

Bulletin No. 6.



# BIRDS

*New Zealanders!*

*Protect Your Native Birds!*

Issued by

**N.Z. Native Bird Protection Society**

*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.

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# A Plea for New Zealand for New Zealand

## The Dangers of Acclimatisation

(By J. G. MYERS, M.Sc., F.E.S., R.A.O.U.)

It is the duty of every New Zealander to do his best towards the permanent preservation of those natural beauties with which this country is so lavishly endowed. Accidental or careless fires, unnecessary destruction of vegetation, and injury to trees are points against which every decent feeling citizen is on his guard. But there is another and far more pernicious, because insidious, form of vandalism, to draw attention to which is the object of these lines.

This applies especially to such portions of New Zealand as still remain comparatively unaffected by settlement. These, in the form of scenic and forest reserves and mountains ranges, are subject to a less obvious danger against which it behoves us to be on our guard. Proportionately to their degree of reservation and protection these are safe from such obvious influences as axe and fire; yet forces may be at work, and in many cases are at work, to tamper with the very spirit of these sanctuaries. I refer to the abominable practice of introducing into New Zealand miscellaneous foreign animals and plants. Introduction is a necessary concomitant of colonisation—we must have cultivated plants and domestic animals, and it is inevitable that country which is permanently settled should in time take on the semblance of an English landscape without the mellow beauty which is England's own; in reserves and national parks it is not, however, inevitable but a sin against posterity, and an everlasting reproach to New Zealand, that such a process should not only be allowed but should actually in many cases be deliberately and actively encouraged by persons in authority whose patriotism, scorning those natural glories which embody the very spirit of our country,

rises no higher than a desire to create in New Zealand a paltry replica of other lands. Such people see in the magnificent sweep of Waimarino's tussock plains only a somewhat dreary expanse to be improved and brightened by the addition of a little colour in the form of heather. Can the smug complacency which sets out to paint the lily and gild refined gold rise to greater heights of arrogant imbecility!

I would that everyone might follow a course of biological training, or better learn so to observe the everyday facts of Nature, that he might gain some insight into the vast complexity of the web of life—that he might know not a single foreign animal or plant can be successfully established in primitive New Zealand without some effect on the whole—without some violation of the sanctuary—without some disturbance of the balance of Nature. The successful establishment of a foreign organism means a victory for that animal or plant—a victory at the expense of native forms. Dr. Cockayne and others have stressed the fact that foreign plants cannot find for themselves a niche in country occupied by virgin associations of New Zealand plants unless actively assisted by the influence of man, and a similar case can be made out for birds and animals. This means that any damage to reserves through the introduction of foreigners can nearly always be traced to deliberate action or to equally culpable negligence.

There are three weighty reasons against "acclimatisation"—scientific, economic, and aesthetic. We owe it to our posterity, who, let us hope for their own sakes, will be far more vitally interested in science than we are, to leave them as much untouched New Zealand

animal and plant life as we can. Our birds especially, and our plants, too, are among the most wonderful in the world—many are unique—and every ill-advised introduction of a new animal is directly or indirectly a nibbling at their heritage.

Taking the economic viewpoint for a moment, and considering the case of blackberry, gorse, rabbits, and several other major pests, we realise that the annals of "acclimatisation" are a record of national disaster brought on and our posterity by wilful ignorance. But it is the aesthetic reason I wish to stress here—I appeal to the feeling and to the patriotism of the New Zealand people. I have called the dangers of "acclimatisation" insidious—and one sees the thin edge of the wedge inserted at many points. The outstanding influence—the deliberate planting of heather in the Tongariro National Park has been already mentioned. There irreparable damage has been committed and associations of plants now cover a considerable area, which is neither New Zealand nor Scotland, but a bastard mixture of both. Nature made there, by the laborious process of ages and evolution, a Venus of Milo, and our generation has set upon the head of this masterpiece a Merry Widow hat—the result, says Dr. Cockayne, is like nothing either on earth, nor it is to be hoped, elsewhere.

