

Whangarei Kiwi Sanctuary

Annual Report June 2013-May 2014





Cover image: Transfer boxes at Maranui kiwi release.

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1.0 Introduction

The Whangarei Kiwi Sanctuary (WKS) was established in 2000 to protect the rapidly declining population of the Northland provenance of the Northland brown kiwi. Since the creation of the WKS the focus was primarily on protecting kiwi through predator control using traps and toxins, and monitoring a sample of kiwi to ascertain the effects of the protection. However, because predation on kiwi by dogs is the strongest driver of population trends in Northland (de Monchy et al., 2009) it was decided in 2008/2009 that the dog issue needed to be addressed. The dog threat is essentially a people issue, as people can stop their dogs from wandering. Thus the shift in focus of the WKS has been from a science-based approach to a community relations-based approach.

The Dog Campaign is being driven by a 'dogs and kiwi' community relations engagement plan that was completed in June 2011 (DOCDM-795028). The plan is a five year programme of work and describes ways to manage the specific impact of dogs, based on existing and developing knowledge, experience and research. Key findings from the dogs and kiwi social research show that there is a lack of general awareness about kiwi and where they live. People think that their dog is not a problem if they don't have kiwi on their property and also the belief "my dog wouldn't kill a kiwi" is alive and well. Social and other research also highlighted key points that need to be addressed. These include:

- Consistency of approach
- Consistency of appropriate key messages
- Awareness, promotion and publicity
- Following through with the hard-stuff e.g. prosecutions, fines
- One-on-one contact is critical in some communities

The importance of the experience of hearing and especially seeing live kiwi
Another important document that is guiding the actions of the WKS team is the Northland Brown Kiwi Taxon Plan ([click for link to Northland Brown Kiwi Taxon Plan](#)). The taxon plan sets goals for Northland brown kiwi recovery and describes in detail the management and research actions required to achieve and maintain these goals. The WKS has a significant responsibility in working with individuals and organisations to reach the taxon plan goals.

1.0.1 DOC restructure

The Department of Conservation has been through a significant restructure over the past several years, with the new structure being in place from 2nd September 2013. Part of the change has included the Department having a new strategic direction, which is very focused on working with others to achieve conservation. This has involved our rangers working more closely with community groups, iwi, and other agencies, to find ways to get more conservation outcomes together.

The restructure has also resulted in fewer rangers in the Whangarei office, which has meant fewer staff working in the Whangarei Kiwi Sanctuary. The focus is now moving towards expanding on the Dog Campaign, and finding ways to still deliver on the objectives of the kiwi sanctuary, including working with others.

1.1 Objective

The objective of this document is to provide a summary report on all aspects of the WKS operations for the 2013-2014 year (June 1 2013 – May 31 2014).



2.0 Dog Campaign

The Dog Campaign was officially launched, along with the Northland Brown Kiwi Taxon Plan, at a celebration event in September 2011.

The goal of the dogs and kiwi plan is that 'dogs no longer pose a significant threat to the growth of Northland brown kiwi populations in Whangarei district. Kiwi flourish alongside people and controlled dogs' (Campbell, 2011: p3). Results from the research conducted in developing the plan strongly suggest an overall two-pronged approach will be most effective. This means:

1. targeting a more general public audience within Northland, and;
2. targeting specific audiences, whether these are individual communities/groups of interest or localities.

2.1 Increasing General Public Awareness

2.1.2 Dog Signage

Three examples of dog signage are now used.

1. Large roadside banners: Northland now has five large roadside banners installed with a further two still to be erected. This has been a learning curve to get such signage installed. Large signs are exponentially more time consuming to put in place than the smaller corflute signs with Resource Consent costs and NZTA approval (adjoining State Highways). The added benefit is a larger target audience. Feedback from the community has been hugely supportive of highlighting the issue dogs are posing to kiwi. A few significant storms have also damaged the canvas which has meant adjustments had to be made.

2. Mount Manaia has high public use. Increasing public use has also meant lots of observations from the public that people are still taking dogs into the reserve. The decision was made that signage needed to be more clear but also tie in with a positive message. The design has a positive kiwi message and also gives clear reasons towards why dogs are not allowed in reserves such as Mt Manaia Scenic Reserve.

