



# ***Kiwi Coast Annual Report 2015***

Prepared by Ngaire Tyson, Kiwi Coast Coordinator, July 2015.



## Contents

Executive Summary	3
Kiwi Coast Goals	4
Involvement of Groups and Projects in the Kiwi Coast	8
Strategic Implementation of the Kiwi Coast Project Plan	9
Skill Building Workshops and Courses	16
Wild Kiwi Experiences and Events	17
Monitoring: Results and Research	18
Northland Brown Kiwi Monitoring	19
Indicator Species Monitoring: Pateke	21
Student Research	22
Communications	23
Kiwi Coast Evaluation	27
Summary	27
References	28
Appendix 1	28
Appendix 2	30

## Executive Summary

This annual report outlines the key activities carried out by the Kiwi Coast during its second year of implementation from July 2014 – June 2015.

In line with the strategic objectives set out in the Project Plan, priority has continued to be given to reducing kiwi predators within the first focus area between Bream Head and Whananaki South. Once again, this involved the deployment of new traps, more time spent on trap servicing and holding events and workshops to engage people in caring for kiwi protection and better dog control.

The momentum of the Kiwi Coast has continued to grow with the number of community groups, projects, iwi/hapu, forestry companies, government agencies and organizations now involved in the Kiwi Coast increasing from 43 to 59. Additions include both new groups and projects getting underway, as well as further existing projects getting involved. A total of 78,425ha is now under active pest control management by groups and projects involved in the Kiwi Coast.

A total of 1,036 people attended Kiwi Coast supported events, workshops and 'Kiwi Experiences'. These people came together to celebrate kiwi as a taonga, build skills and deepen their understanding about how to help kiwi thrive.

The Kiwi Coast purchased an additional 509 predator traps for strategically located groups and projects. As well as reducing predators that threaten kiwi survival, the intent has also been to decrease gaps in the trapping network – especially in the first focus area. The result is that the kiwi populations of Whangarei Heads, Mt Tiger, Whanui and Tutukaka are now close to being linked by a continuous trapping network across a series of different projects.

Likewise, some of the inland Bay of Islands projects are working more closely together and also progressively closing gaps between trap lines. The Kiwi Coast provided extra predator traps to assist with these linkages.

However the success of the Kiwi Coast is not based on the number of participating groups alone, nor the number of traps on the ground. Underpinned by robust science, the Kiwi Coast Call Count Report for 2014 showed that where good management is in place, kiwi populations are enjoying a slow and steady increase. This is put into further perspective when compared with declining kiwi populations on Northland's west coast, and a national trend identified by the Kiwis for kiwi Trust in 2014 of a 2% decline per annum in kiwi populations nationwide. As the Kiwi Coast is in its infancy, it does not seek to claim these results as its own success, but rather seeks to ensure the upward trend continues.

Collation of animal pest control data across the Kiwi Coast also demonstrated the strength of a collaborative approach when attempting to reduce tenure-blind animal pests at a landscape scale. With a further 36,040 animal pests removed by groups and projects involved in the Kiwi Coast in 2014, popular phrases such as 'predator free' begin to become a lot more meaningful.

Year 2 also saw the first indicator species – pateke/brown teal – monitoring undertaken. This monitoring confirmed that like kiwi, pateke are also expanding on Northland's east coast where good management is in place. The participation of three Kiwi Coast groups allowed the Department of Conservation (DOC) led monitoring to explore new areas and confirm a new pateke site at Pataua.

The operation of the Kiwi Coast continues to be possible through both its partnership with the Reconnecting Northland programme and the unflagging determination of the people-on-the-ground working hard to ensure kiwi populations continue to slowly but steadily increase in eastern Northland.

## Kiwi Coast Goals

The Kiwi Coast is a collaborative initiative that links community-led conservation projects, iwi and hapu, interested landowners, farmers, forestry companies and agencies in the shared vision of increasing kiwi numbers, creating safe ecological corridors and improving the general biodiversity values of eastern Northland.

The goals of the Kiwi Coast are:

- To support the recovery of local kiwi populations along the east coast of Northland.
- To celebrate the presence of Northland brown kiwi in Northland as a taonga.
- To reduce pests that threaten kiwi.
- To facilitate the safe movement of kiwi and other native species throughout the Kiwi Coast.
- To encourage the restoration of the ecological health and integrity of kiwi habitats, including native forest, scrublands, streams, dune lands and wetlands.
- To encourage the natural return and spread of lost species such as kaka, kakariki and bellbird / korimako, some of which visit, but no longer reside in the area.
- To encourage people to engage in kaitiakitanga / stewardship to protect and nurture Northland's biodiversity for future generations.

Photo: Kiwi release at McLeods Bay led by Backyard Kiwi



Photo: Bernie Buhler (Matakohe-Limestone Island Ranger) with Blossom, Taheke 'Meet a Kiwi' event



## Reconnecting Northland

The Kiwi Coast is proud to be the founding pilot project for Reconnecting Northland.

The Kiwi Coast's partnership with Reconnecting Northland has gone from strength to strength as the two initiatives become more established and continue to work together to undertake collaborative conservation at a landscape scale.

The ongoing development of the Reconnecting Northland Strategic Plan over 2014/15 provided an opportunity for the two initiatives to explore their partnership in greater depth. This also prompted a review of the Kiwi Coast Project Plan in order to better demonstrate the strong alignment that exists and update the plan to incorporate the revised strategic thinking of Reconnecting Northland. In turn, Reconnecting Northland now recognizes the Kiwi Coast as one of its 'precedent setting projects'.

The Kiwi Coast provided quarterly progress reports to Reconnecting Northland Steering Group members and Funders, and the Kiwi Coast Coordinator also attended all Steering Group meetings to provide further information and respond to queries. Dr John Craig is also now both on the Kiwi Coast Think Tank and the Reconnecting Northland Steering Group which allows for greater cohesiveness and coordination between the two initiatives.

The support of the Reconnecting Northland delivery partners – WWF-New Zealand and NZ Landcare Trust is much appreciated. Likewise, the Tindall Foundation and Foundation North (formerly ASB Community Trust) are gratefully acknowledged as primary sources of funding for the Kiwi Coast through the Reconnecting Northland programme.



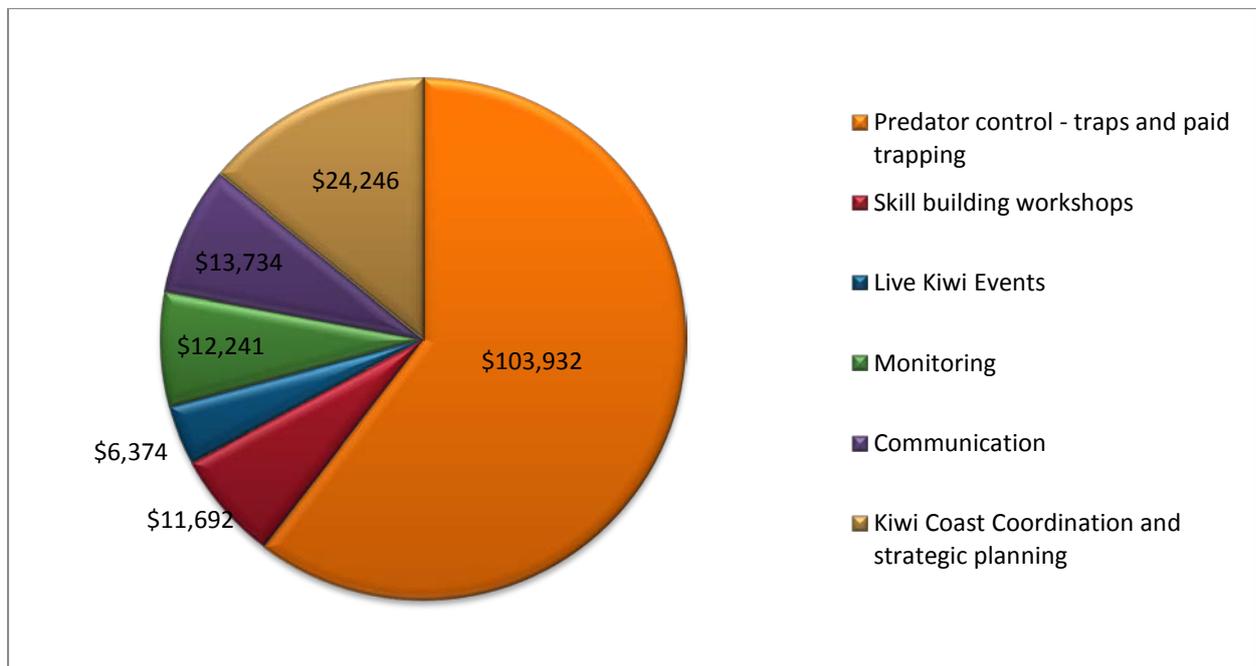
## Finances and expenditure

In the 2014/15 financial year, Reconnecting Northland allocated \$137,438 to the Kiwi Coast. Further direct funding came from forestry companies (\$5000) and an additional \$16,869 was carried forward from the 2013/14 financial year yielding a total of \$159,307 for implementation.

A part-time Kiwi Coast Coordinator was also resourced separately from core Reconnecting Northland funds.

Figure 1 shows how Kiwi Coast funds were spent between July 1, 2014 – June 30, 2015.

In line with the Kiwi Coast Project Plan, the majority (60%) of Year 2 expenditure was spent on purchasing an additional 509 predator traps and resourcing professional trappers to service traps for groups and projects at strategic sites.