Pines of various exotic species calculated to thrive in the locality have recently been planted near one of the huts on the middle of the Tararua Range. At first sight the scheme is a laudable one—firewood and shelter will be provided for future trampers. But again it is the thin end of the wedge—if the unfortunate occurs and these foreigners become established on the Tararuas, we must remember that their seeds are dispersed by the wind, and there is considerable danger of further spread. No trees alter the whole aspect of a landscape more than pines. One well-known New Zealand artist found the exotic pines overlooking the Huka Falls so utterly foreign to the spirit of New Zealand landscape, that, choosing the lesser of two evils and electing to follow Nature unspoiled rather than paint the illegitimate offspring of California and Maoriland, had perforce to omit them from his sketch.

Deer, introduced and fostered for the pleasure of an infinitesimal minority, have committed many thousands of pounds' worth of damage to our indi-

genous forests—and so the process goes on.

New Zealanders, are you content with New Zealand as Nature has made her, or shall the "acclimatisors" continue their mischievous policy until not a vestige of the real New Zealand exists outside the pages of history!

#### MAYOR ISLAND.

The following interesting notes on Mayor Island, which is gazetted a sanctuary, are by Mr. K. W. Dalrymple, of Bulls.

Mayor Island, so called by Captain Cook, is in the Bay of Plenty, about 27 miles N.N.E. of Tauranga, and the same distance S.S.E. of the Alderman Islands, and is 20 miles from the mainland.

The island is of volcanic formation, the native name, Tahua, being Maori for obsidian or volcanic glass; the area is 3154 acres; the shape is nearly square, with a high ridge running east and west across the south end, and north and south on the western side, rising to just under 1300 feet at the north end.

The island, lying outside the 100-fathom line, is very picturesque with its rough, water-worn cliffs streaked with veins of obsidian, and high, bush-covered hills surrounded by deep blue water.

A small opening, Opo Bay, on the S.E. corner is the usual landing place, unworkable, however, in east or south-east weather, when bays on the south or west sides have to be used.

Opo Bay, with its high arched cliffs on each side, overhung with twisted old pohutukawas, a white sandy beach at the head, backed by a little grassy flat on which are more pohutukawas, the whole sheltered by a cliff about 80 feet high topped with pohutukawas again is a sight not often seen. Five minutes' walk from the beach is a tree which should make Mayor Island known to all. Growing on the side of a small gully stands a grand old pohutukawa, surely the largest of its kind, with a trunk measuring just under 30ft round, 10ft up to the first branch and having a magnificent, spreading top.

There are many other pohutukawas of great size on the island, but none here or elsewhere to compare in symmetry and size with this one.

The varieties of trees and plants on Mayor Island are not many. There are none of the common trees of the mainland forest—rimu, matai, totara, kahikatea, tawa, rata, miro all being absent. Pohutukawas are in great groves on the

lower flats all over the island, and must be a beautiful sight when in bloom.

The slopes of the main ridge are a continuous succession of small, deep gullies, the spurs clothed with both varieties of manuka, and dotted with small rewarewā about 12ft high.

Each gully, on the very bottom—there are no streams on the island—is a jungle of Whau (native cork tree) which grows here like a weed, while on the sides are to be found makomako or wine-berry, growing much larger than on the mainland, many trees being well over 12ft in diameter, mangeao, kohekohe, mapou, pukapuka, mahoe, and a few tree ferns, the undergrowth being supplejack, tutu, *Rhabdodhannus Solandri*, or waiuta, with its pretty orange-scarlet flowers, and a few ferns. The pigs, which are unfortunately on the island, keep down much of the undergrowth.

On the tops of the high ridges are to be seen the red and white berries of the *Mingimingi* *Cyathodes acerosa*, the orange-red fruits of the coprosma, which are quite a sight so well do they grow; the pretty white-flowered *Gaultheria oppositifolia* and blue berries of the *Dianella*.

From the trig station on top of the ridge above Opo Bay a view of the centre of the island shows it to be a great basin, the old crater. On the eastern side are the lakes; the near one, about 6 acres in extent, appears to be dark blood-red, and the other, of about 20 acres, a deep blue-black. A visit to the lakes shows the water to be quite clear, but full of some apparently vegetable matter; the lakes have no visible outlet.

