

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

April 14th-18th 2013

By Kevin Parker and Gillian Wadams with thanks to Katherine de Silva and Andy Warneford for much of the background information.



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 between the 14th and 16th of April and released on the 18th.

This was the fifth translocation of Whiteheads to the Ark, the third under the permit allowing 50 whiteheads in 2011 and 100 per year from 2012 for 5 years to the Ark, subject to review in 2013.

Previous translocations have been as follows:

| Year | Number translocated | Cumulative total |
|------|---------------------|------------------|
| 2004 | 55 | 55 |
| 2008 | 51 | 106 |
| 2011 | 50 | 156 |
| 2012 | 97 | 253 |
| 2013 | 100 | 353 |

This year's translocation brings the total number of Whiteheads released at Ark in the Park to 353.

The birds were released adjacent to the Waitakere Reservoir. Ringi Brown, a representative of Ngati Manuhiri accompanied the birds from Gulf Harbour to the release site.

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.

The volunteer based project was begun in 2002 with an area of 300ha and has since grown to 2100 ha of remnant and regenerating native forest. The main aim is to restore the ecology of the area to close to its natural state by controlling non-native pests and predators. The sanctuary is unfenced and joins directly to 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, and kokako.

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 that is locally extinct in the Waitakere Ranges. The reintroduction of whiteheads may facilitate the natural recolonisation of long tailed cuckoos in the Waitakere. Public outreach and education is also a key aim of the Ark project. Returning locally extinct species and increasing abundance of existing species provides further opportunities for Aucklanders to see native species and learn about conservation. 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, species introduced to the Ark have the potential to contribute to greater abundance and genetic diversity among whiteheads throughout Northwest Auckland and the Gulf rather than just the area they are released in.

There have now been five translocations, a total of 353 birds 2004-2014, of whiteheads to AiP. It is unclear if whiteheads will successfully establish as a viable self-sustaining population in the Waitakere ranges. However, it is reasonable to assume that they have a

reasonable chance of establishing as the release site maintains low numbers of introduced mammalian pests and they occupy similar habitats in other locations. There have been regular sightings of birds following release and unbanded birds have been seen in the Waitakere. This report discusses the fifth translocation of whiteheads to AiP 14-18 of April 2013.

2013 whitehead translocation

A translocation team of 14 people, along with 14 AiP day volunteers, travelled from Gulf Harbour to Tiritiri Matangi on the 14 of April 2013. On arrival at Tiritiri Matangi the team settled into the bunkhouse and then set up the aviaries and established mist net sites.

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 ropes were installed along the side walls of each flight to hold vegetation in place with each rope secured on hooks and eyelets and tensioned with a bungy and 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 Five finger/ Puakou (*Pseudopanax arboreus*), Karo (*Pittosporum crassifolium*), Mapou (*Myrsine australis*), Manuka (*Leptospermum scoparium*) and Kanuka (*Kunzea ericoides*). The foliage and leaf litter was collected from several sites away from public walking tracks.

Whitehead capture and aviary transfer

Three mist net teams operated 2 – 4 nets each. The nets were 30mm size and of different lengths (6, 9 or 12 metres) and moved around these sites 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 were Cable Track, the Wharf, Wattle Valley, Bush 5 and Bush 6. Recorded whitehead calls were played through speaker systems 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 ranger's 4WD 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 (adult males often have bright white heads whereas adult females are typically dusky and juveniles often show greater feather wear than adults) were used to determine the age and sex of birds. Wing chord and weight were also plotted to check assignment of sex. (Appendix 1). Each bird was then individually banded with a numbered metal band and 3 colour bands (Appendix 2).

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

Aviary feeding

Captive birds were fed wax moth larvae, mealworms, fruit puree, bird cake, Wombaroo nectavore mix and fresh fruit (oranges and pears). Two cafeterias, each with 5 fish tins, were provided with a selection of food at each end of the aviary. This is to prevent dominant individuals excluding subordinate birds from food sources. Sliced cleaned fruit was distributed on vegetation throughout the aviary and waxmoth larvae (after removal from casings) were thrown into vegetation twice a day. Food stocks were checked and replenished twice -three times each day, with all feed and water dishes cleaned and replaced once per day. 8000 thousand wax moth larvae and 16,000 mealworms were provided from Biosuppliers. Water was provided as needed via plastic planter trays, which were also used by birds for bathing.

Between Sunday 14th of April and Tuesday 16th of April 100 whiteheads were captured (see Appendix two for details). Eleven were caught on the afternoon of the 14th, 59 were caught on the 15th and the remaining 30 on the 16th. The quota of male birds was captured quite quickly, after which surplus males were released whilst the required number of females was captured. Mist nets were closed during rain showers and by 4pm each day to allow any birds caught late in the afternoon sufficient time to settle into the aviary before dark. To ensure all birds spent a minimum of 24 hours in the aviary, thereby gaining an opportunity to feed between capture and release at the AiP, all birds were held through Wednesday the 17th and taken off the island for release on Thursday the 18th.

