BIRDS

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N.Z. NATIVE BIRD PROTECTION SOCIETY

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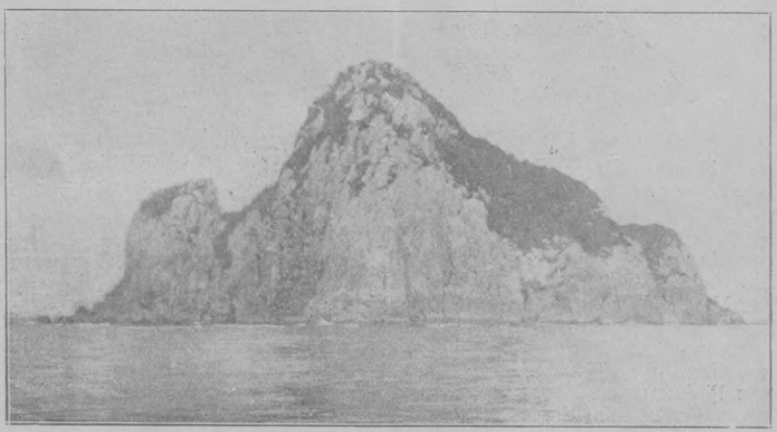

KAREWA—AN ISLAND SANCTUARY.
BAY OF PLENTY. [*B. Sladden.*

OBJECTS—To advocate and obtain the efficient protection and preservation of our native birds, a bird day for our schools, and unity of control of all wild life.

Affiliated with the International Committee for the Protection of Wild Birds.

The foundation of true conservation is in the setting aside of sanctuaries efficiently and rigidly controlled by men who know how.

SUBSCRIPTIONS: Life Members, £5; Endowment Members, £1; Ordinary Members, 5/-; Children, 1/- (Membership open to all)

New Zealanders! Protect Your Native Birds!

BULLETIN NO. 18 AUGUST, 1929.

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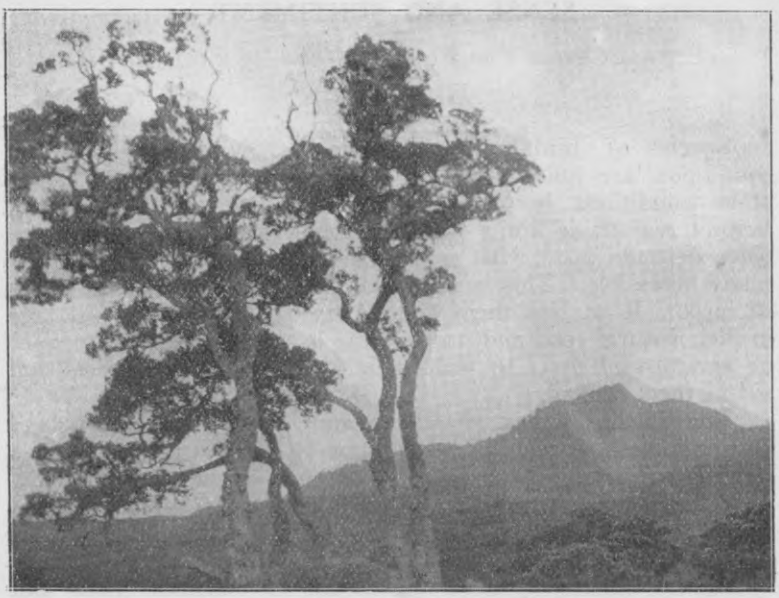


A VIEW OF LITTLE BARRIER ISLAND. [*B. Sladden.*

FORESTS AND BIRDS.

WE submit that the care of our forests and birds is allied very vitally to the well-being of every citizen of this land and that it is therefore most unwise that the administration of such should remain in the hands of the unskilled. Further, we should like to emphasise that nature lovers claim just as much right to the forests and birds as those desiring to use them merely for the purpose of fostering something to kill. There are more of us and we get more profit and pleasure from our forests and birds in our way than the killers do in theirs. We shall persist with our claims as citizens in this matter, and we shall feel wronged if our rights are not respected; besides this the well-being of our native forests and birds is an absolute necessity to our national prosperity, nay, our existence as a people.

SENSE AND SENTIMENT.

(Extract from *The Practical Value of Birds*, Junius Henderson.)

Species of birds which, in one locality or under certain conditions, are quite useful, may in another locality or under other conditions become either neutral or actually harmful. Within reasonable limits the food they take at a given time or place depends upon what is available in sufficient quantity and easily accessible. This is an important factor in the usefulness of birds. It enables them to live through periods of shortage in their natural food and to be ready in time of great abundance of agricultural pests to turn their attention to such pests and aid in their control.

The Starling appeared to be a quite useful bird in England before it became over-abundant, but by 1919 it had become a "serious menace to the production of home-grown food."