3. In partnership with Rayonair there has been some improvement made towards reducing the threat dogs are having in forest managed by Rayonair. Two sites had been selected which had no signage but kiwi present. The production headquarter had a large sign installed which request dogs to be kept on a lead. In the Tutukaka area the signage was also installed with the no dog message.



Figure 1. Dogs kill kiwi message in Te Reo Maori



Figure 2. Sign on roadside

2.1.3 Northland brown kiwi distribution mapping

Northland has had kiwi distribution maps for a long time. Pete Graham has worked with the help of other kiwi practitioners on updating this resource. These maps have shown to be a valuable tool not only for community groups but also councils. Council planners use the map as a guide to applying no dog and cat subdivisions in kiwi zones particularly in areas mapped as having a high density of kiwi.

Estimated distribution of Northland brown kiwi (2014)

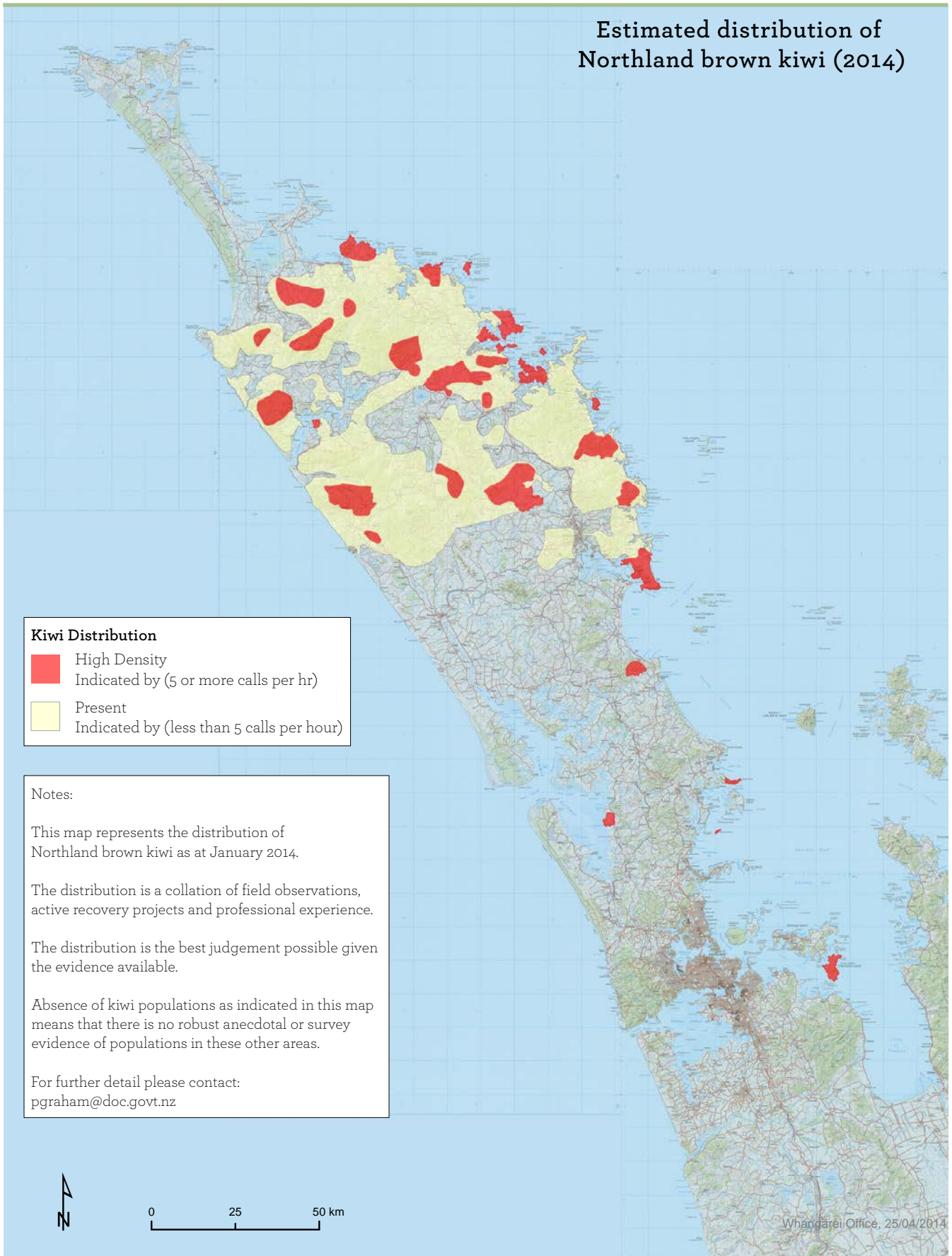


Figure 3. Kiwi distribution map

2.2 Targeting Specific Audiences

2.2.1 Landowners and residents living in and around kiwi areas

There are currently 13 birds that are being monitored for advocacy purposes. Eight are spread over three of the WKS study block reserves (Hodges, Rarewarewa and Riponui) and the rest of the birds are monitored on private land. They are relatively easy to access and their territories occupy different habitats e.g. bush, farmland, pine, bush/farm edges. The purpose of these birds is to raise general kiwi awareness and to get landowners, neighbours and communities aware of the kiwi and dog problem. The WKS team try to use every biometrics handling, BNZ Operation Nest Egg collection or kiwi release as an advocacy opportunity to talk about the threat of dogs to kiwi as well as providing general kiwi information.

People who have been taken out into the field to see kiwi include local land and home owners, their friends and family, staff working on local farms, school classes, competition winners, council planners and corporate sponsors.

A record of visits to the advocacy birds can be found at DOCDM-288512 under the 'kiwi awareness visitors' tab.

2.2.2 Kiwi aversion training

Hunters and farmers with dogs in kiwi areas remain the main target group for kiwi aversion training. This is because these dogs are required to be in kiwi areas as part of their job. Although some pet dogs are put through kiwi aversion training, the very clear message given to the owners is that the best protection for kiwi is to never allow their dog to encounter a kiwi, and to never rely on kiwi aversion training to stop their dog killing a kiwi.

