

Presence and Distribution of Brown Kiwi (*Apteryx mantelli*) in Taranaki



Native Birds Taranaki

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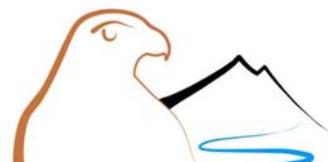
Dave Bell

Cover picture by Ian 'Lockie' Locke: Brown kiwi, Tongaporutu Ohura Road, Kotare, September 2013.

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Presence and Distribution of Brown Kiwi in Taranaki

1. Introduction

In August 2013 a combined project was completed by Native Birds Taranaki and the Department of Conservation (specifically Jess Scrimgeour, Technical Advisor Ecology, Central Region, at Taupo) to collate all known Western Brown Kiwi (WBK) distribution data into a centralized database.

A total of 2,207 records were able to be collated during the project and this report details those records specifically for Taranaki, together with additional records obtained since 1 September 2013.

Unfortunately this is far from a complete picture of the presence and distribution of kiwi in Taranaki. As one kiwi conservation group was unwilling to share their data, despite a number of requests, whilst another was also unwilling or unable to provide a complete list of records.

Though not as a comprehensive depiction as could be possible it is considered the information provided does give a relatively good picture of the past and present presence and distribution of kiwi in Taranaki.

2. Taranaki Kiwi

The kiwi found in the North Island is the Brown kiwi (*Apteryx mantelli*), one of five formally described species of kiwi. Within the brown kiwi there are four geographically and genetically distinct forms recognised: Northland, Coromandel, western and eastern brown kiwi (Holzapfel *et al.* 2008). The kiwi found in Taranaki are the Western Brown Kiwi (WBK).

The Brown kiwi was previously known as the North Island Brown Kiwi (NIBK) as it was formerly considered part of a single brown kiwi species thought to occur in both the North and South Islands. The former South Island brown kiwi are now recognised as two separate species, the rowi (*Apteryx rowi*) at Okarito, and tokoeka (*A. australis*) near Haast, in Fiordland and on Stewart Island. The North Island brown kiwi is now referred to simply as the brown kiwi (Scrimgeour *et al.* 2011).

3. Taranaki

For the purposes of this report Taranaki is taken to be that area incorporating the Taranaki Region together with the additional areas to the north (Mokau River), north-east (Waitaanga) and the east (Whangamomona and Tangarakau Gorge) that fall within the Taranaki Area of the Department of Conservation.

4. Brown Kiwi in Taranaki

At the completion of the joint project to collate WBK records in August 2013 a total of 2,207 records were collected of which 417 were for nil result from Call/Listening surveys. An additional 156 records (29 being for nil result) were received up to 31 December 2015, making a new grand total of 2,367 records.

Of these 2,367 records 1,087 were for presence records for kiwi in Taranaki, 260 for within Egmont National Park (Egmont NP) and the remaining 827 for the rest of Taranaki.

A brief breakdown of these records is shown below:

	Egmont NP	Taranaki	Total
Pre 1980	9	67	76
1980 – 1989	6	230	236
1990 – 1999	62	101	163
2000 – 2009	167	201	368
2010 – 2014	16	228	244
Total	260	827	1087

A more comprehensive analysis of these records has been undertaken and the results are shown at Annex A – Analysis of Kiwi Presence Records.

4.1 Egmont National Park.

Prior to 1990 records were only from a few 'Casual' observations as sightings, calls heard and sign seen were noted. Most of the records for the 1990's were from call surveys undertaken to ascertain if sufficient kiwi numbers were present at selected sites to join the National Kiwi Call Scheme, unfortunately there were not. A number of additional records were also received that included two kiwi found dead, both from the Kaitake Range.

Between 2000 and 2009 there were additional call surveys undertaken and a good number of casual encounters obtained. This resulted in an estimation of a remnant kiwi population thought to be about 40 pairs in Egmont NP in 2003 (Peet, 2003). A combined project between the Department of Conservation (DOC) and the Taranaki

Kiwi Trust (TKT) was then initiated that involved both the establishment of a major predator control project on the slopes of Mt Taranaki/Mt Egmont and the release of Operation Nest Egg (ONE) kiwi.