It is not uncommon for a few individuals belonging to a usually useful species to develop bad habits, especially when their natural food is scarce. That may afford a perfectly good reason for summarily disposing of the vicious individuals, but not for wholesale slaughter of the species. When some human beings indulge in criminal acts we do not imprison or hang the whole human race.

When any species of birds appears in such numbers, or under such circumstances, or changes its habits in such a way, as to do great harm, it is entirely justifiable to adopt any necessary measures to reduce its numbers, just as we do with destructive insects and rodents, though wholesale slaughter should be indulged in only after careful and thorough investigation and in extreme cases.

On the other hand, it would be well to remember always that if a Robin picks a few cherries during the fruit season, he is only collecting his pay for considerable good he has done during the other months of the year. If a Blackbird gets a little corn, he may have earned it by the destruction of insects which would otherwise have done more injury to the crop than the birds do. If we fail to pay the birds their fair wages for the police work in which they are engaged throughout the year, we may be heavy losers in the end. If we are to accept their services in our behalf, good sense and good sportsmanship demands that we be not too severe upon them when they indulge in a little mischief. Many species of birds that are sometimes locally more or less harmful, during most of the time are more or less useful, and by their occurrence in large numbers when insects or other farm, orchard or forest pests are overabundant, often save crops and trees from ruin.

One trouble is that man has introduced entirely new elements into Nature, on a vast scale, and Nature, in its naturally slow method of development, has not yet caught up with changing conditions. Under natural conditions there were no vast fields of corn, wheat, beans, cabbages, potatoes, and other products of the modern farm, no great orchards and vineyards, to afford hiding places, breeding places, and abundant food for myriads of insects and multitudes of rodents. If there were enough strictly insectivorous birds to suppress all insects during the season when insects are available, they would starve to death during the other months of the year (unless they could turn to other kinds of food), and then there would be no insectivorous birds to fight insects during the following seasons. Perhaps in the course of time Nature may be able to effect a complete re-adjustment, but if so, it will doubtless be in the quite distant future. Meantime our present need calls for the largest possible degree of wisdom and discretion, coupled with accurate and adequate information and complete freedom from prejudice either for or against the birds, in order that, as each problem arises, we may meet it fairly and reach conclusions that will not result in disaster.

"Natural enemies of birds are necessary and desirable, as they tend to maintain within proper bounds the number of species on which they prey; organised attempts to increase the number of birds over large areas by destroying indiscriminately all natural enemies are undesirable; under certain circumstances enemies which have been able to adapt themselves to man and his works and have become unduly numerous may require reduction in numbers; individuals of useful species which may become particularly destructive should be eliminated."—FORBUSH.

PARADISE DUCK.

[*Photo by Stewart V. Robertson.*

RODENTS.

It is not commonly realised what a wide-spread menace these little animals are. Collectively they make an enormous group, comprised of squirrels, gophers, lemmings, wood-mice, field-mice, rats, and many others. Their chief food is roots or green crops, and they are ultra-prolific. All people are familiar with the procreant multiplication of the common house-mouse, and field rodents are fully as productive.

Their prolificness at times is amazing. During ordinary seasons they merely seem to hold their own in numbers against natural enemies—birds, cats, and small vermin. Even in these days of "peace" their reproduction is great, but not sufficient to attract their enemies in greater force. The presence of fifty or a hundred field-mice on an acre of alfalfa does not affect the crop, and makes merely fair hunting for vermin. Presently, however, a period arrives when the rodents seem to multiply as if by magic. One litter after another is born, and within a few weeks these litters produce new litters. Perhaps birds and vermin have withdrawn from the neighbourhood, attracted to another locality by an abundance of food, and the rodents are free to breed unmolested. Then, without warning, they sweep in countless hoards broadcast over the land.

In this way the lemmings appear every few years in Norway and Sweden. They sweep in incalculable thousands slowly across the country, devouring all vegetation that stands in their path and leaving a brown, barren stretch behind. They pause for nothing, swim broad rivers and lakes, climb mountains, cross prairies, and finally plunge into the ocean. At their first appearance hosts of predatory animals gather. Foxes, wolves, small vermin, and birds of every description assemble on the trail of the lemmings and fight the retreating horde until it is swallowed by the sea. Even cattle and horses trample the rodent army under foot when it attempts to cross their pasture. Nature orders all her living forces to prey upon the insurgents.

The history of Great Britain is filled with mentionings of "plagues of mice" which from time to time have arisen to destroy the meadows and the root-crops. And her history also is replete with reference to the descent of hawks and owls upon the revaging swarms of rodents and the annihilation of them.

The Department of Agriculture at Washington has studied for more than half a century our native raptorial birds (hawks and owls) to determine which species are harmful to the work of man and which are beneficial. The contents of about 50,000 stomachs taken from the seventy-five species and subspecies which occur north of the Mexican line have been analysed.