**Figure 1** - Kiwi Coast Expenditure July 1, 2014 – June 30, 2015

The second largest portion of funding (14%) was spent on coordinating the Kiwi Coast and strategic planning. Resourcing a part-time Kiwi Coast coordinator and engaging professional assistance to begin the review of the 2013 Kiwi Coast Project Plan is included. The considerable task of linking, supporting and communicating with all the projects, groups and entities involved in the Kiwi Coast is an essential function of the Kiwi Coast.

Eight percent of the Kiwi Coast budget was spent on communication. This included engaging a range of professionals to assist with updating the Kiwi Coast website, produce monthly electronic newsletters, social media networking and graphic design work for posters, flyers and customized Kiwi Coast signage.

Skill building workshops accounted for 7% of Kiwi Coast expenditure. This included the traditional capacity building workshop such as 'Local Trapper Workshops' and also First Aid Courses and Controlled Substance License Courses to provide groups and projects with certification.

Monitoring also accounted for 7% of the budget. This included engaging professional assistance to analyse kiwi call count data, participation in the pateke flock count, and resourcing NorthTec Conservation Management students to carry out summer research to investigate the use of acoustic monitors for bird counts.

The smallest proportion of expenditure - just 4% - went to supporting kiwi events. This included kiwi releases and experiences, supporting the Ngati Hine Kiwi Hui and participating in the National Kiwi Hui. As all of these activities were collaborative, involving multiple projects and entities, this represents only a small fraction of the true value of these powerfully engaging events.

\$7087 was carried forward to the 2015/16 financial year in order to continue implementation of the Kiwi Coast while Reconnecting Northland funding processes are carried out prior to the receipt of the 2015/16 funds.

A detailed financial summary is presented in Appendix 1.

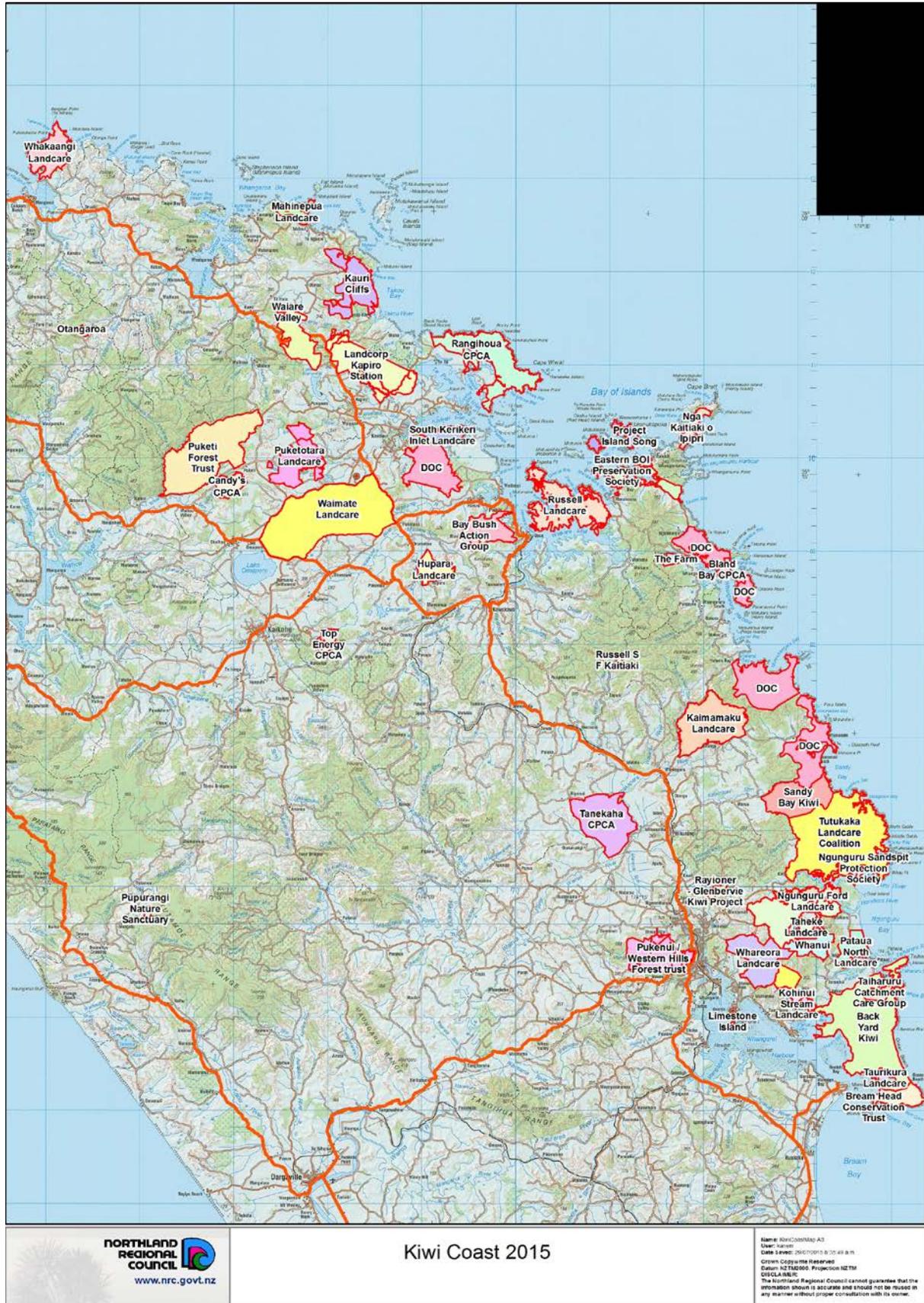
Photo: *Hou the kiwi is released at Tutukaka and heads for the trees!*



## Involvement of Groups and Projects in the Kiwi Coast

A further 16 projects, groups and organisations became involved in the Kiwi Coast this year, increasing the total from 43 to 59. This included Rayonier-Matariki Forests, Northland Forest Managers, two new Landcare projects that got underway and the first hapu led project - Nga Kaitiaki o Ipiri from Rawhiti.

Map 1 - Projects Involved in the Kiwi Coast as at June 30, 2015



## **Strategic Implementation of the Kiwi Coast Project Plan**

Implementation of the Kiwi Coast is carried out in accordance with the Kiwi Coast Project Plan (November, 2013).

A review of the Kiwi Coast Project Plan has been initiated. The existing project plan was prepared in August 2013 with the primary intention of outlining the key Kiwi Coast aims and objectives to Reconnecting Northland in order to be accepted as the first pilot project. After two years of implementation a more detailed and sophisticated document is required that better explains the strategic direction of the Kiwi Coast, and how the goals of the Kiwi Coast align with the recently completed Strategic Plan of Reconnecting Northland.

The following section reports on the main actions implemented this year in relation to the three objectives identified in the current project plan.

1. Link the kiwi strongholds of Whangarei Heads and Tutukaka
2. Connect community-led conservation projects in the Bay of Islands
3. Encourage landowner participation in conservation from Marua – Russell Forest

### **Implementation of Objective 1: Link the kiwi strongholds of Whangarei Heads and Tutukaka**

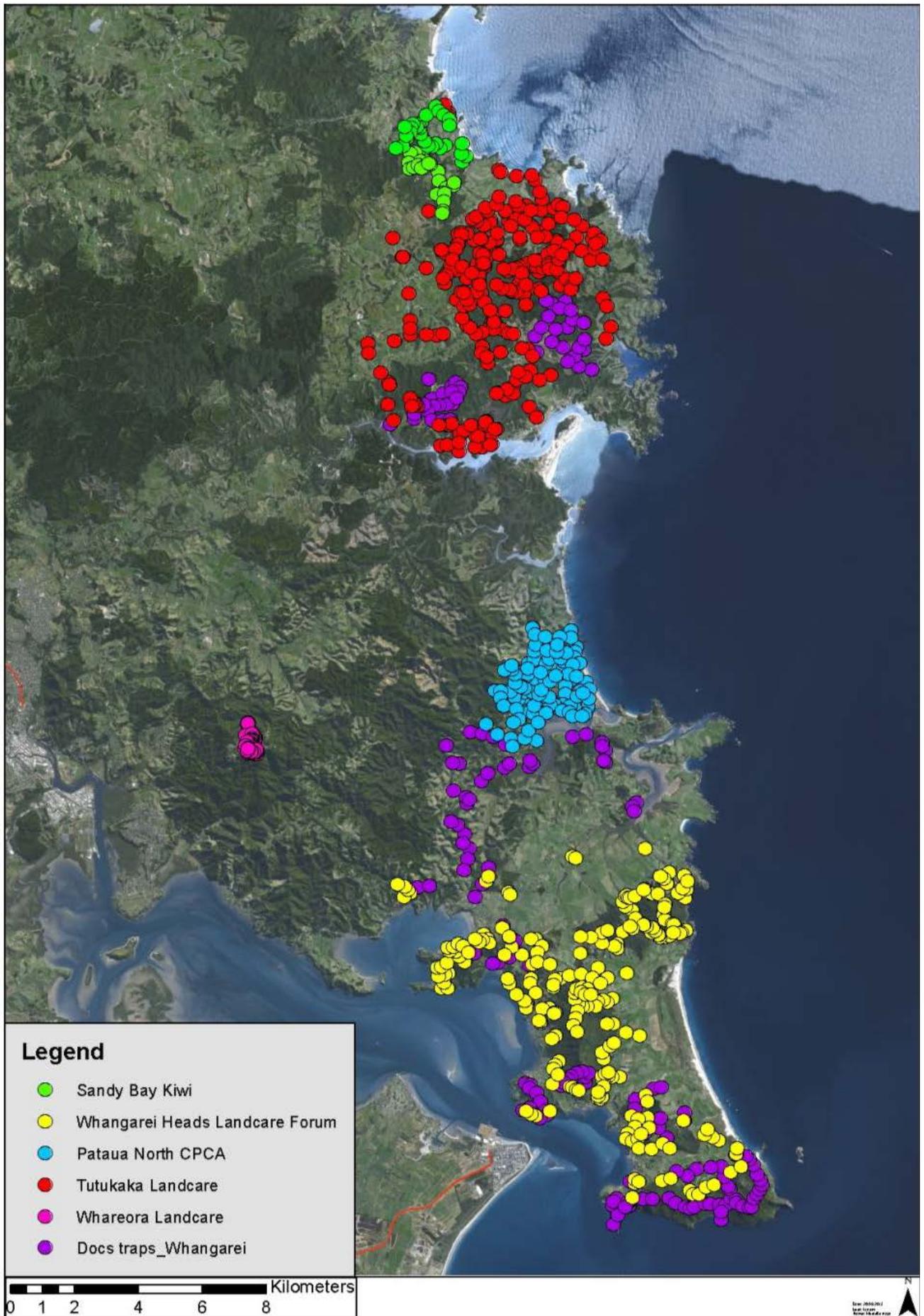
Top priority was given to reducing the main kiwi predators (feral cats and mustelids) within this initial focus area. New predator traps were deployed and more professional trapper time contracted to service traps. For existing projects this has ensured the expansion and/or intensification of predator trapping.

