



Kiwi Coast First Five Years Report

2013 – 2018

Kiwi Coast Trust, July 2018



Purpose of this report

This report presents a summary of key activities and achievements over the first five years of the Kiwi Coast from July 1 2013 – June 30, 2018. The data and information presented have been collated from Annual Reports and information available on the Kiwi Coast website:

www.kiwicoast.org.nz

Front page: Matakohe-Limestone Island Ranger Emma Craig with Roha the kiwi at the Pukenui-Western Hills Forest Trust Kiwi Release, March 2018

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Executive Summary

The vision of Kiwi Coast is one of thriving wild kiwi, safely roaming throughout Northland, nurtured and cared for by Northlanders.

Kiwi Coast is a community-led collaborative initiative linking conservation projects, iwi and hapu, landowners, farmers, forest management companies, government agencies and schools in the shared vision of increasing kiwi numbers, creating safe ecological corridors and improving the general biodiversity values of Northland.

Since getting underway five years ago, the Kiwi Coast has continuously expanded, as existing projects linked in and new groups started. The Kiwi Coast has grown to operate at a regional scale, now linking projects over 291km from Mangawhai at the southern limit of the Northland region to the Aupouri Peninsula in the Far North. As at June 30, 2018, 120 entities had linked into the Kiwi Coast, 108 of which were community-led groups and active projects. Collectively, these groups and projects manage 146,801 hectares.

Kiwi Coast's priorities are reducing threats to kiwi survival and engaging Northlanders in caring for their kiwi. Kiwi Coast has continued to strategically support predator control in key areas to link projects and build continuous trapping networks across landscapes to boost kiwi survival and allow their safe dispersal into new areas.

Monitoring results demonstrate the strength of Kiwi Coast's collaborative approach. Collated trap catch data showed that 229,372 animal pests were caught in traps by groups and projects involved in the Kiwi Coast over the last five years and more than 1,000 pests are now being removed from the Kiwi Coast each week.

Thirty-four skill building and trapper training workshops were held with a total of 9,685 people attending Kiwi Coast supported events and workshops. These events also provided prime opportunities to deliver key messages around kiwi recovery and the importance of good dog control to kiwi survival.

Kiwi numbers continued to stabilise and climb in managed areas on the Kiwi Coast, bucking the national trend identified by the Kiwis for Kiwi Trust in 2014 of a 2% decline per annum in kiwi population. As the Kiwi Coast has only been in operation since 2012, it does not seek to claim these results as its own success, but rather seeks to ensure the upward trends of threatened species such as kiwi and pateke are sustained.

Moving forward, a key priority of the Kiwi Coast over the next five years is to secure additional resources to ensure that gains made to date in community, iwi and hapu-led kiwi recovery are not only sustained but enabled to grow. Means to achieve this have been identified in the Kiwi Coast 2017 – 2022 Strategic Plan.

Working with partners to bring new technology and research to enable predator control and kiwi kaitiakitanga at a regional scale will assist the successful operation of NZ's first kiwi corridor and ensure that this iconic taonga species is here for generations to come.

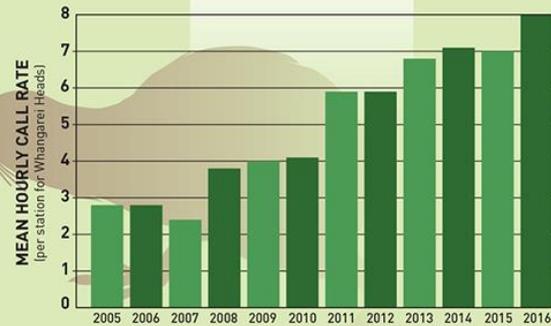
KIWI COAST

Helping Northland Kiwi Thrive



Call data shows that **KIWI** in managed areas on the Kiwi Coast are **INCREASING**, bucking the national trend of 2% decline.

One longstanding community project (Backyard Kiwi) have increased their kiwi numbers over 10 years from 80 to **over 800**.



Example: Backyard Kiwi Call Count data



Northland is better off with **229,372** animal pests **GONE!**

- 95,411 possums
- 92,868 rodents
- 11,654 pest birds
- 10,446 hedgehogs
- 7,527 mustelids
- 7,163 wild rabbits
- 2,920 feral cats
- 937 feral pigs

These figures show pests trapped by Kiwi Coast groups and projects over the past 5 years. For annual figures, go to <http://www.kiwicoast.org.nz/kiwi-protection/>

WE SUPPORT KIWI COAST GROUPS WITH...

