# BIRDS

ISSUED BY

# N.Z. NATIVE BIRD PROTECTION SOCIETY

Head Office - - Box 631, Wellington
Southland Branch: Box 400, Invercargill
Otago Branch - - Box 672, Dunedin



#### FOUR NEW ZEALAND FRIENDS-PIPIT AT BREAKFAST.

[Photo by Mrs. Gillanders, 64 High Street, Musselburgh.

OBJECTS—To advocate and obtain the efficient protection and preservation of our rative birds, a bird day for our schools, unity of control of all wild life, and the preservation of sanctuaries, scenic reserves, etc., in their native state.

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 per annum.

Ordinary Members - - 5/- per annum.

(Membership open to all) Children - - - - 1/- per annum.

New Zealanders! Protect Your Native Birds!



THE SYMPATHETIC READER.
[Photo by Mrs. Gillanders.



PIED FANTAIL FEEDING HER YOUNG.
[Photo by Stewart V. Robertson.



RIFLEMAN
[Photo by Stewart V. Robertson.



GREY DUCK.
[Photo by Stewart V. Robertson.



BLUE HERON NESTLING, Bay of Plenty. [Photo by B. Sladden.

NABILITY, on the part of many of those organisations who administer wild life matters, to view the matter nationally is the stumbling block to a better appreciation of the complexities connected therewith. Thus Departments in some cases place their interests before those of the community. and other organisations act similarly. The truth is that as our forests are damaged so native birds, game birds, fresh water fish and wild life in general must decrease. Temporary increases in some species may occur in localities, but as to the final results there can be no doubt. The results of past efforts to administer wild life matters verily speak for themselves and are a sore menace to the interests of the sportsman, fisherman, the nature lover, etc., but above all are already a serious handicap to the progress of the nation. Yet what has been, is good enough for those who are gainers by the present system. Never mind New Zealand. It is only by the welding together of all interests under a common leadership that progress instead of retrogression is possible in dealing with the conservation of desirable wild life and the elimination of the undesirable.

#### ANNUAL REPORT.

The Society has in the past twelve months continued to progress in a very satisfactory manner as heretofore and actively pushed innumerable matters in the interests of our birds and forests. Amongst these may be mentioned the kea question, and our efforts, assisted by other organisations, resulted in the bounty being reduced from 5/- to 2/6. It was emphasised that any harm these birds do should be controlled at the expense of the landowner, many of whom hold large areas at peppercorn rentals, and not at the expense of the taxpayer.

More money per annum was being spent on the destruction of these birds, many of which had never seen a sheep in their lives, than was being spent in checking that major menace to the homes of our forest inhabiting birds, to wit, plant-eating animals in our forests.

The Society has also been exceedingly active in this latter major menace, and the Conference held on the 7th May last in Christchurch was the culminating point for the time being of our efforts. It is pleasing to note that the public have at last been awakened to the gravity of this menace to our national prosperity, and that active steps are proposed to combat the evil if possible. Our Society can be relied upon to inform the public if any relaxation occurs in the present good intentions.

A branch of the Society has been formed in Otago with headquarters in Dunedin, and it is felt that their endeavours will materially assist the efforts of the Society as a whole in our great national work as many members in this district have shown great activity and given invaluable assistance in the past year.

A branch will also be formed in Southland, with headquarters at Invercargill, in a few days. Mr. J. B. Thomson, one of our energetic vice-presidents, is active in this matter.

Our financial side shows a credit of £416 18s. 4d. on the 31st December last, but all this and more will be absorbed by expenses in producing bird charts for our schools, posters in reference to the animals in our forests question, etc. The finding of an artist capable of producing paintings accurate in ornithological detail has proved an obstacle to progress in reference to the bird charts, but your Executive think that this has now been overcome.

The demise of our late President, the Hon. Sir Thomas Mackenzie, has been very unfortunate. It was at his suggestion in 1922 that this Society was formed, and during all his lifetime,

including the time when he lay on his death bed, his great activity and zeal in the interests of our native birds has been marked. Your Executive consider that our Society should head an effort to suitably commemorate his love for our birds and his lifelong efforts on their behalf. A recommendation to this effect is made to the incoming Council.

Amongst other foremost helpers, the deaths of Sir George Fenwick, A. T. Clarke, Esq., and others have to be regretfully recorded.

The outgoing Council further recommends that as new branches are being formed the rules of the Society be so revised as to permit all members throughout New Zealand voting for the election of officers, instead of as in the past only those resident in the Capital City.

We have to acknowledge the hearty assistance given to this movement to save our unique birds and plant life from total destruction by the Department of Education, Postal and Telegraph Department, Forest Service, and indeed all Government departments. The importance of wild life matters was not realised in earlier times and their control was allowed to drift largely into the hands of sportsmen, and the care of various matters therewith was entrusted to many different departments. straightening out of this tangle must necessarily be accompanied by some friction and departmental jealousies, but we are pleased to be able to state that the Hon. Minister of that Department which controls sport has shown a desire to find a solution of the many difficulties, ant it is believed that he will act in a statesmanlike manner and finally be prepared to insist that the matter be handled nationally, even though his Department should be one of those which has to relinquish a share of the voice in the control of wild life matters.