Since 2010 there has been no formal call surveying undertaken in Egmont NP and all 16 records are for casual observations centred on sign (footprints, probe holes, poo and feathers) seen.

Two maps have been produced, displaying kiwi records for Egmont NP:

- a. Kiwi Records for Egmont National Park – Prior to 2000 at Annex B, and
- b. Kiwi Records for Egmont National Park – 2000 to 2015 at Annex C.

4.2 Taranaki

All 67 records for Taranaki pre-1980 were for casual observations, with the vast majority having been submitted to the TKT Presence Survey 2002 and many were for kiwi being sighted but most were for calls heard.

Many of the 230 records for the 1980's were as a results of Kiwi Call Scheme surveys, particularly at Mokau during 1986 and Whangamomona/Aotuhia in 1988, but also frequent casual observations from throughout the area.

Again a good proportion of the 101 records for the 1990's were from Kiwi Call Scheme surveys undertaken, this time in areas such as Moki Forest, Whitecliffs, Waitotara and also back at Aotuhia. Casual observations still made up a fair share and included one kiwi found dead at the Mokau River mouth in 1998.

The decade of 2000-09, with 201 records, again saw Kiwi Call Scheme records from Purangi together with results from the National Call Scheme site at Whitecliffs, the only such site in Taranaki. Also the commencement of TKT's ONE project provided many records from the 'source' population of kiwi at Aotuhia.

The 224 records for between 2010 and 2014 included for the first time records from 'Listening' surveys using the new DOC Acoustic Recorders plus also many records from the combined Rotokare Scenic Reserve Trust/Taranaki Kiwi Trust project Taranaki Kohanga Kiwi at Rotokare.

Two further maps have been produced, displaying kiwi records for Taranaki:

- a. Kiwi Records for Taranaki – Prior to 2000 at Annex D, and
- b. Kiwi Records for Taranaki – 2000 to 2015 at Annex E.

5. Not All Good News for Kiwi in Taranaki

Unfortunately it has not been all good news for kiwi in Taranaki with a number dying through various known and unknown causes.

5.1 Sonny on Mt Taranaki/Mt Egmont

Though named as a male, Sonny was actually a female kiwi that lost a toe when caught in a possum trap in Eastern Taranaki. After a lengthy period of rehabilitation at Wanganui-Manawatu Bird Rescue, Sonny was released back into the wild on the eastern slopes of Mt Taranaki/Egmont on 6 January 2004.

Sadly within six weeks Sonny was found dead, close to where she had been released, cause of death was believed to have been a dog attack.

5.2 Rerekino North Taranaki

In 2008 or 2009 a kiwi was found dead beside Rerekino Road, inland from Uruti in North Taranaki. Found at the base of a bluff it was considered by the hunter who found this kiwi to have very possibly fallen over the bluff.



Sonny



Rerekino Kiwi

5.3 Waiiti North Taranaki

On 19 June 2010 a dead kiwi was found on farmland by a tributary of the Mimi River at Waiiti. No cause of death could be ascertained.

5.4 Mimi North Taranaki

On 30 June 2011 a kiwi chick was seen on farmland off the end of Wharekauri Road, Mimi but a visit the next day found only a ring of feathers. Subsequent kiwi call surveys found adult kiwi to be in the area.

5.5 Additional Records

In addition to the specific records detailed above there are an additional five records in the database for dead kiwi found, making for a total of nine.

All nine records for dead kiwi recorded in Taranaki are shown on the maps at Annexes B to E.

6. Discussion

Recent records of kiwi in Taranaki (2000-2015 Map at Annex E) and Egmont NP (2000-2015 Map at Annex C) show a relatively good distribution of kiwi throughout Taranaki, though an accurate population figure is unable to be ascertained.

That kiwi are still present and breeding in isolated pockets throughout much of Taranaki is pleasing but at a decline per annum of around 3% for unmanaged populations (Holzapfel *et al.* 2008), kiwi will eventually be mostly extinct from Taranaki in the near future. The decline is faster in small bush blocks surrounded by farmland than in extensive forest tracts (Scrimgeour *et al.* 2011).

