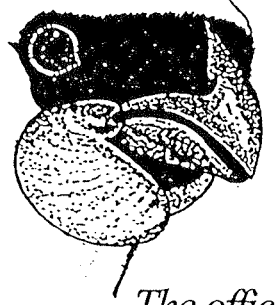

He korero kokako

The official newsletter of the Kaharoa Kokako Trust.

Issue One, September 1996

1. Kaharoa Kokako Trust:

The purpose of this first newsletter is to inform those of you that missed the 6 August public meeting at the Kaharoa Hall, as to what the Trust is about. To everyone who attended the meeting thank you very much for your positive support.

The Kaharoa Kokako Trust was initiated by Kaharoa residents, Peter Davey and Rachel Vellinga. Peter and Rachel learned about the plight of the kokako from contract ecologist Carmel Richardson who had been monitoring the kokako population at Kaharoa. The monitoring work had shown that the kokako were struggling to survive amid the onslaught of introduced predators. When Peter and Rachel heard that a bid for funds by the Department of Conservation (DoC) to restart management in the area had failed, they started to investigate options to assist.

As a result a small group of interested people put together a proposal for volunteers to carry out pest control within the Kaharoa Forest to protect the kokako and the forest in general. This group decided to form a Charitable Trust (known as the Kaharoa Kokako Trust) as a guarantee that any donations are used wisely and will be tax deductible.

The 6 August meeting was chaired by Peter Davey and presentations were made by Carmel Richardson, who gave an update on the current status of the kokako, and Dale Williams who outlined management options. There was also a preliminary registration of support from those that attended. What is needed now is for local people like yourself to take that a step further and indicate to the Trust your level of support and possible ways that you may be able to help, via the attached form.

2. Background 'Aislabies Block' Kaharoa Conservation Area:

2.1 Location:

The Kaharoa Conservation Area lies about 12 km north of Lake Rotorua, and is accessed off the end of Kapukapu Road via Kaharoa Road. The total area of the reserve is 976 ha which includes the 316 ha Onaia Ecological Area.

The intention of this proposal is to carry out pest control over approximately 300 ha of forest in the northern part of the reserve. You may know this area as 'Aislabies Block'. It is bounded on three sides by the Mangorewa and Onaia and Ruato Streams.

2.2 Vegetation:

The vegetation in this part of the reserve has been heavily modified by fire and logging, but despite this the forest contains a wide variety of indigenous species, including the threatened plant kingfern (or para).

2.3 Native birds:

Kokako were once common in lowland forests throughout the North Island but since European colonisation their numbers have decreased dramatically. The continuing decline in kokako numbers is probably due to the effects of introduced mammals. The presence of kokako within

the 'Aislabies block of the Kaharoa Conservation Area was one of the primary reasons that this area was purchased by the Crown in 1984 and set aside as a Reserve.

The threatened and now locally rare North Island brown kiwi occur in low numbers in the reserve, along with other native birds including; kereru, North Island robin, fantail, grey warbler, tit and whitehead.

The proposed pest control will hopefully benefit all of these species as well as the general health of the forest they live in.

2.4 The kokako 'Research by Management' (RbM) experiment.

Between 1990 and 1997 the kokako populations at Kaharoa Forest, Rotoehu and Mapara were monitored as part of a large scale management experiment. The objective of this experiment was to test the hypothesis that *"maximum practicable introduced mammal browser and predator control will (in the short term) increase kokako chick output and (in the longer term) population density."*

2.4.1 Kokako numbers and breeding success

During the first three years of the experiment intensive predator control[1] took place at Kaharoa while at Rotoehu kokako were monitored in the absence of predator control. In May 1993 predator control was stopped at Kaharoa and initiated at Rotoehu in the October of that year. At Mapara predator control was carried for the entire duration of the experiment.

During the first two years of pest control at Kaharoa (1990/91 and 1991/92), about 30% of kokako pairs successfully fledged young. During the third year of management (1992/93) this increased to 85%. Over that time the number of kokako pairs increased from 7 to 18.

