

**Whitehead/Popokatea (*Mohoua albicilla*) translocation  
Tiritiri Matangi Island to Ark in the park, Waitakere Ranges**

**17<sup>th</sup> to 21<sup>st</sup> May 2015**

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## Summary

100 Whiteheads or Popokatea (*Mohoua albicilla*) were translocated from Tiritiri Matangi island to Ark in the Park (Cascade Kauri Park, Waitakere Ranges). The birds were caught on the 18<sup>th</sup> and 19<sup>th</sup> of May and released on the 21<sup>st</sup>. This was the seventh translocation of whiteheads to the Ark, the fourth under the permit allowing 50 whiteheads in 2011 and 100 per year from 2012 for 5 years to the Ark. As per the permit, this translocation schedule was reviewed in 2013. A meeting was held in November 2013 between representatives from DOC, SOTM and Ark in the Park and it was agreed to carry on with the translocation programme as described in the permit. Accordingly 100 whiteheads were translocated from Tiritiri Matangi to the Ark in the Park in April 2014 and May 2015. Subject to the source population being adequate and approval being granted by the Conservation Services Manager, an additional 100 in birds are intended to be caught in 2016. The whitehead programme will then be reviewed again and a decision made as to whether any additional translocations are desirable.

Translocations to date have been as follows:

Year	Number translocated	Cumulative total
2004	55	55
2008	51	106
2011	50	156
2012	97	253
2013	100	353
2014	100	453
2015	100	553

In 2015 the birds were released adjacent to the Waitakere Reservoir. Ringi Brown of Ngati Manuhiri and George Taua of Te Kawerau a Maki both gave a short karakia and children from Ranui Primary School, as well as members of the Ark community, participated in opening boxes to release the birds.

## Background

### Ark in the Park Project

Ark in the Park (AiP) is a partnership between Forest and Bird and Auckland Council, supported by Te Kawerau a Maki.

It is a volunteer based project and was begun in 2002 with an area of 300ha and has since grown to 2100 ha of remnant and regenerating native forest. The key objectives are

- Populations of species that are already present are increased
- Species no longer found in the Waitakere Ranges are reintroduced
- Pest numbers are kept low in order for forest regeneration and enhancement of biodiversity
- Aucklanders are actively involved in hands on conservation.

The sanctuary is unfenced and contiguous with the surrounding forest, and low density residential areas. The continuous operation of predator control within its boundaries creates a mainland island. The predator control is allowing the existing flora and fauna to recover along with facilitating the reintroduction of locally extinct species. So far there have been translocations of whitehead, North Island robin, hihi (unsuccessful) and kōkako.

Whiteheads or popokatea (*Mohoua albicilla*) are a small passerine bird which is endemic to New Zealand. They are naturally restricted to the North Island and several offshore islands. Historically they were common and widespread in native forest and scrub but their distribution contracted following European settlement. Whiteheads are primarily insectivorous but they also eat small fruits and are likely important seed dispersers for some New Zealand plant species. Whiteheads are the only northern host of the long tailed cuckoo (*Eudynamys taitensis*), an obligate brood parasite, which is now present in low numbers in the Waitakere Ranges. The reintroduction of whiteheads may facilitate growth in the population of long tailed cuckoos in the Ranges. Returning locally extinct species and increasing abundance of existing species also provides further opportunities for Aucklanders to see native species and learn about conservation, as per one of the key aims of the Ark in the Park. The Waitakere Ranges are especially important in this regard due to the ease of access from Auckland city (Graham, Parker and Jack, 2008). AiP is also part of North West Wildlink. This is a series of habitat patches stretching from the Tasman Sea, with the Ark forming the western end through Paremoremo, Tawharanui and the Hauraki Gulf islands.

Therefore, birds introduced to the Ark have the potential to contribute to greater abundance and genetic diversity among populations throughout Northwest Auckland and the Gulf rather than just the area they are released in.

There have now been seven translocations, a total of 553 birds from 2004 - 2015, of whiteheads to AiP. It is unclear if whiteheads will successfully establish as a viable self-sustaining population in the Waitakere ranges. AiP maintains low numbers of introduced mammalian pests to aid in this aim. Sightings are recorded both within the protected area and further afield within the Waitakere Ranges. This report discusses the seventh translocation of whiteheads to AiP from the 17<sup>th</sup> to the 21<sup>st</sup> of May 2015.