Predator Traps

Professional Trappers

Kiwi Events

Monitoring

Skill Building



www.kiwicoast.org.nz

Kiwi Coast Goals

Objectives:

- To enable and engage Northlanders in caring for their kiwi.
- To provide education, mentoring and support for kiwi recovery.
- To celebrate the presence of Northland brown kiwi in Northland as a taonga.
- To increase kiwi numbers through predator reduction and good dog control.
- To facilitate the safe movement of kiwi throughout the Kiwi Coast.
- To encourage kaitiakitanga / stewardship to protect and nurture kiwi for future generations.

Accredited Kiwi Handler Todd Hamilton at the Tutukaka Landcare Kiwi Release, 2015. Photo: Malcolm Pullman



Role of the Kiwi Coast Coordinators

The Kiwi Coast Coordinators have supported the work of the Kiwi Coast since its inception, ensuring the Kiwi Coast remains strong and dynamic.

The Kiwi Coast Coordinators have helped to connect all the entities involved in the Kiwi Coast with emphasis on:

- Coordinating and enabling iwi, hapu and community-led kiwi recovery across the Kiwi Coast;
- Providing on-the-ground support and technical advice for existing projects and assisting new groups to start;
- Supervising contracted professional predator trappers and coordinating the Trapper Mentoring Program;
- Liaising with key organisations, businesses and government agencies;
- Where appropriate, preparing submissions for planning processes such as the Northland Regional Council Long Term Plan;
- Coordinating the Kiwi Coast monitoring program;
- Organising Kiwi Coast skill building workshops and kiwi events as well as supporting other community events;
- Facilitating community meetings and workshops;
- Providing central Kiwi Coast communications in the form of phone, email, website, e-newsletter, social media and media releases;
- Kiwi Coast Project Management – ensuring all reporting, financial and Health & Safety systems are in place and requirements met; and
- Assisting projects and groups linked into the Kiwi Coast to be sustained and remain inspired, motivated, equipped and able to carry out successful kiwi recovery.

Over the past five years, to match the growth of the Kiwi Coast, coordination has increased from one part time coordinator to a full time Kiwi Coast Coordinator and a part time dedicated Mid North Coordinator.

Kiwi Coast Coordinator Ngaire Tyson addresses the crowd at the 2017 Kiwi Coast Gathering. Photo: Malcolm Pullman



Kiwi Coast Trust

In 2017 Kiwi Coast formed a trust to provide a legal entity to assist with administration and financial management.

Decision making is carried out collaboratively with the Kiwi Coast Think Tank which meets quarterly and consists of 15 individuals experienced in ecological restoration, on-the-ground kiwi recovery and community/iwi based conservation.

The Think Tank includes members from the Bream Head Conservation Trust, Whangarei Heads Landcare Forum, Taurikura Ridge Landcare, Ngati Wai Trust Board, Queen Elizabeth II National Trust, Tutukaka Landcare Coalition, Pataua North Landcare, Kerikeri-Puketotara Catchment Landcare, Whangarei District Council, Northland Regional Council, Hancock Forest Management, Kiwis for Kiwi Trust, NorthTec, and the Department of Conservation.

Strategic Planning

The Kiwi Coast's 5 year Strategic Plan (2017) confirmed its commitment to the following:

- Building capacity and capability across Northland's community-led conservation projects to sustain the current upward trend of kiwi populations.
- Increasing successful kiwi dispersal and movement between distinct populations through establishing linked collaborative predator trapping and social networks.
- Maintaining a high level of communication to celebrate kiwi as a taonga and engage further communities, iwi and hapu in caring for kiwi.
- Holding live kiwi events and skill building workshops to empower active kaitiakitanga/stewardship to protect and nurture Northland's biodiversity for future generations.
- Exploring new ways of resourcing community-led conservation.
- Building the resource capacity of the Kiwi Coast towards financial sustainability.