The first year after predator control stopped at Kaharoa 27% of kokako pairs successfully fledged young. In the second year this dropped to 13%. During the last two breeding seasons at Kaharoa no kokako have successfully fledged young. Over this period the number of kokako pairs dropped from 18 to 12.

2.4.2 Who are the predators?

At Rotoehu Forest and Mapara, where the outcome of individual kokako nests were monitored using infra-red 'spy' cameras it became clear that the two most common predators of kokako nests were rats and (much to the researchers surprise) possums. Up until this point people thought that possums were simply herbivores that may have been a problem to kokako by competing for the same food (leaves and berries etc). Evidence gained from this research showed rats prey on kokako eggs while possum will take eggs, nestlings and occasionally even adult kokako. To date only one nest predation has been positively attributed to a stoat.

2.4.3 Long term pest management to protect kokako.

The kokako RbM experiment showed that intensive pest control was very effective at improving kokako breeding success which in turn lead to an increase in kokako numbers.

Unfortunately the battle against introduced pest animals is ongoing and will need to be sustained for a very long time. Research has shown that possum numbers may take 4 or 5 years to recover to "problem levels" but the bad news is that rat numbers will be back to "square one" within 6 months of the control work stopping. Research work is now focusing on what is the minimum control effort required to maintain a healthy kokako population.

To this end we need to look back at the kokako breeding success figures. Though the annual breeding success is important, ultimately it is the total number of adult birds (particularly breeding pairs) that dictate the long term survival prospects of the population. The concept of "pulse management" works on the theory that a 3 year "pulse" of pest control followed by 4 or

[1] Year 1(1990) Aerial baiting with 1080, Year 2 (1991) Aerial baiting with pindone plus traps and cyanide, Year 3 (1993) Aerial baiting with 1080. Mustelid traps were also set throughout the kokako breeding seasons.

5 years of no control may be all that is needed to maintain bird population and the forest in a healthy state.

The breeding success during the 3 years of pest control at Kaharoa resulted in a good number of young kokako being added to the population. Though breeding success dropped rapidly after the pest control was stopped, the number of adult birds declined at a much slower rate. Four years have now elapsed since the last pest control at Kaharoa. The Rotorua Lakes Field Centre of the DoC intended to restart possum and rat control this year but unfortunately insufficient funds were available for it to go ahead this year. Though the Kaharoa population of kokako is not yet in a critical situation it is important that they are not allowed to decline much further before management recommences.

It is here that the Trust believes volunteers from the community can help.

3. Choice of pest control methods for this proposal:

A number of control methods and types of toxins were discussed at the 6 August meeting. The method chosen as being most appropriate by the Trust is discussed below.

3.1 Bait stations:

Bait stations containing either brodifacoum or 1080 baits have proven to be extremely successful for controlling both possums and rodents. The Trust believes the use of bait stations is the most appropriate control method for this proposal for the following reasons;

- There is already an existing network of well marked tracks throughout the block, upon which the bait stations can be established.
- The amount of toxin used would be low.
- In future other toxins could be used in the bait stations (some of which are not normally permitted for use in aerial baiting operations).
- Toxic bait can be protected from the weather, and therefore presented to the pest animals over an extended period.
- Unused or spoiled bait can be removed from the site for safe disposal.
- The risks to 'non-target' wildlife would be less than most other control methods.
- A bait station operation is ideal for community involvement.

Aerial baiting was used at Kaharoa to successfully control both rats and possums over three kokako breeding seasons between 1991 and 1993. The main disadvantage with this method would be the lack of community involvement with the control operation. The control would be completed in one day, but the block would have to remain closed to the public while the bait remains viable (an indeterminable period dependent on the amount of rainfall).

Traps must be checked daily and raised off the ground in kiwi areas, therefore the Trust believes it is not appropriate to use traps for the purpose of control in this area. Trapping and cyanide paste were used to reduce possum numbers at 'Aislabies' in 1991/92 (in conjunction with aerially broadcast pindone), however neither traps nor cyanide would be an effective control measure for rats, even over a very small area.