### **2015 whitehead translocation**

Aviary preparation:

The intention was for a group of 10 Ark volunteers, plus AiP staff and contractors, to travel to Tiritiri Matangi on the 16<sup>th</sup> of May to prepare the aviary so that catching could commence as soon as the translocation team arrived on the 17<sup>th</sup>. This has worked well in previous years. However due to rough weather the ferry was cancelled so the day trip did not take place. Instead, aviary preparation was begun on the 17<sup>th</sup> when the translocation team arrived.

Prior to foliage being placed into the aviary the walls of each of the three flights was checked for holes and loose shade cloth with any necessary repairs carried out. Two rows of ropes were installed along the side walls of each flight to hold vegetation in place with each rope secured on hooks and tensioned slip knot at each end. This facilitated quick removal of vegetation in each flight prior to hand netting birds for final transfer to AiP.

Each flight was furnished with fresh vegetation, mainly small branches of Karo (*Pittosporum crassifolium*), Mapou (*Myrsine australis*), Mahoe (*Melicactus ramiflorus*), Manuka (*Leptospermum scoparium*) and Kanuka (*Kunzea ericoides*). The foliage and leaf litter was collected from several sites away from public walking tracks under the guidance of Tiri Supporters.

### **Whitehead capture and aviary transfer**

Three mist net teams operated 2 – 4 nets each. The nets were 30mm mesh size and of different lengths (6, 9 or 12 metres) and moved around as appropriate. Poles and guy ropes were used to stabilise the nets. Each team was made up of experienced mist netters and trainees. The sites mistnetted included the Bunkhouse, East Coast Landing, Wattle Valley, Ridge Road, Emergency Landing, the Shortcut Track, the Workshop, Fisherman's Bay, Bush 22 and Cable Track.

Recorded whitehead calls were played through speaker systems, some with two way switches, to attract whiteheads towards mist nets. Mist nets were carefully monitored so that any whiteheads or other species captured could be quickly removed following capture. After extraction from nets whiteheads were individually placed in black or dark green cotton bags that were tied and taken to the aviary either via the SOTM ute or by foot. Following arrival at the aviary processing area the birds in black bags were placed on hooks along the wall. They were hung in the order of capture time to minimise time in bird bags.

During processing each bird was first weighed in the bag. It was then removed, checked for general health and condition and unflattened wing chord was measured. Weight, wing chord and morphological features were used to determine the age and sex of birds. Each bird was then individually banded with a numbered metal band and 3 colour bands (Appendix 1).

Following processing each bird was released into one of the three aviary flights.

### **Aviary feeding**

Captive birds were fed wax moth larvae, mealworms, house fly larvae, fruit puree, bird cake, Wombaroo nectivore mix and fresh pears, oranges and kiwifruit. Two cafeterias, each with 5 fish tins, were filled with a selection of food at each end of the aviary. Sliced cleaned fruit was distributed on vegetation throughout the aviary and waxmoth larvae (after removal from casings) were thrown into vegetation twice per day. Food stocks were checked and replenished 2-3 times each day. 27000 mealworms and 12000 waxmoth were purchased from Biosuppliers. All of the waxmoth and most of the mealworms were consumed over the five days birds were in captivity. Water was provided as needed via plastic planter trays, which were also used by birds for bathing.

Males were caught more quickly than females, after which surplus males were released while the required number of females were captured. One hundred and two birds were held and distributed across three aviaries. All birds spent a minimum of 24 hours in the aviaries, thereby ensuring an opportunity to feed between capture and release at AiP.

### **By catch**

By catch is inevitable on Tiritiri Matangi and included kakariki, hihi, bellbirds, tui, fantails and saddlebacks, all of which were immediately released at the nets.

### **Capture in aviaries for final transfer**

Prior to capturing birds in the aviaries all vegetation was removed. This was done flight by flight, with hand-netting starting immediately after vegetation removal. Foliage was detached and then passed through to the people in the processing area and the aviary doors reclosed. Vegetation was passed onto people outside to be stacked out of the way for disposal.

