



Friends of Mana Island

TRANSFER REPORT - Translocation of māātātā / North Island fern birds from Rotokare Scenic Reserve to Mana Island Scientific Reserve – April 2019



DOC Translocation Approval: 68040 – FAU

Authority Holder: Friends of Mana Island Inc.

Personnel authorised to undertake the transfer:

Dr John McKoy - Friends of Mana Island
Kevin Parker - Parker Conservation

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INTRODUCTION

In October 2018 Friends of Mana Island Inc (FOMI) was authorised to transfer up to 40 mātātā / North Island fernbirds from Rotokare Scenic Reserve in South Taranaki to Mana Island Scientific Reserve.

The transfer of 40 birds was successfully completed between the 7th and 9th of April 2019.

BACKGROUND

Mana Island is 217 ha in area and lies approximately 2.5 km from the mainland. Historically it was likely vegetated with a mixed broadleaved/podocarp forest. However, by the early 1980s it was largely converted to pasture.

Restoration activities have included planting >500 000 trees and shrubs and eradicating mice, the only introduced mammal on the island, in 1989/1990. Several threatened species were naturally present on the island, including Cook Strait giant weta, McGregor's skink, goldstripe gecko, Cook's scurvy grass and the large leafed milk tree. In addition, several threatened and/or locally extinct species have been successfully released and/or established on the island, including NI robins, whiteheads, bellbirds, spotted skinks, South Island takahe, diving petrels, Wellington green geckos, Duvaucel's geckos, pateke, speckled skinks, fairy prions, yellow-crowned kakariki, Wellington speargrass weevils, shore plovers, fluttering shearwaters and circa 7 threatened plant species.

It is unclear if NI fernbirds were naturally present on Mana but their remains have been found in middens on the island. However, Mana provides a range of habitats suitable for NI fernbirds and they were identified as a candidate for reintroduction in the 1997 Mana Island Restoration Plan (Miskelly 1999). Therefore, it was proposed that 40 NI fernbirds be translocated to Mana Island. The birds were to be sourced from the Rotokare Scenic Reserve, Taranaki.

Ideally, NI fernbirds were to be translocated to Mana in a single transfer of 40 birds in one year. However, if the source population was considered unable to sustain a harvest of 40 birds in one year 20 birds per year might be translocated in two years.

TRANSFER DETAILS

A summary of the transfer activities is appended to this report.

MONITORING PROGRAMME

All suitable habitats on Mana will be systemically searched for NI fernbirds using recorded calls in a pre-breeding (July/August) and post-breeding survey (February/March) for at least 1-2 years following initial release.

All habitats will be systematically walked at least once. Pre-recorded fernbird calls will be played for approximately 5-10 seconds every 50 m to elicit a response from resident fernbird. When a fernbird responds short (<5 seconds), quiet sequences will be played to lure the bird close enough to read its band combination, ascertain whether it has a mate and approximate territory boundaries. Territorial fernbird often duet with their mate in response to recorded calls and follow the calls to the territory boundary. If there is a neighbouring territorial bird, a border dispute often occurs when the two birds converge while attempting to find the source of the calls.

Non-territorial birds also respond to recorded calls. However, they behave in a more cautious manner and approach less frequently. They are usually transient individuals, often dispersing juveniles, and are more commonly detected during or shortly after the breeding season (September – March).

All sightings will be recorded in a GPS and plotted on a map of Mana. All anecdotal sightings will also be recorded in a dedicated spreadsheet and on a map of the island (this can be as simple as pins on a map).

Assuming success, ongoing monitoring following population establishment (third year onward) will ideally consist of either an annual spring or autumn survey for up to 5 years.

Post-release monitoring will be conducted by suitably trained and qualified volunteers or contractors.

ACKNOWLEDGEMENTS

Friends of Mana Island gratefully acknowledges the support of OMV NZ who have generously sponsored this Project.

A great deal of assistance and advice came from DOC staff in the Wellington Region.

We are also thankful for the support and assistance of the Trustees and staff of the Rotokare Scenic Reserve Trust and for the technical supervision and support of Kevin Parker and his very skilled team of volunteers.

The Project was supported also by Ngāti Ruanui, Ngāti Tupaia and Ngāti Toa.

APPENDIX 1

A short report on a North Island fernbird translocation, Rotokare to Mana Island April 2019.

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Capture, holding, transport and release

The capture team arrived at Rotokare Scenic Reserve on the afternoon of the 6 of April, 2019. Transfer boxes were prepared and mist net sites established in fernbird territories on both the edge of the lake and on the Ridge Track on the 7 of April (see the translocation proposal for full details of catching methodology). Fernbirds are present throughout the Rotokare Scenic Reserve but to minimise holding times all catching sites were established within c. 10 minutes' walk of the processing station, which was near the main carpark.