Map 2 shows all the known predator traps between Bream Head and Sandy Bay prior to the start of the Kiwi Coast. Map 3 shows the same area updated with new traps added to the trapping network over the subsequent two years of Kiwi Coast implementation.

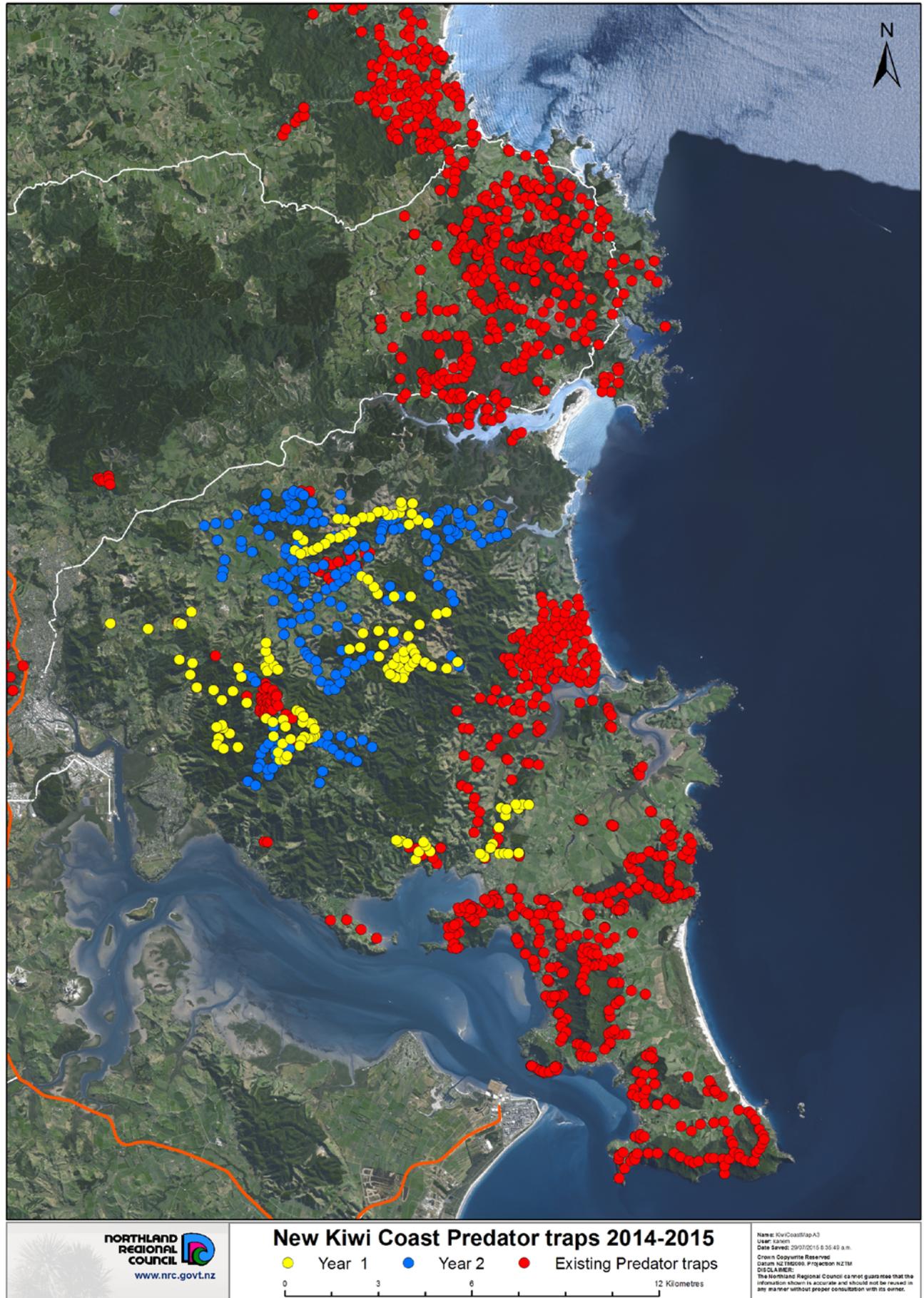
Map 3 depicts one of the key achievements of this year's work – the significant expansion of trap lines by the Taheke, Whareora, Whanui and Owhiwa projects which has resulted in considerable infilling of the gap between Whangarei Heads and Tutukaka. These four projects are now back-to-back as shown in Map 1. The physical linking of trap lines to establish the initial threads of a continuous trapping network across multiple projects is tantalizingly close.

Implementation of Objective 1 is summarised in Table 1.

Map 2 - Predator Traps from Bream Head to Sandy Bay (Northland Regional Council, 2013)



Map 3 - Updated 'Map of Steel' showing new predator traps added between Whangarei Heads and Tutukaka



**Table 1 - Objective 1 Action Summary: Link the kiwi strongholds of Whangarei Heads and Tutukaka**

Project Plan Actions	Implementation
<p>Supporting existing community-led conservation projects to achieve their maximum potential.</p>	<p>Predator trapping sustained at all projects, including Whangarei Heads and Tutukaka strongholds.</p> <p>Kiwi Coast submission and presentation made on Northland Regional Council (NRC) Long Term Plan to support a targeted pest control rate for kiwi recovery and plant pest control for the wider Whangarei Heads area. This has been approved and is the first targeted rate for kiwi recovery in New Zealand.</p>
<p>Encouraging the formation of new community-led conservation projects.</p>	<p>Three new projects underway:</p> <ul style="list-style-type: none"> <li>• Manaia Landcare - after successful community-led 1080 operation involving over 70 people.</li> <li>• Formation of Reotahi Landcare.</li> <li>• Formation of the Ngunguru Ford Landcare Group.</li> </ul> <p>Hancock Forest Management has taken on a leadership role for the Whanui Project.</p>
<p>Establishing predator trapping where kiwi are present and currently unmanaged and where there are willing landholders.</p>  <p>Photo: Stoat caught March 2015 by Tutukaka Coalition trapper Clayton McInnes</p>	<p>Predator traps provided to Taheke Landcare, Whareora Landcare, Owhiwa Landcare, and Manaia Landcare to infill gaps and expand the trapping network in the first focus area between Bream Head and Whananaki South.</p> <p>Rayonier-Matariki staff established their initial 188ha trapping area in the Glenbervie Forest, with professional trapper mentoring from the Kiwi Coast. Staff are now successfully trapping predators, including ferrets which are becoming a rare occurrence in managed areas along the Kiwi Coast.</p> <p>Northland Forest Managers became involved in the Kiwi Coast, and supported trapping in the Waikaraka Forest, filling a strategic 100ha gap in the trapping network.</p> <p>Significant expansion of Taheke Landcare trap network from around 400ha to approximately 2634ha.</p> <p>Significant expansion and increase in Owhiwa Landcare activity with new trap lines deployed in the upper Rukuwai Stream Valley and professional trappers engaged for the first time to compliment landowner efforts.</p>

*Providing opportunities for private landowner and commercial engagement, learning, networking and capacity building.*



*Photo: Accredited Kiwi Handler Todd Hamilton shows a wild kiwi to students at Whangarei Heads Primary School, March 2015*

‘Meet a Kiwi’ event held at Taheke attended by 87 people.

Kiwi taken to Glenbervie and Whangarei Heads Primary Schools as a ‘show and tell’ experience for students, teachers and the principal.

Tutukaka kiwi release attended by 105 people.

Whangarei Heads kiwi release at McLeods Bay was attended by a record 442 people, with an additional 40 people at the early morning blessing.

The Kiwi Coast collaborated with the Kiwis for kiwi Trust to have a kiwi themed tent at the two day Whangarei Summer Show.

Kiwi Call Count training organised with DOC Whangarei staff. Twenty keen new volunteers came out to the Whangarei Kiwi Sanctuary to learn this important monitoring method and were then able to participate in the 2015 Kiwi Call Count Survey.

