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AUCKLAND BOTANICAL SOCIETY

Hon. Editor: Marguerite W. Crookes,
19 Coronation Road,
Epsom, S.E.3.
Hon. Secretary: Mrs. P. Hynes, 'Phone 89-207
54 Calgary Street,
Mt. Eden, S.2.

RANGITOTO ONCE AGAIN.

A matter of scenery preservation of major importance has recently been before the public. There is no need to tell members of the outstanding botanic interest of this beautiful volcanic cone nor of the urgency of the problem of the protection of its plant covering. But this same problem of protection is by no means a simple one. Our President, Dr. L. H. Millener, M.Sc., Ph.D.(Cantab.), who has made a prolonged study of the Island's vegetation, and has devoted a great deal of thought to its foes has put forward a series of suggestions for dealing with them. At a recent meeting of the committee of the Botanical Society resolutions were passed in support of Dr. Millener's position. It is then important that members should fully appreciate the facts that have led - one might say forced - Dr. Millener to his present conclusions.

This is the more necessary, because in a recent letter published in the "Auckland Star" which many of our members will have no doubt cut out, Dr. Millener was quoted (in inverted commas) as saying things that were, in some cases simply interpretations of certain passages in his letter. The passages I quote below are taken from Dr. Millener's letter to the Minister of Lands (October 24th, 1956) and his letter to the Auckland Metropolitan Council (February 19th, 1957.)

"At a recent meeting of the executive of the Auckland Botanical Society, called specifically to discuss Rangitoto Island and future policy with respect to this unique plant domain, the following resolutions, inter alia, were adopted unanimously:

1. That this Society, while steadfast in its disapproval of encroachment upon public domains and plant sanctuaries generally, is of the opinion that on Rangitoto, because of the very uniqueness of the Island and its vegetation, and because of the constant, serious threat to this vegetation from fire, vandals, browsing animals and exotic plant invaders, cottage-owners should be allowed to remain indefinitely, provided that their behaviour remains at all times strictly compatible with the spirit of the Reserves and Domains Act, 1928.

2. That this Society should forward to the Minister of Internal Affairs the names of certain, responsible Rangitoto cottage-owners for consideration as Honorary Rangers under the Scenery Preservation Act.
3. That copies of this resolution be forwarded to the Minister of Lands and of Maori Affairs, to the member for Tamaki, to the Secretary, Rangitoto Domain Board, and to Mr. G.M. Fowlds (who had written to the Society about Rangitoto) accompanied by a letter from the President setting out in detail the arguments on which the resolutions were founded.

I write in support of these resolutions as a professional botanist who has spent the last ten years working intensively on the vegetation of Rangitoto; again, as one who, as you may know, has fought for more than twenty years for the preservation of the indigenous vegetation.

As is now generally known a legal error was made, some fifty years ago, when cottages were permitted to be erected on the Rangitoto Domain. What is not generally known, however, is that the perpetuation of this legal anomaly has ensured the safety of the larger part of the vegetation over the last half century. The plant life of Rangitoto Island has been saved in the condition in which we find it today only because of the activities of the Rangitoto Domain Board, financed by the rents from Rangitoto cottages, and of the cottage-owners themselves, a sufficient number of whom have been prepared to act as constant guardians of the vegetation.

Rangitoto's oft-mentioned uniqueness depends almost entirely on the strangely-luxuriant vegetation that is colonising the lava fields. I am quite certain that only a trained ecological botanist, one who, besides, has studied the extraordinary conditions for plant growth on Rangitoto, is competent to say how a given future policy towards the domain might affect the vegetation.

Grave dangers threaten, and will continue to threaten, Rangitoto's plant life. I shall list these in decreasing order of severity, as I see it, and shall attempt to show how the cottage-owners are related to these dangers.

1) Introduced Animals.