By catch

By catch is inevitable on Tiritiri Matangi and included kakariki, hihi, bellbirds, tui 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 by the people in the aviary in bundles and once it was observed the birds were at the opposite end of the aviary from the door, vegetation bundles were then passed through to the people in the processing area and the aviary doors reclosed. Vegetation was passed onto people outside to be disposed of.

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 birds that had lost significant amounts of weight would have been released. Sixteen transfer boxes were prepared and lined with fresh kanuka to give cover and perching space. Each box also had two wooden perching poles. 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 top and bottom by screws. Six birds were in each transfer box with 7 in one.

Transfer to Ark in the Park

The birds were then transported to the wharf in the island 4WD, loaded into the ferry and transported to Gulf Harbour (a 25 minute ferry journey) . The majority of the boxes were transported in a volunteer's campervan with the remainder in another vehicle 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

The birds were released in 2 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.

Ringi Brown (Ngati Manuhiri) accompanied the birds from Gulf Harbour and gave karakia upon arrival at the Cascade Kauri release site prior to release. Te Kawerau a Maki representatives had hoped to be present for the release but were unable to attend on the day.

Post release monitoring

Ark volunteers Eric Wilson and Kevin Fergusson arranged to deploy recorders around the release site the same day as release. These recorders were left out for several days and recorded whiteheads calls gradually moving further from the release. Sightings are being recorded and formal post release monitoring will take place in September.

Conclusions

Despite rain and windy conditions the 100 birds were caught in 2 full days and an afternoon. Prior to the translocation there had been some concern that the Whiteheads may be in poor condition due to the drought the previous summer. However, while the birds ate large quantities of food in the aviaries, suggesting they were hungry, they appeared to be in good health with normal weight ranges.

The day trip volunteers provided a very useful efficient service in gathering vegetation to set up the aviary so team members can immediately start preparing to catch birds.

As several people were involved in planning the translocation it is important to ensure all purchases and dates have been confirmed with suppliers. In this translocation Biosuppliers had a different date recorded for when invertebrates were required. They were able to supply some and then the rest of the order by later ferry but if invertebrates were not obtained the translocation could not have proceeded as planned.

As catch teams are made up of people of differing experience levels, it is important that all team members are aware of and agree to a consistent policy regarding use of the mist nets. This is particularly important in regards to marginal catching conditions and ensuring that all nets are immediately closed if there is significant precipitation.

It is also important to ensure people potentially attending the release understand that the release date is an estimate only and can change at relatively short notice due to weather or concerns about bird welfare. A clear procedure is required to communicate any plan changes.

Acknowledgements

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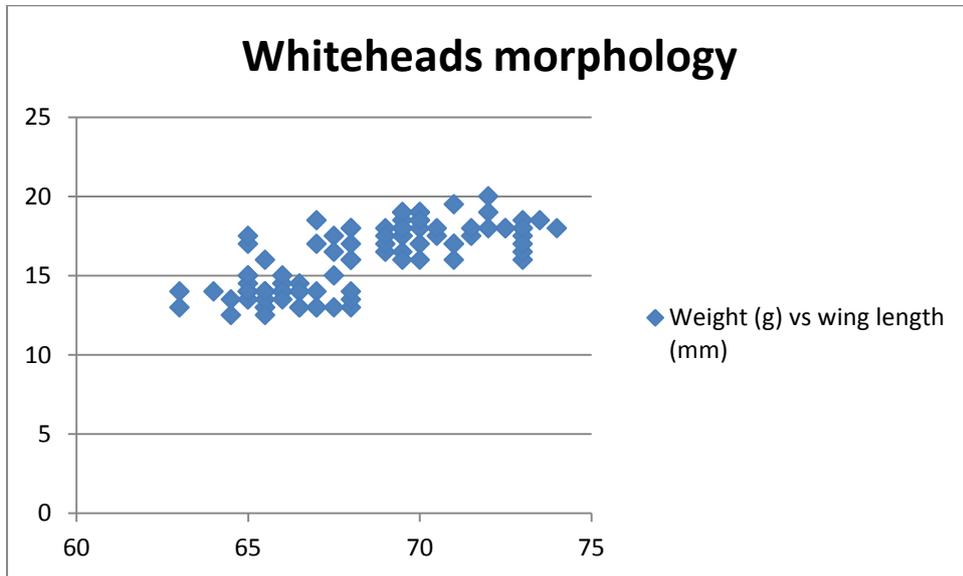
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References