*Building predator trapping capacity to enable local operators to successfully protect kiwi and other significant biodiversity.*

Trapline establishment and trapper training provided to Rayonier-Matariki staff.

Trapper auditing undertaken for Taheke Landcare at their request.

*Working with local agencies to enforce dog control rules and encourage responsible dog ownership.*

Participation in Northland Kiwi Forum Working Group work concerning management of dogs in kiwi areas and with Whangarei District Council regarding dog-free subdivisions within kiwi corridors.

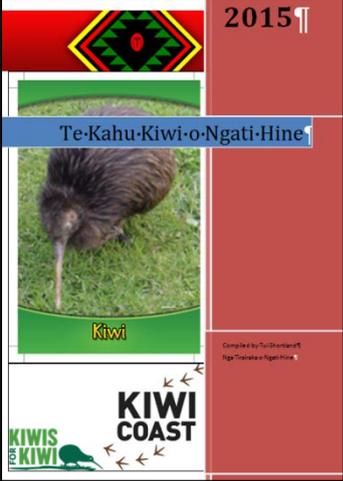
Project customized Kiwi Coast signs with dog control messaging created for Bream Head Conservation Trust, Owhiwa Landcare and Whareora Landcare.

Standard Kiwi Coast signs provided to landowners at Kauri Mountain and Wellingtons Bay.

**Table 2 - Objective 2 Action Summary: Connect Community-led Conservation Projects in the Bay of Islands**

Project Plan Actions	Implementation
<p>Supporting existing community-led conservation projects to achieve their maximum potential</p>	<p>Financial support provided to the Waimate Nth Landcare Group to enable essential predator trapping in this high kiwi area to continue over the summer kiwi and stoat breeding period.</p> <p>Puketotara Landcare resourced to expand trap lines to progress linking with surrounding projects.</p>
<p>Encouraging and supporting the formation of new community-led conservation projects in the area.</p>	<p>Mangeparerua Stream Landcare Group formed, providing a link from Puketotara Landcare to Kerikeri Inlet projects.</p> <p>Initial meetings and stakeholder site visit held to progress formation of a new community/iwi led project for Waitangi/Haruru Falls area.</p>
<p>Providing opportunities for networking and capacity building such as Local Trapper Workshops.</p>	<p>South Kerikeri Inlet Landcare ‘Local Trapping Workshop’ held in July with support from NRC Biosecurity staff.</p> <p>Bay of Islands I&amp;P show: collaborative tent involving Kiwi Coast, Waimate Nth Landcare and Kauri Dieback, next door to Puketi Forest Trust tent. A great day of networking, advocacy and engaging new landowners.</p> <p>Assistance provided to progress ideas of forming a Mid North Predator Alliance.</p>
<p>Working with local agencies to enforce dog control rules and encourage responsible dog ownership.</p> 	<p>Customized ‘Kiwi Live Here ’ signs with dog control messaging created for Hupara, Russell and Puketotara Landcare groups.</p> <p>Kiwi Coast participation in the Northland Kiwi Forum Working Group discussions about dog control advocacy.</p>

**Table 3 - Objective 3 Action Summary: Encourage landowner participation in conservation from Marua – Russell Forest**

Project Plan Actions	Implementation
<p>Exploring the relevance of the Kiwi Coast to iwi and hapu led conservation projects.</p> 	<p>Kiwi Coast participated in the Ngati Hine Kiwi Hui aimed at bringing stakeholders, information and knowledge together to progress management and understanding about kiwi in their rohe.</p> <p>The Kiwi Coast also resourced the creation of the Ngati Hine 'Te Kahu o Ngati Hine' booklet that brought existing matauranga/knowledge about Ngati Hine and kiwi together into an accessible resource document.</p>
<p>Supporting existing community, iwi and hapu led conservation projects to achieve their maximum potential.</p>	<p>Kaimamaku Landcare was supported to establish predator trap lines in their project area. This included the deployment of new predator traps and contracting a professional trapper to service those traps.</p> <p>Assistance provided to Tanekaha Landcare to progress their goal of a kiwi translocation goal. A Kiwi Translocation Outline was completed and subsequently approved by the Kiwi Recovery Group.</p> <p>Ngati Hau assisted with Community Conservation Partnership Fund application.</p>
<p>Encourage and support the participation of further landholders in conservation, and the formation of new projects in the area.</p>	<p>QEII National Trust regional representative is currently in discussions with existing covenantors in this area regarding participation in the Kiwi Coast and is also investigating the presence of kiwi and pateke.</p> <p>Initial meetings held to progress idea of a new project for the Punuruku Valley area.</p>

## Skill Building Workshops and Courses

The vision of the Kiwi Coast is to support and link community-led kiwi recovery groups in eastern Northland. This includes helping projects gain the skills, knowledge and tools they need to get the job done of controlling animal pests, restoring habitats and helping our native wildlife thrive. This year saw the Kiwi Coast take a step beyond providing the trademark local trapping workshops, and respond to group and project members requests for first aid and toxin certification. The overwhelming response to these courses showed the clear demand.

Four skill building workshops and courses were held:

- 1) South Kerikeri Inlet Landcare 'Local Trapping Workshop' held with technical advice provided by Northland Regional Council Biosecurity staff.
- 2) Kiwi Call Count training organised with Department of Conservation Whangarei staff. Twenty keen new volunteers came out to the Whangarei Kiwi Sanctuary to learn this important monitoring method and were able to participate in the 2015 Kiwi Call Count Survey.
- 3) The Kiwi Coast organized a 2-day Outdoors First Aid Course to assist 18 people from groups and projects all over the Kiwi Coast gain their First Aid certificate. This was in recognition that those involved in kiwi-saving projects need to be able to draw upon good First Aid skills at any given moment. Whether they are trappers needing to deal with their own injuries in the forest, coordinating groups of volunteers to carry out pest control, or bringing crowds of people together for events such as kiwi releases – each needs to be able to keep themselves and others as safe as possible and have the confidence to respond to incidents. The realistic role-playing scenarios over the two days also provided a great opportunity for some of those involved in the Kiwi Coast to get to know each other better and do a bit of team-building.
- 4) A Controlled Substance License (CSL) certification course was organized for 20 people, once again from groups and projects throughout the Kiwi Coast. A CSL enables the holder to use restricted toxins such as PAPP, cyanide and 1080. Being able to use a wider range of toxins means that projects can select the best tool for the job when undertaking pest control operations. It may also mean that the CSL holders can assist other projects along the Kiwi Coast and help each other out if needed during pest control operations.

Photo: Outdoor First Aid Course team photo



Photo: Sth Kerikeri Inlet Landcare Trapping Workshop



## Wild Kiwi Experiences and Events

Wild kiwi are powerful ambassadors for engaging people in kaitiaki and stewardship. However as they are nocturnal and retreat to elusive burrows during the day, they can all too easily fall into the category of ‘out of sight, out of mind’, especially in low kiwi call count areas where landowners may not hear them at night.

In 2014/15 the Kiwi Coast was involved in a range of events and activities involving wild kiwi brought into contact with their surrounding human community prior to being released. In all cases, the kiwi were only handled by Accredited Handlers and the safety and care of the birds was paramount. A total of 1,036 people attended Kiwi Coast supported events this year.

A very successful kiwi release was held in February 2015, led by the Backyard Kiwi project. As the three kiwi returned to the mainland from the Matakohe/Limestone Island kiwi crèche in Whangarei Harbour, they were blessed by Fred Tito of Parawhau. Forty people attended this early morning event. The subsequent evening release at McLeods Bay was attended by a record 442 people. Danny Tu’ato from Ngatiwai blessed the kiwi at their respective burrow sites to wish them well.

Kiwi Coast and the Kiwis for kiwi Trust also funded the release of Koru and Hou the kiwi at Tutukaka. Like most Kiwi Coast activities, this was a collaborative event involving Friends of Matakohe-Limestone Island, Te Parawhau, Backyard Kiwi, and the Tutukaka Landcare Coalition. This release was attended by 105 people, including representatives from the Department of Conservation, QEII National Trust and Northland Regional Council.

The Kiwi Coast also worked with Taheke Landcare, Backyard Kiwi and Friends of Matakohe/Limestone Island to hold a ‘Meet a Kiwi Event’ in May. Attended by 90 people, thrilled to see a wild kiwi up close. Blossom and Daisy the kiwi were subsequently released at an approved site at Whangarei Heads.

Accredited Kiwi Handlers also took kiwi into two target schools - Glenbervie and Whangarei Heads Primary Schools - within the first focus area of the Kiwi Coast. Engaging the ‘next generation’ in kiwi care will help ensure a bright future for kiwi on the Kiwi Coast.

A Reconnecting Northland/Kiwi Coast presentation was made at the National Kiwi Hui (140 attendees). The Kiwi Coast also worked with the Friends of Matakohe/Limestone Island, Backyard Kiwi, Manaia Landcare, and Bream Head Conservation Trust to host a field trip to Whangarei Heads (50 attendees). The Kiwi Coast was very well received at the hui, and received lots of positive feedback.