Catching commenced at 1530 on the 7 of April, with the first bird caught at 1549, and the last at 1715, for a total of 16 for the day. The birds were then loaded into air-conditioned vehicles with covered windows at approximately 1800 and soft padding was placed under and around all boxes to minimise noise and vibration whilst still allowing for plenty of ventilation around the boxes. The transport vehicles departed for the Kapiti Coast Airport, Paraparaumu, at approximately 1830.

On arrival at the airport at approximately 2230 the transport vehicles were driven into the main hanger. The windows of all transport vehicles were then lowered and KAP stayed with the birds, sleeping on the hanger floor adjacent to the vehicles, while the rest of the transport team retired to accommodation in Paraparaumu. All of the above was conducted in silence under red lights used to minimise disturbance to the birds – most did not stir during transport or on arrival at the hanger.

The following morning the birds were loaded into an AS350 BA Squirrel (rear seats removed) at approximately 0700 and then flown to Mana Island. On arrival all birds were unloaded under the direct supervision of KAP and quietly walked to the release site at the wetland where they were welcomed and karakia was given. All birds were quickly released directly into dense cover with all appearing to be excellent condition on release.

Catching commenced to the same schedule on the 8 of April with the first bird captured at 1601, the last at 1800 for a total of 12 for the day, transfer that night and successful release the following morning.

Catching started at 1500, slightly earlier, on the 9 of April with the first bird captured at 1516, the last at 1745 for a total of 12 for the day, transfer that night and successful release the following morning.

Discussion

North Island fernbirds have been successfully translocated on several occasions, but with occasional losses, and they appear to be more prone to stress related mortality relative to other translocated NZ passerine species. However, despite the relatively complicated logistics all birds were successfully translocated and released in good condition when translocating from Rotokare Scenic Reserve to Mana Island.

This success is attributed to the following factors:

1. All stages of the translocation were carefully considered and planned to minimise holding times, movements, noise, vibrations and other novel events, with a seamless process from initial capture through to release.
2. The translocation team was extremely experienced with clear leadership and oversight.
3. Birds were captured late afternoon, driven to Paraparaumu after dark in air conditioned vehicles with blacked out windows, held overnight, loaded into the helicopter just on first light and then released early the following day. All moves were done in silence and any moves at night were done under red light to minimise disturbance. As an added advantage birds were very easy to catch in the late afternoon/evening.
4. The mean time from capture to processing was 12.37 minutes with 95% confidence intervals of 10.70 minutes and 14.05 minutes. This was achieved by having multiple runners to quickly bring birds back to the processing station as soon as possible.
5. The mean processing time was 3.00 minutes with 95% confidence intervals of 2.80 minutes and 3.20 minutes. This was achieved by using an experienced handler (KAP) and minimising morphometric measurements (fernbirds cannot be sexed in the hand).
6. Transfer boxes were heavily lined with thick vegetation with a small cavity in the centre of the box. Waxmoth larvae, a relatively active and fatty invertebrate, were provided as food along with a small amount of water(<10mm) in a high sided (c.40mm) fish tin. All of the vents on the box were screened with a heavy nylon mesh covered with light cotton. This allowed both ventilation and light but prevented birds from seeing movement outside the box.

While no birds died during the transfer a single bird was killed during the capture phase following a handling mishap by a volunteer. The volunteer incorrectly held a bird bag while carrying it from the capture site to the processing station and inadvertently squeezed the bird. This was extremely unfortunate and has never happened in 20 years of translocations. However, in future translocations bird bag carrying etiquette will be carefully described and monitored by the translocation and catch team leaders to ensure that this doesn't happen again.

Conclusions

This was an extremely successful translocation. Post release monitoring before and after the 2019/2020 breeding season will indicate whether short term success (territory establishment and breeding) has been achieved on Mana Island.

The primary risk during this translocation was ensuring that drivers got adequate rest (c. 8 hours per night), regular driving breaks (every 2 hours) and did not drive more than 4 hours per day over the course of the translocation.

Acknowledgements

The volunteer translocation team, including catchers, cooks and drivers were essential for this translocation as was support from the Friends of Mana Island Incorporated, Department of Conservation staff, especially Nick Fisenzidis, Gen Spargo and Theo, and Rotokare Scenic Reserve staff and volunteers.

Ngāti Ruanui, Ngāti Tupaia and Ngāti Toa supported the translocation of fernbirds from Rotokare to Mana Island.