The major agents for this decline are mammalian predators, dogs, cats, ferrets and stoats. Stoats alone are responsible for upwards of 94% of juvenile kiwi mortality (McLennan *et al.* 1996). This leads to chronic population recruitment failure in unprotected populations and consequently kiwi presence can appear stable for years until an eventual and often rapid collapse (Scrimgeour *et al.* 2011).

Intensive and integrated predator control that is well managed and resourced is the known answer for the survival of kiwi. There are a number of projects underway, including in Egmont NP but more are needed, especially where it is known good populations of kiwi exist. Realising also that any work undertaken for 'kiwi' also provides benefits for all the biodiversity in the area.

7. Conclusion

The continuation of the present predator control projects and expansion in to other specific areas is the key to ensure the best chance for the future existence of the WBK taxon of Brown kiwi in Taranaki.

8. Acknowledgements

Much appreciation to all the staff, volunteers and others that sat out over many a cold and dark night to listen for and record the calls (or not) of the Western Taxon of the now simply named Brown Kiwi.

To all those that ensured their casual and incidental observations of kiwi and kiwi sign were recorded and help provide valuable data for this project, well done.

In more recent times the time and energy taken by those deploying and then interrogating the new acoustics recording devices has supplied important additional data.

To Lockie for sharing his photos and giving generous approval for use in this report and for providing information on his encounters with kiwi.

To Jane Hart for helpful comments on an earlier draft and for editorial assistance.

Huge thanks to Jess Scrimgeour for sourcing many of the historical records for the original WBK Data project and her continual support and encouragement.

9. References

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Annex A to
Presence and Distribution of
Brown Kiwi in Taranaki

Analysis of Kiwi Presence Records

During the WBK Data Project a number of specific categories of information were recorded from the data collected and collated, these are now examined in more detail below for Taranaki and illustrate some interesting if unscientific information.

1. Accuracy of Location

A category to indicate the accuracy for the location of the kiwi record was used, these were:

- a. **A** = 100% accurate where a GPS reading or Grid Reference was provided
- b. **B** = 75% accurate where a detailed description provided for location
- c. **C** = 50% accurate where a reasonable description provided for location
- d. **D** = 25% accurate where a limited description provided for location.

For the 1,083 records for kiwi in Taranaki there were over 97% in the A and B categories with only 25 records in the C and D categories (see below). This provides for great confidence in the accuracy of the vast majority of the kiwi records for Taranaki.

Category	No of Records
A	633
B	429
C	15
D	10
Total =	1087

2. Type of Survey/Observation

There were four categories for the type of Survey/Observation used to locate kiwi, these were:

- a. **Call** – the standard 4 nights, 2 hrs listening directly after darkness
- b. **Playback** – use of recorded kiwi calls played to entice kiwi call response
- c. **Listening** – use of an Acoustic Recording Device to listen and record calls
- d. **Casual** – not a survey for kiwi but casual observation by hearing call, seeing a kiwi or a sign of kiwi presence.

For the 1,083 kiwi records for Taranaki were recorded by the following type of survey/observation:

Survey/Observation	No of Records
Call	324
Playback	15
Listening	60
Casual	688
Total =	1087

The Call surveys were responsible for 1,297 kiwi calls being heard and recorded, whilst the Playback surveys only solicited a total of 60 calls and the Listening surveys managed 1,031 kiwi calls in total recorded, 799 male calls and 232 female. The Casual observations had a number of specific categories for the observation and the breakdown for these were:

Category	No of Records	Comments
Dead	9	
Burrow	8	
Call	302	
Capture	7	
Chick	1	
Eggs	8	
Feather/s	12	
Footprint/s	44	
Poo	40	
Present	58	Not otherwise specified
Probe Hole/s	76	
Release	7	
Seen	116	
Total =	688	