Photo: 442 people attended a kiwi release led by Backyard Kiwi



Photo: Blossom the kiwi at the Taheke Kiwi Experience



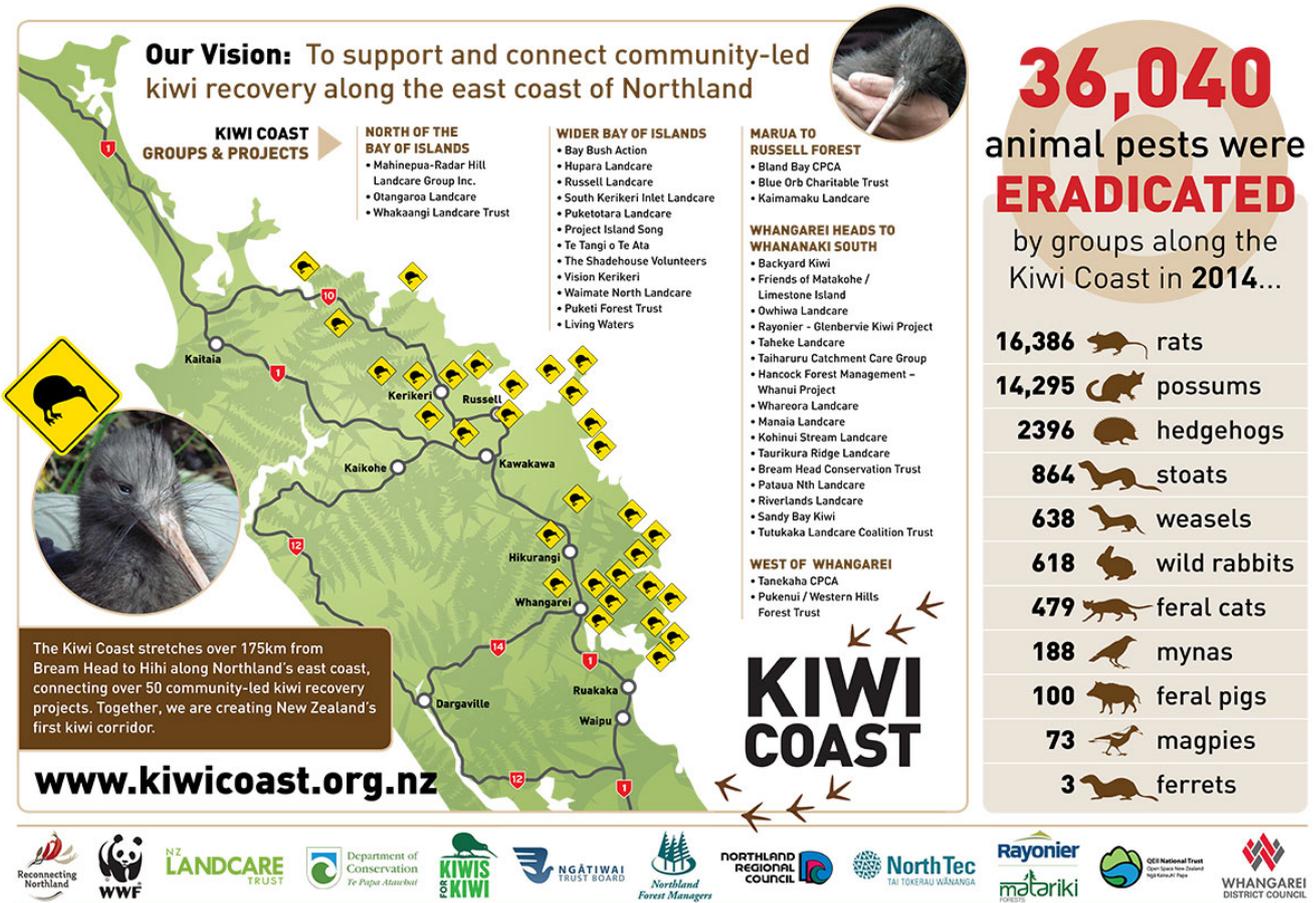
## Monitoring: Results and Research

The Kiwi Coast is underpinned by robust scientific monitoring methods that over time will determine whether the initiative meets its key goals such as reducing numbers of pests, supporting the recovery of Northland brown kiwi populations and engaging further people in kaitiaki or stewardship of their local biodiversity.

A summary of the 2014/15 monitoring results is presented in Table 4.

### Annual Collation of Animal Pest Control Results

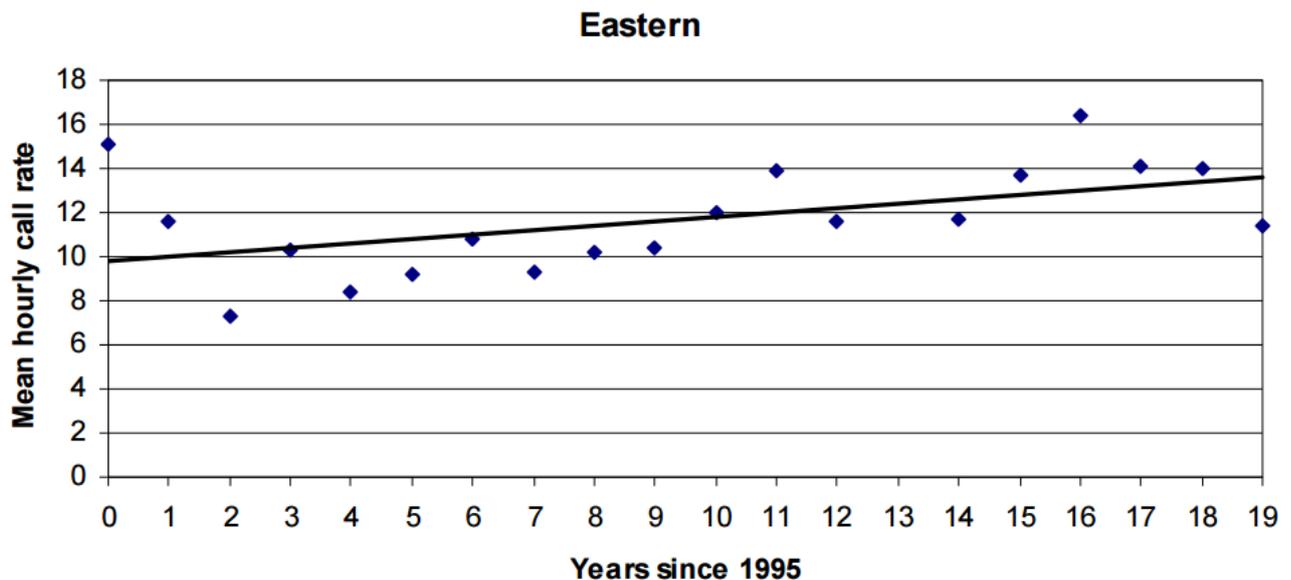
The annual collation of animal pest control results revealed that 36,040 animal pests were removed by 48 groups, projects, landowners, iwi/hapu, government agencies and organisations from the Kiwi Coast between January – December 2014.



## Northland Brown Kiwi Monitoring

The 'Kiwi Coast Monitoring Plan (Topia, 2014) provides a plan to monitor the effect of the protection and advocacy work of the Kiwi Coast on kiwi presence, abundance and distribution in eastern Northland.

A national trend of 2% decline per annum in kiwi populations was acknowledged by the Kiwis for kiwi Trust in 2014. Analysis of the 2014 Northland kiwi call count data (Topia and Gardiner, 2014) found that while kiwi are also declining in some parts of Northland, overall kiwi are on the increase in the eastern - Kiwi Coast - area.