A total of 255 dogs underwent kiwi aversion training by Pete Graham in the 2013-2014 period. Pete Graham ran kiwi aversion training days throughout the Northland region including, on farms in the kiwi study site area, kiwi restoration areas at Mataia and Marunui, Waimate North and Puhoi plus the regular trainings done at Barge Park in Whangarei.

All dog owners were told on the day about the limitations of the method, dog owner responsibility and kiwi habitats and behaviour, thus increasing dog owner knowledge and awareness of kiwi. There are currently six certified kiwi aversion trainers in Northland, three within the Department and three external operators.

2.2.3 School visits

Increasing kiwi awareness amongst school children who live in kiwi zones is carried out when opportunities arise for the children to see a kiwi. Motatau Primary, Whangarei Intermediate and Purua Primary have each been out in the field to see kiwi with a WKS ranger.

The WKS team attended the Whangaruru Cultural Festival at Whangaruru with close to a dozen rural schools (most of the schools are located in or near kiwi zones). Otaika Primary School, Raurimu Primary School and Hurapaki School received kiwi presentations from the WKS staff.

2.3 Enforcement

The WKS team works closely with Environmental Northland Limited (ENL) and utilises them to carry out the official enforcement for wandering dogs.

There has been a noticeable decrease in the number of dogs seen wandering in the study block area. There are still occasions where dogs are found or we have heard from locals that particular dogs have been seen wandering, but these are becoming more isolated incidents rather than the norm as it once was. Many of the locals are also responding directly with ENL to sort any dog that is not under control.

The WKS team visit properties themselves when they hear reports of a dog wandering, and the fact that people in kiwi areas are calling DOC indicates that the dog campaign in this area is working. We encourage the locals to carry out their own policing of wandering dogs however we will readily assist in difficult circumstances.

There has only been one incident which caused significant concern. This was a dog picked up while trapping at Motatau by Paul Macdonald. This dog had gone wild and had been believed to be present in the Motatau forest for a couple of months. On the positive there have been numerous landowners that reacted swiftly and dealt with wandering dogs. In most of these cases the origin of the dogs was not known so they were captured using live capture dog cages provided by either DOC or ENL .