3.2 Sodium monofluroacetate (1080):

1080 in bait stations has proven to be very effective at controlling both possums and rodents at a number of locations throughout the country. The Trust believes the use of **1080 in bait stations** is the most appropriate control method for this proposal for the following reasons;

- 1080 acts rapidly, so possums and rats only consume a small amount of bait before dying. It is the most cost effective toxin for controlling both rats and possums where possum numbers are high.

- Other predators such as feral cats, ferrets and stoats are likely to be killed through secondary poisoning (by scavenging on dead possums or rats).

1080 is a controlled pesticide which can only be used by licensed operators working for Government or local body pest control agencies (mainly due to the fact that there it has no antidote). For this reason the DoC will be responsible for the toxic baiting phase of the operation.

A major disadvantage with 1080 is that dogs are very susceptible to secondary poisoning through scavenging on dead possums. All neighbouring landowners will be contacted directly and dog muzzles and emetic pills will be made available. Public notices will be placed in all of the local newspapers, the Kaharoa School will be visited by a DoC Officer and the entry points to the poison area will be well sign posted.

If you have any concerns about the use of 1080 in bait stations for this proposal please contact;

Dale Williams at (07) 3497 400 or (07) 3322 550 after hours.

Cyanide and cholecalciferol may be useful for possum control but are not effective on rats, therefore are not considered appropriate for this proposal.

Brodifacoum (e.g. Talon®) is effective on rats and possums. Its main advantages; are that it can be used by the public without a license, and because it is slow acting, pests are less likely to develop 'bait shyness'. However because possums can eat a large amount of bait before they die, it is uneconomical to use unless possum numbers are moderately low. Possum numbers at 'Aislabies' are currently too high for brodifacoum to be economical, it would therefore be best suited for 'maintenance control' once possum numbers have been reduced.

4. Proposed Pest Control Programme

1. The Trust will seek funds for the purchase of bait stations, bait and equipment.
2. Volunteers from the community will place approximately 130 'Philproof' bait stations at 125 metre intervals along the existing tracks within the Aislabies block. The tracks are already marked with numbered tapes at 25 metre intervals.
3. Volunteers will fill each bait station three times with 1.5 kg of **non toxic** cinnamon flavoured cereal bait (each fill will be 1 week apart).
4. Staff from the Department of Conservation will fill each station at least once with cinnamon flavoured cereal bait, containing 0.15% 1080.
5. DoC staff will also be responsible for all public notification, and monitoring of rat, possum and kokako numbers.

5. Timing of the operation:

To protect the kokako through their breeding season (November to March) it is desirable to have the pest control **completed by 1 November**. Therefore the bait stations would need to be in place by the end of September, ready for the first pulse of non-toxic 'prefeed' early in October. To fill all of the bait stations should take approximately one day per week, with each fill spread one week apart, the whole operations should be complete in about one month.

6. Object of the Kaharoa Kokako Trust:

The object of the Kaharoa Kokako Trust is "to ensure the long-term protection and survival of kokako at Kaharoa" by;

(i) assisting the Department of Conservation in its mandate to manage natural and historic resources, and in particular the endangered kokako within Kaharoa Forest.

(ii) encouraging and assisting the owners of land adjacent to Kaharoa Forest to manage native forest on their land in a manner that will assist the long-term protection and survival of kokako at Kaharoa.

"assisting" may include but is not limited to the following;

(a) taking a 'watch-dog' role for kokako at Kaharoa while recognising that the Department of Conservation has ultimate responsibility for their survival.

(b) advocating for a consistent, sustainable and effective state funded pest management programme for Kaharoa Forest.

(c) controlling pests that threaten the continued survival of kokako and the forest environment in which they live.

(d) consulting with the public on the need for and use of appropriate pest management programmes and control methods including the use of toxins.

(e) organising and encouraging public involvement in the management of Kaharoa Forest, including the organisation of local voluntary labour.

