

Above.—Bellbirds at a drinking trough on Little Barrier Island. Below.—Wrybills resting on a shell bank at a Manakau Beach.

[Photos: Noelle Macdonald.



FOREST & BIRD PROTECTION SOCIETY OF NEW ZEALAND (INC.)

Head Office: "Evening Post" Buildings, Willis Street, Wellington, N.Z. Telegraphic Address: "Forestbird." P.O. Box 631.

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To advocate and obtain efficient protection of our native forests and birds and the preservation of sanctuaries, and scenic and other reserves, in their native state, and to enlist the practical sympathy of both young and old in these objects.

This magazine, which is the official publication of the Forest and Bird Protection Society of New Zealand Inc., is sent to you with the compliments of the

WHANGAREI NATIVE FOREST AND BIRD PROTECTION SOCIETY INCORPORATED, P.O. BOX 380, WHANGAREI.

Today is our earliest opportunity to preserve remnants of Native Bush and to save quickly vanishing Native Birds. HELP NOW!

The Forest and Bird Protection Society of New Zealand (Inc.) is:-

Convening and Secretarial Member of Nature Protection Council of New Zealand.

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Sections of the Society:

Native Forests' Crisis

"A CRISIS has been reached in the evolution of forest policy" dramatically commences the Annual Report of the Director of Forestry for 1952, thus bringing startlingly into the open the pass which our indigenous forests have reached. The Report says that according to the National Forest Inventory of 1923, New Zealand should now possess 32,000,000,000 board feet of indigenous softwoods but the new National Forest Survey shows beyond all doubt that it has less than one fifth of this quantity, viz. 5,600,000,000 board feet. At the present rate of cutting these will be exhausted in less than eleven years in the North Island and less than twenty years in the South Island.

These figures come as a shock. They mean that in less than 150 years we have, except for our national parks and scenic reserves, almost entirely swept away, or replaced with exotics, a covering which it took Nature untold ages to create.

Plan for the North

The periods of exhaustion given above are, of course, calculated at the present rate of cutting. The Forest Service's plan is to curtail production of native timbers in the North Island by at least 20,000,000 board feet annually, until it reaches, in the early 1960s, an annual figure of only 20,000,000 board feet, or less than 10 per cent of the present cut. This would have the effect of extending the life of the indigenous forests for another fifty years, certainly better than the eleven years at the present rate, but after all only putting off the evil day.

Action in the South

That plan is for the North Island; the Report gives no such specific plan for the South Island. Shortly after the issue of the Report, however, the Director of Forestry made a dramatic announcement. The Minister of Forests had shortly before stated in the House that **"it may be necessary in the near future arbitrarily to determine the uses of timber in this country so that a crisis can be avoided"**. The Director's announcement was that his Department did not intend to offer any timber areas in South Westland to milling companies for some considerable time. This announcement, quite understandably, caused considerable protest from the local bodies in the area, and—some 200 men having shortly afterwards been given long-term warning to look for other jobs—from the workers' organisations. It was, however, supported by the West Coast Sawmillers' Association which agreed that these irreplaceable resources must only be used for the most essential purposes, and an output gradually diminishing from the present wasteful cut must be its goal, thus extending the workable life of the forests. At the time of going to Press negotiations between the interested parties and the Government were still proceeding.

Meanwhile the Timber Advisory Production Committee, set up under the Forests Act, is earnestly considering the conserving of indigenous timber supplies.

Necessity for Substitutes foreseen

Reverting to the Report, we read that in the years of the National Forest Inventory, previously mentioned, even at the then computation of the rate of consumption, it was realised that something would have to be done to relieve the drain on indigenous timber in the future—which is our present—and the policy of a "supplementary exotic-forest capital resource" was laid down.

From this arose large plantations of exotics as at the Kaingaroa Plains, and the replacement or inter-planting of much native forest, as cut, with exotics. The purpose of this was to provide a substitute to save a proportion of our native forests. As such it was a statesmanlike plan, but one which we have an uneasy feeling could over-run itself, inasmuch as that if one were not to stop in time one could go on replacing cutout native forests with exotics—in order to provide a substitute to save the remaining native forests—until there were no native forests remaining to save! That uneasy feeling increases when we read farther on in the Report, as regards the Pureora Forest, that it is the Forest Service's object to "regulate the cut to give the existing indigenous growing stock a cutting life of fifty years and to establish an exotic growing stock (mainly Douglas fir) over most of the clear-felled area". Admittedly it goes on to say "Provision is made for the reservation of frontal and riparian strips of forest for scenic and conservation purposes", but this will be but an edging which the public will see in ignorance of what is behind—beauty will be but skin deep.

Substitutes

As it is well-nigh impossible to remove mature trees with modern machinery without devastating the growing ones which are forming the new forest, and as reversion to old-fashioned leisurely and less destructive methods is out of the question, the only solution, until the technique of the regeneration of natives is further advanced, appears to be to **lock up the native forests and substitute other timbers**, or entirely other materials such as concrete made with the very shingle which has blocked the rivers owing to the destruction of their protective mantle of bush. In previous Editorials we have already stressed this, coining the proverb "Necessity is the Mother of Substitution" and giving our opinion that preservatised exotics were obviously Substitution No. 1.

In the Report the Director of Forestry urges just that very thing and points out that the prejudice against exotic softwoods is unwarranted and has been caused by shortage, so that hungry buyers were forced to accept inferior timber, thus giving exotic timber generally a bad name. He states categorically that exotic softwoods, properly selected and treated, will out-last the best of the native timbers, quoting continental experience in this direction. He finally goes on to drive home the moral of our coined proverb by saying that if wood users do not turn to exotic softwoods wherever practical "It will only be a very short time before they will have to use exotic softwoods for everything, for by that time either the world's virgin forests of naturally durable softwoods will have been exhausted or the purchase price of such timber will be so high as to preclude its useage for such purposes".

Decontrol of Timber Prices

Actually, the soaring of the price of native timbers would be a most effective solution and the Report mentions a potential method of bringing this about—the decontrol of timber prices. Under control, a war measure, the prices of exotic and native timbers are comparable, and users consequently take the latter wherever possible and even wait for supplies to come forward. Decontrol the prices and the price of natives would soar, forcing users on to exotics, and enabling the Service to realise the principal end of national forest policy—**"the perpetuation of a small but nevertheless important supply of indigenous softwoods for special requirements"**. The Service has so far been unable to secure the decontrol. The reasons against it, whatever they are, must be cogent indeed, but we trust the Service will succeed in its objective.