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

Appendix 1



Appendix 2 Banding record and weights

| Bands | Metal # | Age | Sex | Wing | Capture weight | Aviary weight | Aviary |
|-------|---------|-----|-----|------|----------------|---------------|--------|
| WW-KM | B112488 | A | M | 73 | 18 | 18.5 | 1 |
| WK-KM | B112489 | A | M | 72.5 | 18 | 18 | 1 |
| WR-KM | B112490 | A | M | 74 | 18 | 17.5 | 1 |
| WG-KM | B112491 | J | M | 69.5 | 18 | 17 | 1 |
| WY-KM | B112493 | A | M | 71 | 19.5 | 18.5 | 1 |
| WO-KM | B112494 | A | M | 72 | 20 | 18 | 1 |
| WB-KM | B112496 | A | M | 69.5 | 19 | 20 | 1 |
| KW-KM | B112497 | A | M | 72 | 19 | 18 | 1 |
| KK-KM | B112498 | A | F | 65 | 13.5 | 13.5 | 1 |
| KR-KM | B112499 | A | F? | 69 | 16.5 | 17.5 | 1 |
| KG-KM | B112500 | A | M | 73 | 16 | 16.5 | 1 |
| WP-KM | B12492 | J | M | 69.5 | 18 | 19.5 | 1 |
| WH-KM | B84147 | A | F | 66 | 14.5 | 14 | 1 |
| WV-KM | B84152 | A | M | 73 | 17.5 | 17.5 | 1 |
| GP-KM | BP2676 | A | F | 65 | 14.5 | 14 | 1 |
| GH-KM | BP2677 | A | F | 64.5 | 12.5 | 14 | 1 |
| GG-KM | BP2678 | A | F | 67 | 14 | 14 | 1 |
| GR-KM | BP2679 | A | F | 66 | 15 | 18 | 1 |
| GK-KM | BP2680 | J | F | 63 | 13 | 14.5 | 1 |
| GW-KM | BP2681 | A | F | 65 | 13.5 | 13.5 | 1 |
| RB-KM | BP2682 | J | M | 70 | 17 | 18 | 1 |
| RV-KM | BP2683 | A | M | 71 | 17 | 17 | 1 |
| RO-KM | BP2684 | A | M | 70 | 18.5 | 17.5 | 1 |
| RY-KM | BP2685 | J | M | 69.5 | 19 | 18 | 1 |
| RP-KM | BP2686 | A | F | 66.5 | 14 | 13 | 1 |
| RH-KM | BP2687 | A | M | 70 | 18.5 | 18.5 | 1 |
| RG-KM | BP2688 | A | F | 64 | 14 | 14 | 1 |
| RK-KM | BP2689 | J | M | 70 | 19 | 19.5 | 1 |
| RW-KM | BP2690 | A | F | 68 | 16 | 16.5 | 1 |
| KB-KM | BP2691 | J | M | 69.5 | 18.5 | 19.5 | 1 |
| KV-KM | BP2692 | A | M | 70.5 | 17.5 | 17.5 | 1 |
| KO-KM | BP2693 | A | F | 68 | 16 | 16 | 1 |
| KY-KM | BP2694 | A | M | 71 | 17 | 17 | 1 |
| KP-KM | BP2695 | J | M | 72 | 18 | 18 | 1 |
| KH-KM | BP2696 | J | M | 70 | 19 | 18.5 | 1 |
| BH-KM | BP2640 | A | M | 73.5 | 18.5 | - | 2 |
| BG-KM | BP2641 | J | M | 69.5 | 17.5 | 18 | 2 |
| BR-KM | BP2642 | A | F | 65.5 | 13 | 13 | 2 |
| BK-KM | BP2643 | A | F | 67.5 | 15 | 13 | 2 |
| BW-KM | BP2644 | J | F | 65.5 | 16 | 17 | 2 |
| OB-KM | BP2645 | A | F | 66.5 | 14 | 12.5 | 2 |