The whole basin, except for a small swamp by the lakes, is covered with pohutukawas and manuka. The flat between the lakes now overgrown with manuka was the cultivation ground of the Maoris in the old days; the soil reminds one of the blue-grey mud thrown out by mud volcanoes at Waitapu, and is said to have grown wonderful crops.

Few signs remain of the Maori camps, but some *Pinus Pinaster* are spreading at a great rate, and if left will possibly in time dominate the island.

Wild duck and shags find a quiet home on the lakes; and in the trees the bell-birds are in thousands; to sit under a tree within a few feet of twenty or thirty of these birds, called *kokorohimako* by the Bay of Plenty Maoris, each trying to make more sound than the other, is an experience few have in these days.

There are a few small springs on the island, most of them near the tops of the ridges, and towards evening the bell-birds collect there and give a concert no pen description can set out. Pigeons, tuis, kakas, kingfishers, and a few other small birds are there, but what a sanctuary the lakes would make for black and brown teal, almost extinct now on the mainland!

The Maoris have tried felling, burning, and sowing grass, but nothing remains now except an odd plant here and there. One old cultivation ground is thick with the native *Hibiscus*. There is no water supply on the island for stock. The Maori in charge is deeply interested in protecting the birds; but, when he is not there visitors shoot anything and everything.

The Maoris say there was practically no bush on the island when they occupied it. The story of the many fights, and of the growth of vegetation since they left, is still to be written.

#### VERMIN AND OTHER QUESTIONS.

(by Hon. Secretary N.Z. Native Bird Protection Society.)

One of the most probable causes of many of our wild bird life troubles is that the weasel in most localities destroyed the woodhen, the principal enemy of rats, which then increased abnormally and preyed upon our birds. This theory is strengthened when one sees how our birds will prosper on islands where the introduced enemies are practically non-existent. It is astonishing how few people make accurate observations; many jump to definite conclusions from merely superficial observations, never thinking to look deeper. Thus in the earlier days some acclimatisation societies declared war on the weka as an enemy to the pheasant because it will destroy unprotected eggs. But it is now evident the small damage this bird did was overwhelmingly counteracted by its fondness for rats, which ate immeasurably more eggs than the weka, but now in most districts where the weka is exterminated the pheasants and game have almost entirely disappeared. Then, again, we may take the weasel in relation to the rabbit question. The weasel in this instance appears to use the rabbit merely as a standby when birds are unprocurable, and the result is that an inordinate number of weasels are enabled to winter with little or no appreciable effect on

the diminution of the number of rabbits. The weasel is the easy-going farmer's unreal friend, causing him vainly to hope that he will, without expense, be able to satisfy the requirements of the rabbit inspector. Any farmer who knows the harm rabbits do to pasture will not be satisfied by merely holding the pest in check with poison, but will follow the usual spasmodic effort up with patch poisoning and other means of extermination. The last few rabbits will be costly per head certainly, but their death will eventually prove a great saving.

The rat has now, with the great decrease in wekas, abnormally increased, and the damage done by this rodent probably outweighs any damage done by the rabbit. The rat's life is one of destruction from the time production of food is commenced to the last moment before it is consumed; and he adds to this a well-merited reputation as a disease carrier.

Undoubtedly the farmer who encourages weasels is merely making a rod for his own back; and if he were as well informed as to the value of most birds in eliminating insect pests as his American cousins are, he would be encouraging most birds to come around instead of fostering their enemies. He sees some birds eat his grain, but rarely realises most birds do infinitely less damage than the insects which they have killed would have done. He might just as wisely kill his human employee for requiring food, even though no wages are asked. Surely a good worker is worthy of his hire.

Much careful observation is carried out in these matters by the Agricultural Departments in other countries, but here our own Department appears to lag, and even encourages the protection of weasels. Maybe this is done more under the political whip than from desire.

The New Zealand Native Bird Protection Society will welcome all observations on the destruction by vermin in relation to our native birds, but let it be remembered cats kill rats, weasels kill rats, hawks kill rats and weasels, but that ground vermin invariably prefer birds.