Replacement

Replacement—replanting—is also a solution and we draw members' attention to the article by Mr. G. A. Walsh, M.P., on page six. Although regeneration of our native forests to their natural state is an ideal, it involves the complete exclusion of stock in order to preserve the natural undergrowth. Where this would lock up good farm lands it is not practical. Mr. Walsh writes from the point of view of a farmer and points out that native trees can be satisfactorily grown on farms with protection from stock, for some species, necessary for only a few years in their juvenile state; they will then provide shelter and in the long run a more worthwhile asset than exotics. His contention, accompanied by "chapter and verse" merits consideration.

COVER PICTURE (From a Water-Colour by the late Miss L. A. Daff) Shining Cuckoo (Pipiwharauroa)

(Lamprococcyx lucidus)

I^T has been definitely established that the New Zealand shining cuckoo winters in the Solomon Islands. They commence to arrive in the Dominion from overseas in September and by November the little visitors are well distributed.

Their call bears no resemblance to that of the European bird. It has been rendered by the Maori words "kui, kui, kui, kui, whiu whitiora". It has a certain ventriloquial quality that makes it difficult to detect the exact whereabouts of the singer.

Their food consists of insects, notably such furry caterpillars as are avoided by other birds.

As in Europe, the cuckoos build no nest, but leave the hatching of their eggs and the rearing of their young to other birds, usually the little grey warbler (riroriro).

The newly-hatched cuckoo throws out any rival eggs or young birds that may be in the nest, soon outgrows its cradle, and, leaving it a sad wreck, remains perched about in the neighbourhood, calling plaintively for food, more, and more, and more; and this is regularly supplied by the faithful foster-parents, and by other small birds, instinctively attracted by the hungry squeaker. Some of them remain dependent on foster-parents so long that they are not prepared for the sea journey to the northward in February or March. The migratory instinct is stimulated only at regular seasons, and the birds thus left remain here contented on adequate if reduced fare till the following autumn.

Cockayne Memorial

THE memorial to Dr. Leonard Cockayne, in the Otari Gardens (Wilton's Bush) was unveiled by the Mayor of Wellington, Mr. R. L. Macalister, on 11th December.

Dame Elizabeth Gilmer, Chairman of the Parks and Reserves Committee, in opening, gave an outline of the proceedings which gave rise to the present conception of the native garden round the grave of Dr. and Mrs. Cockayne with the memorial stone at the head of it. The Mayor, after thanking the Forest and Bird Protection Society for its financial assistance, recalled the circumstances of the burial of Dr. and Mrs. Cockayne on this spot and paid a tribute to the outstanding achievements of the great botanist.

Our President, Mr. A. P. Harper, asked by the Mayor to speak, said he was paying his respects not only to one of the world's greatest botanists but also to one who was for a time President of our Society. He quoted Dr. Cockayne's own words "We who live in this wonderful country and love its marvellous vegetation, have set aside Sanctuary after Sanctuary, where vegetation, which Nature commenced millions of years ago, can still preserve its destiny if unmolested by its human enemies and the hordes of foreign plants and animals which have been introduced. Will our descendants prize this unique heritage from the dim past and preserve these Sanctuaries intact?" He said this memorial should be regarded as not only to Dr. Cockayne's honour but also as a constant reminder of his ideals and aims. He hoped that no exotic plant would be allowed in the reserve even to the grass on the lawn.

The surroundings of the grave have been planted with native trees and plants, and a large rockery has been incorporated, containing principally native alpine plants. The grass on the lawn, at present the only exotic vegetation, is only a temporary sward and will in time be replaced by cotula, a native ground plant largely used in New Zealand for bowling greens.

The bronze plaque unveiled by the Mayor, with, on it, the names of Dr. and Mrs. Cockayne and the last sentence of the quotation given in Mr. Harper's speech above, is in front of the memorial stone, which, as most members will remember, was provided by subscriptions made through our Society.

Waste and Destruction in Saw-milling

"HE appalling waste perpetrated by some sawmillers in New Zealand is vividly shown in these photographs taken by Dr. J. T. Salmon in the Westhaven and Aorere regions. Taken in conjunction with the grave warning given by the Director of Forestry in his 1952 Annual Report, mentioned in our as Editorial, such callous wastage in our indigenous forest resources must give all New Zealanders cause for serious concern.

Among the debris were more than one trimmed trunk, which had apparently fallen off a lorry and been left, and branches of





rimu from which good short boards of heart timber 4 to 8 feet long could have been cut; these were just thrown out, only the best part of the tree being taken.

Dr. Salmon was particularly impressed with the contrast between such practices and the way in which tree-felling is carried out in England and the Continent, which he recently visited. There he found that every part of the tree was used, for timber, then firewood or other purposes, the remnants even being collected for kindling or pulping. In those countries Necessity

has long made its impression; in New Zealand, though on the doorstep, it is as yet hardly recognized!

Debris such as this, left when the forest is regenerating, makes the forest almost impassable for a long time. It is, too, an extremely dangerous fire hazard, and a breeding ground for all manner of forest insect pests. It was probably through the medium of such brash and sawmill tailings that the two-toothed longborn borer has developed into a dry-wood borer, attacking houses.

Secure Our Native Trees

By G. A. WALSH, M.P.

IN this article Mr. Walsh, a farmer, makes out a good case for the planting of native trees on farms.

Over the years, much anguish has been spent on the loss of our native forests and the near exhaustion of indigenous timber trees; forestry experts now assert that remaining supplies of millable native timber —with the single exception of the West Coast of the South Island—will, in the absence of conservation, be all consumed within ten years. This position has now somewhat improved by Government policy as declared by the 1952 Report of its Forest Service.

With care, this policy may eke out indigenous timber for specialised building and joinery purposes, for upwards of fifty years, provided the owners of privately held bushlands adopt similarly protective measures. However, no matter what measures are applied to control the remnants of New Zealand's once mighty timberlands, the end of their commercial use is at hand. Public sentiment is happy in the knowledge that the National Parks Act. as a consolidation measure covering four and a half million acres of bushland Reserves will preserve some of our former glory of trees and flora, for all time, but I agree with the growing numbers who say-"assurance though it be, this is not enough".