Your Executive whole-heartedly acknowledges the co-operation and assistance of many kindred organisations, too numerous to mention, who have rendered invaluable aid in imbuing that regard for our birds and forest, now becoming so marked, and without which all laws are of little avail.

His Excellency the Governor-General, who is intensely interested in the saving of a sufficiency of birds and forests the world over, has graciously accepted the office of Patron to our Society, and we feel that His Excellency's action will materially assist the efforts of those, now constituting a majority, who desire to save our wonderful flora and fauna.

E. V. SANDERSON,

Dunedin, 15th May, 1930. Hon. Secretary.

### HOW TO GROW NATIVE TREES.

(By CAPTAIN E. V. SANDERSON.)

Our native trees require somewhat different treatment from many exotics, and flourish best in communities or groves. If you look at the nearest bush covered hill-top you will of course see that the indigenous trees grew there despite the exposure to winds and storms. Why? Because they came up en masse, one sheltering and shielding the other. Therefore let us adopt Nature's plan. We first of all plant those trees which eventually shall be permanent. These should be placed sufficiently far apart so that they will mass upon maturity. As, for instance, a Pohutukawa (Metrosideros tomentosa) will cover a circle about twenty feet in diameter, while a Hinau (Elaeocarbus dentatus) will similarly cover a thirty-foot diameter circle, a Kowhai (Edwardsia microphylla), say, 15 feet. Such sufficient spacing will allow ordinary crown development when fully grown. Now fill the spaces in between these permanent trees with some suitable nurse plant, such as Taupata (Coprosma retusa), if on the coast; Karamu (Coprosma robusta), or such cheap and handsome shrubs as Lacebark or Houhere (Hoheria populnea), Mahoe (Melicytus ramiflorus), Rangiora (Brachyglottis repanda), or other eimilar quick growing plants. All plants chosen should be suited to the local climatic conditions and soil, and one cannot go far wrong in this if species are chosen which grow naturally or once grew in the locality. As our grove grows the nurse plants must be kept from over-crowding the plants which are intended for permanence by cutting back or as time goes on cutting out altogether where necessary. The soil during the initial stages should be kept free from grass and strong growing weeds by merely keeping the surface stirred. Digging should be avoided because most of our trees are surface feeders and digging will damage the roots. In from two to three years the nurse plants, which should be spaced about six feet apart, will have closed together and all necessity for further cultivation is removed. All leaves, dead sticks, etc., should be left on the surface to form a humus covering. In the initial stages it is preferable to choose plants other than those whose habitat is the forest proper as these require shade. A forest has first of all its fringe or should have. on the coast would naturally be usually Taupata growing right down to the water edge as it once did in many parts before the introduction of plant-eating animals. Inside this next comes the outskirters, Ngaio, Karaka, Tarata, Koheriki (Melicope ternata), Titoki, Kowhai, and such like. Inside this initial shelter comes the main forest, Rimu, Kahikatea, and a host of other forest trees. It is necessary, therefore, to start with the outskirters before venturing on Rimu and such other inhabitants of the forest proper. The necessary shade will later be present to harbour these.

Many of these outskirters will grow and look well as individual trees around one's garden, but the growth of natives will be very much faster if grown on the grove principle, indeed many species will astonish those who are under the impression that our native trees are all slow growing. If planted amongst grass and in hard packed soil they will certainly be slow and struggle for years, but given free soil and above all good drainage quite different results are quickly in evidence. Thus the Ngaio has been known to grow 10 feet in twelve months and the Whau faster still.

To prepare the ground for the grove it is best to cultivate the whole area and then let it lie fallow for a week or two. All that is then required is to give it a rough rake over after rain, immediately weeds show above ground. Each tree should be planted with care, puddling it in and then compressing the ground with the feet. Remember that people with big feet make good planters. See that the newly planted shrubs are kept moist for a week at least after planting and you will not have many losses provided that the roots prior to planting have not been allowed to become dry by exposure to sun or dry air. The best time to plant is in the late autumn or early spring. It is money well spent if those plants at least which are intended for perpermancy are procured from a reliable nurseryman as they will then have been properly treated prior to despatch.

Our native trees are all rare trees as few of them are found wild in any other country, and owing to depredations of planteating animals, fire, and other causes they are yearly becoming less. Besides giving the grower much pleasure a stand of pure

native trees will in the future be of unique value.

The following is a list of berry bearing and nectar supplying plants. Foremost amongst these is the Poroporo or Bullibull as it bears the first year and grows with great rapidity in a moist situation. It only lives for three years but will seed itself. It was off this plant that the Maoris snared tuis in large numbers in former days. Birds are wonderfully responsive to sympathy, but good results cannot be expected unless war is declared in no uncertain manner on such predatory animals as the house cat. The presence of cats and pea-rifles around our homes means the presence of insect pests, since the birds that would keep them in check are either killed or driven away.

## HONEY-PRODUCING TREES.

Alseuosmia in variety.

Clianthus in variety (Kaka Beak).

Coriaria ruscifolia (Tutu).

Fuchsia excorticata (Kotukutuku).

Knightia excelsa (Rewarewa).

Metrosideros all varieties (Rata Vitex lucens (Puriri). and Pohutukawa).

Phormium tenax in variety (Harakeke) Flax.

Sophora tetraptera grandiflora.