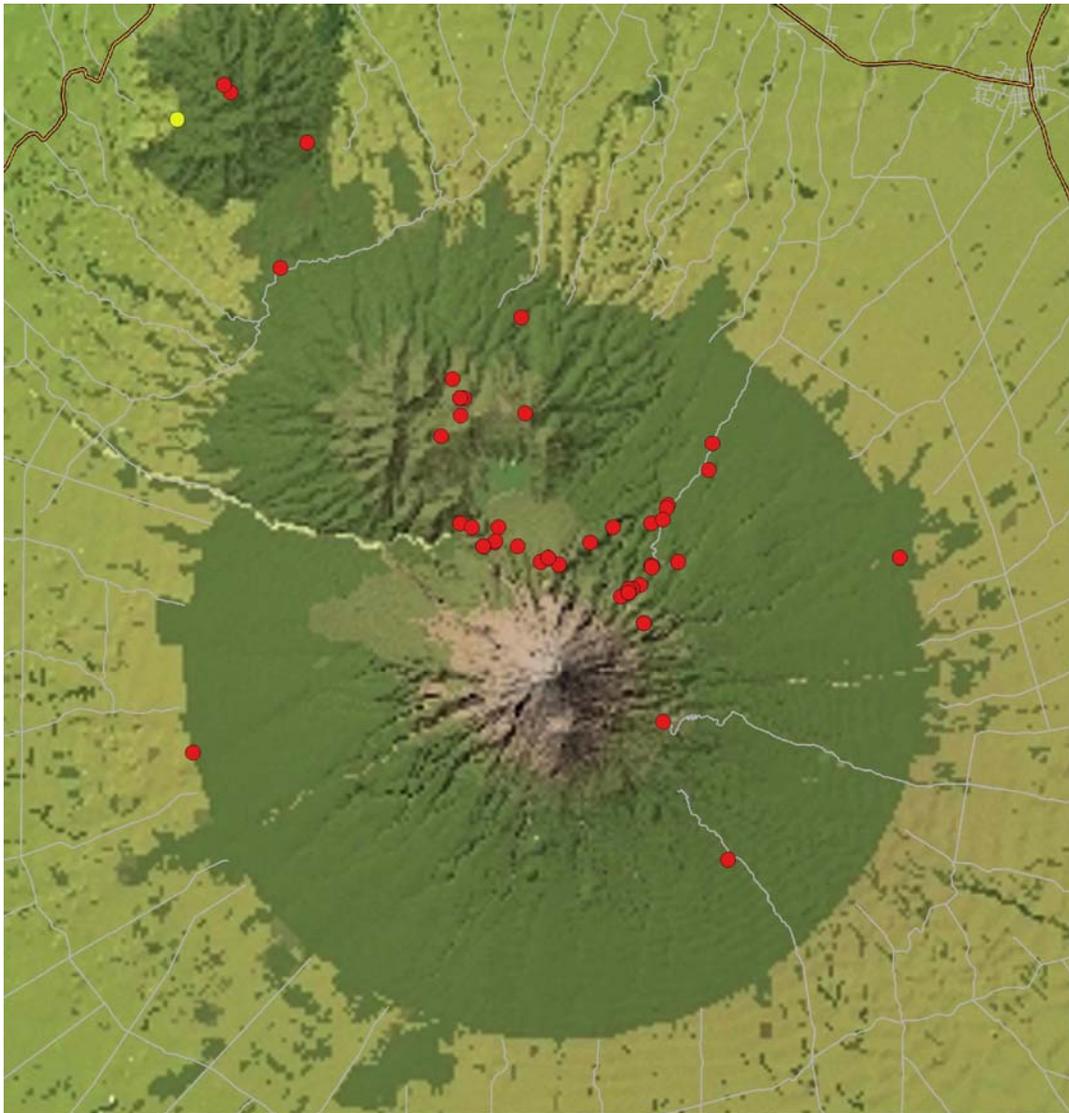
3. Location within Taranaki

The geographical area for records from differing areas within Taranaki were recorded and these were as follows:

Geographical Area	No of Records
Mokau	72
Northern Taranaki	236
Eastern Taranaki	359
Central Taranaki	26
Southern Taranaki	134
Egmont National Park	260
Total =	1087