What then can be done about it? There is only one answer to that question-plant more trees! Because of a deeply rooted, but quite erroneous, public conviction that native trees cannot survive away from the density of bushland, general opinion will be difficult to correct, but such correction is inseparable from any campaign having as its aim, a worthwhile improvement to the present position over the coming years. Those who prompt an alteration of this view in others will have already achieved a signal success; once the truth is known on a fairly widespread basis, there is little doubt that enthusiasm will snowball-every tree-minded New Zealander regrets the passing of our noble timber trees, and he would welcome with profound gratitude the knowledge that totara, kauri, rimu, matai, tanekaha, puriri, kahikatea, hinau, howhai, and the various beeches, will still grow freely throughout our land.

Native trees grow equally as well as single specimens, as they do in plantations; naturally however, plantations or rows of trees develop trunk formation much quicker than those growing alone, but I have little consideration for this early aspect, because at maturity it is likely that uncrowded trees will be magnificent specimens in every way. Most properties are possessed of a spare piece of land in some stray corner-down the drive, round the orchard, idle bits against sheds, and along creek courses; these are all ideal spots for natives. Should there be an acre or two across an awkward gully, altogether too costly to handle with the farm operations, then plant it in totaras, or one of the others. Totara is perhaps the most useful species of the mentioned list, both in merit and quickness of growth; to these qualities I can add another-totara is "stock resisting" to a remarkable degree. Once established and firmly rooted in the ground, no stock will forage them for food, this extraordinary circumstance being an advantage of no mean order. Then there is the fact that totara will accept all climates and, apparently, localities. However, one must be guided by the known virtues of individual varieties of trees for specific districts; kauri, for all its qualifications, would not live in parts of the country, nor thrive in some others, while rimu-although growing throughout New Zealand-requires light overgrowth of shrubbery, in very severe frost areas, for its early years (perhaps six or seven). Tanekaha is quite helpful, adapting itself to almost any climate, requiring only a well drained soil at the immediate site of its planting; together with the three best know timber trees just mentioned above, tanekaha adds its quota to New Zealand's most valuable "construction timber". Kahikatea, known to many as "white pine", will grow anywhere, anytime; it nevertheless displays a preference for damp soil and will grow vigorously even under swamp conditions. The so-called "silver pine" also relishes wet soil on a seasonal basis, and although this tree is not a prolific grower, it is extremely durable and meritorious.

The "beech group" (birch so-called) provides a subject for every clime; it is a speedy grower, exceedingly beautiful. and has many uses, varying with the varieties.

The foregoing is a brief description only, advanced for the purpose of illustrating the ease with which our own native trees can be handled and accepted; but for detailed information one would be advised to consult his local nurseryman, or obtain special manuals issued by those nurserymen who have for long endeavoured to encourage general respect and adequate recognition of New Zealand trees. A visit to nearby patches of bush may indicate suitable plant subjects; pioneering residents can be helpful in every district, because their memories are always equal to reminiscences, indeed many still owning such remnant patches are willing to assist, by permitting the lifting of seedlings for planting in nursery beds away from the parent trees.

There is a lot of satisfaction in growing one's own. Obtain the tiny seedlings, up to three or four inches in height, and plant a foot apart. After a full year wrench the trees in two stages. They should be ready to shift to their permanent sites in the following autumn. When lifting from the bush, seek out seedlings that have germinated around the open edge, or in clearings of the bush, and be most careful to "trowel" a cupful of earth with each "treelet". Should a land-holding be equal to establishing a small piece of bush—say from one to five acres—then the most useful method of procedure is to cover the area with the so-

Right.—Kahikatea and Matai in St. Peter's School grounds, Cambridge.. Planted 45 years ago and protected from stock for a while.

Below (Left).—Plantation of Totara at "Torview", between Cambridge and Hamilton, planted 65 years ago and now 80ft. high. (Right).—A tree in the same plantation, with two of the author's children to show size.

[Photos by Author.



called tree-lucerne (cytisus proliferus) at about ten feet spacing; interplant selected trees, and nature will do the rest. The flowers of the tree-lucerne, heavily honey laden, attract our native birds—particularly the tuis and bellbirds—and soon the many species of plant life that go to make up our beautiful indigenous forests are under way. Twenty years later the bushlet will be upwards of thirty feet high; if surrounded with a hedge to keep out underdraught, the trees proper will possibly reach forty to fifty feet in the same time.

When Nation-wide sentiment thinks and comprehends a step further, then will effective replacement commence. Man-made exotic timberlands are now quite sufficient for all purposes, these consisting of mass lumber industries centralised around costly production factories; such industries are self-supporting in the matter of timber supplies. It therefore is axiomatic that the rest of New Zealand is a wide-open field for comprehensive plantings of natives. Why not solicit assistance from all sides? Seek aid through organisations such as Federated Farmers, County Councils, Catchment Boards, Land Boards, Town Planning Authorities, Domain Boards, and the Forestry Department.

Let us promote a real salvage campaign to GROW NATIVE TREES.





Aliens in the Forest [1. The Wild Cat Problem] By P. C. BULL

THIS is the first of a series of articles on alien animals which have penetrated our forests as the result of colonization by man. It is contributed by Mr. P. C. Bull, Zoologist, Animal Ecology Section, Department of Scientific and Industrial Research. Accompanying it is a photograph showing the size to which the feral cat can grow if circumstances are favourable. It is an interesting and informative article. The Society, while consistently condemning the practice of releasing cats into the bush to become pests in a habitat not naturally adapted for mammals, welcomes any effective scientific investigation into the wild life problems of this country.

For the purpose of the present article wild cats may be defined as cats which no longer depend on man to provide them with food and shelter. They are merely domestic cats gone wild and should not be confused with the true wild cat of Europe which is a different species and does not occur in New Zealand. There is every gradation in this country between the much-fondled house cat and the cat born of wild parents and living itself far back in the bush.