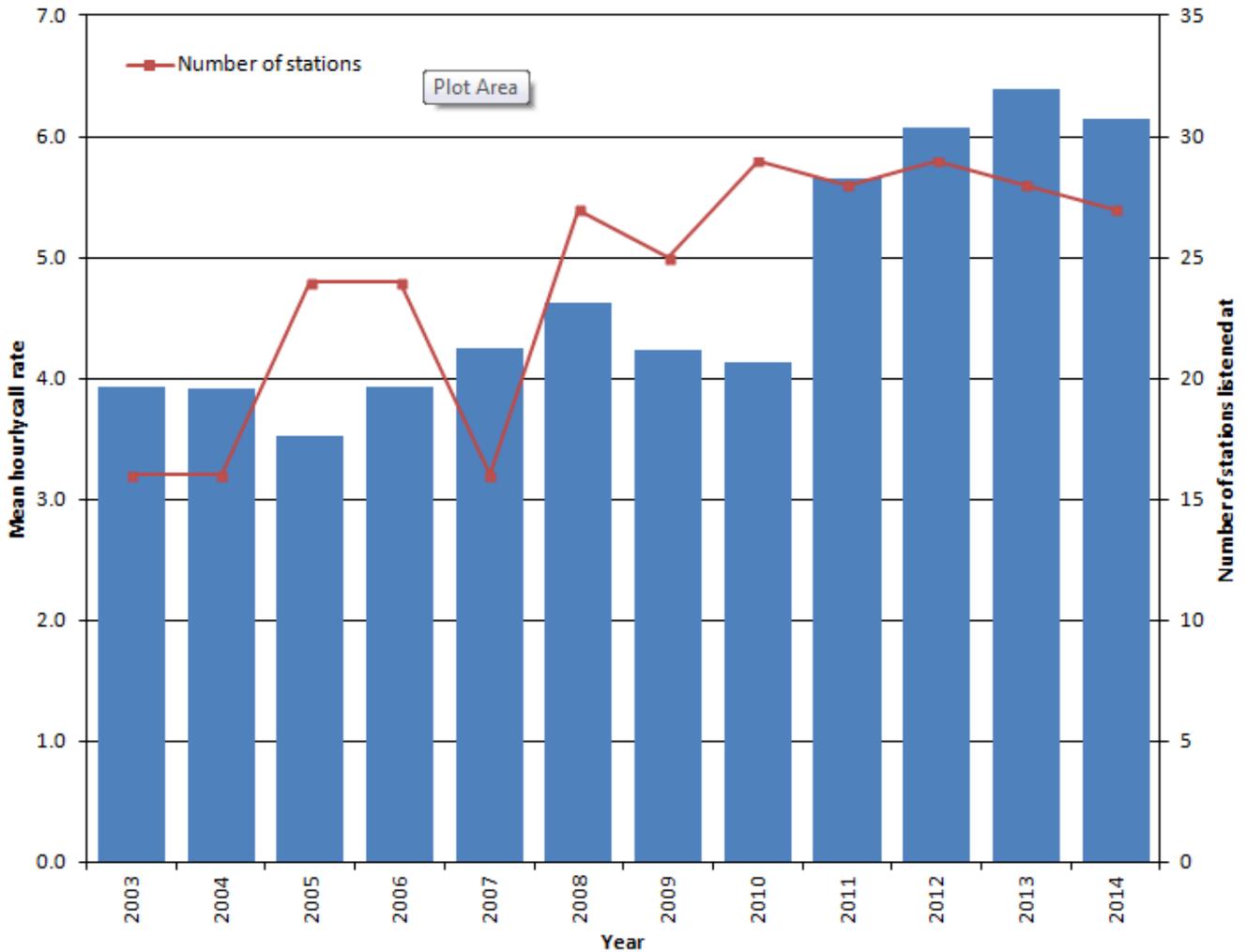


**Figure 2** – Mean annual kiwi call rates per hour for the Eastern Area, one of the original four Northland monitoring areas 1995-2014.

*“The overall trend (in eastern Northland) since 1995 is a statistically significant positive linear trend of increasing mean call rates” (Topia and Gardiner, 2014).*

This overall trend was analysed at greater depth in the 2014 Kiwi Coast Kiwi Call Count Report (Topia, 2015) to investigate kiwi call rates in specific areas where predator trapping and good dog control is in place.

This more in depth analysis showed that kiwi are increasing at all but two (Glenbervie and Whakaangi) project areas along the Kiwi Coast. In particular, the kiwi call data for the Whangarei Heads – Sandy Bay area showed “that there is a very significant positive linear relationship ( $r = 0.8865$ ,  $n = 12$ ,  $p < 0.001$ ) and we can conclude that this is indicative of an increasing kiwi population within the management sites of this focus area. The number of stations that are listened at annually has remained relatively stable since 2008 with the same stations being listened at each year. This consistency is incredibly valuable and a strength of the community groups that organize listening in this area” (Topia, 2015).



**Figure 3** - Mean hourly call rate from 2003-2014 from listening stations in the area from Whangarei Heads to Sandy Bay with the number of stations listened at plotted for each year. The mean hourly call rate was calculated from every station that was listened at in that respective year.

As the Kiwi Coast is in its infancy, it does not seek to claim these results as its own success, but rather seeks to ensure the upward trend continues.

Kiwi Listening Devices were deployed at Horahora, Brynavon, Taheke and Owhiwa, and on QEII covenants at Tutukaka and Hailes Road following new reports of kiwi. Excitingly, a long suspected remnant kiwi population at Brynavon was confirmed during a Kiwi Coast trap audit when muddy footprints were discovered.

There is also increasing sign of kiwi being on the move. Kiwi probe holes were seen for the first time during recent monitoring visits to a number of QEII covenants around Parua Bay, in Campbell Road, Timperley Road, McLeod's Bay and Clements Road, Matapouri.

A kiwi crossed paths with fishermen out on the Tutukaka Coast and several more birds have been heard calling on the same property for the first time in many years.

Fieldwork for the first of the Kiwi Coast Five Year Listening Blitz's is underway and will be completed by December 2015.

## Indicator Species Monitoring: Pateke

The Kiwi Coast Indicator Species Monitoring Plan was further developed in 2014 in consultation with NorthTec Conservation Management Tutors, and was substantially revised to focus on pateke/brown teal and forest birds, including kaka and korimako/bellbird.

2015 saw the first Kiwi Coast indicator species monitoring completed. Kiwi Coast worked with specialist staff at DOC to assist with the Annual Pateke Flock Counts in eastern Northland.

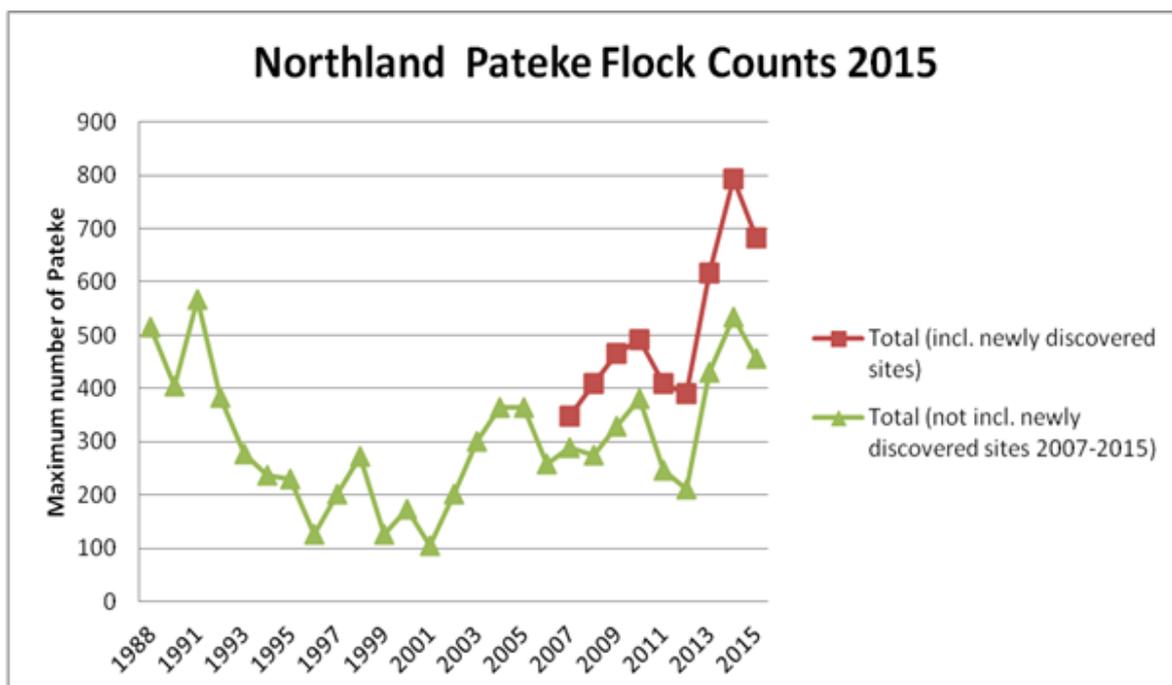


Photo: Pateke with chicks at Ngunguru

The pateke on Northland's east coast are of special interest as they are wild hatched pateke that have returned to the area after being locally extinct for many years. Vivienne Lepper, Pateke Ranger for the Department of Conservation says:

*“The trapping of animal pests along with good dog control undertaken by DOC and groups involved in the Kiwi Coast greatly benefits pateke, as well as many other native species. By doing these flock counts every year we are able to see if the pateke population is increasing in size, and expanding into new areas.”*

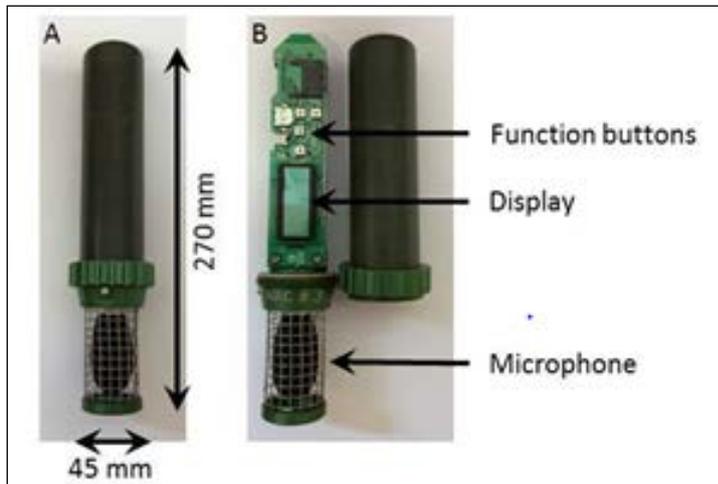
Kiwi Coast projects coordinated and monitored three new estuaries including the Horahora, Pataua and Taiharuru. The data collected helped to confirm that this rare duck is on the increase along the Kiwi Coast and moving into new sites, as excitingly, pateke were confirmed in the Pataua area for the first time.



**Figure 4** - Total number of Pāteke counted at traditional flocking sites (sites counted since 1988) and at all flocking sites in Northland (Bay of Islands, Teal Bay–Mimiwhangata, and Whananaki) including new sites counted since 2007. All data are from the day of that year that had the highest total count (not the maximum count per site), with the exception of the Bay of Islands data where counts were only completed once, and 2012 census data which was collected over three days (Lepper and Miller, 2015).

## Student Research

The Kiwi Coast worked with the NorthTec Conservation Management Course to engage students to carry out ecological research during the 2014/15 summer. The pilot study investigated the use of acoustic monitors for forest bird monitoring. Data collected using the traditional five-minute bird count method were compared with data collected by automated acoustic recording devices (Sharp et al., 2015).