The wandering dog database can be viewed at [DOCDM-277586](#).

3.0 Encouraging Community Kiwi Initiatives

The Whangarei Kiwi Team has continued to offer assistance to the two new translocations at Marunui, on the south side of the Brynderwyns, and at Mataia, a large farm located on the Kaipara Harbour.

Both groups have members that have invested the time and energy (and in most cases skin) to become accredited kiwi handlers, and expert radio trackers. It was been great to see the speed at which these people have learnt the skills required. The projects are significant because not only are they the first community driven Northland brown kiwi translocations but also a milestone for Northland brown kiwi to reclaim areas where they have been locally extinct for a number of decades. The two community groups have been championing the dog message and have given kiwi a good platform for positive media messages.

3.1 Northland Kiwi Forum

The Northland Kiwi Forum (NKF) has continued its role to provide a support network and representation for 40+ landowner and community groups that are carrying out kiwi protection work for Northland brown kiwi. The NKF is administered by the Northland Regional Kiwi Coordinator whose role is to provide support, advice and source information upon request for members. Information of interest is also circulated to Forum members via email and a quarterly NKF newsletter has been developed this year to provide another medium to communicate interesting kiwi news.

The Northland Kiwi Forum working group (NKFWG) which has representatives from councils, captive institutions, community representatives from northern, eastern, southern and western areas, Kiwi for kiwi, Kiwi Recovery Group, NZ Landcare Trust, forestry, DOC area offices and Iwi networkers, meet four times a year to discuss kiwi issues and work to guide kiwi recovery in relation to the Northland Brown Kiwi Taxon Plan. The WKS is represented on the NKFWG by Rolf Fuchs and Pete Graham.

An important development for the NKFWG has been to analyse the Northland brown kiwi funding bid applications for the 2014 Kiwi for kiwi funding round and provide funding recommendations to the Kiwi Recovery Group.

3.2 Tanekaha Landcare Group

The Tanekaha Landcare Group protects 700ha area of private land that is encompassed by Heaton and Hukurenui Roads. Todd Hamilton with funding from the Northland Regional Council has been instrumental in setting up a stoat trapping programme and installing an extensive baitstation network which used Brodifacoum for an initial control pulse. Edwin Smith has embraced the trapping and tackled the project with enthusiasm.

Monitoring for the existing male has continued by WKS staff and the bird's presence has been important in motivating and educating the landowners in that area. Tanekaha are working towards finalising a translocation for this coming financial year.

3.3 Marunui Conservation Ltd - Brynderwyns

Marunui Conservation Limited was set up in 1987 by renowned ecologist Teddy Goldsmith and his wife Katherine, with 423 hectares of indigenous forest now protected by the QEII National Trust Open Space Covenant. Marunui shareholders have worked long and hard to achieve a high level of pest control.

The kiwi released in the Brynderwyns at Marunui last year from Motuora Island and Matakoho/Limestone Island have largely settled down and formed pair bonds, with 3 nests in the later part of the year. The Brynderwyns kiwi population has been given a huge boost by separate releases in April and May 2014, 22 birds in all, bringing the total number of kiwi, including chicks, to 39. Two release events were held and were targeted to key stakeholders: iwi, neighbours, volunteers, dog owners, and sponsors, and were attended by around 150 people.

Celia Walker, Marunui's kiwi manager and an approved handler, has ensured that all the birds have been regularly monitored and undergone transmitter changes and health checks. Some of the newly released birds have been doing a great advocacy job in the wider region, with two being retrieved from several kilometres away after venturing through reserves and scrub, with one managing to cross a major road. In addition to intensive predator trapping within Marunui assisted by volunteers, trap lines have been laid on surrounding private properties. This 'Ring of Steel' project, funded by the DOC administered Biodiversity Condition Fund and managed by Marunui's John Hawley, helps reduce pest invasion while making it safer for any birds dispersing more widely.