Annex B to
Presence and Distribution of
Brown Kiwi in Taranaki

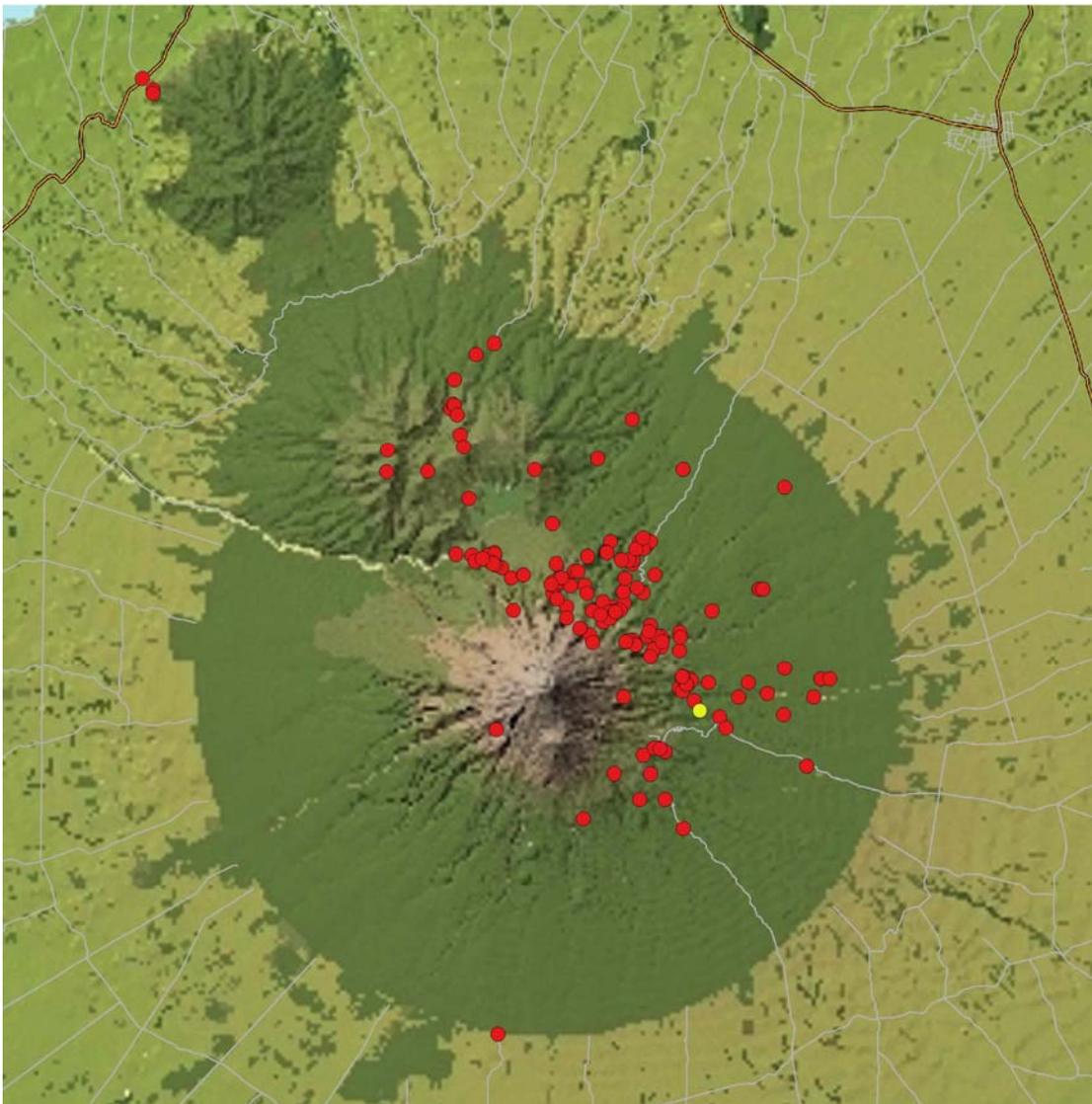
Kiwi Records for Egmont National Park Prior to 2000