#### STEWART ISLAND.

If matters are allowed to take their course on Stewart Island, the deer which have been liberated will eventually destroy the wonderful scenic beau-

ties of the island, the birds will also be vastly decreased, and some species be altogether eliminated, leaving an eyesore in place of what is now a joy and pleasure to all who behold it. With reference to the suitability of the island as a sanctuary, that accurate observer and ornithologist, H. Guthrie Smith, writes: It is sufficient to say that, with the exception of a small portion about Half Moon Bay, this beautiful island is worthless for material purposes. Its rainfall is great, and its peats and sands are impossible to till or grass. As to the islets and island groups, most of them still remain the property of the nation, but it is property terribly neglected and grossly mismanaged.

#### HEREKOPERE.

Referring to an evening spent on Herekoperi, a nesting island (for sea birds) off Stewart Island, the same writer remarks: "About seven, the earliest of the kuaka began to arrive, at first here a bird and there a bird, then almost at once it began to hail kuaka, then to sleet kuaka, and lastly to snow kuaka. They reached the island in dozens, scores, hundreds, thousands, hundreds of thousands, and I verily believe perhaps in millions. At first they hurtled themselves in like hailstones, then later fell with some degree of regard to their safety, and lastly lit softly as snow, and with hardly a rustle. Although standing in a conspicuous spot on a rise in open ground, and guarding my head and face, I was struck by kuaka eight times in a few minutes.

"Each morning we might have gathered them as the Israelites gathered from the wilderness their quail. Every empty box flat on its base contained birds. They fell down the chimney, they floated in our water cask."

Such is a description of one small adjoining island. On the main island pigeons, tuis, bell birds, kakas, kiwi, robins, tomtits, wekas, cuckoos, fern-birds, parakeets, etc., are plentiful, and the surrounding islets have been the nesting places for ages past of mutton birds, petrel, parara, Skua gulls, penguins, shags, etc.

Stewart Island is well known for its picturesqueness and the charm of its coast line, and is almost useless for purposes other than an avifauna and flora sanctuary.



## ILLEGAL SHOOTING.

The shooting season is now at an end, and many stories of wanton destruction of protected birds and the failure of the present methods to effect protection reach the N.Z. Native Bird Protection Society. A white heron was picked up in a disabled condition on the Wairarapa lake and died, another was destroyed in Otago. The killing of these rare visitants to our shores is looked on by the Maoris as bringing the worst of evils to their destroyers.

On the 1st May twelve paradise ducks flew around the Wairarapa lake, next day only six remained, although absolutely protected, and records of these instances could be almost indefinitely repeated.

## PIGEONS PROTECTED.

As showing what can be done by the right man in the right place, the efforts of Mr. James Ogle, forest guard at the Omahuta forest, are well worth recording. Year after year in the past the rattle of shotguns has been heard in the Puketū and Omahuta forests, each containing an area of some 14,000 acres, in the Hokianga district. The first-named forest in particular is a nesting and congregating place for pigeons, and great was the toll taken by both Natives and pakehas.

Now all is stilled, and the pigeons can be seen serenely preening themselves within a few hundred yards of Rangaihua township.

This forest guard is, moreover, an excellent Maori linguist, and old-time bushman who loves his kauri forests and its birds. Through his good offices the Natives were induced to come on the side of the birds, and an influential chief, Nopera Otene, has worked hard amongst his followers, with the result that some hundreds of acres of their forests are to be set aside as bird sanctuary.

These results have not been achieved without untold hard work day in and day out. Few people know the difficulties, which are increased by the whites giving the Natives cartridges to shoot pigeons, and receiving the pigeons, but none of the penalty if the culprit is caught.

The old-time Maori knew how to protect the birds, when necessary, but his method of tapu was useless against the pakeha, and thus came into disuse. Some of the Hokianga Natives are once more prepared to use the tapu if protection can be given by the white man against pakehas. Can we give it?

Birds appeal strongly to the interests and affections of mankind. Not only do they charm by their graceful forms, harmonious colours, sprightly actions, and usually pleasing notes, but they have even more important claim upon our esteem because of their great economic value.

Birds feed upon practically all insect pests. They are voracious, able to move freely from place to place, and exert a steady influence in keeping down the swelling tide of insect life.