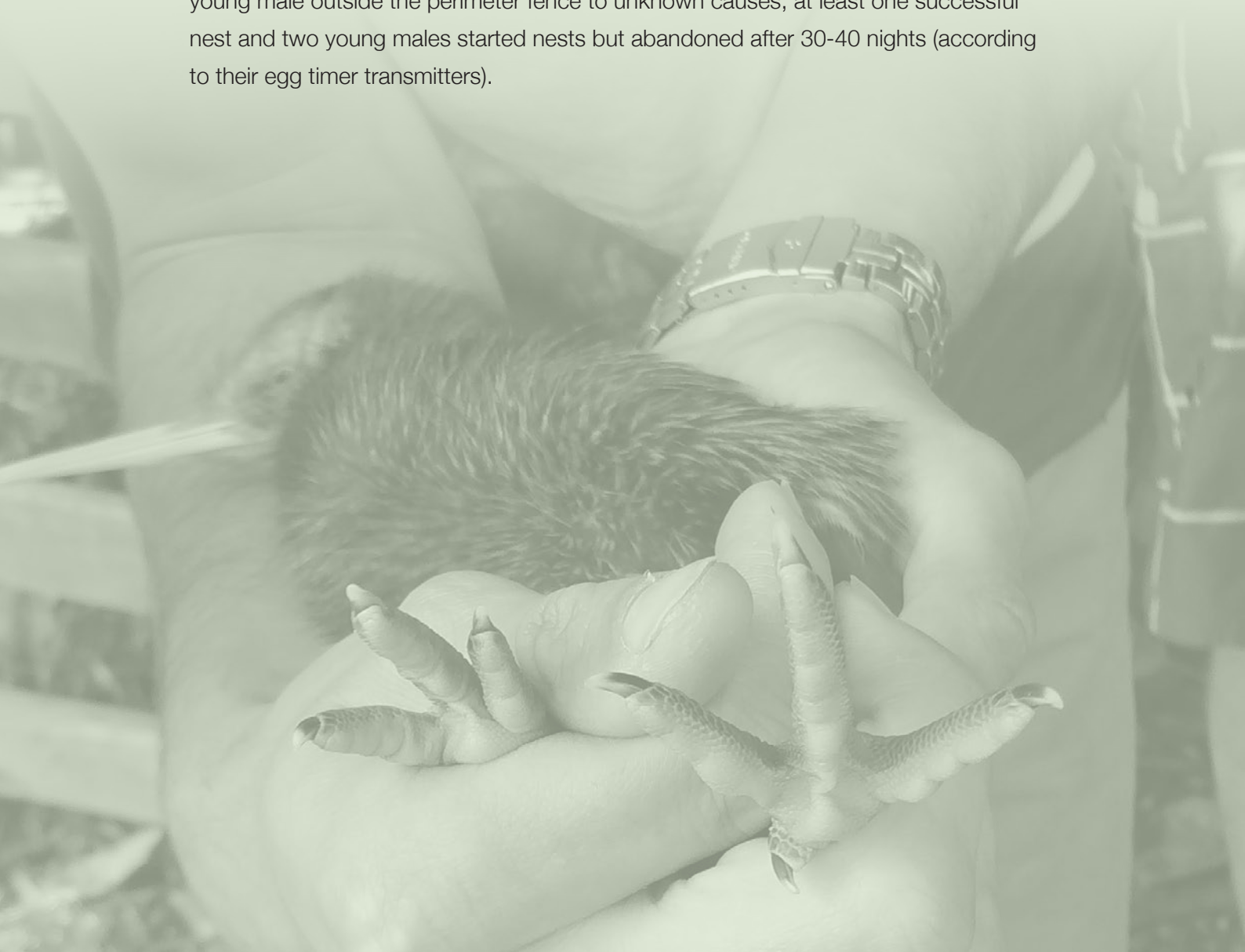
The releases and the project have increased awareness of the presence of kiwi in the area. In addition Marunui has had 7 articles published in newspapers, mostly local or regional, and one in the NZ Herald during Save the Kiwi week in October 2013.

3.4 Mataia Restoration Project – Glorit

The Mataia Restoration Project was established by Gill and Kevin Adshead who own a 1300 hectare working farm on the Kaipara Harbour near Helensville. The 400 hectares of restored native coastal forest on the property has been retired from farming and is the core area. Gill and Kevin know that the birds will move in and out of this area and the goal is to increase the area under protection beyond their 1300 hectare boundaries to include up to 10,000ha of neighbouring properties.