Sophora tetraptera var. microphylla.

Sophora tetraptera in variety (Kowhai).

# BERRY-PRODUCING TREES AND SHRUBS.

Alectryon excelsum (Titoki). Aristotelia racemosa (Mako-

mako).

Astelia in var. (Sedge Grass).

Beilschmiedia (Tawa). Beilschmiedia tarairi. (Tarairi).

Corynocarpus laevigata (Karaka).

Coprosma in variety.

Cordyline australis (Cabbage Tree)

Drimys (Horopito).

Dysoxylum spectabile (Kohekohe).

Elaeocarpus dentatus (Hinau). Eugenia maire (Mairetawake).

Fuchsia excorticata (Konini).

Hedycarya arborea (Porokaiwhiri).

Macropiper excelsum (Kawakawa).

Melicytus ramiflorus (Mahoe).

Myrtus in variety (Ramarama).

Nertera depressa.

Olea in variety (Maire)

Parsonsia (Kaiku) foliage.

Podocarpus dacrydioides (Kahikatea).

Podocarpus ferrugineus (Miro)

Podocarpus spicatus (Matai)

aviculare (Poro-Solanum poro).

Rhipogonum scandens (Kareao) Supplejack.

Rubus australis (Tataramoa) Bramble.

Tetrapathaea tetrandra (Kohia) Passion Flower).

"With public sentiment nothing can fail, Without it nothing can succeed."

ABRAHAM LINCOLN.

# FOREST CONSERVATION ESSENTIAL TO GAME CONSERVATION.

(Paper read by George D. Pratt, at Sixteenth American Game Conference.)

As President of the American Forestry Association, I am naturally concerned about the forestry conditions of the country, the need for the acquisition of more forest lands, more effective fire preventive measures and aggressive educational programmes which will spread the story of forest needs and progress, but in the very nature of things, an interest in the forests must include a growing concern for the wild life which once lived here in such abundance. In fact, it was my interest in big game hunting that led me into conservation work many years ago.

There are three phases of outdoor life which are very closely related, forests, game, and recreation. Without the forests many specimens of game could not exist, and unless the game animals are in the forests, thousands of people would feel no incentive to go there. The angler finds relief from the grind of every day living when he enters the woods to fish, but unless fish are in the streams he is unlikely to go. In other words, our forests lose much of their attractiveness and usefulness when they are without the presence of wild life.

Game laws, necessary as they are, would be of little avail unless forest conservation and restoration is carried out. Take the disastrous change brought about in fish life due to the pollution of our streams and altered stream flow, which are the direct results of the burning or cutting of the forest cover. Streams that once had their birth in the protected areas of abundant forests have become sluggish and scanty of flow because they have been robbed of the benefits of the forest cover. In many cases soil washed from unprotected slopes by violent storms has choked the rivers and in other cases the streams have overflowed because of the rush of waters which, had the forests been in their natural state, would have been diverted to the forest bed.

It is not hard to imagine the chaos wrought in the life habits of the wild duck which feeds and nests upon the lower reaches of a stream when destructive floods or faminishing droughts rob it of its home and food.

Certain fish, such as the black bass, depend on the live food in the streams for their subsistence, and when we cut and denude our forests, we have in part at least destroyed their food supply.

It goes without saying that a large toll of wild life is taken in every big forest fire. That is inevitable, and here again forest conservation is game conservation, for proper protection against fire will naturally prevent loss of game. In spite of the fact that in some instances woodland fires are followed by shrubs and plants of special food value to certain species of game birds, it can never counterbalance the great loss sustained in the game life of the country through large forest fires.

The very abundance of forests and game with which our country was blessed, led to the ruthless cutting and killing that went on for so many years, but we can in a measure atone for the mistakes of the past by the wise conservation and protection of the many millions of acres of forests and woodlands still within our borders. There is much work to be done in securing adequate appropriations from the Federal Government for the acquisition of additional forest lands, proper fire protection, etc., all of which will result in a direct benefit to our wild life. While there are certain problems which need adjustment regarding land management for forestry purposes and for wild life, these can be adjusted and forests and game lovers have a common good in view in co-operating in the work of protecting the soil of the forests against erosion and fire, and encouraging the perpetual growth of trees, thus making for the natural conditions of wildlife environment.

By collective effort, the forest conservationist has quite as much to gain as the game conservationist, because the wild lands of this country can be restored to plant and game productivity only by the development of a public will to protect and restore. This end can be reached by co-operation on the part of the Federal Government in the acquisition, protection and management of wild forest lands, and then by the private owner in the development of commercially profitable methods of forest and game management.

Under the protection of the Government are the National and State forests, game preserves and parks. A significant step in the right direction was taken by the Government in the recently passed McNary-Sweeney Bill, which authorises forest research with a view to more intelligent National, State, and local programmes. These forest research programmes cover investigations of the problems and resources of wild life in connection with

forestry practices.

Wild life in this country is most abundant in the National forests of the west, which provide natural range for 75 per cent. of the big game animals in the public lands States. Within the national forests there are 125 State game refuges,\* with a total area of 19,500,000 acres. In addition they include between two and three million acres in Federal game refuges, and 2,000,000

\*sanctuaries

acres especially managed for game restoration. I hope we shall soon see the day when there will be more National forests in the east, as the presence of such forests will not only benefit the stream flow and natural environment but will provide game refuges. To this end the McNary-Woodruff Bill was passed in the Federal Congress last year, and if the funds authorised by the Bill are appropriated we can look for some relief in this direction. New York State will eventually set aside 100,000 acres of State-owned forest land as game refuges.

It is perhaps even essential for the private owners of forest lands, whose holdings approximate 370,000,000 acres, to cultivate wild life if they are to increase the profitable utilisation of their lands. Commercial forestry is a precarious undertaking from a financial point of view, but the cultivation of the land to provide correct environment for wild life opens up many

possibilities in the way of financial enterprises.

In the last analysis, therefore, it is a question in a very literal sense of "getting back to the soil." To many laymen, this phrase has no significance except from an agricultural standpoint, but no one can estimate the far-reaching benefits to be derived from the proper cultivation and restoration of the soil of our woodlands, where our forests must take their roots, and in the wake of adequate forest cover will come controlled stream flow, proper environment for game life, both land and aquatic, increased opportunities for recreation in the out-of-doors, which must result in greater vigour for the American people and thus bring to the nation a finer race of men than can ever be bred if we are to neglect our natural resources and live wholly urban lives.

## TREES.

I think that I shall never see
A poem lovely as a tree.
A tree whose hungry mouth is prest
Against the earth's sweet flowing breast.
A tree that looks to God all day
And lifts her leafy arms to pray.
A tree that may in summer wear
A nest of robins in her hair.
Upon whose bosom snow has lain;
Who intimately lives with rain.
Poems are made by fools like me,

-By Joyce Kilmer.

But only God can make a tree.

### THE OIL MENACE.

Mr. W. Bellows writes from Gloucester to the Royal Society for the Protection of Birds of Great Britain:—

"I was spending a week-end in summer with a friend, on the Cornish coast, enjoying once again the glorious cliff scenery of the Land's End, and in our wanderings we visited Porthcurnow Cove under the shelter of the Logan Rock. This little bay is marred inland by the presence of buildings erected by the Eastern Telegraph Company, for this is the landing point of one of their cables. Once down on the beach, however, we could quickly forget this near presence of civilisation, as we looked out upon a sea which is a real sea: the open Atlantic stretching uninterruptedly from here to the shores of South America. The sand on which one lingers here is of the purest and loveliest: on all our coast there is surely no more perfect beach. One might be standing on some shore in the Southern Seas and these 'salt sand waves' curling and breaking in the April sun might be those

of some tropical Pacific.

I wandered up and down watching the sparkling green surf when I noticed a solitary object which had drifted ashore. I came nearer to discover that it was a bird. A dving bird or a dead bird, lying helplessly in the sunlight. A dead bird, surely! But as I came nearer to it, it moved slightly. I touched its tail feathers and it fluttered on the sand. Thinking it was waiting for the rising water I gently moved it down into the lapping wavelets. In the water this bird—a Guillemot in full plumage floated helplessly to and fro like a tragic little piece of flotsam. Even the sea meant nothing now to this beautiful but dying bird. I placed it once more upon the sand. Suddenly it struggled to its feet and stood for a moment fluttering with open beak and gently-moving wings and then collapsed. As it lay there within sound and scent of the ocean over which other birds were circling in the fresh April air a deep sense of pity came over me. I called to a man who was on the beach landing a plank from a recent wreck. 'What is the matter with it?' I asked. He gave one glance and said, 'Oil. She is dving of starvation: we have had hundreds come in like that.' Then he showed me the little matted patches of oil in the wing feathers, seemingly so slight-and vet enough to cause this tragedy. Another flutter and we put this once free flying and free diving bird out of its slow and tragic agony. 'Yes-we have had hundreds of them come ashore like that.'

"As I came away from the beach I felt that never again would Porthcurnow Cove be quite the same for me. The remembrance of the dying Guillemot will follow me: just this one bird out of hundreds more and of thousands and tens of thousands dying this cruel and lingering death upon our coast.

"Where does the oil come from?"

# 25,000,000 ACRES IN SANCTUARIES.

According to the best information available, there are now almost 25,000,000 acres set aside in the United States of America in refuges for wild life. Of this figure, 3,500,000 acres are Stateowned lands, 10,000,000 acres leased lands, 10,400,000 acres Federal lands (exclusive of parks), and almost 700,000 acres which are unclassified. The big difficulty is that the bulk of these refuge lands is not well guarded, and is located in vast stretches of wild country far removed from large centres of population.

Only a few States have launched refuge acquisition programmes. California recently decided to set aside one-third of her hunting licence income during the next five years for the purchase of refuges, and the first tract containing 3,000 acres of ex-

cellent waterfowl territory has been acquired.

The Connecticut Legislature appropriated 50,000 dollars for leasing hunting and fishing rights during the biennium. The plan provides that for the refuge area the rental shall be 1.00 dollar per year, but for the public hunting grounds adjacent the State may pay at the rate of 10 cents per acre annually.

Michigan's Legislature this year passed a wild life refuge Act allowing adjustment of owners' interests to wild life development. The Conservation Department plans the development of one refuge unit with public hunting grounds adjacent for every 100,000 acres of wild land in the State. This is a definite goal, a programme worth emulating, but it still offers no remedy in the farming sections of the State.

Minnesota launched a definite refuge and public hunting grounds programme this year which will involve the expenditure

of a sum exceeding 2,000,000 dollars.

Pennsylvania continues to expand her well-known refuge and public hunting grounds system by setting aside 75 cents out of each 2.00 dollars hunting licence fee, which provides 200,000 dollars annually for this purpose. Many of the refuges there are located on State forest lands, but the Game Commission has acquired 150,000 acres, mostly located in forest areas, at a cost of 516,000 dollars, and has 86,000 acres additional under contract. The Keystone State also has under lease almost 95,000 acres in sixty-nine small game refuges scattered throughout the farming regions.

Oklahoma has 192,000 acres under lease for refuges, but Texas has the most ambitious refuge and hunting grounds leasing plan of all the States. The Lone Star State has 3,000,000 acres under lease for ten year periods, and may pay up to 25 cents per

acre to secure the hunting rights.

These are just a few examples of what the States are doing. The trend is in the right direction, but the whole programme must be pushed much more vigorously.

While the Government have launched a refuge programme, the States should follow California's example. They must not wait for the Government, and since the refuges established under the Norbeck-Andresen Act provide no hunting grounds it will be up to the States to supply the public hunting grounds around them.

### THE RIVER'S VINDICATION..

"It's true I've gone on the war path, I've smitten your cities and homes, I've cracked the walls of your stately halls, I've threatened your spires and domes.

I've spoiled your gardens and orchards, I've carried your bridges away, The loss is told in millions of gold; The indemnity you must pay.

But had I not cause for anger? Was it not time to rebel? Go, ask of the springs that feed me; Their rock-ribbed heights can tell.

Go to my mountain cradle, Go to my home and see, Look on my ruined forests And note what ye did to me.

These were my sylvan bowers, My beds of bracken and fern, The spots where I lie and rest me Ere to your valleys I turn.

These you have plundered and wasted, You've chopped and burned and scarred, Till my home is left of verdure bereft, Bare and lifeless and charred.

So I have gone on the warpath; I've harried your lands with glee. Restore with care my woodlands fair And I'll peacefully flow to the sea."

-F. W. Nash.

### KILLING EIDER DUCKS.

We note in a Maine paper that a prominent Bostonian, dealer in automobiles, has been fined 2,700 dollars (£556) in Portland for having in his possession ninety eider ducks, killed in violation of the Migratory Bird Treaty Act.

These birds are protected at all times because of their value as producers of a fine quality of down, which is taken from the nest without interfering with the increase of the species. The female replaces the lining that has been purloined, and proceeds to raise her family as if nothing had happened. To the inhabitants of the Labrador Coast, who jealously guard the birds from harm, the eider is thus a source of income in a land where living is hard.

Besides the fact that the bird is of economic importance as a live bird, the eider is not a sporty duck, and the motive back of this act of vandalism is a mystery. It would seem that to some person the opportunity to kill a bird whose taking is denied to law-abiding citizens is a temptation difficult to resist.

This incident, however, should serve as a warning to those who think they can violate a beneficent statute with impunity, that sentiment for the protection of our birds is becoming a vital force. When this feeling shall have become general a new era in wild life protection will be born.—American Nature Magazine.

## FLAPPERS AND FURS.

Miss Ima Dumbunny, winner of the beauty contest held by the Silver Rabbits Association, says that, as far as she can see, even if an animal has suffered a few days in a trap, it can do no harm to wear its skin now that it is dead, and anyway, her furrier, Mr. Izzie Skingame, says it will be only too easy to give her a guarantee that any fur he sells was killed humanely, and besides, she thinks any animal ought to be glad to suffer a while with the prospect of adorning her neck, for it makes her look perfectly lovely, and she doesn't see how it makes any difference if furs are a little warm in summer, when you can get such lovely cool drinks at any soda fountain, and suppose leopard coats are made out of stencilled rabbit skins, what is the difference if you can get away with it, and besides, if it wasn't for the fur-trade, the foxes would eat up all the rabbits, or the rabbits would eat up all the foxes, she has forgotten which.—American Nature Magazine.

### INSECTS v. MAN.

Professor Thomson, writing in the Journal of the Ministry of Agriculture in Great Britain, says:—

"When we think of the legions of plant-bugs (Rhynchota), the hosts of hungry larvæ, such as caterpillars, leather-jackets, wireworms, the minute Diptera like the frit-fly, the vegetarian beetles like cockchafers and weevils, besides saw-flies and scaleinsects, and the frankly destructive tribe of locusts, we realise that their increase is a continual menace to the kingdom of man, which, after all, depends as yet on green plants of the field. If the cloud of injurious insects should thicken for a few years the consequences would be disastrous beyond telling. . . . Fortunately for men, insects are often against insects-ladybird beetles against green-flies and ichneumons against caterpillars, and so on; spiders, frogs, toads, lizards, and other animals do their bit; but, on the whole, what matters most is that there should be an abundance of insectivorous birds, for they form the most important of all checks to the multiplication of injurious insects. . . . It is absolutely certain that every reduction of birds that feed on injurious insects means a loss to agriculture."

### FOR FISH AND BIRDS.

For fish and birds I make this plea, May they be here long after me; May those who follow hear the call Of old Bobwhite in spring and fall; And may they share the joy that's mine When there's a trout upon the line. I found the world a wondrous place, A cold wind blowing in my face Has brought the wild ducks in from sea; God grant the day shall never be When youth upon November's shore Shall see the mallards come no more! I found the world a garden spot. God grant the desolating shot And barbed hook shall not destroy Some future generations' joy! Too barren were the earth for words If gone were all the fish and birds. Fancy an age that sees no more The mallards winging in to shore; Fancy a youth with all its dreams That finds no fish within the streams. Our world with life is wondrous fair, God grant we do not strip it bare!

-Edgar A. Guest.

### BIRDS AND MAN IN GREAT BRITAIN.

Over and above the direct work of definite departments, there has been during these 25 years steady and unremitting efforts to inspire and keep alive a knowledge of, and love for, the wild life of the country in a population constantly occupied with new excitements, new inventions, new ideas and new amusements; love for the charm and beauty of birds, ears for their pleasant voices, knowledge of their incomparable value in a world where men are perpetually struggling for dominion over persistent, in-

conspicuous, pervading insect foes.

Twenty-five years of labour to persuade man the tiller to distinguish his friends in the field from his foes, and man the scientist to turn now and again from his poisons and his parasites to glance at the feathered army which is his mightiest co-worker; 25 years of effort to save those rare birds of our land that find their worst enemies among the men who profess to follow, and in following defame, the science of Ornithology; 25 years of Bird and Tree work in the Schools, and of publications, lectures and letters to the Press, on behalf of the Birds; without this quiet propaganda year in, year out, Rural England and Rural Britain would for a certainty have been the poorer.—Royal Society for the Protection of Birds.

# INTRODUCTION OF DEER.

"Wild Life in New Zealand," by Hon. G. Thomson, F.L.S., gives the particulars of the introduction into New Zealand of the various species of deer which have become successfully acclimatised as follows:—

Wapiti, by the Tourist Department, in 1905. Moose, by the Government, in 1900 and 1910.

Fallow deer, by the Nelson Acclimatisation Society, 1864. Fallow deer, by the Otago Acclimatisation Society, 1867, 1869, 1871.

Fallow deer, by the Canterbury Acclimatisation Society, 1871. Fallow deer, by the Auckland Acclimatisation Society, 1876.

Red deer, by the Wellington Provincial Council, 1862. Red deer, by the Otago Acclimatisation Society, 1871.

Red deer, by the Otago Acclimatisation Society, 1895.

Red deer, by the Canterbury Acclimatisation Society, 1897.

Red deer, by the Tourist Department, 1903.

Red deer, by the Wellington Acclimatisation Society, 1909. Sambur deer, by the Auckland Acclimatisation Society, 1875. Sambur deer, by the Wellington Acclimatisation Society, 1894.

Sambur deer, by the Tourist Department, 1907.

Virginian deer, by the Tourist Department. in 1905.

# COMMON OPOSSUM.

(Extract from "Wild Life in New Zealand," Part I.—Mammalia. By Hon. Geo. M. Thomson, M.L.C., F.L.S., F.N.Z.Inst.)

These animals are not natives of New Zealand. They were first brought to this country from Australia about sixty years ago, and were liberated near Riverton. Later importations have frequently been made, both private individuals and acclimatisation societies introducing them. Thus the Auckland Society and Sir George Grey brought a considerable number from Australia between 1869 and 1876, and Kawau at one time was overrun with them. The Wellington Society liberated nineteen Tasmanian black opossums in the ranges behind Paraparaumu in 1892; and the Otago Society got twelve silver-grey opossums from Gippsland in 1895, and liberated them in the Catlin's district. They have increased greatly in most wooded parts of the Dominion.

# OVER-GRAZING OF UPLAND COUNTRY.

(By "Ponga.")

A Commission, set up by the United States of America, has recently furnished a three volume report on the over-grazing of high country. Such national disasters as Mississippi floods have led the authorities to see the need of attention to this grave matter. Here in New Zealand, most of our land is steep with an extremely shallow soil covering. Be it remembered, too, that this soil is always running down towards the sea and never running up. It took the forests, which formerly grew on this land, thousands upon thousands of years to form the covering on the underlying rocks. Ours is a narrow country with no part far removed from the sea. Swift streams and rivers quickly convey anything which enters them to the sea. Surely then the too drastic denudation of our highlands in this country calls for thought and enquiry. But when we add to this more or less necessary use of our high country, the grazing of many thousands of plant-eating animals on the forest covered backbone ranges, surely it is time to do more than think and enquire. There are some, well qualified to judge, who consider that some of the forests on our southern ranges are already doomed. Are we going to stand idly by while these essential forests are destroyed? If so every citizen will pay a well merited and heavy penalty because no nation can prosper without a sufficiency of forests, and New Zealand at best can be no more than a pauper's country, and all because we idly looked on and allowed the few to make use of our priceless forests for the sake of a very little mere sport.

## THE CASE FOR THE HAWK.

(By Dr. T. Gilbert Pearson, President National Audubon Societies, U.S.A. Extracted from "Bird Lore.")

With the development of interest in the propagation of game-birds for field-sports, there has come into use in this country an old word with a new meaning. It was borrowed from the Grouse Moors of Europe. The word is "vermin," and is applied to all creatures which prey, even to a very limited extent, on game-birds. Often the attitude is taken that all "vermin" should be destroyed wherever found. The object is to aid in increasing the number of game-birds, not that such birds may multiply so there may be more of them to enjoy the beauties of this earth, perform greater service as insect-destroyers, and give pleasure to more bird-lovers, but primarily that they may exist in sufficient numbers to give the gunner a reasonable opportunity to secure good shooting when in the open season he goes afield. As stated on former occasions I would, therefore, define "vermin," as "Any wild creature that kills something you want to kill."

It is perfectly natural and altogether commendable that the gamekeeper should desire to protect his birds, that the farmer should seek to guard his poultry, and that the fruit-grower should discourage depredations on his cherry-crop. Self-interest, without which the activities of the workaday world would cease, demand that guardians be zealous in protecting their property-rights. Furthermore, it is wise that they take all means to make effective such guardianship, provided they do not interfere with the self-interest of their neighbours. The operation of an abattoir is entirely a legitimate business, but should not be conducted in a residential section lest offence be given other people possessing property-rights.

If a cherry tree is raided by a Robin, the owner of that cherry tree has the recognised fundamental right to protect his fruit, but he does not have the right to start shooting all the Robins of the neighbourhood. The bird is of value to all agriculturists and gardeners of the community because of the great numbers of insects and caterpillars it destroys, and such gardeners and agriculturists have property-rights that the cherry-raiser must respect. If a Hawk catches a young Pheasant in a breeding enclosure, we may readily concur in the gamekeeper's wish to dispose of the Hawk, but there are many who would not agree with the idea that the gamekeeper automatically has the right to make war on all Hawks found within the boundaries of the county or State. Very few people breed Pheasants, but many make their

living by cultivating gardens, orchards, or farms on which Hawks render valuble service as destroyers of rats, mice, and various insects. In short, such people have property-rights which are served by some species of Hawks.

If the rights of the whole citizenry of a commonwealth be not taken into consideration when dealing with predacious birds, then, in truth, the game-guardian places himself in an attitude which, stripped of all verbiage, may be stated as follows:

"The hunting fraternity has the exclusive authority to preside over the destinies of the game-birds of the State. As individuals, men have the right to destroy any wild creature that they have reason to believe may be inimical to the interests of the game in their breeding-fields. By the same token, the State should encourage, by bounties or otherwise, as far as possible, the total destruction of all such creatures. This will tend to increase game and give us better shooting." In truth, the actions of some game-protectors give colour to the thought that if they should carefully analyse their own minds, they would find that this declaration quite accurately describes their point of view.

The very fact that game-protective societies of hunters have been the leaders and largely the dominating force in securing game-restrictive laws has very naturally caused many to feel that they have a very large right in the game, much of which exists to-day because of their legislative activities. This may readily be conceded, but there are many people who will strongly oppose the idea that sportsmen have the exclusive right to the game.

A strong resentment exists in the minds of many people because of the growing tendency to set in motion campaigns for wholesale killing of Hawks, regardless of species. State bounties on all Hawks are regarded as unwise and as unfair to the agriculturist and bird-lover. At our office we receive many complaints of gunners shooting Hawks in their line of flight during the period of fall migration, and of pole-traps, which, because of the habits of the birds, catch chiefly the more useful Hawks as well as occasional Bluebirds, Mockingbirds, and other distinctly useful species.

As men we like to feel that we should be judged by the useful duties we presumably perform, rather than by the errors which we make. Why not judge a bird—even a Hawk—by a similar standard? I believe if the people of the country knew of the value of certain Hawks and were familiar with the appearance of these species, they would withhold their fire when a useful Hawk flies over. Will not the responsible leaders in conservation in the various States of the Union exhibit an interest in helping to educate the people of their States on this subject? The Game

Commissioners are supposed to enforce all the bird and game protective laws of their respective commonwealths, also to take a leading part in educating the citizens to a better appreciation of the value of all wild life to the State.

The Biological Survey has published some extremely valuable literature showing much of the feeding habits of Hawks and Owls based on examination of stomach contents. Here will be found sufficient evidence to show that many of these species are undoubtedly more beneficial to mankind than they are harmful.

I conclude, therefore, with this plea: In the interests of agricultural investments of the country, in consideration of the feelings of bird-lovers, for the sake of these great, handsome birds themselves, and in a spirit of fair play, will the game authorities not be willing to discourage State-wide bounty systems on the killing of all kinds of Hawks, and will they not accept the offer of the National Association of Audubon Societies to assist in educating the people of the country, so that they may be better able to distinguish those species protected by law? Is this not a fair proposition?

#### NATURAL AGENCIES.

Of the several natural agencies influencing insect-development, birds and insect-feeding insects can be brought more or less under human control and utilized for the purpose of holding in check insects injurious to forests. As has already been shown, the native birds are intimately associated with the forests, and are responsible in part for keeping the insect balance. The great reduction of these birds, through altered environment, has been responsible for the increase of several insects. There is ample evidence to show that the native insectivorous birds are essential to the success of the indigenous forests, and in many cases to the development of exotic trees; and the preservation and increase of native birds should be an outstanding feature of forestdevelopment. The utility of the bird factor is well illustrated in an account from Germany (1): In two forests separated by a road, one suffered from complete defoliation by moth-caterpillars, while the other, which was an established bird sanctuary, was undamaged, and the swarms of moths that migrated to it from the infested area were devoured by the flocks of birds.—"Forest and Timber Insects of New Zealand, Bulletin II." by Dr. David Miller, B.Sc., F.E.S.