For economic as well as aesthetic reasons, therefore, an effort should be made to attract and protect birds and to increase their numbers. When proper measures of this kind have been taken an increase of several fold in the bird population has resulted, with decreased losses from depreciations of injurious insects.—Farmers Bulletin 844. U.S. States Departments of Agriculture.

One result of the increasingly popular interest in birds has been a definite movement to protect them and to concentrate them where they are especially desired. It is during the breeding period that birds are at their best, and people who love to see and hear them or who need their help in fighting insect pests are eager to offer inducements, in the way of nesting sites, to invite their presence at this season.—Farmers Bulletin 609. U.S. Department of Agriculture.

## THE POOR KNIGHTS.

### NATIVE FLORA AND FAUNA.

### DESTROYING THEIR ENEMIES.

An interesting expedition to the Poor Knights Islands, which lie off the Whangarei coast, was recently undertaken by Mr. W. M. Fraser (engineer of the Whangarei Harbour Board), a keen lover of New Zealand flora and fauna. With a party of six Maoris and three good pig dogs Mr. Fraser travelled in a launch from the northern mainland to the islands, and spent six days there. The visit, which was made under the auspices of the Government, was mainly to adopt measures to destroy wild pigs, which have proved a menace to the flora and bird-life of the island sanctuaries, and to report generally on the present condition of affairs existing.

Reporting on his trip to the Minister of Internal Affairs (the Hon. R. F. Bolland), Mr. Fraser stated that bad weather prevailed during the stay of the party on the islands, but the condi-

tions did not deter a complete exploration or a systematic attack on the wild pigs, the enemy of the islands. "We succeeded," he states, "in destroying 19 pigs. It is possible, however, that one or two pigs may have escaped during the hunt, but these will be secured about the end of the year, when I intend visiting the islands again with a couple of Natives and their dogs. An interesting example of the depredations of the wild pig came to our notice. We caught an old boar in a small cave, which was littered with the wings and bills, etc., of the young Buller's Shearwater (*Thyellodroma Bulleri*), one of the rarest known sea birds. The birds nest on a steep rocky face, and the pig evidently scaled along the rocky ledges, rooting the birds out of their burrows and dragging them back to his lair. I am of opinion that with the removal of the wild pigs, the sea birds will again make the island their breeding place, and that the tuatara will increase in numbers.

Mr. Fraser wrote interestingly of the formation, historic value, and bird-life of the Poor Knights Islands.

"The Poor Knights," he says, "consists of two main islands having an area of roughly 600 acres and 400 acres respectively, together with several small islets and rocks, all being of a volcanic formation. The larger island is covered principally with scrubby bush with heavier mixed forest in the basins. On this island there does not appear to have been any settlement, and the native flora and fauna are in a very healthy state, the latter including tuataras, parakeets, tuis, etc.; and the peculiar rock formation there provides a very secure resting-place for certain sea birds.

"The smaller island of the two, now covered with fairly heavy bush, bears unmistakable evidence of having once been thickly populated. It might here be noted that on 25th November, 1759, when Captain Cook discovered and named the Poor Knights, he recorded that 'there were cultivated lands and a few towns that appeared to be fortified.' According to the oldest Maoris on this coast, it is over 100 years since the Natives lived there, and it is believed that the original inhabitants were massacred by Hongi Hika, the notorious murderer, who first used flintlock rifles in tribal warfare, about 1820.

"I have made a fairly close exploration of this island, and saw the remains of fortifications, and many habitations, the sides of which were built of stone. In many instances the stone walls are still intact, with weather-worn totara woodwork scattered about. The bush

is just alive with bellbirds that sing continuously from daybreak till dusk. Pigs, the only living remnant of the old settlement, are met with, and, strange to say, they show little fear of man. The island, being very fertile, produces a luxuriant growth of forest trees and shrubs, but in the absence of the kareka and taraire berry and fern root, the pig must depend on grubs and worms, etc., for its living, with the result that the surface is being continually turned over and many delicate plants destroyed."

Mr. Bollard spoke appreciatively of the honorary services rendered by Mr. Fraser in assisting in the protection of the Crown's sanctuaries, and remarked that the Dominion fortunately possessed several such gentlemen whose work was invaluable.