Fallow deer, which came over from Motutapu Island many years ago, and wallabies and opossums in thousands, represent the very gravest threat to the continuance of natural plant succession on the island. The plant cover has already been quite altered in parts through their depredations. In these parts the success of exotic weeds (foxglove, fireweed, blackberry etc.) is directly related to the extinction of native plants by the animals.

Through the Rangitoto Domain Board, I was able, in 1947-8, to enlist the help of the Wild Life section of the Internal Affairs Department. It was conservatively estimated (letter from Under-Secretary to Domain Board, July 11, 1950) that in one short

campaign conducted in 1948 at least 1000 wallabies alone were killed. Known kills of opossum were 224, of rats 22 and deer 3.

Each year the cottage-owners of Rangitoto destroy hundreds of marsupials, and occasionally deer. One man, I understand, has himself, over the years, shot over 300 deer. I am prepared to say that the damage that would have been done to the vegetation of the volcano by these deer alone would far exceed that which could be held at the door of the cottage-owners in all the years they have been on the island.

2) Fire.

There have been many serious fires on Rangitoto. The island becomes tinder-dry in summer and even when fires have been, apparently, subdued they may continue to smoulder among leaf remains etc. in the deep crevices of the lava fields, to burst out again days, or even weeks, later. A fire burnt in this way once for nine months, from the southern shore nearly to the base of the cone. Its front, at times, was several hundred yards wide. Had it not been for the cottage-owners, who fought the fire again and again, very serious destruction could have been wrought by this fire.

Rangitoto residents perform one of their most valuable roles in extinguishing the fires so frequently and irresponsibly begun round the shores of the island by yachtsmen, fishermen and others. I have attempted to trace the histories of all the larger fires on Rangitoto this century, and I cannot over-emphasize the debt owed by the country to the cottage-owners for the part they have played in subduing them.

3) Introduced Plants.

Much has been made in the past of foxglove, Eupatorium (fireweed), tutsan, blackberry and other herbaceous invaders. The real danger, however, in my opinion, lies in one plant only - Pinus radiata. This aggressive species came in many years ago, as most of the other formidable exotics have done, from wind-blown seed. In 1948-49 members of the Auckland Botanical Society, helped by the engineer to the Devonport Borough Council, cut down or otherwise destroyed on Rangitoto over 1000 trees. These ranged in size from seedlings to trees over fifty feet in height, with trunks up to three feet in diameter. The work has gone on, spasmodically, since. Some Rangitoto cottage-owners have regularly assisted in the removal of pines.

Pinus, if left to itself could, within relatively few years, completely ruin Rangitoto as a plant wonderland.

I believe it is very desirable to bring about far fuller co-operation between Rangitoto cottage-owners and the Auckland Botanical Society in the matter of Rangitoto problems generally, and particularly as regards the Pinus campaign, than has been the case in the past. Members of the Islington Bay (Rangitoto) Society Inc. have lately joined the Botanical Society and I have been given wholehearted assurances by the Rangitoto people that

they will assist specifically in the removal of the thousands of pines still growing on the Island.

Hakea acicularis (Australian needle-shrub) constitutes perhaps the second greatest danger, but one not comparable with that from Pinus.

If Pinus can be virtually eliminated from Rangitoto (as I believe it can), if fires are kept out, and if, above all, the population of browsing mammals is kept small, the native plants will overcome all serious competition from exotics. Those herbaceous "weeds", some undoubtedly introduced by the cottage-owners, about which so much was made twenty years ago, will be seen as of no significant ecological importance on Rangitoto if the problem of invasion by exotics be looked at in proper botanical perspective.

4) Vandalism

Rangitoto residents, I know, have many times prevented the taking of pohutukawa "knees" for boat building from the island periphery. Acts of even more gross vandalism would often have occurred if Rangitoto had not been vigilantly peopled in just those areas where yachtsmen tend to congregate.