The results show that out of the seventy-five only six forms are wholly detrimental to the interests of agriculture; beneficial birds form the greater part of their diet.

It is no longer the fashion to call the red-tailed and red-shouldered hawks poultry thieves. They are now recognised, like the sparrow-hawk, as birds to be courted, not killed. Poultry make up but 1 per cent. of the food of a red-shouldered hawk and ten for the red-tailed species. The screech-owl, barn-owl, and long and short-eared owls, are given every inducement to remain in the neighbourhood of farms. The American sparrow-hawk devours hundreds of insects and field-mice to every song-bird it takes. For each bird of economic value consumed, the owls, with the sole exception of the great-horned variety, destroy an average of 400 small rodents; two or three are devoured at a meal. Quite different are these records from that of the sharp-shinned hawk, which lives on a diet 98 per cent. bird.

With a multitude of similar facts before us it is no longer possible to condemn the hawk and owl families. All laws should be repealed relating to the killing of these birds, except the incorrigible six, and any other individual caught red-handed in the act of stealing poultry or game. A few States have already put some birds of prey upon the protected list, and the next decade probably will see the entire Union falling in line. The bounty system of paying for the killing of hawks has virtually everywhere been discontinued. The country has thus been saved millions of dollars both in bounties and in crops. The people are no longer willing to pay cash for what really amounts to increased destruction of their own farm products. They have learned through observation, research, and experience that a reduction in the number of raptorial birds is invariably accompanied by a wave of noxious rodents.—*The Importance of Bird Life* (INNES HARTLEY).

BIRD NEIGHBOURS.

You call them thieves and pillagers; but know
They are the winged guardians of your farms,
Who from the cornfields drive the insidous foe,
And from your harvests keep a hundred harms;
Even the blackest of them all, the crow,
Renders good service as your man at arms,
Crushing the beetle in his coat of mail,
And crying havoc on the slug and snail.

—LONGFELLOW, *Birds of Killingworth.*

BOTANY.

There should be no monotony
In studying your botany,
    It helps to train
    And spur the brain
Unless you haven't gotany.

It teaches you, does botany
To know your plants and spotany,
    And learn jus'why
    They live or die
In case you plant or potany.

You learn from reading botany
Of woolly plants and cottany,
    That grow on earth
    And what they're worth
And why some spots have notany.

You sketch the plants in botany
You learn to chart and plotany,
    Like corn or oats
    You jot down notes,
If you know how to jotany.

Your time, if you'll allotany,
Will teach you how and whatany,
    Old plant or tree,
    Can do or be,
And that's the use of botany.

—Robert Scalds.

PARADISE DUCKS.

During January of this year, while on a visit to the head waters of the Grey River, on the West Coast of the South Island, a party, who are interested in the protection of our native birds, were surprised to see several clutches of young paradise duck so tame that they could be approached within a distance of half a chain, as well as many adult birds. The reason for this it was ascertained is that Messrs. Palmer Bros. and Newcombe do not molest the birds nor allow anyone to shoot them on their land. It was indeed pleasing to the visitors to find these young settlers acting in this manner, for it is the exception rather than the rule, in this district, to find cases like this.

HUIAS.

Reports as to the occurrence of this rare and unique bird are occasionally received by the Native Bird Protection Society and indeed of other species supposed to be extinct or on the verge of extinction. Publicity is undoubtedly of great value in many ways, but surely when it is used to advise collectors of the locality where a rare bird has been observed it is merely inviting the destruction of the remnant. Quite recently the locality where a pair of Huias appeared was advertised by some unthinking person throughout the Dominion, and doubtless they will share the fate of those reported in 1912 which are stated to have been promptly collected. More recently another pair was reported in the Press and a collector was in the vicinity the very next day, so was a ranger who is a keen bird lover and this time the collector failed. Similar happenings occurred when the last Takahe was reported and many went out in an endeavour to secure the bird, so much so that the controlling Department, which is not itself above securing speciments for its Museums, issued a warning that the bird was absolutely protected and its molestation punishable with a heavy fine.

FEEDING NATIVE BIRDS.

The number of animals or birds or indeed any form of life which the land, sea, or forests can maintain is decided chiefly by the number that can be wintered as with stock on a farm. The present is the time of scarcity, and great help can be given native birds by feeding them during the difficult time in order that more may be available for breeding in the spring. Nectar feeding birds can be helped by supplying the equivalent in sugar syrup (three parts boiling water to one of sugar), while others will readily take beef suet, cooked potatoes, etc. Feeders should be placed where cats cannot interfere with the birds.

THE HEATH HEN.