Mataia is continuing to work towards having the capacity to monitor and handle the radio tagged kiwi allowed in their permit and Jo Ritchie, Gil and Kevin Adshead have joined Julie Alech and Shane Hood as certified kiwi handlers for the project. During the span of this report, 21 birds were released at Mataia. In late autumn 2013, eight birds were released and the remaining 13 birds were released in May 2014, bringing the total for the project to 34 birds, fast closing in on the planned 40 founding birds for the project.

Monitoring of last seasons' released birds has shown that most of the birds have settled in to a predicable area within the project boundaries, one birds transmitter signal is missing (after checks from many highpoints and one aircraft search), one death of a young male outside the perimeter fence to unknown causes, at least one successful nest and two young males started nests but abandoned after 30-40 nights (according to their egg timer transmitters).



4.0 Predator Control

Northland brown kiwi recovery at WKS is based on controlling mustelid (and cats) to increase kiwi chick survival, and controlling dogs to increase adult survival. The trapping regime in the Sanctuary consists of an intensive trapping frequency over summer and a less intensive regime over winter. The frequency over the summer period between November and February is fortnightly and salted rabbit bait is used during this active period for stoats. The regime outside of the peak period varies from 3 – 6 week checks. The winter period is used for trap and track maintenance but also for the controlled pulses of 1080 poison in bait stations.

Month	Trap checking frequency 2013/2014
December/January/February	2 weekly
March and November	3 weekly
April/May September/October	4 weekly
June/July/August	6 weekly

Table 1. WKS trap checking frequency

4.1 Mustelid and Cat Control

Mustelid traps are set around reserve edges, along selected ridges, stream edges and roadsides consisting of approximately 360 double set DOC 200, 20 DOC 250 and 130 Steve Allan Modified Conibear traps (SA cat traps) to target cats. The bait used is mostly salted rabbit and some salted possum over the summer months. Over winter eggs are used instead as the meat deteriorates very quickly in these months. In the SA cat traps possum/rabbit mince was used and a peanut butter/cat biscuit mix used over winter.

A total of 252 target species were caught during 2013-2014, which is fairly consistent from the previous year of 261. One juvenile ferret was caught in the buffer to the Purua area. As a precaution the frequency of checks was increased in the area. No other ferrets have been caught since.

A special thank you for the hard work carried out by these trappers outside of the WKS team; Clayton McInnes, Victor Slack, Michael Martin, Miriam Ritchie and Daryn Johnston.

	Cats	Stoats	Weasels	Ferrets	TOTAL
Hodges Bush	4	0	0	0	4
Heads Roadside/Pikes	3	12	5	0	20
Lovells	2	0	0	0	2
Manaia/Aubrey	2	1	3	0	6
Marlow	1	6	9	0	16
Masons/Allans/Goings	5	1	0	0	6
Motatau	4	0	9	0	13
Pataua	2	2	1	0	5
Purua	5	4	1	0	10
Rarewarewa	9	1	0	0	10
Riponui/Goddards	12	4	0	0	16
Study block roadsides	8	13	29	1	51
Taranui Road	1	2	2	0	5
Whangaruru	1	24	0	0	25
Te Whara/Bream Head	1	3	2	0	6
Paired Trial Assorted	2	9	11	0	22
Paired trial gn oil	0	0	2	0	0
YEAR TO DATE TOTAL	64	82	77	1	224

Table 2. Predator catch totals

4.2 1080 pulse in baitstations

In 2009 and 2010 WKS carried out 1080 trials using baitstations, and measured the effect this had on kiwi chick survival. The result for both sites showed significant improvements to kiwi chicks surviving to 1000gm in weight. This is mainly attributed to the mustelid and cats affected by secondary poisoning. With added benefit of reduced non target catches of rats and possums in mustelid and cat traps. Last winter a pulse of 1080 was done in Hodges Bush and Purua Scenic Reserve.

It was great to receive permission from adjoining farmers and landowners to extend the core areas onto private land increasing the overall success of the operation with approximately 250 ha treated. The methodology to date has been a knockdown of possums using cyanide prior to the pre-feed of non toxic bait and toxic bait placement. Toxic bait is removed after a week and waterways and pastoral areas are checked for possum carcasses.