We would delude ourselves to believe that Rangitoto would not be left open to destructive agencies, or virtually so, once the cottage-owners have gone. We all know, the Government itself knows, that the history of the struggle to keep New Zealand's plant reserves in their primitive state is a history, by and large, of frustration due to lack of funds for the purpose. My hope that in the future the Government might appoint full-time rangers to patrol Rangitoto is, I know even now, an uncertain one.

I would much like to see Parliament make it possible for the present leases, when they are given up, or expire on the death of the holder, to be handed on to people pledged as Honorary Rangers under the Scenery Preservation Act, and as Honorary Caretakers under a special Act, to cherish the Island's botanical treasures.

If Parliament could be so persuaded to modify its present stand on cottage-site leases, thus presenting the controlling authority with the prospect of a steady and satisfactory income, instead of that of a wasting asset, as is the present outlook, I think the establishment of at least a more widely representative Domain Board might be effected. This, if a National Trust cannot be established, I consider to be very highly desirable. You, of course, know that the efforts of the Commissioner of Crown Lands in this direction in 1953 failed through refusal of Local Bodies to accept financial responsibility for the control of Rangitoto. With rental receipts at a reasonable level, the controlling authority would be able effectively to mitigate the present extreme dangers to the Rangitoto vegetation, from browsing animals and invading plants particularly.

I would like finally to say that the conclusions I have reached about the vegetation of Rangitoto, and the views I have expressed about its future, have recently received the complete approval of one of the

other public parks could be prevented, Dr. Millener is convinced, by advocating special legislation for Rangitoto alone, and further by making occupancy dependent on responsibility for public service as honorary rangers and general protectors of the Island.

One very important point stressed by Dr. Millener is the necessity for botanical and other scientific interests to be represented on the Board of Control. Such representation is imperative not only that laymen may have the benefit of expert advice on plant preservation, but also on how money gained from rentals can best be expended in the interests of the natural vegetation. The last thing wanted is that such moneys should be used to finance amenities of the "marine suburb" type, such as swimming pools etc. Auckland with its east and west coast beaches, and beach-fringed islands such as Waiheke offers an amazingly wide choice of "marine suburbs". The more rugged charms of Rangitoto present an entirely different appeal.

One is, of course, aware that the solution proposed by Dr. Millener is not the ideal one. The ideal thing, as indeed Dr. Millener has suggested, would be for the Island to be declared a plant sanctuary, to exclude cottagers, and to have the place guarded by at least two permanent resident rangers, carrying out their duties under the advice of properly qualified experts, and with money available to them for what should be needed in the proper carrying out of their work. But as at the moment no-one has the slightest intention of paying for two full-time resident rangers, the only practical thing seems to be to do what is possible to preserve the plant covering by making use of the good offices of the cottage owners, such good offices being made a condition of occupancy.

The Green Cathedral by Charles Cozens (40 pages)

This is a little book which I trust all members of the Botanical Society will endeavour to read, as it is the inspiring account of a small area of native bush created from the bare hillside. It is one thing to find a pleasant little patch of native bush lingering in a gully, and put a fence round it. It is quite another to provide both bush and fence. Yet this is the achievement of Mr. Cozens of Waerenga, whose farm I had the pleasure of visiting in February.

As a result of hard work and unremitting care over a period of more than thirty years there has developed not only a patch of bush but bush containing a wide variety of beautiful and interesting species. For instance there is a monoa (Dacrydium kirkii) 30 feet high still bearing some of its lovely juvenile foliage, the large leaved Kowhai (Edwardsia macrophylla), a number of well grown beeches - Red Beech, Black Beech, Silver Beech and Mountain Beech, the tawapou (Sideroxylon novo-zealandicum) famous for its beautiful berries, the tawari (Ixerba brexioides) which Kirk inclined to think the most beautiful tree in the flora, the toa toa (Phyllocladus glaucus) together with the alpine tanekaha (Phyllocladus alpinus) & four species of Pomaderris. These constitute only some of the treasures Mr. Cozens has flourishing in