Ngati Wai Kaumatua Hori Parata speaks at the Pataua North Kiwi Release, 2017. Photo: Kiwi Coast: Malcolm Pullman



Health and Safety

In 2018, Kiwi Coast Trust revised its Health and Safety Plan to meet the requirements of the Health and Safety at Work Act 2015 (HSWA 2015). Procedures were aligned with Site Safe safety methods which meet SiteWise accreditation requirements.

Incidents reported were:

- 1/ Wasp sting
- 2/ Traffic hazard during trap check
- 3/ Slip hazard identified

These incidents were logged and raised for corrective and preventative action. The traffic hazard was identified as a medium to high risk situation which required a Traffic Management Plan for compliance to the NZ Transport Authority and to minimise risk to the operator.

Andrew Mentor, the Kiwi Coast Mid North Coordinator, refreshed his Site Traffic Management Supervisor (STMS) qualification and revised the Kiwi Coast roadside trapping safety policy. Two Trapper Safety Meetings for contracted trappers were held. Kiwi Coast assisted the trappers to implement their own contractor Health and Safety Procedures and lift awareness of hazard identification and risk management.

Hazard Identification and Risk Management forms were completed in conjunction with site hosts at events led by Kiwi Coast.

Both Kiwi Coast Coordinators refreshed their First Aid Certificates in 2018 and hold current Controlled Substances Licences. Andrew also has a current firearms licence.

Kiwi Coast Strategic Partnerships

Over the last two decades, a raft of agencies, organisations and funders have supported community, iwi and hapu-led biodiversity stewardship or kaitiakitanga in Northland. The Kiwi Coast emerged from this strong foundation and formed two successive strategic partnerships over the last five years to keep momentum moving forward.

Reconnecting Northland

Kiwi Coast partnered with the Reconnecting Northland Programme (RN) in 2013 to become its first pilot project and provide a working example of a large, landscape connectivity project in operation. Support from RN Delivery Partners WWF-NZ and NZ Landcare Trust and funding from the Tindall Foundation and Foundation North provided a firm base of support as the Kiwi Coast got underway.



Reconnecting Northland contributed \$499,126 to Kiwi Coast operations and approximately \$197,505 for coordination. Together they amount to \$696,631 or approximately 20% of Reconnecting Northland's first five year budget.

Kiwi Coast Trust - NRC Partnership

In 2017, Kiwi Coast consolidated its strong working relationship with the Northland Regional Council (NRC) into a partnership.

Working together, Kiwi Coast and NRC are ensuring gains made to date are not lost and the momentum can successfully continue. Working in unity also allows both Kiwi Coast and NRC to leverage further potential funding and show a strategically coordinated regional approach.

NRC and Kiwi Coast Trust sign the partnership agreement, September 2017. Photo: Malcolm Pullman



Kiwi Coast Collective Resources

The Kiwi Coast has collated financial data with groups and entities involved in the Kiwi Coast three times since 2013. Collating data such as these helps to recognise the sheer scale and volume of the work being carried out and the resources required to effect species recovery at a landscape scale. Further, recognising the often over-looked value of unpaid labour helps to champion this key element of many New Zealand conservation projects.

The most recent data collation showed that \$2,570,173 worth of resources went into the Kiwi Coast from July 2017 – June 2018. The largest single contributor, accounting for over a third of the total collective costs was the \$934,550 supplied by the groups and projects themselves in the form of voluntary unpaid labour (Figure 1).

