North Island saddleback translocated to Motuhora Island, Bay of Plenty

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Summary

By November 1999, 40 NI saddleback, tieke, translocated to Motuhora Island in March 1999, had clearly had a high survival rate, had established territories, and many had successfully raised chicks. The nests discovered were in the bases of pohutakawa trees, very close to the ground. The island appears to provide an abundance of roost and nesting sites. Saddleback have dispersed throughout the island and are nesting successfully in areas distant from the only water source on the island in Camp Valley.

1. Background

Three trips were made to Motuhora Island with the aim of monitoring the survival, territory establishment and successful breeding of 40 tieke or NI saddleback *(Philesturnus carunculatus rufuster)* translocated from Cuvier Island in March 1999. The trips were each of 5 days duration and occurred in March, July and November. All observations were conducted by University of Auckland researchers. Two researchers were present during the March trip and three during the subsequent trips. Approximately 150 person/hours were spent searching for and observing saddleback. Weather conditions were generally good and only one day was lost due to heavy rain. The approximate effort used to search the island during each of the trips was 60% Camp Valley/Pa Hill, 20% McEwans Bay, and 20% summit forest and western main cone (Appendix 1). Observations commenced immediately after the release in March and at this time searching concentrated on the western end of the island close to the release site on the southern side of Pa Hill near Te Puna Wai. In July, most of the island, except the summit forest, was searched. In November, the entire island was searched although the south-east side of the main cone was not searched thoroughly due to time constraints.

2. Survival

Thirty-seven of the original 40 birds were resighted at least once between March and November 1999. Twenty-two of the birds were resighted during one or both of the July and November trips. Percentage survival of each age and sex class are shown in Table 1.

Both immature birds survived the release. In general, juvenile males had the highest survival rate while juvenile females had the lowest. Adults had slightly poorer survival rates than juveniles. The sightings of all birds made during each of the trips are shown in Appendix 2.

With each consecutive trip fewer total birds were sighted. This decrease in the total numbers of sightings from March to November (Table 2) is most likely the result of increased dispersal of the birds. However, it is interesting to note that six of the birds sighted in November had not been seen since March.

3. Established pairs

Pairs established quickly after release with three pairings first identified in July (Table 3). These pairs were clearly exhibiting courtship behaviour and remained in close proximity to each other. The saddleback breeding season was well advanced by the time of the November trip and eight breeding pairs were observed on their territories (Appendix 2). However, for one pair, the female's band combination was not fully identified as she returned to a nest in an inaccessible location. For seven of these eight pairs, evidence of successful breeding was observed.

4. Dispersal and territory establishment

Saddleback have dispersed over most of the island although the highest densities of birds were still observed within 1 kilometre of the release site. Half (6/12) of all territories observed in November were located in the Camp Valley/Pa Hill area. Four more territories were located on the main cone region of the island (two territories in the summit forest and two lower down in the forest south-west of the summit towards Sulphur Bay). However, at least one pair had dispersed as far as McEwans Bay by July and an additional pair was observed there in November. Two territories were likely at McEwans Bay, although these birds were only heard (one on the main cone side of McEwans Valley, the other in the mahoe forest towards the east). Two of the territories appeared to be held by unpaired males.

5. Breeding success - November

A minimum of six pairs were successfully breeding by late November 1999. Four fully fledged chicks were observed. The pair A-BW and RW-A were discovered with a nest close to the old hut site in Camp Valley. They successfully hatched 2 chicks on 28 November. In addition, three active nests (one with 3 eggs, the others inaccessible) were found (Table 3).All nests appeared to be in cavities formed by the roots of pohutukawa *(Metrosideros excelsa).*

Only one of the established saddleback pairs had no nest or fledglings (after 2 hours' observation) but it was late enough in the season for any chicks to have already dispersed from the natal territory.

6. Predation

The only obvious predators on the island are moreporks or ruru *(Ninox novaeseelandiae novaeseelandiae),* observed in Camp Valley and New Zealand falcons *(Falco novaeseelandiae).* A recent discovery of a morepork roost site on Tiritiri Matangi Island with several saddleback bands suggests that morepork may capture adult saddleback. The pair of New Zealand falcons appear to have large numbers of rock pigeons *(Columbia livia)* as a primary food source.

7. Conclusions

The saddlebacks' first year on Motuhora has been very successful but a follow-up monitoring early in the breeding season (September) and again in March to verify breeding success is recommended.

8. Acknowledgements

The author was assisted in the field by Rosalie Stamp, Sandra Anderson, Rosemary Barraclough, and Lisa Xiao. Matt Cook of Department of Conservation, Whakatane, provided boat transport to Motuhora.

9. Reference

Owen, K.L. 1998. Proposal to transfer tieke (North Island saddleback) from Repanga (Cuvier) Island to Motuhora (Whale) Island. Unpublished report, file RWL: 036, Department of Conservation, Rotorua.

Owen, K.L.; Blick, A. In press. Iwi-initiated introduction of tieke to Motuhora (Whale) Island. Ecological Management no. 8. Department of Conservation, Wellington.

Table 1. Minimum survival rates of each age and sex class.