We know from the writings of the early naturalists that there have been wild cats in New Zealand from the earliest days of settlement. We presume that such animals have descended from cats deserted when the temporary camps of prospectors, bushmen, sealers and others were abandoned, and it is well known that farmers used to buy up cats in the towns and liberate them on their farms to kill rabbits. In more recent times cats have been left on some of the mutton bird islands off Stewart Island as a rat control measure or through carelessness. That cats can survive and reproduce in the wild is shown at Little Barrier Island where there are still wild cats although no animals have been liberated there for more than half a century. Wild cats are present over wide areas of the three main islands of New Zealand, but except locally, they are in relatively small numbers which conforms to the well known fact that predators exist in much smaller numbers than do their prey. Wild cats are found in a wide variety of habitats such as farm paddocks, hedgerows, plantations, sand-dunes, scrub and dense bush. They also occur on several of the outlying islands of New Zealand. Their food probably includes birds, rats, mice, small rabbits, lizards, fish and invertebrate animals but little is known of the relative importance of the various items of the diet. Recent work

overseas makes it fairly clear that, of the foods suitable for a given carnivorous animal, those which are most readily available are taken. For instance a study of feral house cats in California showed that where small rodents were abundant they were taken more often than were birds.

Most readers of "Forest and Bird" will be interested in the effect of wild cats on our native birds, and it is the purpose of this article to discuss some of the facts which bear on this complicated problem. There is abundant evidence that cats kill birds, and for the individual bird, a cat is certainly an unmitigated menace. The real problem is to determine what effects cats have on the species as opposed to the individual. The problem is different for each species of bird and for each locality. For common species such as blackbirds and silvereyes cats are probably of little importance even though they kill a large number of birds-especially young birds. These species at present produce more young than the environment can support and a large proportion of the young are destined to die in their first year so, as far as the species is concerned, it makes little difference whether they are killed by cats, shot by orchardists or die of starvation.

Most of our native birds are in a different category. For a number of reasons, of which cats are only one, many of them are so greatly reduced in numbers that they do not appear to occupy fully the habitats available to them and every bird killed is therefore a real loss to the species. Evolved in the absence of carnivorous land mammals, many of them are ground-frequenting and lack the constant alertness so typical of most of the introduced birds. Under such circumstances it is probable that cats are a serious hazard to the continued existence of such species. On the

main islands, however, cats have been present for so long that the harm they are responsible for is already done and the mammals and birds appear to be gradually reaching a state of balance. It must not be forgotten that cats are only one of the several introduced predaceous mammals and that these have effects on each other as well as on the birds. Indeed, Guthrie-Smith, arguing from the fact that near houses where cats are kept the nest of various rails are less molested by rats, believed that the influence of cats may at times be actually protective. It is not possible to exterminate wild cats from the main islands and, even if this were possible, it would be most unwise to do so until the relationships between cats, rats and birds are more fully understood. If a balance is in fact being established it is essential that nothing be done to upset it, and in this connection the practice of liberating unwanted domestic cats in the country is to be deplored. Such a practice will result in the cat population being higher than the environment can support, and until the wretched animals die there will be increased predation on native birds and game birds. There can be no excuse for this cruel evasion of responsibility when facilities exist for the humane destruction of unwanted pets.

Finally, I must mention the effect of cats on the birdlife of our off-lying islands because it is here that tragedies have occurred in recent times and more may follow unless everyone is watchful. The birds on such islands are often different from their mainland relatives and they are of great scientific interest. Many of the populations are extremely small-only a few dozen individuals in the case of the Chatham Island robin. Such species as the saddleback, stitchbird and shore plover are extinct or almost so on the mainland and the last survivors are located on some of the less-accessible off-lying islands. A single cat allowed ashore by a careless vachtsman could cause their extermination. This is demonstrated by the recent tragedy at Herekopare Island near Stewart Island. When Guthrie-Smith visited this island in 1911 he found an extraordinary abundance of birds. Cats became established some twenty years later, and when the island was visited by Mr. Richdale in 1941, six species of native birds had become extinct and the populations of the remaining three

species had been decimated. A much older example is provided by the Stephen Island wren which is known from only a few specimens brought in by the lighthouse keeper's cat in 1894. The bird was apparently never numerous and it was confined to this one small island where its ground-frequenting habits made it an easy prey for the cat which apparently exterminated it. Little Barrier Island presents a slightly different example, for this sanctuary is still renowned for its wealth of birdlife despite the long established cat and rat populations. The ground-frequenting robin exists there, although it is not particularly numerous and there are special conditions which may assist it to exist despite the cats. In summer, the cats are probably attracted to the ridgetops by the easily

(Continued at foot of next page.)

Mr. J. T. Hazelwood with the skin of a wild cat, nearly 4ft. from nose to tail tip, which he trapped in the King Country. He gave the skin to the Society and it has been passed on to the Dominion Museum. The cat was a white one. There were no birds in the vicinity of the trap.

. [Photo: Evening Post.



Harrier and Poultry

FOLLOWING Mr. Poole's article "In Defence of the Harrier" in our last issue, Mrs. L. V. Creswell, of Tokomaru Bay, writes the following, which we publish, with Dr. Falla's comments. It gives another aspect of Kahu's activities.

"I was interested in the item "Harrier Versus Rabbit" in the August 1951 "Forest and Bird" (Along the Track). This brought to mind a similar experience which occurred at our home a few years ago. There was a difference, though, as the prey happened to be our white fowls and ducks. For some reason the hawks seemed to fancy the white fowls as the black ones escaped without injury. At first we could not understand why there was a hen missing when we fed them some nights, until one day two were discovered in a stony creek some distance from the house (which proves that the hawk likes a hard surface on which to drop and stun his prey). Then one day the hens began cackling soon after I had let them out for a run, and I saw a hawk circling round. It kept circling for quite a few minutes but I could not see what the attraction was as there was a small hill between us, but guessed by the disturbed cackles that something was wrong. rushed to the place just in time to see the hawk fly up with a large white duck, carry it a short distance and drop it again, as it was obviously too heavy to be carried right away when I approached. The duck was still alive, but quite dazed and kept turning its head round first in one direction and then in the opposite. It was obviously quite giddy with watching the hawk's circlinga very cunning trick to confuse the bird

before attacking it. The duck died soon after as its body was blue with bruises and many bones had been broken by its fall.

"This was a harrier hawk, but the sparrow hawks also attack chickens, and grown fowls if they are sick or injured. although their methods seem to be by swooping continuously and pecking to kill."