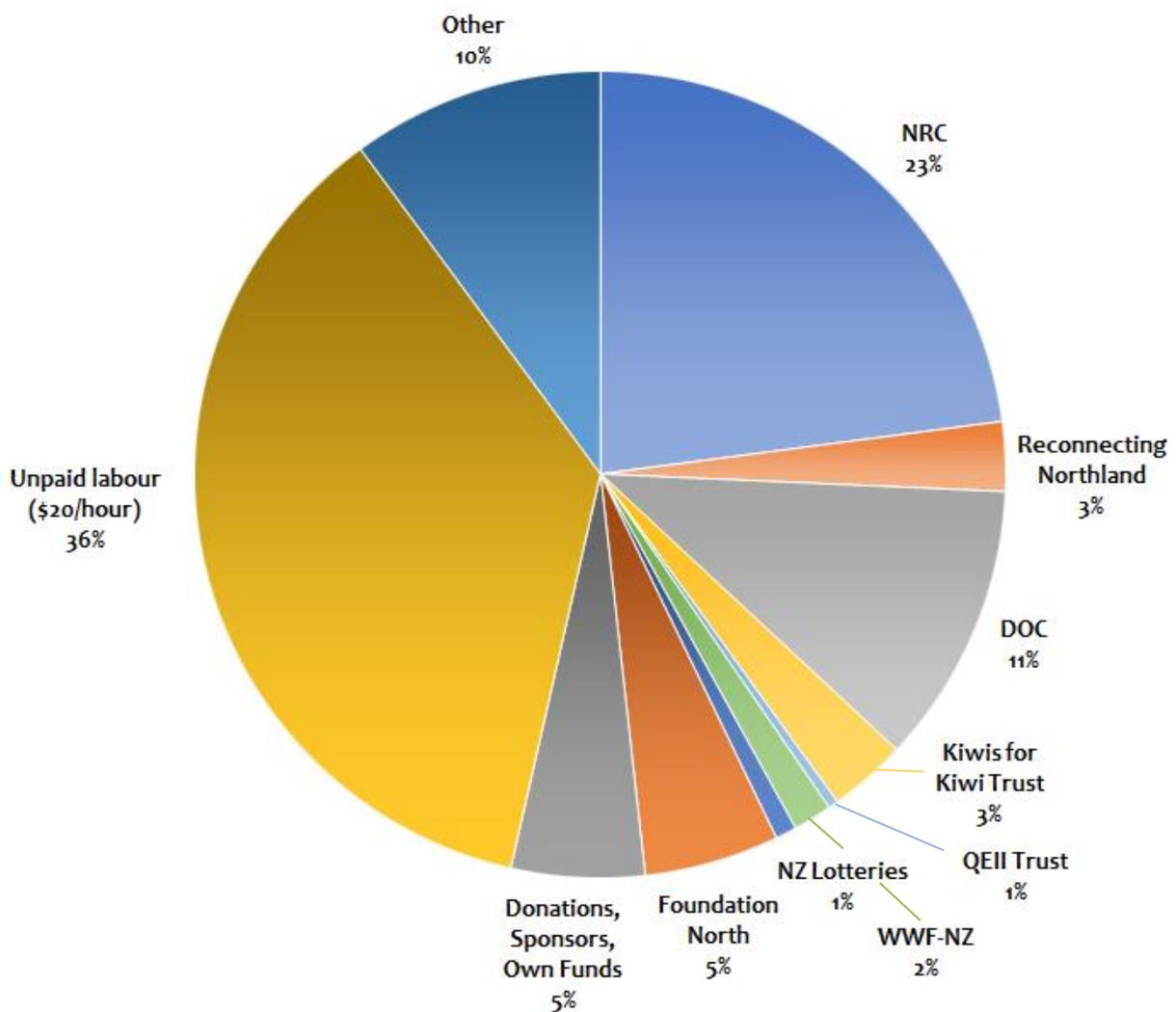


Figure 1: Collective Resourcing of the Kiwi Coast, 2017 - 2018

Aside from unpaid labour, the highest contributor to the Kiwi Coast and the groups and projects involved was the Northland Regional Council. NRC contributed 23% or \$588,978 of pest control products, BioFunds, Community Pest Control Area's and partnership funding for the Kiwi Coast Trust.

The third highest contributor, resourcing 11% of the work on the Kiwi Coast was the Department of Conservation for its own species recovery work, direct support of projects on Public Conservation Land and also the DOC Community Funding provided to various projects, including the Kiwi Coast Trust.

Together groups generated \$136,511 of their own income from donations and sponsorships, providing about 5% of the combined resources going into projects. Income derived from fundraising is highly valued by groups as often the money is used for operating costs that are difficult to resource from traditional funding sources.

Foundation North also funded approximately 5% of the work being carried out on the Kiwi Coast, showing the value of area specific funding, where groups do not have to compete nationally for resources.

The Reconnecting Northland Programme provided around 3% of resources going into the Kiwi Coast, including funding a portion of the Kiwi Coast Coordinator's work and contributing to operational costs.

The Kiwis for Kiwi Trust funded approximately 3% of the groups and projects activities. The Trust's willingness to fund administration costs and provide multi-year support for kiwi recovery work in Northland is highly valued by the groups.

Other contributors included WWF-New Zealand, the QEII National Trust, and NZ Lotteries.

Rolf Fuchs, Department of Conservation, at the Pataua North Landcare Kiwi Release, 2017. Photo: Kiwi Coast Malcolm Pullman



Financial Enterprise

Over the past five years, the Kiwi Coast has investigated a range of social enterprise options that would generate a firm base of independent funds, to reduce reliance on short term contestable funding sources.



This has involved the creation of the merchandise such as Kiwi Coast T-shirts, that are sold at various kiwi events and through an online shop on the Kiwi Coast website. Inviting groups and projects to fundraise and sell their own products via special Christmas promotions and at Kiwi Coast events has also been successful.

In 2017 Kiwi Coast Trust launched its “Follow a Kiwi” sponsorship scheme. It is hoped that this fledgling scheme will continue to grow and in time generate a firm base of independent funding for Kiwi Coast and ensure work can be continued.

Entities Collaborating in Kiwi Coast

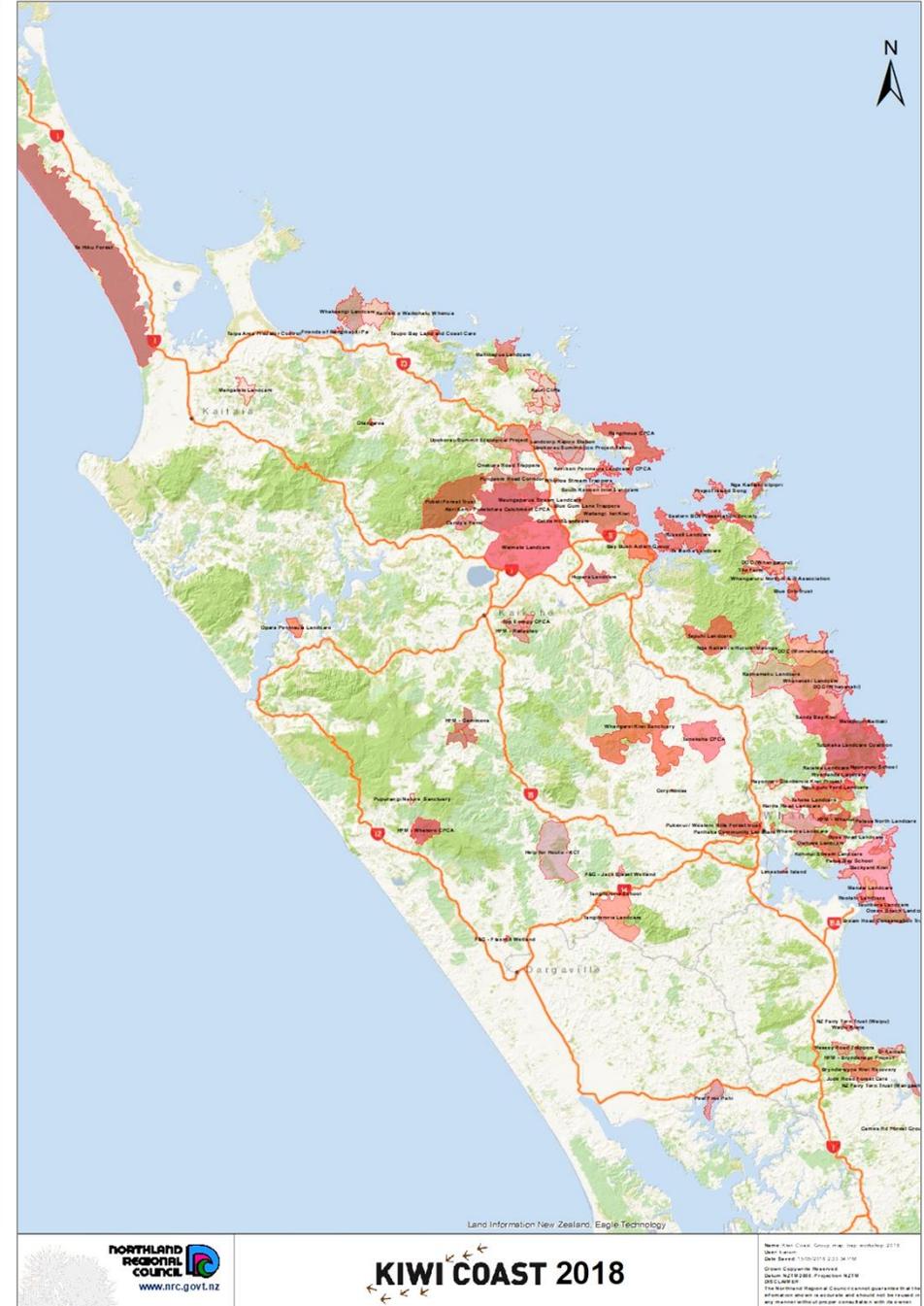
The number of active groups and projects linked into Kiwi Coast has almost tripled since its first year, increasing from 32 in 2013 to 108 in 2018 (See Maps 1 and 2). Collectively, these groups and projects manage 146,801 hectares (See Appendix 1).

As at June 30, 2018 120 entities have linked into the Kiwi Coast, that is 108 active groups and projects and 12 supporting agencies, organisations, businesses and educational institutions.

The momentum of the Kiwi Coast shows no signs of slowing down as more and more Northlanders get involved in actively caring for their kiwi and link into the Kiwi Coast.



Map 1: 32 groups had linked into Kiwi Coast at the end of the first year. Map: NRC



Map 2: 108 groups and projects had linked into Kiwi Coast by June 30, 2018 – five years later. Map: NRC

Predator Control

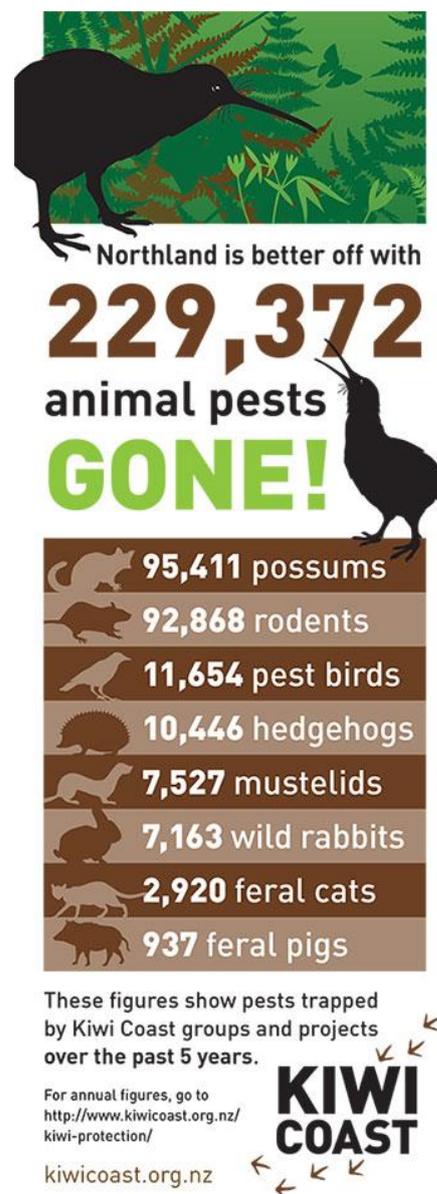
The Kiwi Coast focuses on predator control to ensure kiwi not only survive but can thrive in healthy, robust populations. Kiwi Coast supports and links new and existing community-led projects and gives assistance where invited to do so.

Supporting community leaders to coordinate pest control and kiwi recovery in their areas ensures projects retain autonomy and helps each individual project continue long into the future.

For the past five years the Kiwi Coast has collated annual trap catch data from all the projects involved. During 2013 – 2017, 229,372 animal pests were caught in traps by groups and projects involved in the Kiwi Coast. Over 1,000 pests are now removed from the Kiwi Coast each week.

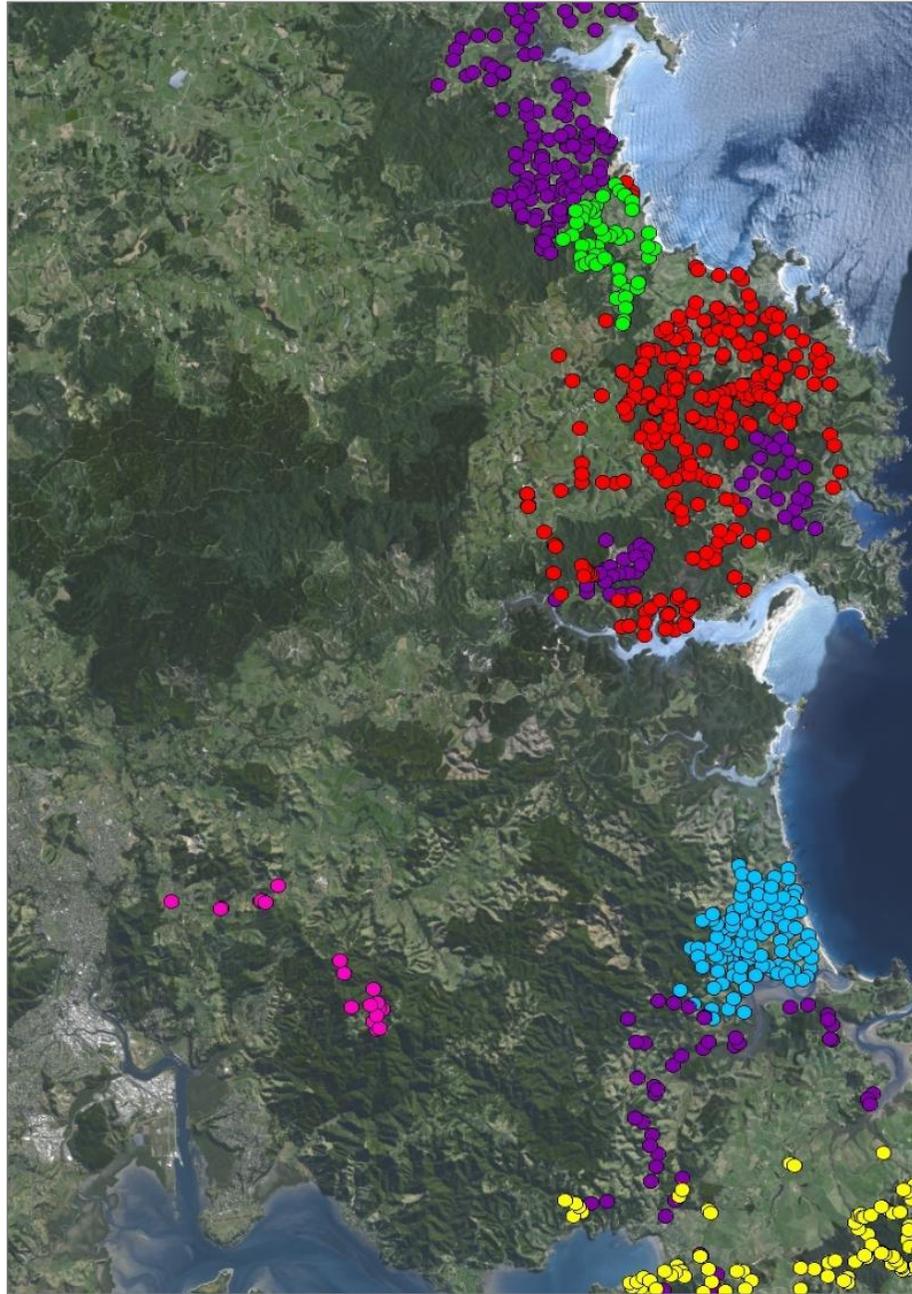
The Kiwi Coast has also supported and assisted projects to carry out pest control operations aimed at reducing trap-wise predators through the use of toxins with secondary poisoning effects.

The Kiwi Coast Strategic Plan (2017) identified two key areas for particular focus: Whangarei Heads – Tutukaka Coast and Bay of Islands – Eastern Hokianga. Groups and projects are being supported in both areas to link together across thousands of hectares to create continuous predator control networks that will allow the safe dispersal of kiwi and other threatened species between high density populations.