In the North Eastern States of America the Heath Hen was once present in its tens of thousands, but they were good eating and were slaughtered for the market in a wholesale manner until their extermination was threatened. Then a few hundred were collected and placed at Martha's vineyard in Massachusettes, and strenuous efforts made to save the species. Fire swept the vineyard destroying numbers of the remnant first of all, but still the attempt was persevered with despite the fact that each year saw the numbers lessening. In 1927 only seven birds remained and in the last count only one. Now there are no Heath Hens to eat and another species of bird lost. Looks like collectors!

WHO SAID BIRDS?

(By a Naturalist's Wife.)

There are naturalists of many kinds wandering at large over the face of the earth, but there is one kind in particular—the "bird" variety. I know it best. I am the wife of one of it. My husband loves birds better than his wife, his children, his home, —even life itself, I do believe. It must be terrible to have such an affliction. From what I can gather, judging from the visitors that bless us with their presence, and talk "birds" into the wee sma' hours, while I sit quietly by and drink in their words of wisdom, it is an affliction that is spreading rapidly. It is incurable, like golf and fishing. I've heard of "golf widows," and even "poker widows," but I never heard of a "bird widow" until I became one myself.

Now, mind you, I like birds, but I'm sure I'd never spend any of my valuable time—or money—on them, nor lose any of my beauty sleep by getting up early to study them. Of course, I did get up at five a.m. one morning not so long ago, to visit a loon's nest, but that was just to please my husband. We didn't want anyone to know where the nest was, so we sneaked away early. It was a wonderful morning, fresh and clear, and the sun just coming up as we ventured forth—the kind of a morning that makes you feel "glad" all over, like Pollyanna. I could almost sympathise with these naturalists for wanting to be out on such a morning. And it was a lovely sight to see that bird's nest, too. I only wish that I had a pair of field glasses of my own, so that I could have had more of a chance to watch it, but glasses cost money, and there is enough money spent on this hobby in this house already.

The life of a naturalist's wife is a hard one, requiring patience, a well-concealed sense of humour, and tolerance. Patience—when your dinner guests are kept waiting while the naturalist is far afield after some "ringtailed hunkadunkus"; the sense of humour when it strikes you as being funny, instead of making you put bichloride of mercury in the soup; and tolerance when he insists on putting the "hunkadunkus" specimen in your newly scoured refrigerator (spilling the salad dressing on the pudding in doing so—Heavens!), and you let him get away with it.

I'm glad I'm sensible, and don't ride a hobby to death. It takes such a lot of time. Why, only to-day I had to leave my dishwashing and spend about half an hour watching a bird that was in our garden; I had never seen one like it before, but of course I don't know much about birds yet. I was fortunate

in having the field glasses, as my husband was away at the time. When he isn't here, I hang them by the window just in case anything interesting should come into the garden. I've tried keeping them round my neck while I worked, but they got in my way. Once they got into the wash tub while I was washing, and that is not good for field glasses. I found that out. My husband told me so when he learned of it—most emphatically.

Such silly things as these naturalists do! A short time ago a wounded bird was brought to us. Poor little thing! Its wing was injured and it was a sad looking object. My husband put it in a cage to give the wing a chance to heal. Such nonsense. A wild bird needs more room than a cage. I covered all the furniture in one of the bedrooms with sheets, put papers on the floor, and put the bird in there where it could convalesce in peace, without fear of the family cat. Not our cat, of course—I would not have a cat on the place. Cats kill birds. But someone else's cat.

Well, I fed our invalid every day and it was a joy to see it gradually regain the use of its wing. I was almost sorry when it was well enough to be released; it was like a member of the family. We banded it before it left us, and I often wonder if we will ever hear of it again. You should have seen the room after our feathered guest left us. It was a mess, and took a day's work to clean it up again.

This bird-banding is another phase of the malady. I know that it is of great scientific value to learn when and where the birds go, but I do wish it could all be found out without upsetting my happy home. We have a banding trap, and I often operate it when my husband is busy. Handling the wild birds makes them become very real to you, and you do get to love them. They are such tiny little bundles of feathered humanity, and I always feel like a wicked giant when I feel their frightened little hearts beating against my fingers. My young son has watched this banding with much interest, and his latest achievement is a trap of his own design, built of a soap box, a croquet stake, and a long rope. The box is heavy enough to stun a bird, if any bird was crazy enough to go near the trap, but the rope is so short that the operator has to stand out in full view, so I think the birds are safe. The thought strikes me—wouldn't it be terrible if my son should become a naturalist, too! Heaven protect us!