**Figure 5** - Automated Acoustic Recording Devices

Sharp et al., found that acoustic recorders had bird detection rates comparable to the five-minute bird count method. In addition, 75% (9/12) bird species used in a pair comparison analysis had relative abundance estimates that were not significantly different to the five-minute bird count estimates. The relative abundance of tui, kotare, and kukupa, however, was slightly underestimated using acoustic recorders compared to the other count method.

The study concluded that the use of acoustic recorders could be a viable alternative for monitoring some bird species in mature podocarp-broadleaf forest types but further research was needed to investigate the performance of acoustic recorders in different habitat types, and measure the delectability of other bird species using these devices.



*Photo: Hayley Sharp attaches an acoustic recorder, January 2015.*

## Communications

The Kiwi Coast has worked hard to establish a strong presence this year. Considerable time has been invested in communicating both externally (to those in Northland, New Zealand and the world!) and internally (ie between projects involved).

Communication has been carried out with the aims of:

- building linkages between projects via sharing information, stories and successes,
- celebrating kiwi as a taonga,
- engaging people in caring for kiwi,
- building acceptance of animal pest control practices required to protect kiwi
- establishing the Kiwi Coast as a successful and accessible initiative that everyone can participate in.

The Kiwi Coast communicates via an integrated package of a live, continuously updated website, Facebook page and monthly electronic newsletter. These communication media were established just before the beginning of this financial year, and as Figures 6-8 show, are attracting an ever increasing audience of not just local, but international origins.

The Kiwi Coast Coordinator also promoted the Kiwi Coast at numerous events, workshops and A+P shows. Presentations were also given to a number of community group meetings and AGMs, government departments, forums and scientific societies.

The Kiwi Coast has also enjoyed good media presence this year. For example, the 2015 Shared Pest Control Results went far and wide receiving local, regional and national media attention. The accompanying media release was picked up by the NZ Herald 'Element' magazine, Predator Free NZ, Northern Advocate, Whangarei Report, MORE FM radio station, and was the lead article on the Nature Space website.

The Kiwi Coast also collaborated with the Kiwis for kiwi Trust to have a kiwi themed tent at the Whangarei Summer Show. This flowed into the neighbouring shared tent involving Pukenui Forest Trust, Fish & Game, Northland Biodiversity Forum and NZ Landcare Trust. A steady stream of interested people visited the tent over the two day event making it well worthwhile.

*Photo: Adam Willets (Bream Head Conservation Trust) speaks at the National Kiwi Hui Fieldtrip to Whangarei Heads*



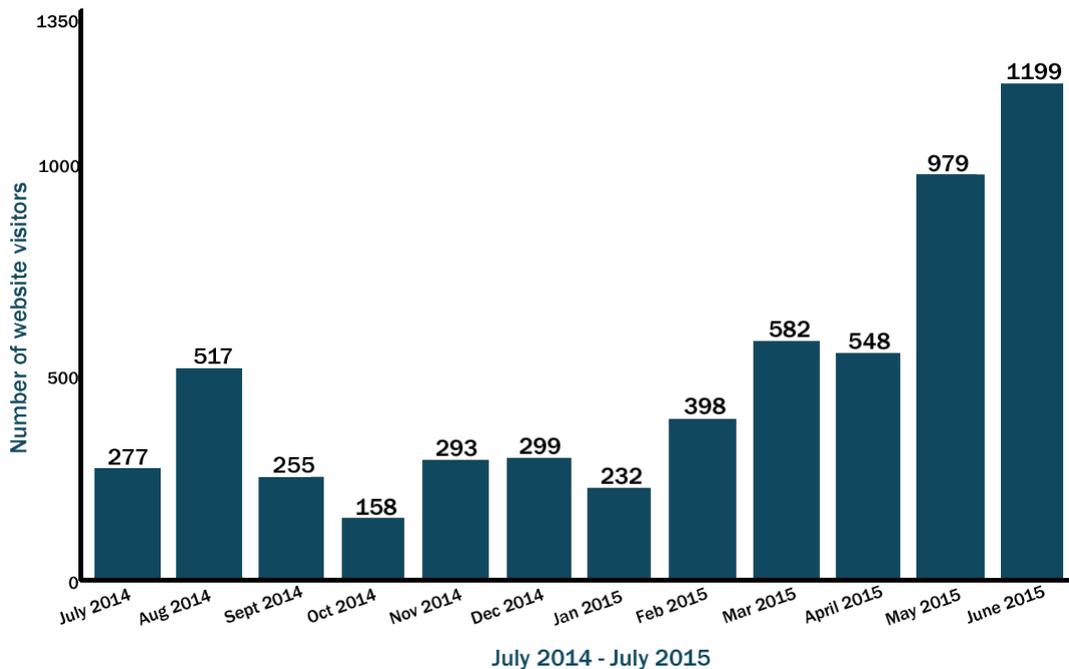
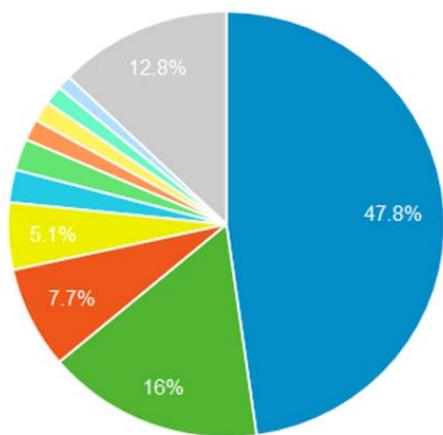
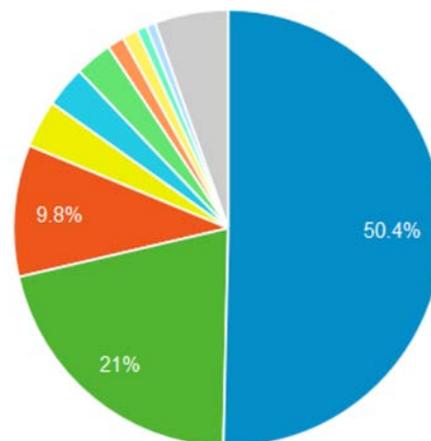


Figure 6 - Number of visitors to the Kiwi Coast website per month



- New Zealand
- United States
- Country not detected
- Brazil
- United Kingdom
- Australia
- China
- Russia
- Italy
- Japan
- Other Countries



- Auckland
- Whangarei
- Wellington
- Christchurch
- Hamilton
- Kerikeri
- Tauranga
- Palmerston North
- (Not set)
- Rotorua

Figure 7 - Location of people using the Kiwi Coast Website

Figure 8 - Location of New Zealanders visiting the Kiwi Coast Website

Table 4 - Kiwi Coast Monitoring Results Summary July 2014 – June 2015

Measure	Method	Results
Distribution of Northland brown kiwi populations	<ul style="list-style-type: none"> <li>Northland brown kiwi distribution map (DOC)</li> <li>Deployment of Kiwi Listening Devices to investigate reports of new sites</li> </ul>	<ul style="list-style-type: none"> <li>Kiwi Listening Devices deployed at 10 sites.</li> <li>Remnant kiwi population confirmed at Brynavon and at Hailes Road, Whananaki.</li> </ul>
Estimation of number of adult Northland brown kiwi	<ul style="list-style-type: none"> <li>Analysis of annual Kiwi Call Count survey data for the Kiwi Coast</li> <li>Listening devices deployed for low call sites</li> </ul>	<ul style="list-style-type: none"> <li>Baseline data gathering using acoustic devices at new sites within the Tutukaka/Sandy Bay/Waipai area</li> <li>Kiwi calls increasing in all monitored project areas except Whakaangi and Glenbervie</li> <li>Overall kiwi call count data shows slow but steady increase</li> </ul>
Indicator Species Monitoring: Pateke	<ul style="list-style-type: none"> <li>Participation in DOC led Annual Pateke Flock Counts</li> </ul>	<ul style="list-style-type: none"> <li>Pateke numbers increasing</li> <li>New pateke site confirmed at Pataua</li> </ul>
Number and type of animal pests destroyed annually	Annual collation of trap catch data	<p>‘Shared Animal Pest Control Results’ Compiled January 2015:</p> <ul style="list-style-type: none"> <li>36,040 animal pests were removed from the Kiwi Coast in 2014 (Up from 24,891 in 2013).</li> <li>49 landowners, groups, projects, agencies, and organisations participated (Up from 32 in 2013).</li> </ul>
Area under active pest management	Annual collation of data	Collated for the first time: 78,425 ha.
Number of initiatives involved	Annual tally of initiatives	<p>59 groups, projects and organisations involved as at June 30, 2015</p> <p>(See Appendix 2)</p>
Number and type of capacity building workshops	Annual tally of workshops	<ul style="list-style-type: none"> <li>South Kerikeri Inlet Landcare ‘Local Trapper Workshop’</li> <li>Kiwi Call Count training evening</li> <li>Outdoors 1<sup>st</sup> Aid Training Course</li> <li>Controlled Substance License Course</li> </ul>

Measure	Method	Results
Number of people attending Kiwi Coast supported events and workshops	Coordination of workshop registration forms and head counts at events	<ul style="list-style-type: none"> <li>• “Meet a Kiwi” event held at Taheke: 87 people</li> <li>• Tutukaka kiwi release: 105 people</li> <li>• Whangarei Heads Kiwi Release: 40 people (blessing), 442 people (release).</li> <li>• Kiwi ‘show and tell’ at Glenbervie Primary School: 100 senior students, teachers and principal.</li> <li>• Kiwi ‘show and tell’ at Whangarei Heads Primary School: 80 followed by Bream Head release: 84</li> <li>• South Kerikeri Inlet Landcare ‘Local Trapper Workshop’: 30 people</li> <li>• Kiwi Call Count training: 20 people</li> <li>• Outdoors 1<sup>st</sup> Aid Training Course :18 people certified</li> <li>• Controlled Substance License Course: 20 people certified</li> <li>• National Kiwi Hui Fieldtrip: 50 attendees.</li> </ul> <p><b>Total number of people at Kiwi Coast supported events: 1036</b></p>
Communications reach	Compilation of electronic data	<ul style="list-style-type: none"> <li>• Facebook ‘Likes’ as at June 30: 472</li> <li>• Largest reach of a single Facebook post: 9180 people</li> <li>• Monthly website ‘hits’: peaked at 1199 in June 2014</li> <li>• Average monthly website ‘hits’ over year: 478</li> <li>• Monthly electronic newsletter: 164 recipients (Opening rate of 51.8%. Industry average is just 18.3%)</li> </ul>

## Kiwi Coast Evaluation

Reconnecting Northland carried out an evaluation of the Kiwi Coast's first year (2013/14) of implementation (Mitchell Partnerships, 2015). While the evaluation was restricted to Year 1, and so is largely irrelevant to this year's annual report, the report did contain some interesting findings.