4.3 Community Kiwi Protection

Every year the list of groups engaged with mustelid and cat trapping to protect kiwi grows. It is really encouraging to see the high level of professionalism and commitment involved from these groups. Another great benefit is the large amount of information sharing and networking achieved.

Kiwi Coast has been one of the great initiatives which has been encouraging groups to establish trapping in kiwi corridors. It is great to see a high level of support and networking in order to achieve a high standard of trapping.



5.0 Sanctuary Monitoring

5.1 Kiwi Monitoring

Todd Hamilton from Whangarei Heads Landcare Forum (WHLF), Bream Head Conservation Trust (BHCT) and Mike Camm from Tutukakaka Landcare Coalition (TLC) continue to monitor kiwi as part of their groups work in protecting kiwi. Todd is monitoring six breeding males in Rarewarewa and Riponui Reserves and eleven kiwi in the Whangarei Heads area. Pete and Cathy Mitchell monitor four kiwi at Bream Head and Mike Camm is monitoring one sub adult male in Ngunguru/Tutukaka.

Bernie Buhler is monitoring three adult kiwi on Matakohe/Limestone Island kiwi crèche. The WKS work with these groups to help them achieve their goals and the ability of these groups to monitor kiwi is testament to the hard work they have put in to get to this stage of their kiwi protection programmes.

5.2 Kiwi Dog Work

Pete Graham is the handler of the Whangarei sanctuary's only fully certified kiwi dog, Rua. Rua, a Hungarian Vizsla, has been working with Pete and the kiwi team since September 2007, and was also fully certified for pateke in September 2009. Although Rua is now well into the twilight of his career, he is still proving fit enough to be useful in assisting to pinpoint kiwi locations for capture especially in the tight scratchy habitat in both of the new release sites.

This year Steve McManus from DOC Bay of Islands also used his heading dog Flo with great success on Motuora island during our last Motuora collection. Pete has also acquired a new Hungarian Vizsla pup called Tama and it is his intention to train him for kiwi work as well.

5.3 Kiwi Listening 2013

Kiwi listening was carried out from 28 May – 17 June 2013, with a back-up window 26 June – 16 July 2013. After the relatively early listening period for 2012, these dates were similar to previous years.

Trends in call count data have been collected since 1995 at the 24 original listening stations in the Northern, Eastern, Western and Southern survey areas. The results were similar to that observed in 2012; with a very slight upward trend for the Southern cluster, and a slight downward trend for the remaining three clusters (Chart 1).

The Southern, Eastern and Northern clusters have continued to show relative stability over time, albeit with fluctuations. Unfortunately the Western cluster has had an overall downward trend since listening began, and as of yet kiwi call count monitoring has not detected any sign of population recovery.

Results in the Whangarei area have been positive for 2013. Bream Head/Taurikura recorded increases in their mean call count rates further to the previous year's gains, while the Whangarei Heads (Manaia-Nook) experienced a slight decrease.

The remaining cluster (Kauri Mountain) recorded a very similar result to the previous year. Tutukaka did not have a complete data set to establish robust results.

The Motatau-Marlow cluster recorded an increase from the previous year. Calls in the Purua-Rarewarewa cluster increased, and are at the highest recorded for this cluster. These positive results are likely to reflect growing kiwi numbers in the areas thanks to the tremendous effort of the local landowners and community in protecting them.

The data for the 2013 listening period was sent in faster and was more thorough and clear than previous years. This made reporting an easier exercise than in the past. The complete kiwi listening report can be found on the DOC internet page ([click here for link to Kiwi Listening page](#)).

5.4 Cause of Death

The 2013-14 season has had fewer dead kiwi recovered or handed into the Department. This will be largely due to the greatly reduced radio tagged birds being monitored by WKS.

Notable deaths include three young kiwi drowning; one in a farm trough, one in a fish pond and one in a swimming pool. A 1890g bird translocated from Motuora was killed by a stoat (confirmed via DNA analysis) one month after release into the Marunui block. This kill was unusual in that historically kiwi that have reached 1200g are much less likely to be the victim of stoat attacks, so the death of a kiwi approaching 1900g was a real concern.