Cameras—that's another symptom. You must have a camera, and a good one, too, so that you can photograph all these birds, and frequently you must risk life and limb in doing it. I know all about it, for sometimes I am allowed to go along

on these photographic expeditions—just to help set up the tripod, and carry the extra plates, and do all those menial jobs that fall to the lot of the naturalist's wife. It certainly is a joke all the paraphernalia they need. And the cameras are so expensive, too. I bought one myself, recently, so that I could get some really good pictures of all the birds that come to our feeding shelf each day, so I know a little about what they cost. To-day I took my camera, and only had to put a soap box on a chair, and climb from it on to the top of the back fence, to get a picture of a young bird that had just left its nest. I weigh more than I used to—worry over my husband's hobby doesn't seem to reduce my weight any—but the fence was strong, and nothing happened to me. And I "got" the bird, too.

The feeding shelf is another thing that takes my time. I notice that while *he* built it, *I* am the one that keeps it supplied with food. It is no joke in the winter time to wade out in snow up to your neck to put suet in the bags for the woodpeckers, seed for the chickadees, and nuts for the nuthatches. I'm beginning to starve the family so that I can keep that bird cafeteria provided with food. We mustn't let our visitors starve, you know.

Really, I wish I knew what to do about my husband's hobby. It does take so much of his time. I wonder if he will get over it. I'm also wondering if I hadn't better go out and buy a pair of field glasses for myself; I really do need them if I want to learn anything about these birds, and my ornithological husband can go out and use his own old glasses to his heart's content. I'll get a good pair when I get them, too! Yes, sir, I will!—*Nature Magazine*, 1214 Sixteenth Street, N.W., Washington.

And if you see birds coming around your fruit crop when it is getting ripe, do not make the mistake of driving them all away. Often they are after the cut-worms and grubs that have been eating your supply. Even if they take a berry or two for dessert, the ultimate pay for their labour is certainly very small.

"How to keep insect pests in check is a question of the greatest importance to the whole community. It can be done at little or no cost by intelligently encouraging and protecting our birds." "Without the birds the gardener and farmer would find it impossible to grow any crops at all."—(Intelligence Department, South Australian Government.)

"It may be safely said that no country in the world suffers more from insect pests than South Africa, and the cheapest and most efficient agency to check their depredations is a sufficiency of bird life."—(Professor Ernest Warren and R. Godfry, "South African Gardening..')

"Man himself has wantonly destroyed his beautiful and faithful allies, the birds. He is now paying the penalty in the alarming spread of germ diseases and in the diminution of his animal and vegetable food supply."—(Sir H. H. Johnson, G.C.M.G., D.Sc.)

With intensive development of the soil there, of necessity, arises a corresponding increase of noxious insect life. It is, therefore, obvious that Nature's feathered checks to insect eruptions must be increased proportionately. This cannot be done unless we go about the matter in a practical and systematic way. The dense tangled forests and scrub cannot be replaced, so the next best thing to do is to resort to the erection of nesting boxes.—(PROFESSOR F. W. FITZSIMONS, Director Port Elizabeth Museum.)

SOMETHING LIKE NEW ZEALAND.

Museums could be made centres for the dissemination of knowledge on the subject by regular lectures to the schools within an area mapped out; and by press writings. Not nearly enough use is made of the museums of the country to further economic natural history. Systematic classifications and maintenance of huge collections of insects and other creatures, or writing papers on the variation of the hind legs of a beetle are, no doubt of use and interest to science; but our country is young, and a huge amount of spade work of a practical nature is necessary, and there are not enough trained men for the job. We have an enormous ignorant population of black people, and a goodly army of equally ill-informed Europeans, and we must try and educate them out of the habit of wilful and wanton destruction of our friends and allies in the lower animal world whose services are so sorely needed in our fight against noxious insects which take so heavy a toll of the products of our industry.

Ownerless cats are a fearful scourge to wild bird life, and even the best cared for cats are very destructive in this respect. Rats also take a very heavy toll of birds.

No garden is complete without its bird fountain or bath.

Insects have hosts of enemies other than our feather allies, but if we exterminated the native birds, the human population of South Africa would, in a few years, be reduced to a condition of starvation.—(PROFESSOR F. W. FITZSIMONS, Port Elizabeth Museum, South Africa.)

LIST OF NEW ZEALAND NATIVE BIRDS THAT HAVE MADE THIS LAND THEIR HABITAT WITHOUT THE AID OF MAN.