(f) promoting public awareness and education programmes concerning the preservation of kokako at Kaharoa.

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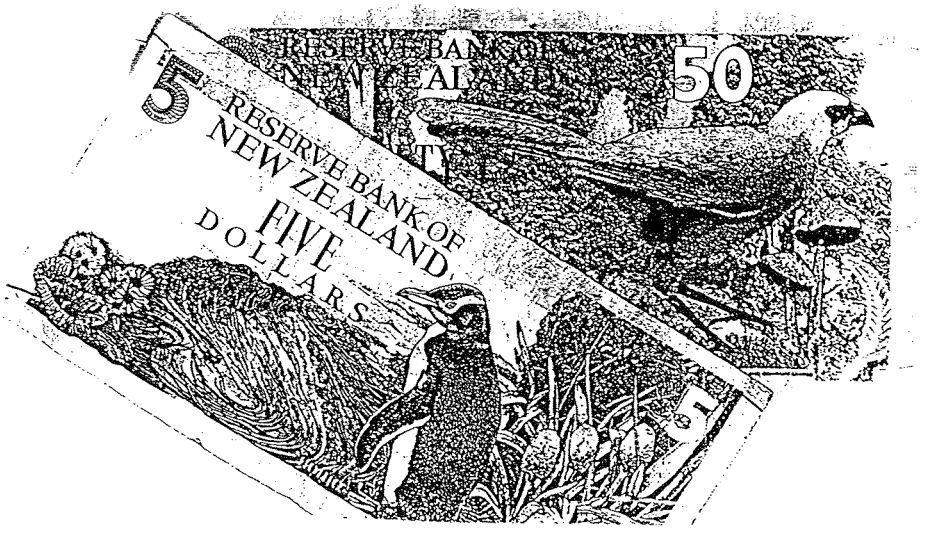
How can you help?:

If you support the objectives of the Trust (shown above) and would like to receive future updates from the Trust, please complete the return slip below and post it along with a minimum donation of $ 5.00 to;

The Kaharoa Kokako Trust c/- Peter Davey, Penny Road, R.D.2, Rotorua

Or deliver them by hand to **John Paterson** when the school bus stops to pick up your kids.

Larger donations will be gratefully accepted and a receipt will be issued upon request.



7. Endorsements:

The Kaharoa Kokako Trust Board is incorporated under the provisions of the Charitable Trusts Act 1957 and the board member are;

Peter Davey, Forester of Kaharoa (President) *Penny Road R.D.2 Rotorua (07) 3322299*

Anne Managh, Farmer of Kaharoa (Secretary/Treasurer)

John Paterson, Farmer of Kaharoa

Rachel Vellinga, Plant Propagator of Kaharoa

Carmel Richardson, Contract Ecologist of Hamurana

Hazel Speed, Contract Ecologist of Pureora

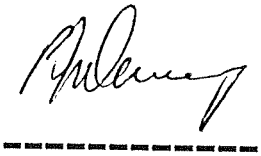
Dale Williams, Senior Conservation Officer of Hamurana

David Moore, Animal Pest Manager of Hamurana

The object of the Trust is endorsed by;

Kaharoa Community Association

The Kaharoa School Board of Trustees

Signed  *Date* 25/9/97 Chairman, Kaharoa Kokako Trust

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Return slip

Name: _____

Address: _____

Phone No. _____

1. **Enclosed is my donation of $** Donations of $5.00 or more will assure that you/your family receives updates of this newsletter over the next year. Cheques are to be made payable to the Kaharoa Kokako Trust. Receipts are issued upon request.

2. **Yes I/we can help the Trust on the following days;**

Date	Delete	Number of people.
Saturday 4 October	yes/no	
Sunday 5 October	yes/no	
Saturday 11 October	yes/no	
Sunday 12 October	yes/no	
Saturday 18 October	yes/no	
Sunday 19 October	yes/no	
Saturday 25 October	yes/no	
Sunday 26 October	yes/no	