Birds were then hand-netted against the sides of the aviary by experienced handlers. Captured birds were placed in bird bags and handed to assistants who then tied them onto a horizontal hanging pole in the aviary. Each bird was reweighed to determine weight changes in captivity. Any bird that had lost more than 20% of its initial capture weight was released. During this process two birds were found dead. One had squeezed through a small hole in the side of the aviary where it likely died of starvation and exposure. The other was found in leaf litter. Both were sent to Massey University for necropsy with pathology reports only suggesting both birds had not eaten. Losses during translocation are rare (<1%) but always prompt a review of all processes. In this case it was clear that a small hole in the side of the aviary had been missed during aviary set up – this will not happen again. There was no obvious cause of death for the second bird.

Transfer boxes were prepared and lined with fresh kanuka to give cover and perching space. Each box also had two wooden perches. Two orange halves were placed in each box for the whiteheads to eat during transportation.

The birds were placed into the boxes after processing via a small entry hole which was secured by top and bottom screws.

### **Transfer to Ark in the Park**

The birds were then transported to the wharf in the Supporter's ute, loaded into the ferry and transported to Gulf Harbour. The boxes were transported in an AiP volunteer's campervan for the 45 minute drive from Gulf Harbour to AiP. Boxes were kept in the shade at all times during loading and unloading and were kept cool in the vehicle through air conditioning when required.

### **Release**

The birds were released in several batches a few minutes apart adjacent to the Waitakere Reservoir. Following release the birds flew into low regenerating canopy at the release site and were observed feeding for several minutes before dispersing.

All volunteers from AiP as well as relevant people from Auckland Council including Councillors and Regional Parks staff were invited to the release. Donor and recipient iwi were also invited and attended.

### **Post release monitoring**

Ark volunteers Eric Wilson and Kevin Fergusson arranged to deploy recorders around the release site prior to the release. These recorders were left out for several days and recorded whiteheads calls gradually moving further from the release. Dispersal patterns can be seen here [http://www.arkinthePark.org.nz/wilson/analysis\\_help/whitehead\\_2015.html](http://www.arkinthePark.org.nz/wilson/analysis_help/whitehead_2015.html)

Sightings are being recorded and formal post release monitoring took place in October 2015.

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### **References**

Graham, S. Parker, S. and Jack, S. (2008). *Translocation of whiteheads/popokatea (Mohoua albicilla) from Tiritiri Matangi Island, Hauraki Gulf to the Cascade Kauri Park, Waitakere Ranges and Motuora Island 13-20 April 2008*. Published July 2008. Available: [http://www.arkinthePark.org.nz/downloads/whitehead\\_release\\_2008.pdf](http://www.arkinthePark.org.nz/downloads/whitehead_release_2008.pdf)



### Appendix 1 Banding record

Left leg	Right leg	M	Metal #	Sex	Capture weight	Aviary weight
Y/M	G/K	BP	7982	M	16	18.5
Y/M	G/O	BP	7983	F	12.5	13
Y/M	G/P	BP	7984	M	18.5	17.5
Y/O	Y/M	BP	7985	M	18	18
Y/M	G/R	BP	7986	F	14.5	
Y/M	G/W	BP	7987	F	14.5	14.5
Y/M	G/Y	BP	7988	M	18	18
Y/M	O/B	BP	7989	M	18	17
Y/M	O/G	BP	7990	M	18	18
Y/R	Y/M	BP	7991	M	16	16.5
Y/M	O/K	BP	7992	M	17	17
Y/M	O/O	BP	7993	F	13	13
Y/M	O/R	BP	7994	M	16.5	18
Y/M	O/W	BP	7995	M	18	18
Y/M	O/Y	BP	7996	F	14	14.5
Y/M	R/B	BP	7997	M	18	19
Y/M	R/K	BP	7998	M	17	18
Y/M	R/O	BP	7999	M	17.5	17
Y/M	R/R	BP	8000	M	18	18
Y/M	R/W	BP	11701	F	13.5	14.5
K/M	R/R	BP	11702	M	18	17.5
Y/M	W/B	BP	11703	F	12	13
Y/M	W/G	BP	11704	F	14.5	14.5
Y/M	W/K	BP	11705	F	13	12.5
Y/M	W/R	BP	11706	F	13	14
Y/W	Y/M	BP	11707	F	13	12.5
Y/K	Y/M	BP	11708	F	14	14.5
Y/G	Y/M	BP	11709	F	12	13
Y/B	Y/M	BP	11710	F	13	13
Y/M	K/B	BP	11711	F	13.5	13
Y/M	K/G	BP	11712	F	14	15
B/B	Y/M	BP	7921	M	17	18
B/H	Y/M	BP	7922	M	18	17.5
B/K	Y/M	BP	7923	F	13	14.5
B/O	Y/M	BP	7924	M	19	19
B/R	Y/M	BP	7925	F	13	14
B/W	Y/M	BP	7926	M	17	16.5