Little Blue Penguin ..... *Eudyptula minor*
Silver Penguin ..... *Eudyptula albosignata*
Victoria Penguin ..... *Eudyptes pachyrhynchus*
Big-crested Penguin ..... *Eudyptes sclateri*
Crested Penguin ..... *Eudyptes chrysocome*
Royal Penguin ..... *Eudyptes schlegeli*
Yellow-crested Penguin ..... *Megadyptes antipodes*
Rock-hopper ..... *Pygoscelis papua*
King Penguin ..... *Aptenodytes patagonica*
Yellow-webbed Storm Petrel .. *Oceanites oceanicus*
Grey-backed Storm Petrel .... *Garrodia nereis*
White-faced Storm Petrel .... *Pelagodroma marina*
Peales Storm Petrel ..... *Fregata lineata*
Black-bellied Storm Petrel .... *Fregata tropica*
Allied Shearwater ..... *Puffinus assimilis*
Forster's Shearwater ..... *Puffinus gavia*
Ashy-backed Shearwater ..... *Puffinus bulleri*
Wedge-tailed Shearwater ..... *Puffinus pacificus*
Sooty Shearwater or Mutton Bird ..... *Puffinus griseus*
Short-tailed Shearwater ..... *Puffinus tenuirostris*
Fleshy-footed Shearwater .... *Puffinus carneipes*
Black Petrel ..... *Procellaria parkinsoni*
White-chinned Petrel ..... *Procellaria aequinoctialis*
Grey Petrel ..... *Procellaria cinerea*
Silver-grey Petrel ..... *Priocella antarctica*
Grey-faced Petrel ..... *Aestrelata macroptera*
Kermadec Petrel ..... *Aestrelata neglecta*
Sunday Island Petrel ..... *Aestrelata externa*
Mottled Petrel ..... *Aestrelata inexpectata*
White-headed Petrel ..... *Aestrelata lessoni*
White-winged Petrel ..... *Aestrelata cookii*
Pacific Petrel ..... *Aestrelata parvirostris*
Cape Pigeon ..... *Daption capensis*
Antarctic Petrel ..... *Thalassoica antarctica*
Blue Petrel ..... *Halobaena caerulea*
Dove Prion ..... *Pachyptila desolatus*
Fairy Prion ..... *Pachyptila turtur*
Broad-billed Prion ..... *Pachyptila vittata*
Giant Petrel ..... *Macronectes giganteus*
Diving Petrel ..... *Pelecanoides urinatrix*

Sooty Albatross ..... *Phoebetria fusca*
Light-mantled Sooty Albatross.. *Phoebetria palpebrata*
Wandering Albatross ..... *Diomedea exulans*
Royal Albatross ..... *Diomedea epomophora*
Black-browed Mollymawk .... *Thalassarche melonophrys*
Snares Island Mollymawk .... *Thalassarche bulleri*
Flat-billed Mollymawk ..... *Thalassarche chrysostoma*
Yellow-nosed Mollymawk .... *Thalassarche cholororhynchus*
Bounty Island Mollymawk .... *Thalassarche cauta*
Frigate Bird ..... *Fregata minor*
Lesser Frigate Bird ..... *Fregata ariel*
Black Shag ..... *Phalacrocrax carbo*
Little Black Shag ..... *Phalacrocorax ater*
Bounty Island Shag ..... *Phalacrocorax ranfurlyi*
Auckland Islands Shag ..... *Phalacrocorax colensoi*
Chatham Island Shag ..... *Phalacrocorax onslowi*
Macquarie Island Shag ..... *Phalacrocorax traversi*
Bronze Shag ..... *Phalacrocorax chalconotus*
Stewart Island Shag ..... *Phalacrocorax huttoni*
Campbell Island Shag ..... *Phalacrocorax campbelli*
Rough-faced Shag ..... *Phalacrocorax carunculatus*
Pied Shag ..... *Phalacrocorax varius*
Frilled Shag ..... *Phalacrocorax brevirostris*
Spotted Shag ..... *Stictocarbo punctatus*
Chatham Island Shag ..... *Stictocarbo featherstoni*
Australian Darter ..... *Anhinga novaehollandiae*
Australian Pelican ..... *Pelecanus conspicillatus*
Brown Gannet ..... *Sula leucogaster*
Masked Gannet ..... *Sula dectylatra*
The Gannet ..... *Sula serrator*
Red-tailed Tropic Bird ..... *Phaethon rubricauda*
White-winged Tern ..... *Chlidonias leucoptera*
Black-fronted Tern ..... *Chlidonias albistriata*
Caspian Tern ..... *Hydroprogne caspia*
White-fronted Tern ..... *Sterna striata*
Sub-Antarctic Tern ..... *Sterna vittata*
Crested Tern ..... *Sterna bergii*
Sooty Tern ..... *Sterna fuscata*
Fairy Tern ..... *Sterna nereis*
Little Grey Noddy ..... *Procelsterna caerulea*
White-capped Noddy ..... *Anous minutus*
White Tern ..... *Gygis alba*
Black-backed Gull ..... *Larus dominicanus*
Red-billed Gull ..... *Larus novaehollandiae*
Black-billed Gull ..... *Larus bulleri*
Great Skua ..... *Catharacta antarctica*