Fernbirds captured and translocated to Mana Island from Rotokare Scenic Reserve April 2019

Capture	Release	T1	T2	T3	Prefix	Metal	Left	Right	Weight	Comments
7/04/2019	8/04/2019	1549	1558	1601	BP	14658	B/B	R/M	19	
7/04/2019	8/04/2019	1552	1604	1607	BP	14659	B/G	R/M	18	
7/04/2019	8/04/2019	1553	1608	1610	BP	14660	B/O	R/M	21	
7/04/2019	8/04/2019	1556	1612	1616	BP	14661	B/R	R/M	18	Right eye closed during process
7/04/2019	8/04/2019	1559	1618	1621	BP	14662	B/W	R/M	19	Slight tap on right leg
7/04/2019	8/04/2019	1602	1623	1625	BP	14663	B/Y	R/M	19.5	
7/04/2019	8/04/2019	1604	1628	1631	BP	14664	G/B	R/M	19	
7/04/2019	8/04/2019	1611	1633	1637	BP	14665	G/G	R/M	19.5	
7/04/2019	8/04/2019	1630	1640	1643	BP	14666	G/O	R/M	21.5	
7/04/2019	8/04/2019	1632	1645	1648	BP	14667	G/R	R/M	20	
7/04/2019	8/04/2019	1644	1651	1653	BP	14668	G/W	R/M	18	Karakia
7/04/2019	8/04/2019	1650	1655	1657	BP	16493	W/W	K/M	20	one of two birds that escaped in 2018
7/04/2019	8/04/2019	1700	1709	1712	BP	14669	O/B	R/M	20	
7/04/2019	8/04/2019	1705	1716	1720	BP	14670	O/G	R/M	17.5	
7/04/2019	8/04/2019	1711	1723	1725	BP	14671	O/O	R/M	20.5	
7/04/2019	8/04/2019	1715	1728	1731	BP	14672	O/R	R/M	20.5	
8/04/2019	9/04/2019	1601	1607	1610	BP	14673	O/W	R/M	18	Fred brought in, had dropped tail in the bag
8/04/2019	9/04/2019	1612	1624	1627	BP	14674	O/Y	R/M	18.5	
8/04/2019	9/04/2019	1615	1630	1632	BP	14675	R/B	R/M	12	Probably incorrect, i.e. data entry error, as too light
8/04/2019	9/04/2019	1630	1639	1641	BP	14676	R/G	R/M		
8/04/2019	9/04/2019	1659	1708	1711	BP	14677	R/O	R/M	22	
8/04/2019	9/04/2019	1721	1724	1728	BP	14678	R/R	R/M	19	
8/04/2019	9/04/2019	1733	1735	1738	BP	14679	R/W	R/M	20	



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Capture	Release	T1	T2	T3	Prefix	Metal	Left	Right	Weight	Comments
8/04/2019	9/04/2019	1733	1742	1745	BP	14680	R/Y	R/M	18.5	
8/04/2019	9/04/2019	1730	1749	1751	BP	14681	W/B	R/M	20.5	
8/04/2019	9/04/2019	1733	1754	1758	BP	14682	W/G	R/M	24	
8/04/2019	9/04/2019	1745	1800	1803	BP	14683	W/O	R/M	21.5	
8/04/2019	9/04/2019	1800	1813	1816	BP	14684	W/R	R/M	24	
9/04/2019	10/04/2019	1516	1527	1530	BP	14685	W/W	R/M	18.5	
9/04/2019	10/04/2019	1530	1538	1541	BP	14686	W/Y	R/M	19	
9/04/2019	10/04/2019	1537	1547	1551	BP	14687	Y/B	R/M	19	
9/04/2019	10/04/2019	1553	1559	1502	BP	14688	Y/G	R/M	22	
9/04/2019	10/04/2019	1549	1606	1609	BP	14689	Y/O	R/M	20	
9/04/2019	10/04/2019	1550	1611	1611	BP	14690	Y/R	R/M	19.5	
9/04/2019	10/04/2019	1559	1617	1617	BP	14691	Y/W	R/M	20.5	
9/04/2019	10/04/2019	1631	1638	1638	BP	14692	G/Y	R/M	18.5	
9/04/2019	10/04/2019	1634	1646	1646	BP	14693	Y/Y	R/M	20	Struggler
9/04/2019	10/04/2019	1638	1654	1654	BP	14694	K/G	R/M	18	
9/04/2019	10/04/2019	1728	1737	1737	BP	14695	K/O	R/M	21	
9/04/2019	10/04/2019	1745	1754	1754	BP	14696	K/R	R/M	20.5	



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