This was referred to Dr. Falla, who states that it is a most interesting account of possible, in fact probable, dazing action by a harrier (Kahu) on its prey. Members will recall that Mr. Wyness-Mitchell in his account of a harrier catching a rabbit (quoted by Mrs. Creswell above) stated that the harrier flew in such a way that its shadow kept in front of its prey. In the case above however, the possibility that the duck's actions were caused by the shock of his fall cannot be ruled out, and so definite proof of intention cannot be claimed.

Again, the so-called sparrowhawk, more properly bush hawk or bush falcon (Karearea) is an exceptionally fearless bird, smaller than the harrier. It would certainly not resort to killing its prey with a number of pecks, unless possibly it was a very young and inexperienced bird. Possibly on the occasion Mrs. Creswell mentions, the prey was in a confined space in which the falcon could not dispatch it in one clean strike.

"The Wild Cat Problem," continued from page 9.

caught Cooks petrels which come ashore to nest in large numbers, and this may allow the robin some respite to rear its young in the gullies more or less free of cats. Saddlebacks were once present on the island but became extinct. Attempts to reintroduce them failed although the species holds out on Hen Island where there are no cats.

To sum up I consider that where longestablished cat and rat populations are both present no action should be taken against the cats until the relation between them and the rats is fully understood. We know that there is a healthy avifauna on Little Barrier, but we can only guess at what would happen if we removed the cats and

left the rats, and our guess might be wrong. Where there are neither cats nor rats every effort should be made to keep them out. There are still a few cat-free islands where rare birds have their last stronghold and such islands should be inspected regularly so that any immigrant mammals can be dealt with before they become thoroughly established. We have missed several chances and there are not many more left to us. The cat problem then, is first to prevent these animals becoming established on the few islands remaining free of them and secondly to obtain precise information on feeding habits of predaceous animals with respect to their effects on the birds and on each other.

Mangaeniu-Ohau River

[A Charming Bush Waterway]

By BERNARD TEAGUE

MR. TEAGUE describes a little-known natural curiosity in the Urewera—a river which has carved itself an underground passage for a short distance, leaving its old bed of polished rock dry.

Cross a mountain range from the head of Lake Waikaremoana, drop down into the opposite valley and one finds the head-waters of the charming Mangaeniu-ohau This river from its very source, River. until it flows into the Waiau River, lives its whole life in the bush and on its whole length there is not one clearing. The total number of humans who have tramped down this lonely riverway would probably number less than twenty as it is unknown to all but a few Government deerkillers and a handful of trampers. The Mangaenui-ohau is a river of waterfalls. Trampers who have had experience of waterfalls have found that such waterways are usually very irksome, either in ascent of descent and often require gymnastic efforts in rock climbing with a rope needed to raise or lower rucsacs. Although the Mangaeniu-ohau has so many waterfalls in its course that the tramper loses count of them, the passage down the stream bed is easy from a mountain tramping standard and for from two to three days one meanders along revelling in the ever unfolding beauty. Apart from the large and varied falls and cascades on the main stream

Below.—The Mangaeniu-Ohau River disappearing underground. Right.—The old bed.

(The re-emergence is in a gully and is difficult to photograph owing to darkness and spray.)



many smaller waterfalls from tributary streams fall into the larger waterway. For good measure there is one star attraction that is freakish and unique. The river does a disappearing act, leaving its ancient riverbed dry while it disappears in a frothing cauldron of foam into an underground passage, to reappear at the bottom of a thirty foot cliff about 100 yards downstream. The reason for this stygian dive is found in the formation of the river bed. Running across the valley through most of its length are horizontal or transverse bars of a hard These cause the many waterfall rock. terraces. Where the river disappears the bars of rock are inclined horizontally. Between two of these bars the river over many centuries formed a deep trough and finally weakened the bottom of the trough until it found an underground passage. The high level riverbed of rock polished through the centuries is thus left bare.



Along the Track

BLENHEIM.—The following incident was witnessed during the second week in July from a vessel steaming down Tasman Bay when it was approximately seven miles from the coast.

A dark smudge appeared on the water a mile ahead of the vessel and an inspection through field glasses disclosed it to be a flock of sea birds. As the vessel approached the flock were seen to be very closely grouped and in circular formation. There was seen to be considerable movement among the birds as many of them indulged in short flights from one part to another of the circle. Two birds resting on the water remained until the prow of the vessel was within a few feet of them before they took flight to the group which then lay a little to one side. The main group was close enough to the vessel for the birds to be distinguished and they were undoubtedly black shags and others with patches of white on head and/or front. Owing to the activity of the birds I could not fully describe or name those which carried the white emblem. It was difficult to estimate but I put the figure at well over 1000 and possibly 2000 birds. The group was so densely packed that it appeared the individual birds had difficulty in finding room to float, and in endeavours to remain on the surface other birds became submerged. The whole group moved fairly rapidly, possibly half or more being submerged and swimming under water, and as all the birds indulged in the pastime, so the group moved ahead more rapidly than they would do on the surface The group was estimated to be approximately 40 yards across. When

they took to flight, it seemed that a conjurer's trick was being performed—most noticeable when the remaining fifty birds visible became more than double that number in flight. This would be due to so many birds being temporarily out of sight under water.—B. Murray.

[Almost certainly a concentration of the rare King (or Rough-faced) Shag. These concentrate on small feed, minute marine organisms which collect on the surface of water in colonies.—Ed.]

MARLBOROUGH.—I have planted for birds and have provided shelter and food with native trees, even in "dry old Marlborough".

After 40 years of study and care we have a great team of bellbirds that have made a permanent home of our garden and plantations. At present I have a pair of wild pigeons who are watching and waiting for the kowhai to show bud. We are not a native bush land. The country consists mostly of tussock, and the higher hills are sandstone rock, with a wealth of interest and lovely little gullies and beautiful little creeks that sad to say cannot flow all the year, as the rainfall is not much above 28 inches.—S. T. Richmond.

ENGLAND—Air-transport of migratory birds.—"Winter so early is alarming—we are having severe frosts and today asked to take the migratory birds, swallows and martins indoors, they are dying in hundreds, too late to cross the Swiss mountains; 'planes are to take them to Rome and here they have already collected."—Letter from Dover received by *Dame Elizabeth Gilmer*.

SPARE THAT TREE

MRS. SPARROW, for some time Secretary of our Auckland Section, writes as follows in "Home and Building", when discussing the man who has at last acquired a beauty spot for his weekend relaxation.

"He is going to have a little place of his own . . . where he can really enjoy the summer". . . But all this takes time to materialise. . . . He fells the trees . . . then phones the bulldozer man.

"We have all seen . . . busy little people wearing themselves to death, fighting the clock with axe and spade, to make their once charmingly rural section just like the town section from which they fled.

"Of course, a large proportion of these new home owners are full-time residentials, but owing to the long time involved in travelling to the City, these people have only the week-end to garden. This often means a week-end of really hard toil just to keep things in order. Now think of the other way. Leave the natural covering, tea tree, natives, the happy inconsequential bush where you are fortunate enough to have it. It will give you privacy, needs little attention, is freshly sweet and always beautiful in its way of growth. Where your section has been cleared before you came, put it back in its natural garb and forget the week-end drudgery.

"If you can keep to this your 'little place in the country' will be a joy."

Date .- The news in this Newsletter is that received in the office of the Society up to 1st December. 1952.

Christchurch Section .- On 20th August Mr. Norman France showed moving pictures of travels in India, China and New Hebrides. The hall was packed, and about 40 people had to be turned away. This should have been reported in last quarter's Newsletter but was somehow missed. On 15th October Mrs. W. S. MacGibbon gave a

showing of her motion pictures of wildlife to a crowded meeting of members.

On 22nd November the Section held a Field Day at the Orton Bradley Estate at Charteris Bay; about 110 present, 3 bus-loads plus private cars. Professor McCaskill took the party through the plantations and members had lunch alongside the old water-wheel, which is still in full use.

Auckland Section .- We offer congratulations to the following, who were the prize winners in the project competition mentioned last quarter :---First, Dallas Moore; Second, Sally Macfarlane; Third, David Cook; Fourth, Micky Leahy. A most successful evening function was held in

the University Zoology lecture theatre on 12th September, when Mr. Sibson gave an account of his experiences while attending the Ornithological Congress in Sweden in 1950, and Mr. Moon screened his remarkable films of New Zealand birds. About 150 were present.

On 27th September a Field Day at Rangitoto under Mr. L. Millener, two launches and 200 members, largely juniors for whom Mr. Millener organised nature competitions.

On 9th October Miss M. Crookes gave members a very interesting talk on "Ferns We Meet" in the Zoology lecture theatre.

And on 18th October another Field Day, this time at Martin's Bay, Mahurangi Heads. The party broke up into three groups, two to study bush, and one the birdlife on the coast, under Mrs. Prickett, Mr. Holt and Miss Macdonald. Mr. K. Given, Committee member, gave a talk to

the Boys' Brigade at Avondale, at which great interest was shown by his audience.

Quarterly Newsletter

The Section's exhibit at the Cheeseman Memorial Show at the Auckland Museum is illustrated on the inside of the back cover of this issue.

Sanctuary at Marton.-Mr. A. O. Bartlett's property at Silverhope, Marton, has been declared an "Area excepted from the provisions of the open season for game", on his application, made through our Society, to the Minister of Internal Affairs.

Protection of Blue Heron and Bittern.-At a recent meeting of the South Island Council of Acclimatisation Societies, the Canterbury Society brought forward a remit suggesting removal of this, on the grounds that the birds had become a menace to trout stocks. After Mr. G. F. Yerex, Controller of the Wildlife Branch of Internal Affairs, and Mr. D. F. Hobbs, Senior Fishery Inspector of the Marine Department, had spoken, the remit was dropped.

Kennedy's Bush, Christchurch.-It is good news that, after repeated representations from our Christchurch Section, the Summit Road Scenic Society and others, active steps are to be taken by the Christchurch City Council to preserve this Bush.

Riccarton Bush.-As a result of the appeal for native tree seedlings made by Professor McCaskill through our columns in the May 1952 issue, sufficient seedlings have been received from members of the Society, and particularly the pupils of Moana, Ahaura, and Totara Flat schools in Westland, to partially stock the nursery. Within three years it is hoped that it will be able to supply the requirements each year for planting in the bush.

Society's Holiday Camp at Lake Waikaremoana. -We have space on going to Press to say that this Camp, under the leadership of Mr. Bernard Teague, was a great success. The attendance was 58, including 14 children, and all present were unanimous in their opinion that it had been well worth while and would be the forerunner of future camps.

A fuller account will be published in our May issue.

Formation of Dunedin Section

SECTION of the Society was formed at A Dunedin, on 12th November 1952, at a meeting of members held in the City Council Chambers. Our representative in Dunedin, Cr. M. Connelly, presided, and our President, Mr. A. P. Harper, and Secretary, Mr. R. H. Carter, were both present.

Mr. Connelly opened the meeting and Mr. Harper, in giving the address, said that the forming of a Section was to give the members an opportunity to take a practical interest in the work of the Society. All sections should band together to save what little was left of our native bush and birds. Government Departments had been most sympathetic to the Society's representations. He touched on its work among the younger generation and the formation of School Groups. He gave an account of grants of land and bush made to the Society, and mentioned the part it

was playing in the proposal to form a National Trust.

Some of the Society's Bird films were shown, and recordings of bellbird songs made by Mr. Samuel were played.

Mr. Carter gave an outline of the organisation of a Section and the activities undertaken by other Sections.

A motion to form a local Section, called for by Mr. Connelly and put to the meeting, was carried unanimously, and the following provisional committee elected :--Messrs. M. Connelly, J. L. Pass-more, A. H. Allen, W. A. Williamson, Mesdames W. McInnes, I. Tiley, Misses H. Wilson, C. E. Wiley and S. V. Seelen. This committee has since been confirmed, and Mr. W. A. Williamson has undertaken the duties of Hon. Secretary and Treasurer.

Junior Along the Track

Taurikura.—On Sunday, 12th October, while I was in the bush on Mt. Manaia I heard the breaking of twigs. On investigating I came within a yard of a kaka which I watched for about ten minutes. It was cracking open dead twigs with its beak and eating the insects inside. Later I was able to secure one of these twigs. Inside it I could see the tunnel made by a grub. The kaka was brown and when it flew the feathers took on a reddish tint. Its beak was grey and it called in a harsh voice.—Ann Brooke, 12 years.

