

**Whitehead/Popokatea (*Mohoua albicilla*) translocation
Tiritiri Matangi Island to Ark in the park, Waitakere Ranges
1st – 5th of May 2016**

Report written by Gillian Wadams and Kevin Parker



Photo: Jacqui Geux



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 1st, 2nd and 3rd of May and released on the 5th. This was the eighth translocation of whiteheads to the Ark, the fifth and final 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, May 2015 and May 2016. The whitehead programme will be reviewed again in late 2016 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
2016	100	653

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 300 ha. The project 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 to support 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, with the continuous operation of predator control within its boundaries creating 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 or koekoeā (*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 eight translocations, a total of 653 birds from 2004 - 2015, of whiteheads to AiP. However, 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 through both opportunistic sightings and an annual survey day carried out by volunteers during which set loops are walked with use of playback. In 2016 a comprehensive survey will be undertaken covering known whitehead locations within the Ark, further afield and in areas where whiteheads have not so far been detected.

2016 whitehead translocation

Aviary preparation:

A group of 10 Ark volunteers travelled to Tiritiri Matangi and were joined by a group of Supporters of Tiritiri Matangi. Volunteers and supporters were supervised by the translocation leader in aviary preparation.

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 a 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 after catching was completed.

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, Wattle Valley, Ridge Road, the Shortcut Track, the Workshop, near to the aviary (before any birds were in the aviary), 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 caught could be quickly removed from nets. After extraction from nets whiteheads were individually placed in black or dark green cotton bags that were tied at the top 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 the 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, 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 9000 waxmoth were purchased from Biosuppliers. All of the waxmoth and most of the mealworms were consumed over the five days there were birds 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. 104 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, riroriro, fantails and tieke, 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 on Tiri.

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. Ringi Brown of Ngati Manuhiri met the birds at the ferry terminal at Gulf Harbour and provided a welcome and karakia for their onward journey. The boxes were transported into the vehicles of volunteers and the translocation leader 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 vehicles through air conditioning when required.

Release

When the birds arrived at the release site George Taua of Te Kawerau a Maki gave a short karakia and students participating in Project K as well as members of the Ark community participated in opening boxes to release the birds.

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 iwi representatives and relevant people from Auckland Council including Councillors and Regional Parks staff were invited to the release.

Post release monitoring

Ark volunteers Eric Wilson and Kevin Ferguson 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.arkintheark.org.nz/wilson/analysis_help/whitehead_2016.html

Acknowledgements

Thanks to the team, most of whom were giving their time and expertise voluntarily.

David Bryden
Grant Capill
Suzanne Caron
Kevin Ferguson
Morag Fordham
Simon Fordham
Talia Hochwimmer
Sharon Kaast
Su Sinclair

Rosemary Stagg
Nat Sullivan
Annalily van den Broeke
Yvonne Vaneveld

This release was a concerted effort by Parker Conservation, Forest & Bird, the Auckland Council, Supporters of Tiritiri Matangi, DOC, Te Kawerau a Maki, Ngati Manuhiri and many Ark in the Park volunteers.

Thanks to other Ark volunteers and Forest and Bird staff for help on the first and last day. Also our special thanks to the two Tiritiri Matangi Department of Conservation Rangers, Dave and Matt, the Supporters of Tiritiri Matangi and Tim Lovegrove (Auckland Council) for loan of equipment.

Ark in the park gratefully acknowledges the funding for its overall work from sponsors Foundation North and The Trusts Community Foundation, Auckland Council, Forest and Bird and the Auckland Zoo Conservation Fund.