Key to Symbols: ● - Brown kiwi record
● - Dead kiwi found

Annex C to
Presence and Distribution of
Brown Kiwi in Taranaki

Kiwi Records for Egmont National Park 2000 to 2015

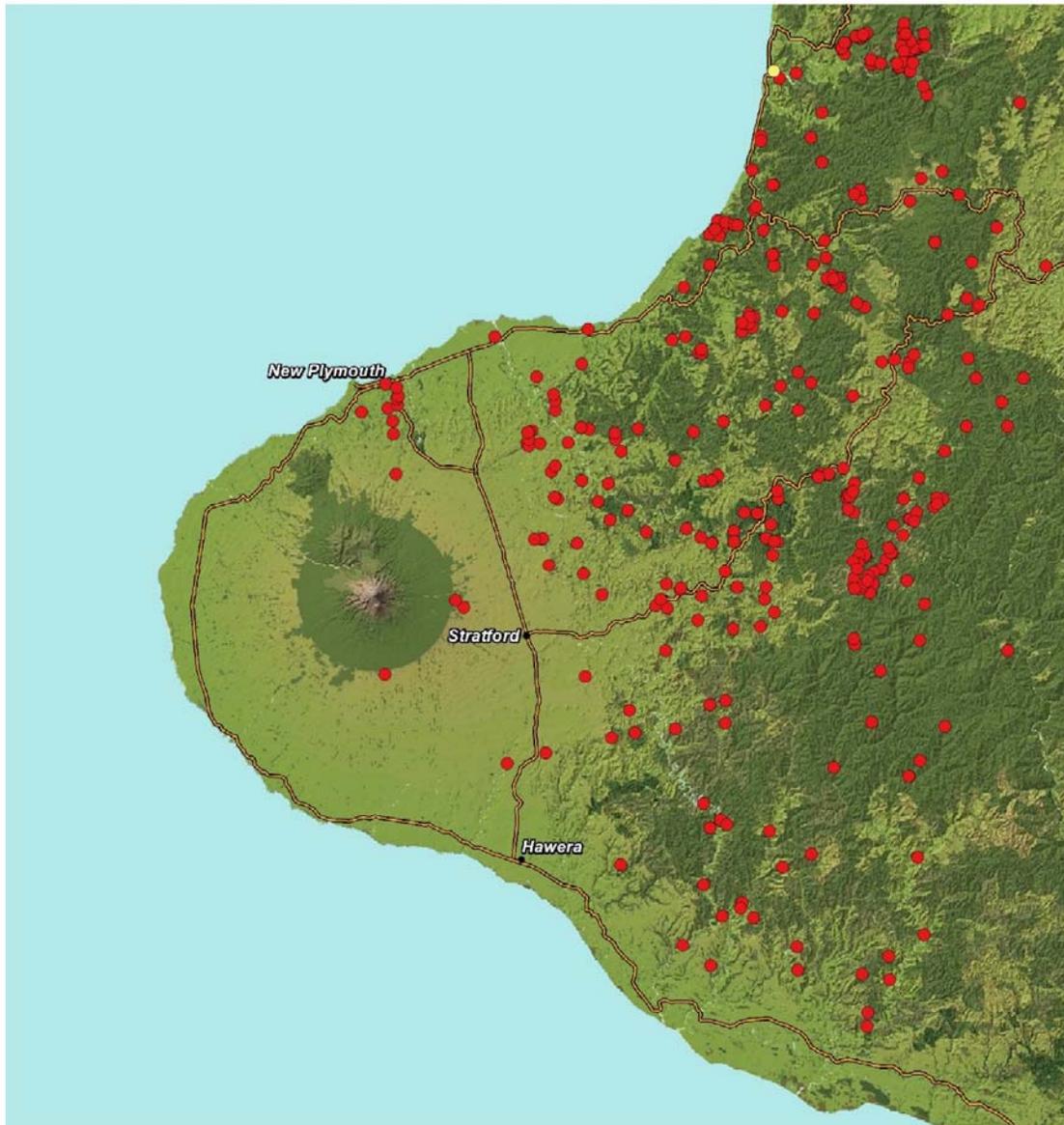


Key to Symbols:

- - Brown kiwi record
- - Dead kiwi found

Annex D to
Presence and Distribution of
Brown Kiwi in Taranaki

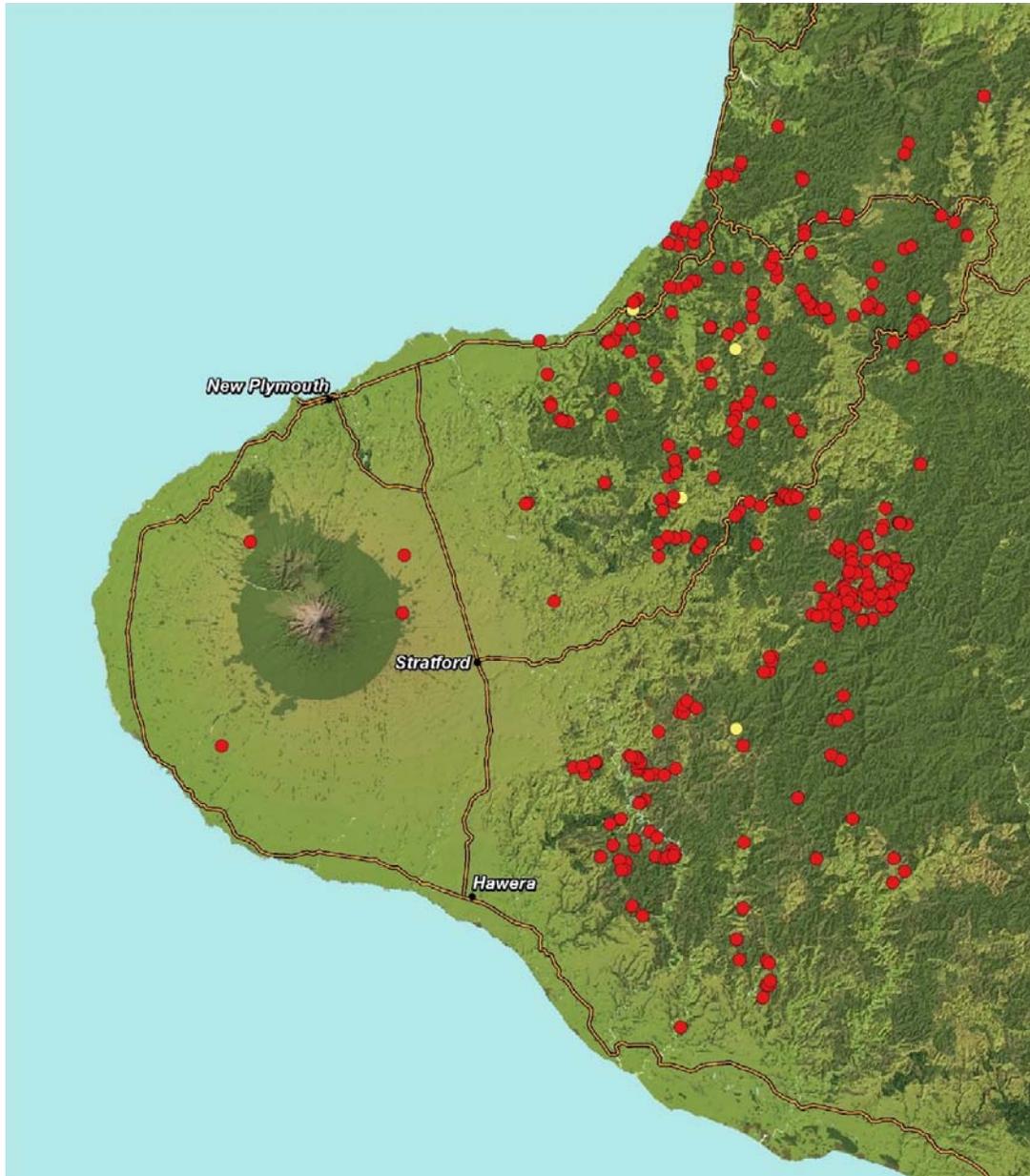
Kiwi Records for Taranaki Prior to 2000



Key to Symbols: - ● - Brown kiwi record
- ● - Dead kiwi found

Annex E to
Presence and Distribution of
Brown Kiwi in Taranaki

Kiwi Records for Taranaki 2000 to 2015



Key to Symbols: ● - Brown kiwi record
● - Dead kiwi found