The other deaths were three road kills all from the Whangarei Heads area. However, hopefully the efforts being put into kiwi advocacy by the community will resolve this issue in the area. Three birds in the last financial year have been handed with the likely cause of death being dogs.

6.0 BNZ Operation Nest Egg™

In the 2013-2014 nesting season 15 eggs were collected for BNZ Operation Nest, yielding 14 chicks. Special thanks to the Auckland Zoo Native Wildlife section and the Native Bird Recovery Centre for their hard work in incubating and raising chicks.

Site	Collected	Infertile / Rotten	Eggs Failed	Hatched
Hodges Bush	6	-	-	6
Rarewarewa	2	-	1	1
Riponui	4	-	-	4
Purua	3	-	-	3
Total	15	0	1	14

Table 3. BNZONE results for 2013-2014

6.1 Matakohe-Limestone Island BNZONE Crèche – Kiwi Search and Capture

This season 11 chicks were successfully hatched and transferred to the Matakohe Limestone Island crèche from Riponui/Rarewarewa by Todd Hamilton. This is part of the BNZONE programme, and is funded by Kiwis for kiwi.

Night spotlighting and kiwi dogs are used to recapture the sub adult kiwi for release when they reach in excess of 1200g.

Eight sub adult kiwi have been recaptured and released this season with three at Tutukaka, three at the Whangarei Heads and two on Bream Head (see table 4 on page 20).

Bernie Buhler is now well established as the island ranger on Matakohe Island. He is a great advocate with the large number of people that visit the island.

6.2 Motuora Island BNZONE Crèche – Kiwi Search and Capture

In June 2013, April 2014 and May 2014, 43 birds were transferred from Motuora Island and released at two new kiwi restoration sites south of Whangarei, Marunui in the Brynderwyns and Mataia on the Kaipara.

All 43 transferred birds were required to be monitored by the community groups concerned for at least six weeks to ensure the birds settled into their new homes.

Once again we would like to thank Ngati Hine whose generous foresight allowed us to collect the eggs to start this process, Ngati Manuhiri, Ngati Whatua, Te Uri o Hau and Ngatiwai for their ongoing support of the project, Motuora Restoration Society and in particular their island rangers Sian Potier and Toby Shanley for their unbelievable help during the capture trips, all the staff (including Flo the kiwi dog) and volunteers for their long hours and energy catching the birds and the Native section at Auckland Zoo for their great work providing the island with the newly hatched BNZONE chicks.

	04/ 05	05/ 06	06/ 07	07/ 08	08/ 09	09/ 10	10/ 11	11/ 12	12/ 13	13/ 14	TOTAL
Whangarei Heads	7	32	20	9	11	-	6	4	6	3	98
Tawharanui Open Sanctuary	-	-	17	25	4	-	-	-	-	-	46
Bream Head and the Nook	45	-	-	-	-	-	2	-	2	2	51
Hodges and Purua	5	2	-	-	-	1	-	3	-	-	9
Ngunguru	-	4	-	-	-	10	-	16	2	3	35
Riponui	-	-	-	-	-	-	-	12	-	-	12
Marunui	-	-	-	-	-	-	-	-	14	22	36
Mataia	-	-	-	-	-	-	-	-	14	21	34
TOTAL	57	36	37	34	15	11	8	35	38	51	321

Table 4. Kiwi release totals

7.0 Acknowledgements

The Whangarei Kiwi Sanctuary team would like to thank the many individuals and organisations for their involvement, support and effort to help protect kiwi in Northland.

A mention and thank you to Clea Gardiner for her dedication and complete commitment to the WKS over many years.

Gratitude in particular to Hilary Gardiner and Megan Topia, the Lovell family, Ngati Hine, Ngatiwai, Te Parawhau, Te Uri o Hau, Ngati Whatua o Kaipara, Ngati Manuhiri, the Motuora Restoration Society, Friends of Matakohe Limestone Island, Auckland Zoo Native Section and the Whangarei Native Bird Recovery centre for all their help, expertise and support for the BNZ Operation Nest Egg programme.

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