South Polar Skua ..... *Catharacta maccormicki*
Arctic Skua ..... *Stercorarius parasiticus*
Australian Snipe ..... *Gallinago hardwicki*
New Zealand Snipe ..... *Scolopax aucklandica*
Chatham Islands Snipe ..... *Scolopax pusilla*
Snares Island Snipe ..... *Scolopax huegeli*
Knot ..... *Calidris canutus*
Curlew Sandpiper ..... *Erolia testacea*
Sharp-tailed Stint ..... *Pisobia acuminata*
Red-necked Stint ..... *Pisobia ruficollis*
Little Stint ..... *Pisobia minuta*
Pectoral Sandpiper ..... *Pisobia maculata*
Greenshank ..... *Glottis nebularius*
Grey Sandpiper ..... *Heteroscelus incanus*
Godwit ..... *Limosa lapponica*
American Godwit ..... *Limosa limosa*
Little Whimbrel ..... *Mesoscolopax minutus*
Australian Whimbrel ..... *Numenius phaeopus*
Australian Curlew ..... *Numenius cyanopus*
Sanderling ..... *Crocethia alba*
Grey Phalarope ..... *Phalaropus fulicarius*
Pied Stilt ..... *Himantopus leucocephalus*
Black Stilt ..... *Himantopus novaezealandiae*
Red-necked Avocet ..... *Recurvirostra novaehollandiae*
Pied Oyster-catcher ..... *Haematopus ostralegus*
Black Oyster-catcher ..... *Haematopus unicolor*
Turnstone ..... *Arenaria interpres*
Lesser Golden Plover ..... *Pluvialus dominicus*
New Zealand Dottrel ..... *Charadrius obscurus*
Double-banded Dottrel ..... *Charadrius bicinctus*
Red-capped Dottrel ..... *Charadrius ruficapillus*
Oriental Plover ..... *Charadrius veredus*
Wry-billed Plover ..... *Anarhynchus frontalis*
Shore Plover ..... *Thinornis novaeseelandiae*
Spur-winged Plover ..... *Lobibyx novaehollandiae*
Australian Pratincole ..... *Stiltia isabella*
Auckland Island Rail ..... *Rallus muelleri*
Little Chatham Island Rail .... *Cabalus modestus*
Buff-banded Rail ..... *Hypotaenidia philippensis*
Chatham Island Rail ..... *Nesolimnas dieffenbachii*
North Island Woodhen ..... *Gallirallus greyi*
Brown Weka or Woodhen .... *Galliralus australis*
Black Weka or Woodhen ..... *Galliralus brachypterus*
South Island Weka or Woodhen *Galliralus hectori*
Corncrake ..... *Crex Crex*
Marsh Rail ..... *Porzana pusilla*

Swamp Rail ..... *Porzana plumbea*
Pukeko or Swamp Hen ..... *Porphyrio melanotus*
Takahe ..... *Notornis hochstetteri*
Black-tailed Water Hen ..... *Tribonyx ventralis*
Coot ..... *Fulica atra*
Great Crested Grebe ..... *Podiceps cristatus*
Dabchick ..... *Podiceps rufopectus*
North Island Kiwi ..... *Apteryx mantelli*
South Island Kiwi ..... *Apteryx australis*
Little Grey Kiwi ..... *Apteryx owenii*
Great Grey Kiwi ..... *Apteryx haastii*
New Zealand Quail ..... *Coturnix novaezealandiae*
Wood Pigeon ..... *Hemiphaga novaeseelandiae*
Chatham Islands Pigeon ..... *Hemiphaga chathamensis*
Whistling Duck ..... *Dendrocygna eytoni*
Paradise Duck ..... *Casarca variegata*
Grey Duck ..... *Anas superciliosa*
Grey Teal ..... *Querquedula gibberifrons*
Brown Duck ..... *Elasmonetta chlorotis*
Auckland Islands Duck ..... *Nesonetta aucklandica*
Shoveller Duck ..... *Spatula rhynchotis*
Mountain Duck ..... *Hymenolaimus malacrorhynchus*
White-eyed Duck ..... *Nyroca australis*
Scaup ..... *Fuligula novaeseelandiae*
Auckland Islands Merganser .. *Mergus australis*
Grey Heron ..... *Ardea cinerea*
White-fronted Heron ..... *Notophoyx novaehollandiae*
Great White Heron ..... *Egretta alba*
Blue Heron ..... *Demigretta sacra*
Night Heron ..... *Nycticorax caledonicus*
Little Bittern ..... *Ixobrychus minutus*
Black-backed Bittern ..... *Botaurus poiciloptilus*
Glossy Ibis ..... *Plegadis falcinellus*
Royal Spoonbill ..... *Platalea regia*
Quail-hawk ..... *Falco novaeseelandiae*
Nankeen Kestrel ..... *Falco cenchroides*
Harrier ..... *Circus approximans*
Morepork ..... *Ninox novaeseelandiae*
Laughing Owl ..... *Sceloglaux albifacies*
Kakapo ..... *Strigops habroptilus*
Red-fronted Parrakeet ..... *Cyanoramphus novaezelandiae*
Antipodes Island Parrakeet .... *Cyanoramphus unicolor*
Yellow-fronted Parrakeet .... *Cyanoramphus auriceps*
Orange-fronted Parrakeet .... *Cyanoramphus malherbei*
Kaka ..... *Nestor meridionalis*
Kea ..... *Nestor notabilis*