A letter received by a Timaru family from Canada (states the "Post") bore the following inscription used by a Canadian post office to cancel the postage stamp:—"Protect the birds, and help the crops."

#### STEWART ISLAND.

A correspondent, writing as to the suitability of Stewart Island as a bird sanctuary, remarks: I think the whole island and the surrounding islets should be as quickly as possible proclaimed a sanctuary. Being an island and sufficiently far away from the mainland to make it safe from the myriads of vermin, it is ideal. It is well stocked with birds on the southern portion, i.e., the country south of Paterson's Islet. The big kiwi (*kiwi roa*) is found in considerable numbers, probably some thousands. There are a few kakapo, which should soon increase with proper protection, while the beautiful South Island crow, kokako, is not uncommon, though never seen near the settlements. This crow is one of the first birds to fall a victim to the weasel on the mainland. Then there are pigeons, tuis, bellbirds, robins, and other birds, such as black teal, some of which are nearly shot out, but which would soon rapidly increase. The islets surrounding the main island are in many cases breeding places for all manner of sea birds. On the whole, this island and its surrounding islands are practically useless except for their wonderful scenic and bird protection facilities, and they would, if properly handled, be a glory to New Zealand and a resort, under efficient restriction, for all time.



## OUTLAWED.

The following remarks by Mr. H. Guthrie Smith, well known as an accurate bird observer and ornithologist, on the question of the protection of shags, should be of interest to fishermen, and tend to show how the uninitiated may possibly jump to wrong conclusions:—

Except on my own lake at Tutira, I believe there is no part of New Zealand where the destruction of shags is not thought to be a righteous action. Everywhere these unfortunate birds are persecuted as the destroyers of fish, and fish they do undoubtedly take. On our rivers and fresh water lakes they are believed to harm the imported trout, and on our seas to be a menace to the fisherman's interests, and it may indeed happen that in some districts, under certain conditions, and for a time, shags are harmful. Those, however, who have most closely observed the conduct of feeding shags believe that the captures made in waters where both trout and eels abound are generally of the latter.

On the salmon rivers of Scotland, the dipper used to be shot down until he was proved to be not an enemy but a guardian of the salmon ova. In Victoria, too, the destruction of shags has resulted not in an increase but very great decrease of fish in the Murray River, its billabongs, and lakes.

Anglers and fishermen, like the rest of mankind, are too prone to rush to conclusions, based on insufficient evidence, and both in Scotland and Victoria persistent observation and experiments have shown that the birds, fed chiefly on the enemies of the fishes' eggs.

My local experience, too, goes to prove that the presence of shags in considerable numbers is no bar to stocking suitable water. On Tutira the trout are increasing fast, although on the lake and on the run I have allowed no shags to be molested in any way whatsoever; and it may yet prove in New Zealand that the indiscriminate slaughter of shags will turn out to be inimical to the very interests sought to be preserved.

In Stewart Island saleable fish is mostly obtained in the open sea, yet the shags of every species draw their main supply of food from the inlets. At any rate, it is quite unlikely that every species of shag does equal harm, and it may well happen that some of these persecuted breeds destroy crustacea that take the eggs and fry of the blue cod and other marketable fish.

## BREEDING WEKAS.

Mr. H. Urwin, of Tikokino, who breeds wekas, writes: Those my wekas hatch nearly always meet with some mishap before they are beyond the chick stage; either wild cats, rats, or weasels find them out (doubtless in the absence of the parent birds). A few years ago I had no trouble at all, and practically every chick grew to maturity, for they are quite easy to rear if protected from these pests.

## CONTROL OF WILD LIFE.

The following paper was read by Captain E. V. Sanderson at the annual meeting of the New Zealand Forestry League, held in Wellington on 16th July:—

As the welfare of our forests is so vitally affected by the control of wild life, and as such control has been so unfortunate in the past, especially in the out-of-the-way districts where it matters most, and where the interests of the small populations in such districts are so intermixed that it is quite impossible to expect them to take the necessary measures to enforce the law in relation to game, native birds, etc., it appears to be high time some more efficient and national means of attaining the desired end be sought.

The failure of existing methods to even approach anything like efficient protection, preservation where desirable, and control of our wild life is much to be deplored. The results have been truly depressing, and are a menace to the prosperity and well-being of New Zealand. They have failed even in that which has been the primary object sought to be attained—sport.

The well-being of all is intermixed with the control of wild life, in that destruction to our forests by animals or depletion of native bird life, etc., must eventually affect our rainfall and thereby our wool, butter, timber, and primary products, on the prosperity of which we are all so dependent. Thus the agriculturist and all are vitally affected by wild life control, seriously in the immediate future, and vitally at no very far distant date.

Let us look around, therefore, to other countries, where it has been the aim to preserve desirable wild life and at the same time retain the freedom of citizens so far as shooting, fishing, etc., is concerned, and where the methods of control and preservation of desirable wild life have been more successful.

Take, for instance, Pennsylvania, Cali-

fornia, New York, etc. Here the system hinges on a board of efficient commissioners appointed by the State Governor. Such a board in New Zealand might comprise the Director of Forests, the Under-Secretary of Internal Affairs, the Director of Agriculture, a representative of sportsmen, another for fishermen's interests, and a sixth to represent our native bird life. These commissioners control all wild bird, game, fish, animal, and like matters.

Sanctuaries, some dedicated by the Government, others by public bodies or private individuals, and all controlled by the commissioners, are dotted throughout the State. Here in New Zealand such sanctuaries are controlled by various bodies, leading to inefficiency and waste of effort.

The administration of these American boards is through a secretary, chief game warden, or chief protector—sub-protectors work under the chief protector and other protectors, taking the place of our rangers, act under the sub-protectors—all report their daily operations to immediate superior.

The finances are operated through the State Treasurer, and the whole scheme is subsidised out of public revenue, because all interests are involved.

For one year, 1922, the revenue from hunters' licenses and other sources was £1,000,000 in round figures for the whole of the States.

The commissioners are compelled to issue, free of charge, with every license, a pocket edition of the Act and a tag bearing number of license, which the hunter must wear, when hunting, on his back between the shoulders, besides carrying his license for production, if called upon to do so.

No shooting is permitted from motor-cars, boats, launches, aeroplanes, etc., or in Pennsylvania on Sundays.

The use of automatic guns is banned, as it is in New Zealand.

A game protector must seize all guns, boats, nets, appliances, used or intended to be used in contravention of the Act. Here in New Zealand such action is discretionary. Non-residents pay treble license fees. There are many like enactments in several State Acts well worth consideration. Our own Act here in New Zealand, however, is quite good, although it could be improved in many ways, but the failure comes when we look at its administration; and the weak and totally ineffective methods, result, generally speaking, in providing a very little sport, mostly for

the poacher at the license-holder's expense. The interests of the rest of the community, much more affected than those of the sportsman and fisherman, are practically neglected and ignored. In fact, sportsmen, except fishermen, get little or nothing, and the general community are harassed with pests, which they have directly or indirectly to find the means for overcoming sooner or later.

Surely the time is long overdue for reviewing this question.

Our native birds, on whose activities so much depends, are practically unprotected, except on paper, and it behoves all true New Zealanders to wipe out this blot on our fair fame, while, on the other hand, very serious damage has been, and is being done, by animals in our forests.

It is conceded that the many bodies, ranging from several Government Departments down to road boards, who take a hand in the control of wild life, may always be working with the very best of good intentions, but the matter is so complex in that all our forests, birds, game, fish, etc., are prone to be affected by the work of different bodies who are often working in different directions. Besides, any scientific or expert knowledge available is wasted or diffused and often ignored when available.

## BIRDS' WAGES.

(By Bassett Digby, F.R.G.S., in the  
"Manchester Guardian.")

A quaint item appears in the annual balance-sheet drawn up by a South African farmer of my acquaintance—"Birds' Wages." It constitutes 10 per cent. of his expenditure on seeds. "I wish I could pay some of the human wages with as much satisfaction!" he declared when I questioned him about it. "It is the birds that keep me in business, yet most of the fools round here settle with them in lead, and are pig-headed enough to regard it as their own concern."

That is the intelligent farmer's worry in all new countries. He has to keep on affable terms with his neighbours and to keep his temper while he sees them reducing his profits by ruthlessly exterminating the birds that keep insect pests at bay. In a long-settled land like Britain the balance of Nature has had time to adjust

itself, and public opinion is sufficiently well informed, on the whole, to back up the Government regulations that protect birds. But lands where the jungle and the wilderness are in process of being "broken in," largely by new settlers, are the scene of indiscriminate bird slaughter in far too many cases. It does not seem to dawn on the farmer that many a bird that indubitably takes a few pennyworth of seed in the course of a year no less indubitably saves several shillingworth of grain, fruit, and vegetables.

#### NATAL'S WHITE STORK.

The white stork of Natal, once a much-persecuted bird, was found to eat 60,000 locusts a month. When, a few years ago, the little locust bird was practically exterminated in the region of Pietermaritzburg a plague of grasshoppers resulted, which gave gardens and farms such a blow that they took years to recover. In the crops of five wild South African guinea fowl more than 10,000 locust eggs were found, and in that of a cattle egret were 1200 young locusts, 400 grasshoppers, 51 ticks, three caterpillars, and eight beetles. I have been told of a certain South African town in which foolish public opinion voted swallows' nests unsightly and decided to destroy them. Destroy them it did, with the loyal co-operation of the local fire brigade, which turned its powerful hoses on 300 nests. It has been ascertained by experiment that every family of young swallows accounts for a couple of thousand flies and gnats a day. Life must have been rendered considerably more unpleasant for the aesthetes in consequence.

The Siberian farmers' knowledge of wild life and comprehension of the workings of the balance of Nature is practically non-existent. The only birds for which they have a superstitious respect, akin to that of the Hindu for the ape and the peacock, are the magpie and the black and white crow. Yet these two pampered fowl gorge themselves in spring on the eggs of the insectivorous birds which are the farmer's best friends. The farmers will not draw a line and set down, to right and left of it, the pros and cons of a bird. One amusingly stubborn old fellow, in a Trans-Baikalian village, spiritedly defended his attitude. "Why should I let a bird off," he demanded of me, "because he has several beetles in his crop as well as some grains of my wheat? How do I know that the beetles would have injured my grain, not my neigh-

bour's? I saw the bird eat my wheat. If the police find a man with stolen spoons in his pocket the Magistrate will not let him off because he gives money to the poor!"

To Australia the ibis is worth a dozen Singapore docks, for its keeps down the plagues of destructive grasshoppers. A single colony of ibis contained a couple of hundred thousand birds. In one crop 2400 young grasshoppers were found, nor did he look a particularly fat and greedy fellow. At this rate the colony kept down a trifle of 480,000,00 local grasshoppers a day!

#### AMERICA AWAKE.

The United States Government has been devoting a good deal of careful scientific attention to birds and insects, and their relation to the balance of Nature in their newly-tamed wildernesses. Very careful computation produced the declaration that in 1915 the birds of Nebraska ate 170 cartloads of insects every day of spring, summer, and autumn. The birds of Massachusetts destroyed 21,000 bushels of insects a day. The United States Department of Agriculture estimated in 1921 that insects—every one of which is palatable fare to at least several species of birds—do two thousand million dollars' worth of damage to American crops every year, and the entomological branch of the Canadian Department of Agriculture estimates the damage done to Canada's crops every year by insects at £25,000,000. A South African naturalist watched a colony of little weaver birds fetching grubs and caterpillars to their young. The parent birds made sixty trips each in a couple of hours. One pair made 1500 trips a day. It was estimated that this one colony of 113 pairs collected 150,000 insects a day. Accidentally imported Scotch thistles were over-running New Zealand, and threatening the farmers with disaster, when the much-maligned sparrow suddenly lent a hand—a beak, rather—and, feasting off the seeds, promptly brought thistles under control.

Even at home in Britain far too many stupid farmers and fruit-growers (especially fruit-growers) persecute birds. The ignorance of the farmhand entrusted with an old shot-gun is often abysmal. One of these fine fellows, an under-gamekeeper part of the year, loftily informed me that he never shot chaffinches as he had seen them prey on dragon-flies whose "sting," inflicted





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# New Zealanders!

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## 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 Avoid These Results?