	Males	Females	Total
Adults	50% (n = 4)	46% (n = 5)	47%
Juveniles	67% (n = 8)	43% (n = 3)	58%
Immature	-	100% (n = 2)	100%
Total	60%	55%	55%

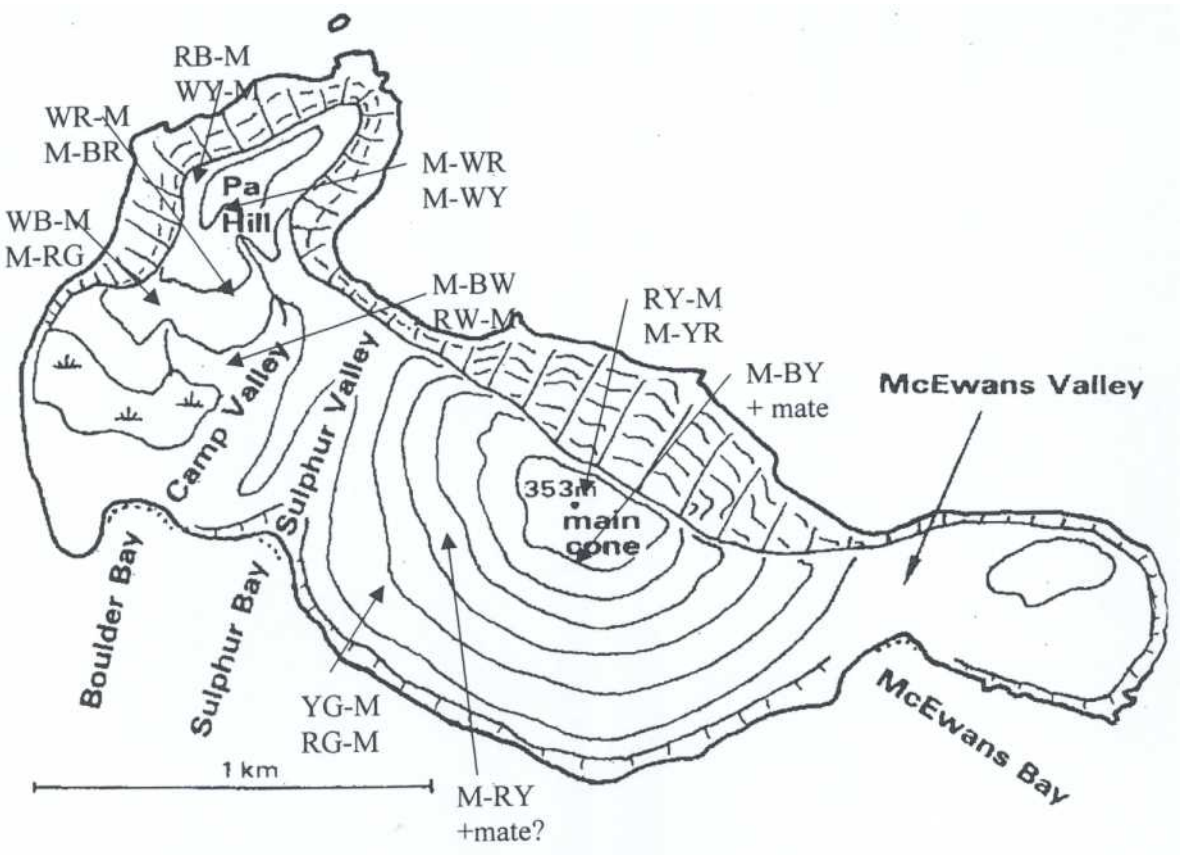
Table 2. The number of individuals observed during each of the trips. Confirmed sightings are sightings where complete band combinations were recorded. Unconfirmed sightings include birds seen and/or heard in areas where saddleback had not previously been observed or band combinations had been incompletely read.

	Confirmed sightings	Unconfirmed sightings
March	30	
July	16	5
November	16	5

Table 3.The band combinations of saddleback pairs and when they were observed together. Evidence of breeding by each pair is indicated in the last column.

Idenfication	July	November	Breed	Comments
WR-A & A-BR	✓	✓	✓	1 fledged chick
A-WR & A-WY	✓	✓	✓	1 fledged chick
WB-A & A-RG	✓	✓	✓	2 fledged chicks
RB-A & WY-A		✓	✓	nest on cliff
RW-A & A-BW		✓	✓	2 chicks hatched
A-BY & ?		✓	✓	nest likely
YG-A & RG-A		✓	✓	3 eggs
RY-A & A-YR		✓	?	no nest found

Appendix 1. Map of Motuhora (Whale) Island, Bay of Plenty.



One-day old chick of RW-A & A-BW (near the old hut)

Photo Dianne Brunton.

Appendix 2. Sightings and re-sightings of translocated saddleback.

BIRD	SEX	AGE	MARCH	JULY	NOVEMBER
BW-M	F	A	X		
BY-M	F	A	X		
M-BG	F	A	X		
M-WG	F	A	X	X	
M-YB	F	A	X		
RG-M	F	A	X	X	X
YR-M	F	A	X		
YW-M	F	A	X		
M-BR	F	A		X	
M-BY	F	A			X
M-WY	F	A		X	X
M-GW	F	IM	X	X	
M-RG	F	IM	X	X	X
BG-M	F	J	X		
GB-M	F	J	X		
M-GB	F	J	X		
RW-M	F	J	X		X
WY-M	F	J	X		X
M-GY	F	J			
M-YR	F	J			X
GR-M	M	A	X		
GY-M	M	A	X	X	
M-WB	M	A	X		
WB-M	M	A	X	X	X
WG-M	M	A	X	X	
WR-M	M	A	X	X	X
M-YW	M	A			
YB-M	M	A			
B-RM	M	J	X		
M-BW	M	J	X	X	X
M-G R	M	J	X	X	
M-RW	M	J	X		
M-WR	M	J	X	X	X
M-YG	M	J	X		
RB-M	M	J	X	X	X
RY-M	M	J	X		X
YG-M	M	J	X	X	X
GW-M	M	J			
M-RB	M	J		X	X
M-RY	M	J			X