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

Appendix 1 Banding record

Bird number	Metal	Left Leg	Right Leg	Age	Sex
1	7726	O/M	R/R	J	F
2	7727	O/M	R/W	A	M
3	7729	O/M	R/Y	A	F
4	7730	O/M	W/B	J	F
5	7731	O/M	W/G	J	F
6	7732	O/M	W/K	J	F
7	7734	O/M	W/R	J	F
8	7735	O/M	Y/B	A	F
9	7736	O/M	Y/R	A	F
10	7737	O/M	Y/W	J	F
11	7738	O/M	Y/K	J	F
12	7739	O/M	K/B	J	F
13	7740	O/M	K/G	J	F
14	7741	O/M	K/O	J	F
15	7742	O/M	K/R	J	F
16	7743	O/M	K/W	J	F
17	7744	O/M	K/Y	J	F
18	7746	O/M	W/P	J	F
19	7747	O/M	W/W	A	F
20	7750	O/M	K/P	J	F
21	11789	O/M	G/Y	J	F
22	11790	O/M	O/B	A	M
23	11791	O/M	O/G	J	M
24	11792	O/M	Y/G	A	M
25	11793	O/M	O/K	J	F
26	11794	O/M	O/O	A	M
27	11795	O/M	O/R	J	F
28	11796	O/M	O/W	A	M
29	11797	O/M	O/Y	J	M
30	11798	O/M	R/B	A	M
31	11799	O/M	R/K	A	F
32	11800	O/M	R/O	J	F
33	11721	O/M	Y/Y	A	M
34	11722	O/M	B/B	J	M
35	11723	B/H	O/M	A	M
36	11724	B/K	O/M	J	F
37	11725	B/O	O/M	J	M
38	11726	B/R	O/M	J	M
39	11727	B/W	O/M	J	F
40	11728	B/Y	O/M	J	M
41	11729	G/B	O/M	J	M

42	11730	G/G	O/M	A	M
43	11731	G/P	O/M	J	F
44	11732	G/K	O/M	J	F
45	11733	G/O	O/M	A	M
46	11734	G/R	O/M	J	F
47	11735	G/W	O/M	J	M
48	11736	G/Y	O/M	J	M
49	11737	K/B	O/M	J	F
50	11738	K/G	O/M	A	M
51	11739	K/P	O/M	A	M
52	11740	K/K	O/M	A	M
53	11741	K/O	O/M	A	M
54	11742	K/R	O/M	A	F
55	11743	K/W	O/M	A	M
56	11744	K/Y	O/M	A	M
57	11745	O/B	O/M	A	M
58	11746	O/G	O/M	J	F
59	11747	O/K	O/M	J	F
60	11748	O/P	O/M	A	F
61	11749	O/O	O/M	A	M
62	11750	O/R	O/M	A	M
63	11751	O/W	O/M	J	F
64	11752	O/Y	O/M	J	F
65	11753	R/B	O/M	J	F
66	11754	R/G	O/M	J	F
67	11755	R/P	O/M	A	M
68	11756	R/K	O/M	J	F
69	11757	R/O	O/M	A	M
70	11758	R/R	O/M	J	F
71	11759	R/W	O/M	J	M
72	11760	R/Y	O/M	J	M
73	11761	W/B	O/M	J	M
74	11762	W/G	O/M	J	F
75	11763	W/P	O/M	A	F
76	11764	W/K	O/M	J	M
77	11765	W/O	O/M	A	M
78	11766	W/R	O/M	A	M
79	11767	W/W	O/M	A	M
80	11768	W/Y	O/M	A	M
81	11769	Y/B	O/M	J	F
82	11770	Y/G	O/M	A	M
83	11771	Y/H	O/M	A	M
84	11772	Y/K	O/M	J	F
85	11773	Y/W	O/M	J	F
86	11774	B/B	O/M	A	M

87	11775	O/M	B/K	A	M
88	11776	O/M	B/O	A	F
89	11777	O/M	B/P	A	F
90	11778	O/M	B/R	A	M
91	11779	O/M	B/W	A	F
92	11780	O/M	B/Y	J	F
93	11781	O/M	G/B	J	M
94	11782	O/M	G/G	J	F
95	11783	O/M	G/K	J	M
96	11784	O/M	G/O	J	M
97	11785	O/M	G/P	J	M
98	11786	O/M	Y/Y	J	M
99	11787	O/M	G/R	A	M
100	11788	O/M	G/W	J	M