Bulls.—The other day we went for a drive and I noticed a small pond with three adult kingfishers, also one young kingfisher. Its colour was a dull grey with black on the head. The adult bird dived and caught a tadpole and ate it, not giving any to the young bird, but made a screeching noise as much as to say "go and catch your own". The bird did so but dived in feet first. It caught a tadpole holding it very tightly while it was wriggling; it killed it by hitting it on a branch many times until it was dead. I thought this was a very clever way to kill its food. Then it made a screeching noise as much as to say "I am more clever than you thought I was". Billy Homes, 12 years.

[The bird Billy describes as a young bird would probably have been a female; not really dull grey, but a duller green. Despatching prey by battering it on a branch or stone is the kingfisher's usual practice.—Ed.]

Murchison.—Every spring as soon as the willows begin to show green, the pigeons come to our township. I have counted seventeen in the trees at the same time and they seem to be able to balance on the highest slender twig without any trouble. Later they feed on the plum tree tips and then the kowhais. The tuis and bellbirds arrive as soon as the flowering currant is out, and come right up to our verandah. Last week I saw a weka in the paddock next to our house; he was, as usual, very tame and curious about everything.—Martin Conway, 12 years.

Feilding.—One day as I was riding in our bush by our dam six fantails flew out and flittered round eating the insects and things that I had disturbed. Once before a fantail followed a fly into our house and often we have one in our school chapel. The dam that the fantails live at is a sort of Sanctuary because we keep it as a breeding ground for ducks. At duck shooting time many many ducks are found there and I am glad because I think the birds ought to have somewhere to go.—*Rosemary Hobson*, 12 years.

Himitangi.—I and some friends went for a six mile walk along the beach. On the way we had a most interesting time. Beautiful shells were in plentiful supply. I managed to get two double fan shells, that is a flat and curved fan joined together. We managed to see several black oystercatchers, nine godwits, a few shags, many black-fronted terns, and a rare fairy or little white tern. Also we observed many black-backed gulls and red-billed gulls. Amongst the dead washed up along the beach we found three blue penguins, a swan and an albatross.—John Reynolds, 14 years.

[Weren't they white-fronted terns, John? Blackfronted terns are rare in the North Island. The white-fronted tern has a black head but a white front or forehead.—Ed.] **Christchurch.**—There is a big kowhai in front of our house, and when it was in bloom some tuis and pigeons came to suck the flowers and after about 2 minutes the pigeons started to chase away the tuis.—John Moore, 12 years.

Lichfield.—I thought some of the readers might be interested in reading of a morepork's nest I found. I was playing in our trees one day when suddenly a morepork flew out of a hollow pine tree in front of me. It flew a few yards and then perched on the branch of a wattle tree. I hurried over to the tree and found on the far side a large hole which opened up into a large cavern about the size of a basket ball. The floor of the nest was made of rotten wood and in a little hollow there were lying two pure white eggs. I found the nest at the end of October.—*Brian Spraggon*, 13 years.

[Owing to something he has read Brian thinks that was unusually early. Actually it was not; the morepork nests in spring and early summer.—Ed.]

Roto-o-rangi.—One day when I was walking through the pond I found two pukeko nests. I was very interested in one of them because it had nine eggs in it. The nest was on a cutty-grass stump. The nest was the same as any other nest except that the eggs were arranged with five eggs on the bottom and four on top.—*Patrick Dillon*, 11 years.

[The number of eggs was not unusual but their position was. They are generally on one level.—Ed.]

Karamea.—Over at our cow shed, we have a tame weka which has lost the claws of one foot. It loves the curds we put out for it, and it is nearly always waiting. One day we saw that he and his mate had a nest, for following him were some little chicks. Besides living in the bush, they are often seen in a large blackberry bush near our pigstys. We call our weka "Hoppy" because of his leg, which was caught in an opossum trap.—*Helen Tunnicliff*, 12 years.

Manaia.—Recently I had the experience of watching a blackbird. It wasn't an ordinary blackbird, it had a white head. The other blackbirds seemed to stare at it. It had a yellow beak, and yellow legs just like the other blackbirds. Could you explain to me the cause of it having white on it. I have heard of another blackbird all white with one black wing.—Lance Smith, 16 years.

Marton.—As I was lying in bed in the morning I saw a male blackbird just outside its nest. It had white patches on its wings. I am quite sure it was a blackbird as I looked it up and it was the same in every detail except the wings.—Andrew McCall, 10 years.

Patutahi.—Recently, while we were having tea, my sister noticed a white bird at the end of the garden. As we live in the country we do not see many sea-birds. But upon investigating we found it was totally unlike a seagull or anything of its kind. We have heard of albino blackbirds and have since come to the conclusion that that is what it was. It was very like a blackbird in shape though it seemed thinner and longer.—*Elizabeth Williams*, 16 years.

[What Lance Smith, Andrew McCall and Elizabeth Williams saw is not uncommon. It is caused by a lack of pigment or colour developing in certain areas of feathers; it very often crops out in the descendants of a bird so marked.—Ed.]

The Wonderful Wanderings of Wiremu Double-you Weka By E. H. C.

Chapter 11 - HAVEN



TIREMU never knew how long he slept but it seemed as if years had passed when at length he was stirred by a sensation of soft. breeze-blown fern fronds brushing his tattered feathers. He felt very peacehalf sleeping, ful, half waking. The fire seemed but a distant memory-all was well again.

Then the fern-like caresses ceased; Wiremu started into

full wakefulness! His peace was shattered and he struggled in a frenzy of fear. He had a horrible unsafe feeling of nothing beneath his feet; something had lifted him from the ground! It was The full terror flooded back, he must the fire! escape! He must run! It was the fire!

But struggle as he would Wiremu could not free himself; the grip that held him was unshakable.

As his first mad panic died down Wiremu was puzzled. There were several things he had not noticed before. He could not hear the roaring voice of the fire; he could not feel the fire's hot breath; he had seen the fire vanish before his eyes. This could not be the fire, but if not what or who was it that held him?

Wiremu twisted his head and found himself gazing into the large brown eyes of a little boy.