In particular Mitchell Partnerships (2015) considered that the Kiwi Coast had been well received by local Northland community groups in its first year and had been "particularly effective" at:

- Encouraging the formation of new community-led conservation groups.
- Establishing predator trapping in new areas where kiwi are present and currently unmanaged, conservatively estimating that in its first year alone the Kiwi Coast had resulted in an additional 2,485 ha undergoing ecosystem management in Northland.
- Celebrating the presence of Northland brown kiwi in Northland as a taonga – as demonstrated by increased attendance at kiwi related events and increased interest by landowners.

The Mitchell Partnerships evaluation also made several recommendations for improvement including reviewing the Kiwi Coast Project Plan and Think Tank structure, using a centralized GIS mapping system to assist groups in reporting data (such as size of area under pest management) and having greater clarity around the different roles and function of the Kiwi Coast and Reconnecting Northland.

## Summary

The Kiwi Coast has achieved much during its first two years of implementation. During this short timeframe the Kiwi Coast has supported and linked together a raft of eastern Northland conservation projects, involving people from many different walks of life.

The partnership with Reconnecting Northland has been crucial to the implementation of the Kiwi Coast, both in terms of provision of resources and exploring how to support community-led conservation at a landscape scale.

Responding to the needs identified by groups for skill building courses and certification saw the Kiwi Coast head into new territory. Enabling groups and projects to operate at their full capacity remains a key component of the Kiwi Coast's support ethos.

The provision of a further 509 predator traps to strategically located groups along the Kiwi Coast facilitated considerable increases in the trapping areas of these projects, and closed some key gaps in the wider trapping network. The opportunity to assist with linking distinct kiwi populations via a continuous trapping network across multiple projects is now feasible for the first time.

The power of kiwi to be their own ambassadors was once again evident, with over a thousand people attending live kiwi events and experiences. The monitoring results showing the steady increase of kiwi calls in managed areas along the Kiwi Coast, despite a nationwide trend of a 2%/annum kiwi decline, suggests that the Kiwi Coast is on the right track to achieving the shared vision of creating New Zealand's first kiwi corridor.

## References

Kiwi Coast Think Tank. 2013. Kiwi Coast Project Plan. Unpublished Report, revised November 2013.

Lepper, V and Miller, N. 2015. Pateke Annual Flock Count Report 2015. Unpublished DOC Report.

Mitchell Partnerships. 2015. Evaluation of the Kiwi Coast Project. Prepared for Reconnecting Northland. Unpublished Report.

Sharp, H., Sullivan, L., and Morgan, D. 2015. Comparing the Relative Abundance of Bird Species Detected During Five-Minute Bird Counts with Data Collected From Automated Acoustic Recorders. Unpublished report prepared for the Kiwi Coast.

Topia, M. and Gardiner, H. 2014. Call count monitoring of Northland brown kiwi 2014. Unpublished DOC Report.

Topia, M. 2014. Kiwi Coast Kiwi Monitoring Plan. Unpublished Kiwi Coast Report.

Topia, M. 2015 Kiwi Coast 2014 Kiwi Call Count Report. Unpublished Kiwi Coast Report.



Photo: Kiwi footprint found at Brynavon by Cam McInnes during Taheke trapper audit



Photo: Lesley Baigent and trained kiwi dog Tohu track kiwi at Mahinepua as part of kiwi survey

## Appendix 1

### Kiwi Coast Financial Summary July 1 2014 to June 30 2015

#### Direct funding

Reconnecting Northland 2014/15 allocation	\$137,438
Reconnecting Northland carry forward from 2013/14	\$16,869
Hancock Forest Management	\$5,000
	<hr/>
<b>Total funds available</b>	<b>\$159,307</b>

#### Expenditure

Tutukaka Landcare Coalition predator control	\$11,971
Backyard Kiwi predator control	\$6,217
Manaia Landcare 1080 Operation	\$8,993
Kohinui Landcare predator control	\$2,591
HFM Whanui Project predator control	\$4,050
Owhiwa Landcare predator control	\$2,874
Taheke Landcare predator control	\$11,727
Whareora Landcare predator control	\$8,370
Pataua Nth Landcare predator control	\$8,419
Rayonier-Matariki: Glenberrie Forest predator control	\$297
Bay of Islands predator control: Waimate Nth and Puketotara Landcare	\$11,904
Kaimamaku Landcare Predator Control	\$7,041
Trapper mentoring and auditing	\$696
Traps available	\$18,783
Skill building workshops	\$11,692
Kiwi Coast Events	\$6,374
Kiwi Monitoring	\$6,978
Indicator Species Monitoring	\$5,263
Website maintenance and E-newsletters	\$4,190
Promotion, Event and Media support, incl Kiwi Coast Signs	\$9,544
Strategic Planning	\$4,246
	<hr/>
<b>Total spent</b>	<b>\$152,219</b>

Balance to carry forward to 2015/16      \$7,088

## Appendix 2

### Groups and Projects Involved in the Kiwi Coast

This table lists the groups and projects who have either linked into the Kiwi Coast or participated in Kiwi Coast activities, such as sharing annual pest control data.

	Group Name	Location
1.	Backyard Kiwi	Whangarei Heads
2.	Bay Bush Action	Opuia, Bay of Islands
3.	Bland Bay CPCA	Bland Bay
4.	Blue Orb Charitable Trust	End of Whangaruru Peninsular
5.	Bream Head Conservation Trust	Bream Head
6.	DOC Pateke and Kiwi projects	Various
7.	Friends of Matakoho/Limestone Island	Matakoho/ Limestone Island, Whangarei Harbour
8.	Hancock Forest Management: Whanui Project	Pataua North
9.	Hupara Landcare	Hupara
10.	Kaimamaku Landcare	Kaimamaku – Kaikanui
11.	Kohinui Stream Landcare	Kohinui Stream Catchment
12.	Living Waters	Tangatapu catchment, Bay of Islands
13.	Mahinepua/Radar Hills Landcare	Mahinepua – Radar Hills
14.	Nga Kaitiaki o Ipipiri	Cape Brett peninsula
15.	Ngunguru Ford Landcare	Ngunguru Ford
16.	Northland Regional Council	NRC Mt Tiger block
17.	NorthTec Hunting and Pest Control Course	Maungatika Scenic Reserve
18.	NZ Kiwi Foundation	Various sites around Bay of Islands
19.	Otangaroa Landcare	Otangaroa
20.	Owhiwa Landcare	Owhiwa
21.	Parua Bay Landcare	Parua Bay

22.	Pataua North Landcare	Pataua North
23.	Project IslandSong	Islands in the Bay of Islands (centered on Urupukapuka)
24.	Puketi Forest Trust	Puketi Forest
25.	Pukenui/Western Hills Forest Trust	Whangarei
26.	Puketotara Landcare	Puketotara River, Kerikeri/Okaihau
27.	Pupurangi Nature Sanctuary	Kaihu
28.	Rayon ier Matariki Forests – Glenbervie Forest Project	Glenbervie
29.	Riverlands Landcare	Ngunguru river
30.	Russell Landcare	Russell, Bay of Islands
31.	Russell-Orongo Bay Holiday Park	Russell, Bay of Islands
32.	Sandy Bay Kiwi	Sandy Bay
33.	South Kerikeri Inlet Landcare	South Kerikeri Inlet
34.	Taheke Landcare	Centered around Taheke Scenic Reserve
35.	Taiharuru Catchment Care Group	Taiharuru, Whangarei Heads
36.	Tanekaha Community Pest Control Area	Hikurangi
37.	Taurikura Ridge Landcare	Taurikura Ridge, Whangarei Heads
38.	Te Tangi o Te Ata	Eastern Bay of Islands
39.	The Shadehouse Volunteers	Kerikeri
40.	Top Energy CPCA	Ngawha
41.	Tutukaka Landcare Coalition Trust	Tutukaka
42.	Vision Kerikeri	Kerikeri
43.	Waimate North Landcare	Waimate North
44.	Whakaangi Landcare Trust	Hihi peninsula
45.	Whanui (Hancock Forest Management)	Whanui
46.	Whareora Landcare	Whareora/Mt Tiger

Organisations, agencies and companies involved:

