 1941. (C.A.F.) Waikanae Mouth 5/7/41, 4. 9/8/41, 30-40, some in flocklets. 21/9/41, 6 pairs on territory. 1 clutch of 3 slightly incubated eggs and 1 fresh scrape. Much bickering between pairs. 23/11/41. Flooding had apparently destroyed the nests and no pairs had relaid. (A.A.K. and C.A.F.) Distributed along the beaches of the B. of P. in late August, e.g., 1 pair, Ohiwa Beach. 3 Torere Beach. 10 at least Motu Estuary. 7 at least Cape Runaway. 12 or 13 pairs Hick's Bay, which on Aug. 24 showed all the signs of being in possession of territory. 1 pair at mouth of Rangitaiki R. 1 at mouth of Tarawera, south of East Cape, 1 pair near Tatapouri. Some likely beaches not examined. 1/9/40 and 2/11/40, 3 or 4 Waikaio Heads. 4/3/41, c. 150 Manukau, near Puketutu causeway. I was unable to make detailed observations through the winter. P.C.B. reports c. 350 in mid July. During a trip in N. Auckland, May 5-23, they were noted as follows: N. Kaipara Hds. to Maunganui Bluff, 3 only; near Waipoua R. mouth, 12 in a flock;

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Rawene, 7 on reclaimed mud flats; mouth of Waitangi R., c. 12; Ruakaka 4, of which 2 had distinct bands; Waipu, 18, many with full bands; Mangawai, c. 64, quite 50% with full bands. Here at full tide they were found on pasture land. None are known to breed at Mangawai. March 1st, W. Ridland saw 50-100 at mouth of Ohau R. July 13th, hundreds in full plumage on flats S. of Firth of Thames. L. Waipori, near Lawrence, a very interesting flock seen on Jan. 8th. Over 350 birds in all varieties of plumage, a very few being still in breeding dress. Jan. 9th. Several at Alexandra Reservoir. Jan. 10th., 1 pair at Wye Creek, L. Wakatipu. (R.B.S.)

NEW ZEALAND DOTTEREL (*Pluviorhynchus obscurus*).—Okarito, (N.F.) One chick with feathers caught at Ruakaka, 18/1/42. Two pairs apparently with young hiding, also seen. 1/4/42, 2 seen on Whangarei mudflats. (W.S.) Matakaitai, Clevedon, 19/4/42. One on mudflat, not seen before or since. Probably passing visitor. (P.H.W. and H.R.McK.) Stewart Island. 21/1/42 flock of c. 14 at head of Patterson Inlet. N. Auckland, winter counts on beaches, May 7-8, Poutu, N. Kaipara to Maunganui Bluff, 7. May 10th, Waipoua R. to Waimamuka R., 15. May 18th, Ngunguru, 3. May 19th, Ruakaka, c. 7. May 20th, Waipu, c. 12. May 21st, Mangawai, c. 36. May 22nd, Pakiri, c. 8. July 20th, Muriwai, 21. March 1st, Mouth of Ohau R., 4 reported by W. Ridland. (R.B.S.) 28/10/40, Pakiri, two fresh scratchings. 8 pairs present and two young on the wing and a nest with 1 egg. Mangawai, 24/11/40. 25/11/40. Pakiri, most pairs with young. (S.D.P.)

WRYBILL (*Anrhynchus frontalis*).—Ohau Estuary, 19/4/42, 4 birds in winter plumage with black bands visible. (K.A.W.) Muriwai, 27/3/41, 213 and on 20/7/41, 21 were counted by P.C.B., W. Ridland and myself. A few miles N. of Kaipara Heads, scattered along the beach, 25. 7/5/42, Maunganui Bluff, 3. Ruakaka Estuary, Hauraki Gulf, 19/5/42, 1. Miranda, Firth of Thames, 8. Manukau Heads, near Puketutu, Feb. 17th, 4. March 7th, 11. April 28th, 15. May 12th, 28. June 1st, 36. June 15th, 33. June 29th, 32. July 14th, 33. July 27th, over 30. (R.B.S.)

JAPANESE SNIPE (*Capella hardwicki*).—Taieri Beach, Jan., 1942. Snipe seen once near the marsh. Probably this species. See last year's report. (B.J.M.)

KNOT (*Calidris canutus*).—Mataitai, Clevedon, 16/11/41, 4 with godwits. 28/12/41, 2 with godwits. (H.R.McK.) Many hundreds near Puketutu, Manukau, on March 16th. Very few seem to have stayed for the winter. Hundreds, possibly over 1000 wintering on the Firth of Thames. (R.B.S.)

GODWIT (*Limosa lapponica*).—Mataitai, Clevedon, on south side of the Clevedon Estuary, numbers approximate, 27/10/42, 60. 9/11/41, 200. 16/11/41, 1400. 29/11/41, 1000. 28/12/41, 1000. From 28/12/41 to 19/4/42 scattered groups seen but no estimate made. 19/4/42, flock of 15 only with no colour apparent. Not seen since. (H.R.McK.) Ohau Estuary 19/4/42, 2 birds in non-breeding plumage. (K.A.W.) Mr. E. F. Dodson tells me that after the cold spell of southerly in mid-Jan., the flats by the Nelson Boulder Bank filled up with 2000-3000 godwits. Oct. 20th, over 1200 at Puhinui, Manukau, probably recent arrivals. A considerable flock has been present all winter, e.g., June 1st over 300, June 29th 400, July 14th and 27th, over 600. Very few seen in N. Auckland in May, e.g., N. Kaipara Heads-Maunganui Bluff, 26. Ruakaka

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8, one red. Mangawai, c. 15. Matakana, a few. Hundreds, probably up to over 2000, Firth of Thames Flats, July 13th.

PIED STILT (*Himantopus leucocephalus*).—Levin. A few birds seen on the shore of L. Horowhenua sanctuary. Group of 7 counted 7/6/42. (H.T.W.) 6 or 7 pairs nesting on marsh near Heathcote R. at Woolston, 12/9/41. (R.A.F.) Oct., 1941, Queenstown. Small flock at Arrowtown, 3 at Shotover, 4 at Moke Lake. (I.T.) Waikanae Estuary and neighbouring ponds. Nesting and common throughout the year. Otaki Estuary, 14/2/42, 9 including 3-4 juveniles. Waikawa Estuary. 14/2/42, large flocks of 25-100 birds each, approx. 180 altogether. In one flock of 25, 5 were juveniles. Hokio and Ohau estuaries had a smaller population, not exceeding 20. A few on L. Horowhenua, but not known on Buller's Bush Lake. (K.A.W.) Hororata, 5 present during Jan., but left by second week in Feb., 1942. (L.G.) 4/6/42. Large party heard flying over Carterton, 5 a.m. Not heard since 26/3/42 when single bird passed N. at 7.30 p.m. (H.L.S.) Mata. Very few birds with distinct markings. Some almost entirely black, March, 1942. The number of clearly marked birds seems to increase as winter draws closer. 21/5/42. Saw two flocks of 30 almost all clearly marked birds. (W.S.) Waikouaiti, 4/10/41, flocks of 20-30. 31/1/42, 3 flocks heard at night flying N. over Dunedin. 2-6/4/42. Pura-kanui. Heard each evening. (I.T.) Clevedon, approx. 50 known to have wintered for the first time in such numbers in the estuary of the Wairoa R. 10 remained on the Mataitai side of the estuary and nested. These have now scattered inland, perhaps making for the Manukau. Their breeding met with little success. None seen after mid-December. Mouth of Clevedon R. 14/2/42, 70 counted. 14/3/42, c. 85. 15/3/42, 80-100. Mataitai Beach and flats, 26/4/42, 28 scattered.

General note: After migration from south this party stayed in a tight flock in the mouth of the river from 14/2/42 or earlier to 26/4/42 when they spread out to nearby beaches up to 3 or 4 miles. None appeared at Mataitai, only half-mile from river mouth, from 14/2/42 to 26/4/42, but were at Mataitai in small numbers at every visit since. The increase over

last year is nearly 100%. (H.R.McK.) Pakiri, 5 pairs with eggs, 22/10/40. Westfield, 10/11/40, 30 non-breeders on mudflats. (S.D.P.) Waikanae Mouth, 5/7/41, 9 mostly in pairs. 9/8/41, 20 in pairs. 21/9/41, 22 mostly in pairs on presumptive territories, some tending to flock. 23/11/41, recent flooding had interrupted breedings, 6 pairs present. (A.A.K. and C.A.F.) Manukau Harbour, c. 100 non-breeders summered in the Westfield-Favona area, e.g. Sept. 12th over 96. Oct. 6th, over 100. Dec. 20th, over 100. The population then started to increase for the winter, e.g., March 2nd, c. 240. June 1st, c. 520. July 27th, c. 350. Near Puketutu Island, Aug. 11th, c. 130, but none stayed for the winter according to P.C.B. The following counts were made: Feb. 17th, c. 120; March 2nd, c. 200; April 7th, c. 200; June 14th, c. 200; July 14th, c. 300; July 27th, c. 400. It would seem, therefore, that the winter population at the head of Manukau Harbour-Ihunatoa-Onehunga N. Westfield is c. 800, e.g. over 720 on March 2nd and over 750 on July 27th. Bay of Plenty, 13 Kutarere, Aug. 29th. 1 pair flooded pasture, Opotiki, Sept. 7th. 2 pairs R. Waiotuni. 7 Matata Lagoon, Sept. 9th. South of East Cape, 4 pairs Te Puia. 2 pairs Gisborne, Sept. 4th. N. Auckland, May. The following winter counts were made: Chaser's Gorge to Maunganui Bluff, 69. Curiously enough none were seen along the west coast south

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of Chaser's Gorge. They are also very unusual on Muriwai Beach. R. Waipoua—R. Waimamaku, 18. Here they were feeding in rock pools. S. Hokianga Hds. 7 again among rock pools. Rawene, May 12th, over 120 at full tide. Kohukohu and Hoeke, over 20. Bay of Islands, 3 in Orongo Bay were the only ones seen. Ngunguru, 2. Ruakaka, over 15. Waipu over 44. Mangawai, over 80; none are known to breed here. Pakiri, c. 10. Matakana, over 20. July 12th. Maitaitai near Clevedon, over 60. July 13th, Firth of Thames, Kaiua-Waitakaruru, over 500. Among these were two almost black specimens, but with smudgy white faces and stomachs. (R.B.S.) Hilderthorpe, N. Otago. Seen in paddocks with lagoons in summer. (C.W.McL.)

NORTH ISLAND WEKA (*Gallirallus greyi*)—Few birds about Mata, Ruakaka and Waipu districts. 4 pairs known. (W.S.)

WEKA (*G. sp.*)—Western end of Homer Tunnel, Jan., 1942 (I.T.) Stewart Island, Dec., 1941. Plentiful south of Paterson's Inlet; very scarce or absent north of it. A few years ago they were plentiful north of it and absent elsewhere. (R.H.T.) Messrs. Wellman and Willett saw none in Westland in Aug.-Sept., 1941, but heard reported as a rarity near Fox River Bridge and in Upper Kangaroo.* Mr. Graham (Franz Josef) reports rare in South Westland except in Copeland Valley where in moderate numbers. Absent in Hokitika-Brunner area. (C.A.F.)

BANDED RAIL (*Hypotaenidia philippensis*)—Seen once in Maitaitai and several times at Kawakawa Bay. (H.R.McK.)

SPOTLESS CRAKE (*Porzana plumbea*)—Adult caught by cat at Koiterangi, Westland, 12/11/41. (R.A.F.)

MARSH CRAKE (*P. pusilla*)—Adult caught by cat, Koiterangi, Westland, 12/11/41.* (R.A.F.) Sunday Creek, N. of Goldsborough, Westland, 28/10/41. Rail footprints in silt agree in size with this species. (C.A.F.)

PUKEKO (*Porphyrio melanotus*)—Locally abundant in Taramakau-Hokitika region in S. Westland, Oct.-Nov. 1941. (C.A.F.) Clevedon, 4 small colonies known. Perhaps spreading. (H.R.McK.) Opotiki, 6/10/41, 6 walking along a principal street at 10.00 a.m. almost as tame as fowls. (N.P.) Oct., 1941. 2 in Lower Lindis. Numerous at L. Hayes. (I.T.) Levin. Common breeding bird in swampy areas throughout the whole of the Horowhenua district. (H.T.W.) Local in the coastal districts from Paekakariki to Levin, mostly in small parties. Waikanae, on swamp close to coast, 1/6/42, 17 birds. (K.A.W.) Aug., 1941. Very rare, 2 seen at Paekakariki and 7 near Marton. (H.L.S.)

[* Karangarua]

WHITE HERON (*Egretta alba*).—Single bird wintering Panmure Basin, Auckland, still present with neck plumes, 17/10/41. (C.A.F.) Parua Bay, Whangarei Harbour, 22/5/42. (W.S.) Family groups returned to the lagoon at Okarito, 19/5/42. (N.F.)

WHITE-FACED HERON (*Notophoxyx novae-hollandiae*).—Okarito. 14 seen on or about 19/5/42. (N.F.) One doubtfully seen in Arnold R. below L. Brunner. (C.A.F.). Oct., 1941.

REEF HERON (*Demigretta sacra*).—Castlepoint, 5/4/42. Appeared to be 5 or 6, though only 1 seen at a time. (J.M.C.) Port Nicholson,

* This bird and the Spotless Crake mentioned above were caught at the same time by the same cat.

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19/10/41, 6. Porirua Harbour, 1-2 several times seen. Waikanae Estuary, casual visitor. About 4 pairs nesting on Kapiti Island. (K.A.W.) Dunedin, Portobello, report of 3-4 noted during the year. (I.T.)

BITTERN (*Botaurus poiciloptilus*).—One seen near Staffortown, and reported from Arahura Valley, Westland, Nov., 1941. (C.A.F.) Four reported on a small swamp near Woodend, Canterbury, June, 1942. (R.A.F.) Waikawa Estuary, 14/2/42 odd bird in moult. Puete Mouth, Waikato R., 7/3/42, odd bird. (K.A.W.) 18/1/42, one at Ruakaka L. and 1 immature at Waipu. March, 1942, 1 at Skull Creek, Mata. (W.S.) Hororata, 19/1/41, 2 seen in swamp. (L.G.)

PHEASANT (*Phasianus colchicus*).—Found remains of 6 young birds killed by hawks during Jan., 1942. Also one young cock, perhaps killed by a stoat and an adult cock lying dead. Some seen without ringed necks. (W.S.) Hunterville, 7/8/41. Male seen. (H.L.S.)

BROWN QUAIL (*Synoicus australis*).—Several large broods, mostly on flat land, Whangarei district. (W.S.)

CALIFORNIAN QUAIL (*Callipepla californica*).—Numerous in Takahewa Hills. (W.S.). Oct. 1941. Small flocks 9-10 seen from Luggate, through Wanaka, Queenstown and Kawarau Gorge. (I.T.) Karori. Rare, breeding. Whistle note heard 5/10/41 for first time since 18/1/41. 18/4/42, four flushed from burnt gorse in gully. No notes heard except "popping" call. (H.L.S.) Kaingaroa Plains, S.E. of Taupo, fairly plentiful. Kapiti Island, 1/2/42, 1 pair with chick (K.A.W.) Manganui, 15/9/40. Paired up. Young chicks about 11/12/40. (S.D.P.)

PIGEON (*Hemiphaga novaeseelandiae*).—Scarce at Butterfly Creek, near Wellington. Buller's Bush, Levin, disappeared. Otaki Gorge and Forks, scarce, only one pair observed during tramping there. Waikanae Estuary, 4/1/42, a single bird seen flying from Kapiti Island to the ranges inland. (K.A.W.) Dunedin, 14/9/41. One seen eating kowhai flowers and tender green leaves and setting fruit buds of wild plum. 9/11/41. One eating flower buds of broom. Reported that they eat young blue gum shoots. (I.T.) Mt. Egmont. 15/11/41, 3000-4000 ft., 2; 3000-2500, 1. (R.H.D.S.) Mata. Not common in any bush areas though present in all. Saw one flock of 5 in the Takahewai Hills. (W.S.) Fairly common in Westland Aug.-Sept., 1941. Not abundant in the region between Taramakau and Hokitika. More so in S. Westland, Nov., 1941. (C.A.F.)

BUSH HAWK (*Falco novaeseelandiae*).—Moumoukai, Clevedon, 8/4/42. One seen on post at 50yds. about 300yds from the edge of the bush, 1600ft. Mr. Manning, living at the edge of the bush, reports having seen such birds up to 3 at once on dull misty days about the open paddocks at the same place. One was shot some years ago near there chasing a pigeon. (H.R.McK.) Young female shot near L. Sumner 4/5/42. Contained remains of bellbird and blackbird. (R.A.F.) Up Brown Owl, near Upper Hutt, 26/6/42, single adult in flight. (K.A.W.) L. Gunn, Eglinton Valley. Jan., 1942. (I.T.)

HARRIER (*Circus approximans*).—Hilderthorpe, N. Otago. Numerous. Killed two full-grown pullets. (C.W.McL.) Moderately plentiful in Hokitika district Oct.-Nov., 1941. (C.A.F.) Mt. Egmont, 15/11/41, 2000-3000ft. One. (R.H.D.S.) Mata. Fairly common. Often seen

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attacking pukeko, but without success. (W.S.) Abundant on coast and about 50 miles inland from Paekakariki to Levin throughout the whole year. On main road near Paraparaumu, 22/6/42, adult eating a dead hare. Otaki Forks, close to the bush on Hector Track, 31/12/41. Single birds observed. (K.A.W.) Luggate to Wanaka, 4; Cardrona Valley to Summit, 9; Crown Terrace, 6. (I.T.) 16/4/42. Seen over Days Bay, Wellington, coming from the harbour and passing over the ranges in a northerly direction. (H.L.S.)

MOREPORK (*Ninox novaeseelandiae*).—Wellington town, single birds in the Botanical Gardens. Otaki Forks, 30/12/41, fairly common. (K.A.W.) Reported heard Cranmer Square, Christchurch, 11/5/42. One flew into Canterbury Museum, 4/6/42. (R.A.F.) Kaiwarra reserve, Wellington. After silence became more vocal in Aug.-Sept., 1941 and continued irregularly Nov.-Dec. (C.A.F.)

LITTLE OWL (*Athene noctua*).—Seen and heard more frequently than usual in Christchurch city area, May-June, 1942. (R.A.F.) Hilderthorpe, N. Otago, numerous. One seen to kill a hedge sparrow on the wing in broad daylight, Kyeburn R., 31/3/41. (C.W.McL.)

KAKA (*Nestor meridionalis*).—Messrs. Wellman & Willett report seeing one on the Gillespie-Weheka track, Westland, Aug., 1941. Pair seen below Franz Josef Glacier, Nov., 1941. (C.A.F.) Moumoukai, Clevedon. 5 in one lot seen, 24/10/41. One or two seen flying very frequently. Plentiful up to 1937, then scarce up to 1939, but increasing from 1939 up to date. Several heard lately, 15/6/42. (H.R.McK.) L. Gunn, Eglinton Valley, Jan., 1942. (I.T.) 30/8/41. Kukumui Hills, Ruakaka district, several. (W.S.) Hector Track, Tararua, 31/12/41, single bird observed; also records from trappers of a flock of 3-4 birds observed N. of Otaki Forks. (K.A.W.) Aug., 1941. One with injured leg in bush gully adjoining Clevedon Reserve, for three weeks only. (H.R.McK.)

KEA (*Nestor notabilis*).—Mr R. Morris reports a nest under tree roots below the bush line at L. Sumner, Feb., 1942 (R.A.F.). Homer Tunnel, Jan., 1942. Heard any hour of the day or night. (I.T.)

RED-FRONTED PARRAKEET (*Cyanorhamphus novaezelandiae*).—Feb., 1941. Paradise district. Reported. (I.T.) Early March, 1942. One seen flying and calling in the Takahewai Hills. (W.S.)

YELLOW-FRONTED PARRAKEET (*C. auriceps*).—Feb., 1942, Paradise District. Reported. (I.T.)

SHINING CUCKOO (*Lamprolaima lucidus*).—22/9/41. Clevedon, heard by Mr. Cook, 23/9/41, heard and seen by Mr Cook, 24-25/9/41, heard by myself. (H.R.McK.) Buller's Bush, Levin. 8/11/41, heard singing abundantly. (K.A.W.) Dunedin, 17/9/41. Seen and heard at Portobello, report in press. Dunedin, 30/9/41, first heard. 12/10/41, next heard. 13/1/42, last heard (I.T.) Mt. Egmont, 15/11/41, 3000-4000 ft., one; 3000-2500 ft., one. (R.H.D.S.) Colville. Not numerous this year, first heard 3/10/40 (P.H.W.) Burnham, heard 27/11/41. (L.G.)

LONG-TAILED CUCKOO (*Urodynamis taitensis*).—22/11/41, Paraparaumu Beach, two seen climbing about in some pine trees, apparently looking for a nest, while being attacked by a pair of goldfinches. (W.K.) Paradise. Reported Feb., 1942. Dunedin. 30/9/41. (I.T.) Kapiti Island, 30/1/42. Heard singing very abundantly. (K.A.W.) Adult

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caught by cat. Kaikoura, 1/11/41. (R.A.F.) Heard sporadically in Nov., 1941, in Goldsboro district, Westland. (C.A.F.)

SHINING CUCKOO. —Piano Flat, Waikaia. Nov., 1939. 20 birds reported seen feeding on black caterpillars. (E.W.C.) Brunner-Taramakau-Hokitika area. Abundant and in song. Pairs (?) chasing on 2 and 3/11/41 (C.A.F.) First heard Karori, 22/9/41, song increased in vigour during next three weeks.

KINGFISHER (*Halcyon sanctus*).—Present in a bush clearing at 2000 ft. on Mt. London. Dec., 1941. (R.B.S.) With young in nest 24/11/40 at Mangawai, and 20/12/40 at Whangateau. (S.D.P.) Glenary, Waikaia, June, 1940, above stream. (E.W.C.) Brunner-Taramakau-Hokitika area, Oct.-Nov., 1941. Local and not abundant. (C.A.F.) Dunedin. Report of one catching, killing and eating a white-eye. Sparrows, chaffinches, goldfinches, white-eyes, fantails and grey warblers all noted as taking a great interest in kingfishers, and grey warblers and especially fantails will fly close to them and tease them. (I.T.) Fairly common round Levin, breeding. (H.T.W.) Rather scarce and local from Porirua Harbour to Levin. Otaki Forks, 31/12/41, 1 pair probably nesting. Kapiti Island, 31/1/42, 1 bird only observed. (K.A.W.) Seen robbing blackbirds and thrushes of worms in the winter at Epsom. The autumn of 1942 saw a sharp decrease in numbers about Skull Creek, Mata. In 1940 and 1941 they were exceedingly numerous. The cause of the decrease is not known. 12/4/42 with its cold weather saw several kingfishers in the sheltered house enclosure where they abide till warmer weather. Saw one catch a praying mantis on the top of an orange tree. (W.S.)

RIFLEMAN (*Acanthisitta chloris*).—Pair feeding well grown young in nest in broadleaf tree, Barrys Bay, Banks Peninsula, 15/11/41. Food consisted of moths, crane flies and unidentified larvae; both parents feeding. (R.A.F.) Lower part of Hector Track, Otaki Forks, 31/12/41. Two parties, one including 5 adults and juvenile birds. Possibly present in bush of Butterfly Creek, Wellington. (K.A.W.) Mt. Egmont, 15/11/41, 3000-2500ft., one. (R.H.D.S.)

RIFLEMAN.—Te Waimate. Plenty for a short while in early winter, none in summer (E.C.S.). Taramakau-Hokitika area. Oct.-Nov., 1941, not abundant but generally distributed. Kanieri, 26/10/41, pair building. (C.A.F.)

BUSH WREN (*Xenicus longipes*).—Kanieri, reported near lake by man who knew both rock wren and rifleman. (C.A.F.)

ROCK WREN (*Xenicus gilviventris*).—Aug., 1941. Paradise district. Report of 3 seen. (I.T.)

PIPIT (*Anthus novaeseelandiae*).—Castlepoint, 5/4/42. Tussock land teeming with pipits. (J.M.C.) Mt. Egmont, 14/11/41, 3000ft., one. (R.H.D.S.) Very abundant everywhere from the coast and river beds high up to the hill country in the whole Wellington district up to Levin; at Otaki Forks, following the clear or destroyed bush up to the edge of the primeval forest; Kaingaroa Plains, S.E. of Taupo, beginning of March, plentiful and in flocks of 5-10 birds. (K.A.W.)

PIPIT.—Swanson. 20/9/40, with young in nest. (S.D.P.) Local in Hokitika district, Oct.-Nov., 1941. (C.A.F.)

PIPIT.—Masterton, 1942. Seen flying overhead twice in April and once in May. (R.H.D.S.)

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FERN BIRD (*Bowdleria punctata*).—Mata. Numerous. One nest in paddock in gorse bush, nestlings fledged. Widely distributed in gum fields (W.S.)

GREY WARBLER (*Pseudogerygone igata*).—Males fighting 15/9/40. Carrying nesting material, 15/9/40, nest with eggs 15/9/40; all at Mangawai. Auckland, singing well 12/12/40. Whangateau, 25/12/40, feeding young shining cuckoo. Omaha, 26/12/40. Feeding young. (S.D.P.) Abundant in the Hokitika district, Oct.-Nov., 1941. Distinctive song. Karori. Building 10/9/41, laid approx. 2/10/41, clutch 3. (C.A.F.)

Halkett. Perhaps only one pair. Heard and seen most times of the year. (H.S.G.) Mt. Egmont, 15/11/41. 3000-4000ft., 10, 3000-2500 ft., 5, and 16/11/41, 6. (R.H.D.S.) Abundant and widespread all over the Wellington district up to Levin; also present in town and on lupins along the coast. (K.A.W.) Levin. Fairly common in the Horowhenua district. Seen around settled areas in autumn and early winter, otherwise confined to bush. (H.T.W.)

YELLOW-BREASTED TIT (*Petroica macrocephala*).—Oct., 1941. Wye Creek, Wakatipu-Kingston Rd. Male with white breast like the North Island bird. (I.T.)

YELLOW-BREASTED TIT.—Very plentiful in low country from Brunner to Ross, Westland; also further south, not only in bush but in second growth scrub. Oct.-Nov., 1941. (C.A.F.)

WHITE-BREASTED TIT (*Petroica toitoi*).—Moumoukai, Clevedon. Plentiful round bush edge. Attracted to timber workings because of grubs exposed. One pair nested in punga near house a few years ago. Hatched 4 chicks. (J.W.St.P.) Mt. Holdsworth, 4/6/42. Male seen on snag protruding from muddy glade. Twice seen to land in the mud. (H.L.S.) Mt. Egmont, 15/11/41, 3000-4000ft. 6. 3000-2500ft. 7, and 16/11/41, 8. (R.H.D.S.) Moumoukai, Clevedon, 8/4/42, 2 males seen, many heard. (H.R.McK.) Common Mt. London, Dec., 1941. (R.B.S.) Two on edge of bush, Otau, 3 miles from Clevedon. (C.R.)

NORTH ISLAND ROBIN (*Miro longipes*).—4 seen in Takakewai Hills. (W.S.)

SOUTH ISLAND ROBIN (*M. australis*).—Dart Valley. 15/1/37. Well marked trilling song heard. The bird has been said to have no song. (I.T.)

FANTAIL (*Rhipidura fuliginosa*).—Karori. Spring, 1941. A black and a pied mated. Very rare in low country between Taramakau and Hokitika Rivers, Westland. Only 6 seen in a month in the field, of which 4 were black. Oct.-Nov., 1941. Further south more abundant, a dozen seen in a day, of which only one was black. (C.A.F.) Several winter at Te Waimate, including a black one at times. (E.C.S.) Auckland. Incubating, 15/9/40. (S.D.P.) Annually a black fantail appears at Wilton's Bush, a small reserve on the west side of Wellington. The dates of its appearance are 7/4/40, 20/4/41, and 19/4/42. During 1939 it was seen in March but was seen from Dec., 1938. (H.L.S.) Halkett. Several in summer. (H.S.G.) Common in bush regions about Levin and the Tararua Range. Spread over settled areas during autumn and early winter. (H.T.W.) Not uncommon in the Botanical Gardens and gardens of Wellington city and in the bush patches behind Eastbourne. Fairly common in all the gullies along the coast from Porirua Harbour to Buller's Bush, Levin. More plentiful inland, 30/12/41 at least 10 birds observed in four miles between Otaki and Otaki Forks during a tramp. (K.A.W.)

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WHITEHEAD (*Mohoua albicilla*).—Mt. Egmont, 16/11/41. 3000-2500ft., 5. (R.H.D.S.) Butterfly Creek Bush, 12/10/41, 3. Hector Track, Tararuas, 31/12/41, 2 pairs also reported by trampers. (K.A.W.) Opotiki. 12/11/42. Flock of 6 seen in the bush at 1800ft. (N.P.)

BROWN CREEPER (*Finschia novaeseelandiae*).—Abundant in bush of the Brunner-Hokitika region, Oct.-Nov., 1941. Occasionally also in second growth. Kanieri, pair building, 26/10/41. (C.A.F.) Dunedin. Small flocks seen several times between July, 1941 and June, 1942. (I.T.)

WHITE EYE (*Zosterops lateralis*).—Auckland. Building 15/10/40. Incubating 15/10/40. Young on wing, 1/12/40. (S.D.P.) Hilderthorpe, N. Otago, 3 arrived 6/4/41. Over 50 by 19/6/41, still here 10/8/41. (C.W.McL.). General but not very abundant in the Hokitika district, Oct.-Nov., 1941. Karori. Pair laid approx. 25/9/41, other pairs building 11/10/41. 2 nests lost by storm before laying, 1st week Oct. (C.A.F.) Mata. While cutting 7-year-old manuka in latter half of Jan., 1 nest of

fully fledged young found, 1 with newly-hatched chicks, 4 nests with eggs, 3 eggs in three, 4 in the other. About 20 nests in about 20 acres of manuka. Nests placed about 9 feet above the ground in the densest part of the shrub. April 15th, flocks forming and searching everywhere for food. Appear in the morning and retire to the coverts during the day, appearing in lesser numbers in the evening. (W.S.) Halkett. End of Aug., 1941. Disappeared after being about during the winter. (H.S.G.) Mt. Egmont. 15/11/41. 3000-4000ft., 5. 3000-2500ft., 1, and 16/11/41, 8. (R.H.D.S.) Hilderthorpe, N. Otago, first for the season, about a dozen, seen 20/4/42. By 20/5/42 increased to about 100. By 1/7/42, 500 or more, an unusually large number. (C.W.McL.) Dunedin. Birds scared away from food cups by bees and Red Admiral butterflies. One seen to catch a moth on the wing, alight and pull off its wings before eating it. (I.T.) Very common inland and on the W. coast from Wellington to Levin; also abundant in towns. Between Otaki and Otaki Forks, nearly as numerous as any of the introduced birds. Seen on a distance of less than 5 miles at least 50 birds, some still singing, all in pairs, none in flocks. Observed flocks honey-cating on flax flowers. (K.A.W.) Karori. 22/3/42, singing at 8.00 a.m. and another at 4.00 p.m. Cold and cloudy. 15/4/42 heard singing in snatches from scrub in morning, overcast and warm. 17/4/42. Mid-day, warbling softly; strong wind and warm. 19/4/42. Coming out of scrub on the Otaki hills I heard one singing in vociferous bursts from a scrubby collection of karamu. After the notes ceased and frequently while they lasted there would be subdued excited twittering from more white eyes. (H.L.S.)

TUI (*Prothemadera novaeselandiae*)—Dunedin. Report of tui chasing an owl. (I.T.) It may not have been observed that the tui will eat the mantis and how it does so, so perhaps I am fortunate in twice watching this process. I was not aware that any bird would tackle this large insect. The first occasion was in mid May, 1940, when I watched a tui searching along the branches and trunk of a large manuka tree on which there were many mantids, none less than 3 inches long and of the colour of the manuka bark. Each mantis was grabbed about the middle of the body and then was passed through the beak quite quickly from end to end and then swallowed whole, head first. Three appeared to be a meal. On another occasion I saw the same procedure which I watched for half an hour. After the meal of three the tui this time spent about 20 minutes preening feathers and making many

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droppings. (E.W.H.) Mata. One almost killed and eye taken out by 5 magpies. One seen catching bees from a hive in a hollow puriri. (W.S.) Bush patches N. of Eastbourne, Wellington, fairly well distributed. Not very plentiful at Buller's Bush, Levin. Numerous at Otaki Forks and on the Hector Track, Tararuas, but much less plentiful in Mangatukatuka Bush, east of Paraparaumu. (K.A.W.) Abundant in Brunner-Hokitika district Oct.-Nov., 1941. Kaiwarra Reservoir reserve, Wellington. Present since June, 1941. Pair with mating flight, 22/9/41. Absent in Nov. and Dec. (C.A.F.)

BELL BIRD (*Anthornis melanura*).—Very abundant in Brunner-Hokitika district and further south. (C.A.F.) Wintering at Te Waimate. (E.C.S.) Moumoukai, Clevedon. on own farm, one seen 10/6/42. The presence of the bell bird in the Mt. London-Moumoukai-Hunua Bush area has been suspected for some time but nothing sufficiently reliable to justify a report had so far come to hand. There is no doubt of the matter now. (J.W.St.P.) Dunedin. 26/7/42. Seven males close together with ruffled feathers, all singing the same song, one which is frequently sung in chorus. (I.T.) Mt. Egmont. 15/11/41. 3000-4000ft., one. 3000-2500ft., three; 16/11/41, five. (R.H.D.S.). One in the Takahewai Hills, Whangarei, during Nov., 1940. (W.S.) Female feeding three young in nest, Akaroa, 29/10/41. (R.A.F.) Possibly still present in Buller's Bush, Levin. Not very abundant at Otaki Forks and on the Hector Track, Tararuas. Scarce in the Mangatukatuka Bush, E. of Paraparaumu. Not uncommon in Taupo district. (K.A.W.)

BLUE-WATTLED CROW (*Callaeas wilsoni*).—Seen very frequently for nearly 40 years. When working near bush lately have seen single birds or pairs every week. Heard almost any time. I consider the crow to be plentiful here in relation to its population habits, and do not think the number has varied much in 40 years except that there seems to be an increase in the last two or three years. The area in which I know the crow is from Orere across Mt. London and Moumoukai nearly to Pararimu and Hunua. The full song of bell-like notes is rare and is confined mostly to frosty weather. The ordinary call is heard frequently. At times a sound is made something like the mewling of a cat. Full call noted in Sept. I have not yet seen a nest. 31/10/41. Moumoukai, Otau, Clevedon, 11, 12, 13/6/42 at least 4 heard so as to be separated. Probably twice as many really there. This is a new crow area. (J.W.St.P.) In mid-December, H.R.McK. and I visited the high bush about Mt. London, 2300ft., where the crow had frequently been seen by J.W.St.P. On the evening of Dec. 20th, as we were pitching camp the unmistakable notes of the crows were heard not far distant, and a little later we were watching a pair of them. They were moving about, now running, now by leaps and bounds, in a clump of trees, mainly tawa, whose leaf tips they were eating. Their organ-like notes were no longer used, but one bird was heard to utter a soft ku-ku-kuk, and with an attempted imitation of this I succeeded in arousing the bird's curiosity and luring it down within a few yards of me. On the following day a rather high wind hampered the locating of the birds. During a four-mile walk through heavy bush several calls were heard but only one pair was seen. There is clearly a good population of crows in this area of bush, which extends for many miles. (R.B.S.)

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GREENFINCH (*Chloris chloris*).—Waiouru. Aug. to Oct., common. Nest found 18/10/41. Young seen following old birds and uttering juvenile clanging chirp 13/1/42; when fed one flew off but the other mounted the adult's back. Ceased song Carterton about Feb. 12th. Fledgling with ear tufts seen Karori, 22/2/42. Several seen Carterton, 21/5/42, but not observed since early April. Every year in May, for four or five years, a single one has appeared in our Karori garden. (H.L.S.) Levin. Fairly rare. Only an occasional bird seen in the town area. Breeding in country districts. (H.T.W.) Oct., 1941, flocks 12-30 in the Waitaki and Cadrona Valleys. Upper Eglinton Valley, a few. (I.T.)

CHAFFINCH (*Fringilla coelebs*).—Levin and district. Fairly rare but numbers appear increasing. Breeding. During winter and autumn an occasional bird seen in town gardens, otherwise confined to country districts. (H.T.W.) Mt. Egmont, 15/11/41. 3000-4000ft., 7. 3000-2500ft., 1. (R.H.D.S.) 11/1/42. Cock pursuing a hen or young bird cock uttering chirping. (H.L.S.) Dunedin. Song first heard 1/8/41, last heard 23/4/42. Begins to cease in Jan. Upper Eglinton Valley, a few. (I.T.) Auckland, in full song, 10/8/40. (S.D.P.) Karori. Exceedingly abundant, spring, 1941. Building 11/10/41.

REDPOLL (*Carduelis cabaret*).—Mt. Egmont, 15/11/41. 3000-4000 ft., 2. (R.H.D.S.) Queenstown, Oct., 1941. 3 flocks near Moke Lake. Upper Eglinton Valley, a few. (I.T.) Karori. Spring, 1941, quite plentiful. Occasionally noticed in Westland between Taramakau R. and Waihoa. Oct.-Nov., 1941. (C.A.F.)

GOLDFINCH (*Carduelis carduelis*).—Mata. 11/4/42. 80 feeding on thistle seeds. (W.S.) Plentiful inland along the west coast from Porirua to Levin, but mostly east of the Main Trunk railway. (K.A.W.) Common in whole of the Horowhenua district, Levin. After the breeding season they roam the countryside in flocks. (H.T.W.) Dunedin. 27/9/41. One seen in a flock without the yellow or black in the wings. Head and tail normal. (I.T.) Two seen flying swiftly and singing, another bird following. 8/3/42. Young following adults seen 18/4/42. (H.L.S.) Glenary, Waikaia. Feeding and flying in a paddock, 20/9/40. First seen since summer. (E.W.C.) Hilderthorpe, N. Otago. Flock of 50, 19/6/41, feeding on seeds of Fat-hen (*Chenopodium album*). (C.W.McL.)

SPARROW (*Passer domesticus*).—Levin. Very common in whole district. (H.T.W.) Dunedin, 4/3/42, last seen feeding young. 23/4/42. One seen carrying a feather. (I.Y.) Masterton, 14/2/42. Hen heard uttering whining cheep, seen to copulate with a male which mounted her rump sideways. (H.L.S.) Hilderthorpe, N. Otago. Very numerous. (C.W.McL.)

YELLOW HAMMER (*Emberiza citrinella*).—Levin. Not common. Seldom seen in town area, usually met with in farming areas. (H.T.W.) Halkett. Seen at all times of the year. (H.S.G.) Oct., 1941. Several in Wanaka district, Arrowtown, L. Johnson, Moke Lake and Kawarau Gorge. Upper Eglinton Valley, a few. (I.T.) Carterton, small flock seen 7/3/42, also flock at Waingawa, 9/3/42, 29/5/42 heard flying over Carterton at 1.00 a.m., weather cool and cloudy. (H.L.S.)

CIRL BUNTING (*E. cirius*).—Halkett. Seen at all times of the year. (H.S.G.) Still well distributed in small numbers throughout Canterbury. (R.A.F.) Dunedin, 7/7/42, flock of 8-10 near harbour. (I.T.)

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THRUSH (*Turdus ericetorum*).—Hilderthorpe, N. Otago. Plentiful. First song heard 13/7/41. (C.W.McL.) Karori. First notes 29/3/41, again, low and throaty 7/4/41 (frosty). 30/4/41 low dull notes (all in scrub). First real song 6/5/41 in pines. First notes uttered from cover difficult to tell from white-eye's. Carterton, 21/3/42, singing, weather overcast. Kokotau, 23/3/42, singing, weather overcast. 24/3/42, near Carterton, also overcast. Times 6.00 and 11.00 a.m. and 3.00 p.m. Karori, 23/3/42, singing a few notes in plantation, weather cold and cloudy. Two birds seen on pine tops 5 feet distant, one singing, the other silent. Another bird arrived and the three flew away, 10/5/42. Karori at dusk 21/4/42, thrushes noisy, uttering soft "dip" note and many more noticed in pursuit of one another. One observed to capture a white butterfly. They have been seen formerly to take an interest in dead butterflies. (H.L.S.) Mata. Common. Saw one eating a leech off pear tree. April, 1942. (W.S.) Levin. Common and breeding in the whole district. Single thrush seen singing a few bars of song while resting on the ground under a small bush. Sang for about a minute, then remained silent for a similar period and then continued, song very low. 2/5/42. First real song 6/5/42. Day before no birds seen or heard singing, this day 12 different birds counted in one hour. (H.T.W.) Dunedin, 6/12/41, 4th egg laid. 26/4/42. One singing clearly and loudly. 29/4/42. Songs heard morning, noon and evening. 23/5/42. Song heard continuously. Oct., 1941, Wanaka district. Common. Seems to outnumber the blackbird. Upper Eglinton Valley, a few. (I.T.)

BLACKBIRD (*T. merula*).—Commencing to sing, Auckland, 20/3/41. (S.D.P.) Mt. Egmont, 15/11/41. 3000-4000ft., 12. 3000-2500 ft., 4. 16/11/41, 2. (R.H.D.S.) Dunedin district. Reports on birds with white feathers, over a period of years. 1 with white feathers on the neck and shoulders, 2 with white feathers in the wing, 2 with more white feathers than black and 1 pure white. Upper Eglinton Valley, a few. (I.T.) Waiouru, rare. Heard singing softly in pines about 3.00 p.m. 11/8/41, weather cloudy and cold. Cock observed fighting with stoat, Karori, 18/11/41, the blackbird was diving on the stoat which looked up. More blackbirds present in nearby veronicas. Parties of male and female birds together, Carterton, 23/5/42. (H.L.S.)

HEDGE SPARROW (*Prunella modularis*).—Kaiwarra Reserve, Wellington, exceedingly abundant, spring, 1941. Ubiquitous in Hokitika district, Oct.-Nov., 1941. (C.A.F.) Auckland, singing 10/8/40 and 27/5/41. Nest and eggs 26/10/40. (S.D.P.) Halkett, 25/6/42. Flying and calling in pairs. (H.S.G.) Opotiki, 16/10/41. Garden. Nest in rimu tree 3ft. from ground. Very inconspicuous and well hidden. 3 eggs, bird sitting. (N.P.) Ohau Estuary, near Levin. 19/4/42. Numerous in lupin on the coast. (K.A.W.) Mt. Egmont, 15/11/41. 3000-4000 ft., 7. (R.H.D.S.) 3/11/41, two birds seen, one behind the other, the first with vertically vibrating tail. The rear bird made several pecking movements

at the other's tail and then both birds swiftly turned about cloaca to cloaca and moved off. (H.L.S.)

LARK (*Alauda arvensis*).—Carterton, 29/6/42, heard singing 11.00 a.m., breezy sunny weather, song last heard in early May. 6/7/42.

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Heard one utter a burst of song, showery and sunny. Three birds were fighting generally twittering in flight. Two birds landed, one starting to sing raising the tail and shortly afterwards the wings, the other bird was quiet. (H.L.S.) Waikanae Estuary, 14/6/42. Flock of about 50 birds. (K.A.W.) Carterton, 10/2/42. Nest found with young. Ceased song about 12/2/42. On 28/1/41 larks did not sing at dawn but started at 6.00 a.m. and by 6/2/42 short bursts only were heard. (H.L.S.)

STARLING (*Sturnus vulgaris*).—Castlepoint, 5/4/42, 400-600 roosting on Castle Rock. (J.M.C.) Mt. Egmont, 15/11/41. 3000ft. around N. Egmont Hostel. (R.H.D.S.) Mata. Huge flocks roost in autumn up Swanee R. with shags. (W.S.) Levin. Very common, breeding in the whole district. (H.T.W.) Very plentiful in the Wellington district, both in town and country. Three roosting places near Wellington, Port Nicholson Heads 28/9/41 observed about 200 birds including all birds of Day's Bay and Eastbourne. A second north of Petone, and the third a pine tree near Government Buildings with several hundreds roosting every night. Waikanae Estuary, 18/4/42 observed with R.A.F. and A.A.K. between 4.30 and 5.30 p.m., very large number of birds in flocks of a few hundreds to several thousands, all moving from north to south, taking shelter owing to strong wind, behind the first coastal sand dunes. Approximate number 20-30,000 birds, but roosting place unknown. (K.A.W.) Dunedin. First young brought to the table, 17/11/41. Upper Eglinton Valley, a few. (I.T.) Heard to give a good imitation of a blackbird's opening notes. Big flock seen Carterton, 27/2/42. Heard making "dipping" notes and saw a chase in progress 11/2/42, this is frequently seen in spring. Seen on sheep backs. Seen flying about aimlessly shortly after midday in numbers, 7/3/42, seen leaving eucalypts as if to hawk for insects, 28/2/42 both hot days. About mid Feb., starlings' notes appear to change to musical whistles. Heard imitating a pipit. Bird with straw seen flying into rotten willow stump. 23/5/42. Carterton, 31/6/42 three flying near a magpie as if escaping, but they suddenly attacked it. Heard to imitate a redpoll. (H.L.S.)

MYNAH (*Acrodothores tristis*).—Masterton. Constantly present in restricted localities. Occasionally seen flying over our districts. (R.H.D.S.)

WHITE-BACKED MAGPIE (*Gymnorhina hypoleuca*).—Very common in the western part of the Wellington district up to Levin, also on the outskirts of townships, absent only inside the bush edge. Waikanae, 20/12/41, group of 7 birds, including 2 adult and 5 juveniles. Ohau R., 19/4/42, another flock of 5 birds. (K.A.W.) Burnham, Dec., 1941. Two seen fighting a harrier in mid-air and successfully driving it away from the nesting area. Hororata, numerous. (L.G.) Halkett. Every homestead at least 2 pairs. One nestling seen in the second week of June. They chase harriers and even larks. 24 seen feeding together. (H.S.G.) Extending range and numbers in the suburban districts about Christchurch. A large nest constructed of ends of wire was collected at Wigram Aerodrome, 22/10/41. (R.A.F.) Oct., 1941. 2 near Kartigi, 4 in Waitaki Valley and 3 or 4 in Lower Lindis Flats. (I.T.) Levin. Common. Breeding in the whole district. 10 counted from a car during a 9-mile trip, 26/4/42. (H.T.W.) Whangarei, common on farm land and edge of forest. They go in flocks of 7 and 8 (W.S.) May, 1942. Magpies seen around Oamaru and a little way south of Maheno but none further south. On trips north in previous years they were not noticed regularly south of the Waitaki R. (B.J.M.)

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