| | | | | | | | |
|-------|--------|---|---|------|------|------|---|
| OY-KM | BP2646 | A | M | 70 | 19 | 18 | 2 |
| OP-KM | BP2647 | A | M | 71.5 | 17.5 | 20 | 2 |
| OO-KM | BP2648 | A | F | 66 | 14 | 13.5 | 2 |
| OH-KM | BP2649 | A | M | 70.5 | 18 | 17 | 2 |
| OG-KM | BP2650 | J | M | 70 | 18.5 | 19.5 | 2 |
| OR-KM | BP2651 | A | M | 69.5 | 16.5 | 16 | 2 |
| OK-KM | BP2652 | A | F | 65 | 15 | 15 | 2 |
| OW-KM | BP2653 | A | M | 70 | 16 | 16 | 2 |
| PB-KM | BP2654 | A | F | 65.5 | 14 | 15 | 2 |
| PO-KM | BP2655 | A | M | 73 | 16.5 | 16.5 | 2 |
| PY-KM | BP2656 | A | M | 70 | 18 | 17.5 | 2 |
| PP-KM | BP2657 | A | M | 73 | 18.5 | 18 | 2 |
| PH-KM | BP2658 | J | M | 71 | 16 | 16 | 2 |
| PG-KM | BP2659 | A | M | 69 | 18 | 18 | 2 |
| PR-KM | BP2660 | J | F | 65 | 15 | 14 | 2 |
| PK-KM | BP2661 | J | F | 66 | 14 | 13 | 2 |
| PW-KM | BP2662 | A | F | 65 | 14 | 14 | 2 |
| HB-KM | BP2663 | A | F | 65.5 | 13 | 13.5 | 2 |
| HO-KM | BP2664 | J | M | 68 | 18 | 19 | 2 |
| HY-KM | BP2665 | J | F | 67 | 17 | 19 | 2 |
| HP-KM | BP2666 | A | M | 72.5 | 18 | 18.5 | 2 |
| HH-KM | BP2667 | A | F | 63 | 14 | 13.5 | 2 |
| HG-KM | BP2668 | A | F | 65 | 14 | 14 | 2 |
| HR-KM | BP2669 | A | F | 68 | 17 | 17 | 2 |
| HK-KM | BP2670 | A | M | 71.5 | 18 | 18 | 2 |
| HW-KM | BP2671 | A | M | 69.5 | 16 | - | 2 |
| GB-KM | BP2672 | A | F | 68 | 13 | 13 | 2 |
| GV-KM | BP2673 | A | F | 66 | 14 | 13 | 2 |
| GO-KM | BP2674 | A | F | 68 | 13.5 | 12.5 | 2 |
| GY-KM | BP2675 | A | M | 69.5 | 17.5 | 18 | 2 |
| RB-PM | BP2609 | J | F | 64.5 | 13.5 | 13 | 3 |
| RO-PM | BP2610 | J | M | 70 | 18.5 | 18 | 3 |
| RY-PM | BP2611 | A | F | 66.5 | 14.5 | 13 | 3 |
| RP-PM | BP2612 | J | F | 67.5 | 17.5 | 17.5 | 3 |
| RH-PM | BP2613 | A | F | 65.5 | 14 | 13 | 3 |
| RG-PM | BP2614 | J | F | 67.5 | 16.5 | 16.5 | 3 |
| RR-PM | BP2615 | A | F | 65.5 | 13.5 | 13 | 3 |
| RK-PM | BP2616 | J | F | 65.5 | 14 | 14 | 3 |
| RW-PM | BP2617 | A | F | 65 | 14 | 13.5 | 3 |
| KB-PM | BP2618 | A | F | 68 | 14 | 13 | 3 |
| KO-PM | BP2619 | A | F | 66 | 14 | 13 | 3 |
| KY-PM | BP2620 | J | F | 66.5 | 14 | 14 | 3 |
| KP-PM | BP2621 | J | M | 69.5 | 19 | 20 | 3 |
| KH-PM | BP2622 | A | M | 69 | 17 | 17 | 3 |
| KG-PM | BP2623 | A | M | 73 | 18 | 19 | 3 |

| | | | | | | | |
|-----------|--------|---|---|------|------|------|---|
| KR-PM | BP2624 | A | F | 67 | 13 | 13 | 3 |
| KK-PM | BP2625 | A | F | 65.5 | 12.5 | 13 | 3 |
| KW-PM | BP2626 | A | F | 66 | 13.5 | 13 | 3 |
| WB-PM | BP2627 | A | M | 67 | 18.5 | 19 | 3 |
| WO-PM | BP2628 | J | F | 65 | 17 | 17 | 3 |
| WY-PM | BP2629 | J | F | 66.5 | 13 | 13 | 3 |
| WP-PM | BP2630 | A | F | 66.5 | 13 | 13 | 3 |
| WH-PM | BP2631 | J | M | 69.5 | 17.5 | 18 | 3 |
| WG-PM | BP2632 | J | M | 68 | 18 | 18 | 3 |
| WR-PM | BP2633 | J | M | 69.5 | 18 | 18 | 3 |
| WK-PM | BP2634 | A | F | 67 | 13 | 13 | 3 |
| WW- PM | BP2635 | A | M | 69.5 | 18 | 17 | 3 |
| BB-KM | BP2636 | A | F | 67.5 | 13 | 13 | 3 |
| BO-KM | BP2637 | A | M | 73 | 17 | 19.5 | 3 |
| BY-KM | BP2638 | J | F | 65 | 17.5 | 19 | 3 |
| BP-KM | BP2639 | J | M | 69 | 17.5 | 19 | 3 |