



Department of
Conservation
Te Papa Atawhai

Our Ref: Kiwi Recovery Group Advice - kiwi to
Waiheke Island

Reference: DOCCM-6737709

4 August 2021

TO: Kat Lane

Cc: Kiwi Recovery Group
David Wilson
Mark Fitzpatrick

FROM: Jess Scrimgeour for the Kiwi Recovery Group

SUBJECT: Kiwi to Waiheke Island

Dear Kat

I have circulated the documents outlining a proposal to translocate kiwi to Waiheke Island with the Kiwi Recovery Group. We discussed the information in our July monthly meeting, and again this morning to finalise some discussion points around preferred taxon of kiwi. I have collated the group's feedback, which I have summarised below.

Summary

The Kiwi Recovery Group sees potential for Waiheke Island to hold a sustainable population of kiwi, starting with Te Matuku Peninsula. We note that kiwi will begin to disperse quickly, and that dogs will be greatest risk to kiwi establishing. We recommend the following:

- Coromandel brown kiwi to be considered as a source site, rather than Ponui Island.
- A DOC Threats Advisor be included as a team member to review the stoat control being undertaken and provide recommendations once an application is received
- A dog management plan for the release site and neighbouring properties, including a response plan should a dog kill a kiwi
- A robust consultation process with the broader Waiheke community to ensure they are supportive of kiwi coming to the island, and measures that would be needed to protect them from resident dogs
- An assessment of other potential risks e.g. cars, cattle stops/troughs and any areas of concerns that could be modified to reduce risk.

Role of the Kiwi Recovery Group

The Kiwi Recovery Group is an advisory group that support your role as decision-maker by providing advice regarding the conservation requirements for kiwi. We hope that this information is of use to help inform your decision whether to invite Jenny Fenwick and her team to submit a Phase 1 translocation proposal. This advice might also be useful to inform the application itself.

Kiwi species

The initial proposal listed Ponui Island as the source site. The Ponui population of brown kiwi was founded in 1964 with six birds from Hauturu/Little Barrier Island and eight birds from Northland, well

before anyone realised the level of differentiation between the four regional populations of brown kiwi (Northland, Coromandel, Western and Eastern). The Hauturu/Little Barrier population is also of mixed-provenance; primarily built up from a few Western birds introduced from Taranaki and Taupo, some Northland birds, and probably some original Northland-like kiwi surviving on the island since it was isolated from the mainland thousands of years ago.

The four “regional” populations are likely to have diverged from one another 50-200,000 years ago. In many species, isolation of this length of time leads to recognition of distinct sub-species. To preserve the genetic distinctiveness that has naturally developed in response to natural selection from local pressures, and random genetic drift, DOC’s position is not to mix individuals from different regions unless absolutely necessary. Once populations or species are genetically mixed it is impossible to separate the different regional forms. This position is supported by geneticists within and external to DOC.

Therefore, if Ponui is used to establish kiwi on Waiheke, these birds would not be able to contribute to recovery programmes on the mainland. It may relieve some of the carrying capacity issues being experienced on Ponui Island. Although if successful on Waiheke, we may be recreating a similar situation with no recourse to move the birds.

We therefore recommend that Coromandel brown kiwi be considered instead to allow for future opportunities for birds to be able to go the mainland, should they reach carrying capacity.

Considerations for translocation success

Habitat suitability

The habitat is likely to be suitable, since much of the area is covered by young forest. The Kiwi Recovery Group has developed some translocation guidelines to ensure consistency with assessment of applications. Within it we recommend that any site where kiwi have not previously been present, or have disappeared more than 100 years ago, that a habitat assessment and food availability is required. In this instance, given the proximity to Ponui and Rotoroa Island where kiwi have done well, we do not think an invertebrate assessment is required.

Management of threats - stoats

The proposal to eradicate stoats from Waiheke is promising, but we did not have enough information to comment on timeframes and feasibility. The 500ha of the peninsula appears to be well defended, but we recommend that a DOC Threats Advisor be included in the assessment of the application. They will have more knowledge to provide you with the confidence you need regarding the efficacy of the network.

For the translocation proposal, evidence will need to be provided that stoats are suppressed to low levels, and that the site has had stoat control in place for at least 3 years. It would be good to get more clarity about when stoat control will extend into the wider area to get some sense of future potential.

Management of threats - dogs

Dogs will be the key threat to the success of a thriving population establishing on the island. With the ability to kill adult kiwi, dogs have reduced the expected lifespan of kiwi from 30+ years down to only 12. Assessment of a translocation proposal looks at 1. the ability to keep wandering dogs controlled/managed within the immediate release site, and 2. looking at keeping wandering kiwi safe from dogs in the wider population footprint.

At the release site, there appears to be a good ability to limit the presence of dogs around kiwi. As part of the application, a dog-management plan for the site would be needed, including a response plan should a dog kill a kiwi.

However, kiwi will quickly disperse from the release site. They, and in particular their offspring, are capable of dispersing into the heart of Waiheke suburbia. Waiheke has a human population of 10,000 and significantly more in the tourist season. Many of these households will have dogs. Many of these properties are nestled in the bush, so kiwi will be regularly crossing through these.

More and more kiwi will be killed as they disperse in increasing numbers from the Matuku Peninsula, which presents an ethical and social risk. Robust consultation will be needed for the whole population on Waiheke to gauge their support for kiwi coming to the island, especially their willingness to establish a range of measures to protect kiwi from dogs e.g. kiwi and dog proof fences, walking dogs on leads, kiwi avoidance training programmes etc. Strong support would be needed from the community to ensure a new population can establish and grow, and this would need to be demonstrated in the application.

Management of threats – other

Based on what we have seen from kiwi near urban areas in Northland, we note there may be some deaths from other factors such as cars, cattle troughs, cattle stops and swimming pools. There are simple steps that can be taken to minimise these e.g. road signs warning drivers about kiwi, cattle troughs and stops in high-risk areas provided with escape routes for kiwi to climb back out. We consider these to be smaller risks, but worth consideration for the release site to assess any areas of concerns that could be modified.

Genetic diversity

Founder selection should aim to provide adequate genetic diversity. Based on genetic diversity considerations, the optimum number of founders the KRG recommends for translocation is 40 sub-adult/adult birds that are not known to be related, transferred over a short period – 2 to 3 years. The ideal is to successfully add 1-2 additional unrelated founders every generation (10-20 years) to isolated populations to maintain its genetic diversity. The odds of translocation success increase with the number of individual birds released, but this needs to be balanced against impacts on source populations.

Monitoring

Depending on the more in-depth assessment of risk during the application phase, there may be a recommendation to monitor dispersal towards high-risk areas and how well they establish on the island. The details around what this might look like will occur as the application moves through to Phase 1.

I hope the information provided above is of some value, but please let me know if you have any questions or concerns. I'm more than happy to talk through these points.

Best regards

Jess Scrimgeour
Kiwi Recovery Group Leader