## THE IMPORTANCE OF BIRD LIFE.

(By G. Inness Hartley.) (Extract.)

Conservation of its wild-life resources is now a policy of the United States Government, and for it as a national policy we have to give thanks mainly to two men, Theodore Roosevelt and Dr. T. S. Palmer. During the Presidential administrations of the former, no less than fifty-three Federal bird refuges were established, to say nothing of several national bison-ranges and at least four national game-preserves. And it was the Biological Survey of the Department of Agriculture, under the supervision of Dr. Palmer, that carried out the work laid down by the President.

The conservation of bird life in the United States, although still only in the stage of infancy, is now fostered in the following ways:—(1) Through the enactment of sane game laws. (2) Through the education of the public to encourage the presence of birds around their homes and farms. (3) Through Government or State wild-life refuges and sanctuaries. (4) Through privately owned preserves, refuges, and sanctuaries. (5) Through State game-farms for propagating birds. (6) Through game protective and breeding associations. (7) Through Audubon societies. (8) Through wild-life protection societies.

The value of game-laws has been discussed and requires no further mention here. A word, however, needs to be said about education. Wild-life study is now being taught in most of the public schools of the United States. Children are familiarised with the common plants, trees, insects, animals, and birds. They are taught to recognise the commoner species and learn something of their habits. To further this work many States have set aside a "bird-day," similar to and often in conjunction with an "arbor-day," on which the public school children plant berry-trees or shrubs, build bird-houses, and make excursions into the woods and fields under the guidance of teachers to study close at hand what they have been taught indoors. In other words, there is a general trend of popular sentiment towards teaching the younger generations to take an interest in birds and other forms of wild life.

A number of agricultural colleges have also taken up the study of economic ornithology as a prescribed course in their curriculum; and the newer generations of scientific farmers are being educated in regard to the cash value of birds on the farm.

Lecturing staffs are maintained by the game commissions of various States. The lecturers travel about the State equipped with interesting films and slides which explain better than words what is being done. Their views on conservation are also got to the public through articles printed in local newspapers or in pamphlet form; and some States issue regular monthly magazines setting forth the doctrines of conservation. The educational results of this work have proved far beyond what was hoped or expected.

Again, much of the teaching has been undertaken by the National Association of Audubon Societies\* and similar organisations. Small Audubon societies are scattered thickly all over the country wherever there happen to be a number of bird lovers living in one community. The object of these societies is not only to study birds, but locally and nationally to arouse public interest in them, to wage war against the human enemies of birds, and to seek legislation for their benefit. The national association maintains a staff of lecturers, as well as a large number of special game wardens for bird refuges.

National bird refuges thus far established have been mainly for water-birds or as resting places for migratory species on their way north and south. The land set apart has with few exceptions consisted of rocky islands or ledges, or tracts of marsh of no agricultural value, which would always have been waste land. These reservations have proved of immense value to bird life, providing homes free from molestation for millions of water-fowl and herons, which otherwise would now be extinct.

And, following the example set by the Federal Government, many States have purchased or otherwise acquired waste lands which they term game preserves, refuges, sanctuaries, or State parks, on which no further shooting is permitted. These lands, however, must not be confused with the sometimes gigantic State forest preserves where shooting, under certain conditions, is generally allowed.

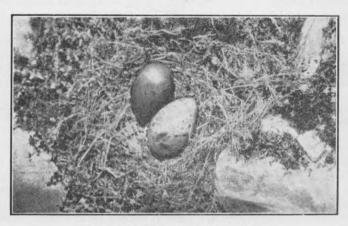
Game refuges or sanctuaries are tracts ranging from a few acres up to several thousand. They are carefully guarded by wardens, sometimes heavily stocked from State game-farms, and serve as oases for game which gradually filters out beyond their boundaries to replenish the dwindling stock of the surrounding territories. Some refuges are actually owned by the State; others are merely held for a term of years under a lease; and still others may be protected for specific periods of time upon request of the owners.

\*Bird Protection Societies.

Let us cite briefly what has been accomplished on the dozen or so reservations in the small State of Massachusetts. As soon as the land is taken over by the State, every effort is made to exterminate its varied population of vermin and to make it habitable for game. It is then restocked, if necessary, with gamebirds, and placed, if the size of the territory warrants it, under the control of a caretaker."

Dr. L. Cockayne, C.M.G., Ph.D., F.R.S., in "The Flora and Vegetation of New Zealand," says:

reached, and a new flora, composed partly of exotic plants and partly of those indigenous to the soil, will occupy the land, and save in the national parks and scenic reserves, but only if these are kept strictly in their natural condition as to both plants and animals, this new flora will build up a vegetation different from that of primeval New Zealand.



NEST OF THE BLACK-FRONTED TERN.

[Photo by Stewart V. Robertson.

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