Wiremu's struggles commenced anew. This was a man child; one like those who had slashed the tree with their knives-a boy who left papers about and trampled plants; one indeed like those who, by their carelessness in putting out their fire, had been responsible for the terrible disaster that had so nearly overwhelmed him but a few hours before; a boy with no thought for the bush and its creatures; an enemy from whom he must escape! He drew back his head and struck at the entrapping hands with his powerful beak. But it was no good, : the terrible chase of a few hours before had stolen all his strength; the blow was only a feeble tap and had no effect on his captor.

"All right old chap, I'll not hurt you." The voice was sympathetic; the boy shifted the bird into the crook of one arm and stroked him gently with the other hand. Wiremu's tension relaxed; something in tone and touch told him this was a friend.

"You're in a fine mess aren't you?" grinned Wiremu's new friend. "I'll take you home and ask Daddy what I ought to do for you. I do hope you're not hurt inside."

It was not a very comfortable journey. There was a steep downhill climb before they reached the road leading to the reserve of which the boy's father was caretaker, and Wiremu was very thankful when at length he was set down on the kitchen floor of the caretaker's cottage while Jimmy (for that was the boy's name) went in search of his father. And it

was as well that he found him as soon as he did for when the two returned Wiremu, his inquisitive Weka nature getting the better of his exhaustion, was already investigating an open crockery cupboard.

"There see!" cried Jimmy triumphantly. "I said it

was as big as a hen. What is it?" "Why I do believe it is a Weka," exclaimed Mr. McGillycuddy (yes, believe it or not, McGillycuddy). "I've never seen one so close to civilization as this. It must have wandered down from the back country.

"Will he be alright do you think?"

Mr. McGillycuddy felt Wiremu carefully all over. "I think so, there's nothing broken, he is just a bit scorched and very tired, he must have been running pretty hard."

"Can we give him something to eat? What do Wekas eat?"

"They eat anything at all," laughed Mr. McGillycuddy. "Once when I was camping a weka actually ate a custard I had left on the ashes of the fire to keep warm." "There's a dish of custard in the larder, can I

give it to him?" "Well, first" said his father rescuing Wiremu

from the rubbish box "I think you had better take our inquisitive friend outside, and then I should think some bread would do just as well as custard!" "What shall we call him?" asked Jimmy as he

carried Wiremu outside.

"Well your great grandfather once had a tame Weka called Wiremu.'

"Ooh yes! Let's call him Wiremu the second. Here you are Wiremu the second." Jimmy collected a plate full of bread ends, poured a little milk over them to soften them and put them down in front of Wiremu who munched happily.

What a wonderful world it was! Here was he, Wiremu Weka II, the great-and-I-don't-know-howmany-greats grandson of Wiremu Weka I, being rescued by the great grandson of Mr. McGillycuddy who had given his ancestor his name.

Next time-Wiremu goes exploring.



NEW LIFE MEMBERS ENROLLED SINCE LAST ISSUE.

Barr, R. F., Dunedin. Brown, Miss E. S., Wellington. Calvert, H. G., Lower Hutt. Creswell, R., Tokomaru Bay. Holt, P. G., *Tutira.* McGregor, N., *Ohai.* Phillips, Mrs. M. R., *Havelock* North.

Phillips-Turner, Miss S., *Hamilton.* Watson, Miss J. I., Waharoa.

NEW ENDOWMENT MEMBERS ENROLLED SINCE LAST ISSUE.

Agnew, J. K., Hastings. Branch, C. J., Rotorua. Brockett, Mrs. S. M., Kaikoura. Claxton, Mrs. R. B., Thames. Claxton, W. H., Thames. Davidson, A. G., Melbourne, Aust. Daysh, D., Wellington. Doctor, Dr. J. A., Waikanae. Elder, E. M., Tuatapere. Eskdale Women's Institute, Napier. Fyfe, Mrs. M. I., Dunedin. Gibbs, Dr. E., Wellington. Godfrey, M. A., Marton. Heine, Mrs. A., Nelson.
Heppelthwaite, A. G., Auckland.
Honore, M., York Bay.
Hopkins, L. J., Wellington.
Jeffries, Miss N.-N., Matamata.
Johnsonville Town Board.
Lawrence, J., Parau.
Leggatt, H. S., Nelson.
McNaught, G. J., New Plynouth.
Matthews, Russell, New Plynouth.
Merrie, Mrs. G. W., Taneatua.
Mitchell, D. B., Tirau.
Moore, Mrs. T. R., Palmerston North.

Moran, C. E., Otumoetai. Norman, B. A., New Plymouth. Norris, Dr. T. Seton, Waipawa. Payne, J. W., Tirau. Pratt, Miss C., Christchurch. Stutherford, G. M., Dunedin. Shaw, C., Auckland. Smithers, G. F., Feilding. Stirling, W. D., Auckland. Stone, N. J., Christchurch. Thomsen, P., Auckland. Whyte, Mrs. A. W., Hastings. Williams, J. Jordon, Taupo.

(The above Lists are up to 20th December, 1952.)

Omissions

(from List of Life and Endowment members issued with November Journal)

Life Russell, Mrs. R. M., Channel Islands. Endowment Hunter-Brown, Miss L. M. Sclanders, E.

We offer apologies. If any others have been missed, will they please let us know.

A List of Life and Endowment members is issued annually with the November Journal to adult members.

FOR SALE (Post Free unless otherwise stated)

Price		Price
	"THE TAKAHE" (an Ornithological Society Publi- cation)	5/-
15/-	"RICHARD BIRD AT SEA," by M. M. Atkinson	6/-
5/-	— PAMPHLETS —	0/-
2/6	"THE CRIME AGAINST THE LAND," by Y. T. Shand 6d. each; per doz.	3/6
12/6	"DESTRUCTION OF AN AVIAN PARADISE," by Mrs. Perrine Moncrieff. 3d. each; per doz.	2/6
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Section Activities

(See Newsletter)

LAUNCH PARTY.—One of the two launches at the Auckland Section's Rangitoto Field Day.

Both launches were fully laden, and most of the party made the three-mile trek to the summit of the Island.

[Photo: Noelle Macdonald.



During lunch an old waterwheel which is close by, and still in full use, was busily turning.

[Photo: Mrs. W. S. MacGibbon.

A Notable Exhibit

One of the bays of the Auckland Section's exhibit at the Cheeseman Memorial Show. It represents pestravaged bush of the present day.

The other bay (just visible), labelled "New Zealand 1900", showed the lush untouched vegetation of that period.

[Photo: Noelle Macdonald.