B/Y	Y/M	BP	7927	M	18	17
G/B	Y/M	BP	7928	M	19	20
G/G	Y/M	BP	7929	F	13	14
G/K	Y/M	BP	7931	F	14	15
G/O	Y/M	BP	7932	F	14	13
G/R	Y/M	BP	7933	F	13.5	13
G/W	Y/M	BP	7934	M	16.5	16
G/Y	Y/M	BP	7935	M	17.5	16.5
K/B	Y/M	BP	7936	M	18	17
K/G	Y/M	BP	7937	F	13.5	13
K/P	Y/M	BP	7938	F	14	14
K/K	Y/M	BP	7939	M	18	17
K/R	Y/M	BP	7941	M	17.5	17.5
K/W	Y/M	BP	7942	M	17.5	17
K/Y	Y/M	BP	7943	F	13.5	13
O/B	Y/M	BP	7944	M	17	16
O/G	Y/M	BP	7945	M	18	17
O/K	Y/M	BP	7946	M	18	18
O/P	Y/M	BP	7947	F	14	15
O/O	Y/M	BP	7948	M	18	17.5
O/R	Y/M	BP	7949	F	15	15
O/W	Y/M	BP	7950	M	17.5	18
O/Y	Y/M	BP	7951	M	18	17
R/B	Y/M	BP	7952	F	14	14.5
R/G	Y/M	BP	7953	M	18	18
R/P	Y/M	BP	7954	F	12.5	17.5
R/K	Y/M	BP	7955	M	17	16
R/O	Y/M	BP	7956	M	17	17.5
Y/Y	Y/M	BP	1158	F	13.5	14
R/R	Y/M	BP	7957	F	17	18
R/W	Y/M	BP	7958	M	17.5	17
R/Y	Y/M	BP	7959	M	19	18.5
W/B	Y/M	BP	7960	M	18	18
W/G	Y/M	BP	7961	M	18.5	19
W/P	Y/M	BP	7962	M	19	18.5
W/K	Y/M	BP	7963	M	19	19
W/O	Y/M	BP	7964	F	13	12
W/R	Y/M	BP	7965	F	13	13.5
W/W	Y/M	BP	7966	F	14	13
W/Y	Y/M	BP	7967	F	13	13
Y/B	Y/M	BP	7968	M	19	19
Y/G	Y/M	BP	7969	M	19	18
Y/H	Y/M	BP	7970	M	17	17
Y/K	Y/M	BP	7971	F	13	13
Y/W	Y/M	BP	7972	M	17	17

Y/M	B/G	BP	7973	F	12.5	12.5
Y/M	B/K	BP	7974	F	15.5	17
Y/M	B/O	BP	7975	M	18	18
Y/M	B/P	BP	7976	F	14	12
Y/M	B/R	BP	7977	F	13.5	15
Y/M	B/W	BP	7978	F	12.5	13
Y/M	B/Y	BP	7979	M	18	18
Y/M	G/B	BP	7980	M	18	19
Y/M	G/G	BP	7981	M	19.5	19
Y/M	K/O	BP	11713	F	13.5	14
Y/M	K/R	BP	11714	F	13	12
Y/M	K/W	BP	11715	F	12.5	14
Y/M	K/Y	BP	11716	F	14	14.5
K/M	K/W	BP	11717	F	12	13
K/M	K/R	BP	11718	F	13.5	13
Y/M	K/K	BP	11719	F	15	14.5
K/M	B/B	BP	11720	M	18	19
K/O	K/M	BP	11053	F	13	13