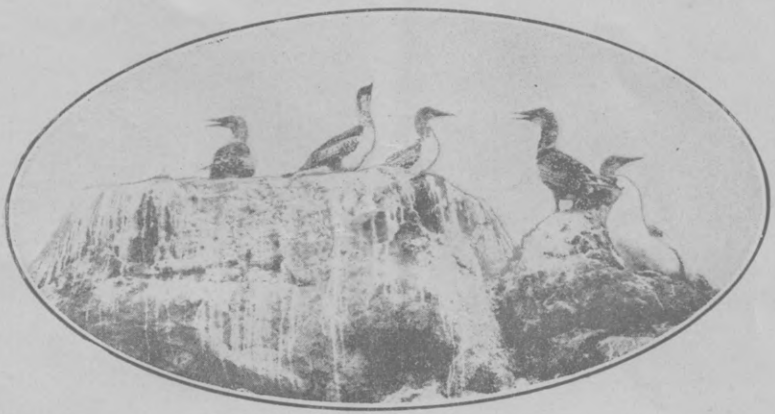
Oriental Cuckoo ..... *Cuculus optatus*
Shining Cuckoo ..... *Lamprococcyx lucidus*
Long-tailed Cuckoo ..... *Urodynamis taitensis*
Roller ..... *Eurystomus orientalis*
Kingfisher ..... *Halcyon sanctus*
White-rumped Swift ..... *Micropus pacificus*
Spine-tailed Swift ..... *Chaetura caudacuta*
Rifleman ..... *Acanthisitta chloris*
Stephen Island Wren ..... *Traversia lyalli*
Bush Wren ..... *Xenicus longipes*
Rock Wren ..... *Xenicus gilviventris*
Australian Tree Swallow ..... *Hylochelidon nigricans*
South Island Tomtit ..... *Myiomoira macrocephala*
North Island Tomtit ..... *Myiomoira toitoi*
South Island Robin ..... *Miro australis*
North Island Robin ..... *Miro longipes*
Black Robin ..... *Miro traversi*
Pied Fantail ..... *Rhipidura flabellifera*
Black Fantail ..... *Rhipidura fuliginosa*
Grey Warbler ..... *Gerygone igata*
Chatham Island Warbler ..... *Gerygone albofrontatus*
Little Cuckoo Shrike ..... *Coracina robusta*
North Island Thrush ..... *Turnagra tanagra*
South Island Thrush ..... *Turnagra capensis*
Fern Bird ..... *Bowdleria punctata*
Chatham Island Fern Bird .... *Bowdleria rufescens*
Yellow head, or Bush Canary .. *Mohoua ochrocephala*
Whitehead, or Bush Canary .... *Mohoua albicilla*
Creeper ..... *Finschia novaeseelandiae*
White-eyed, or Silver-eye .... *Zosterops lateralis*
Bellbird ..... *Anthornis melanura*
Chatham Island Bellbird ..... *Anthornis melanocephala*
Stitchbird ..... *Notiomystis cincta*
Tui ..... *Prosthemadera novaeseelandiae*
Yellow Wattlebird ..... *Anthochaera carunculata*
Ground Lark ..... *Anthus novaeseelandiae*
Huia ..... *Heteralocha acutirostris*
Saddleback ..... *Creadion carunculatus*
Orange-wattled Crow ..... *Callaeas cinerea*
Blue-wattled Crow ..... *Callaeas wilsoni*

BELL BIRDS.

The bell-birds in the magic woods—
Oh, harken to the witching strain:
It flows and fills in silver floods
And fills and flows again.—WILLIAM SATCHELL.

"When the lion shall lay down with the lamb."

SPORTING DOG AND WEKA.
[*Photo—Rangi Webber.*



GANNETS IN JUVENILE PLUMAGE.
[*B. Sladden.*

[*Photo—Stewart V. Robertson.*

TAKAHE
(Notornis-hochstetteri)
(Very rare.)

Only three of this species have been reported as having been seen.

New Zealanders!

No Insect-eating Birds

means no crops.

Fire in our Forests

means sudden death to our forests,

Animals in our Forests

means slow but certain death to our forests.

No Native Birds

means no native forests.

No Forests

means decreased production, desolation and poverty,

Will YOU help to avoid these results?

Please pass this Booklet on to a friend if of no further use.

Extra copies will be forwarded on request,

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