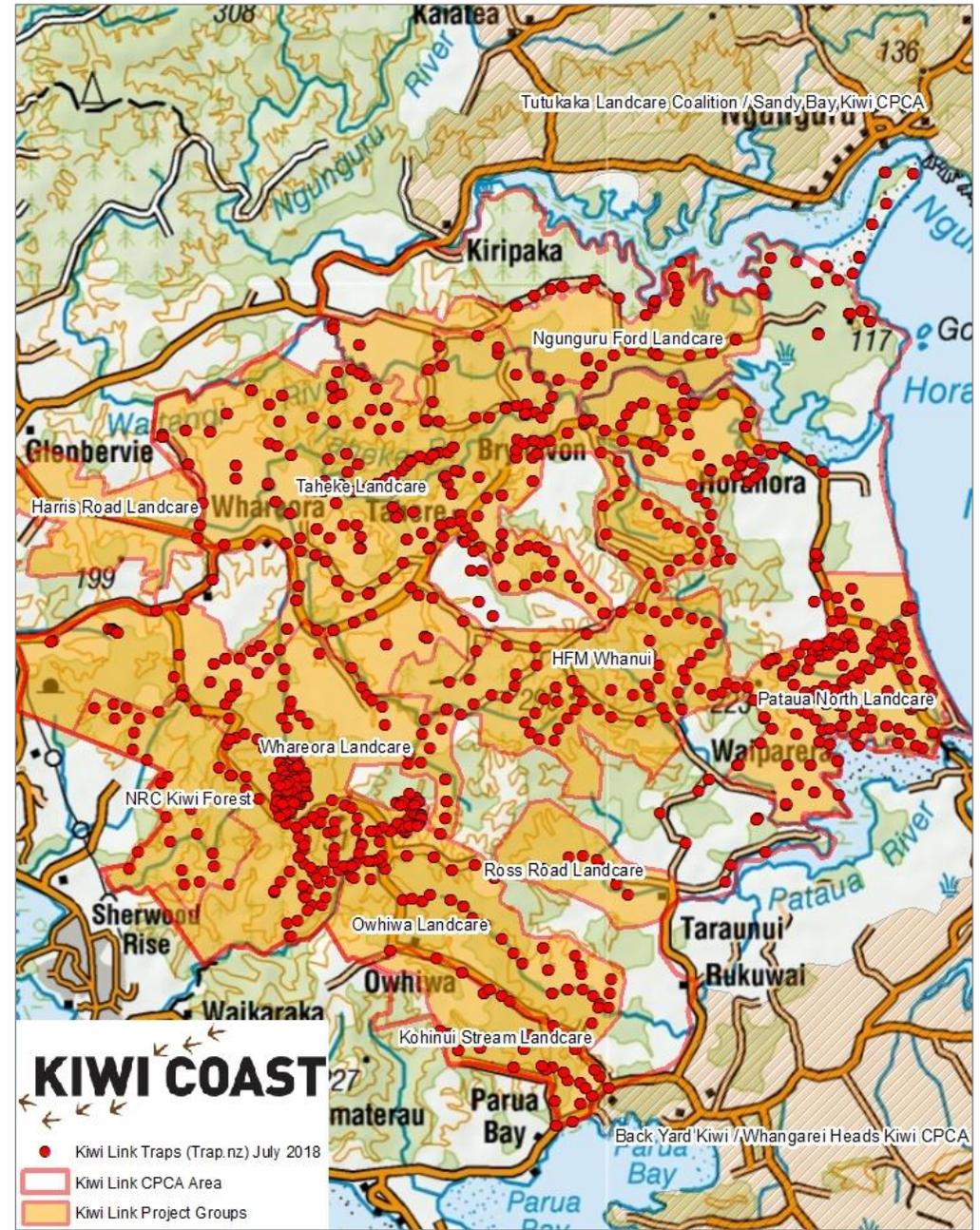


Focus Area 1: Establishing a Whangarei Heads – Tutukaka kiwi corridor

The aim of Focus Area 1 is to create the first functioning kiwi corridor, by linking the two established biodiversity strongholds of Whangarei Heads and Tutukaka with a continuous predator trapping network. Maps 3 and 4 show how the number of traps and community groups have increased over the last five years with the support of Kiwi Coast and Northland Regional Council. This area is now called the “Kiwi Link Community Pest Control Area” and involves ten projects working together over 14,133 hectares with a linked network of 1,326 predator traps.



Map 3: Predator Traps between Whangarei Heads and Tutukaka, June 2013. Map: NRC



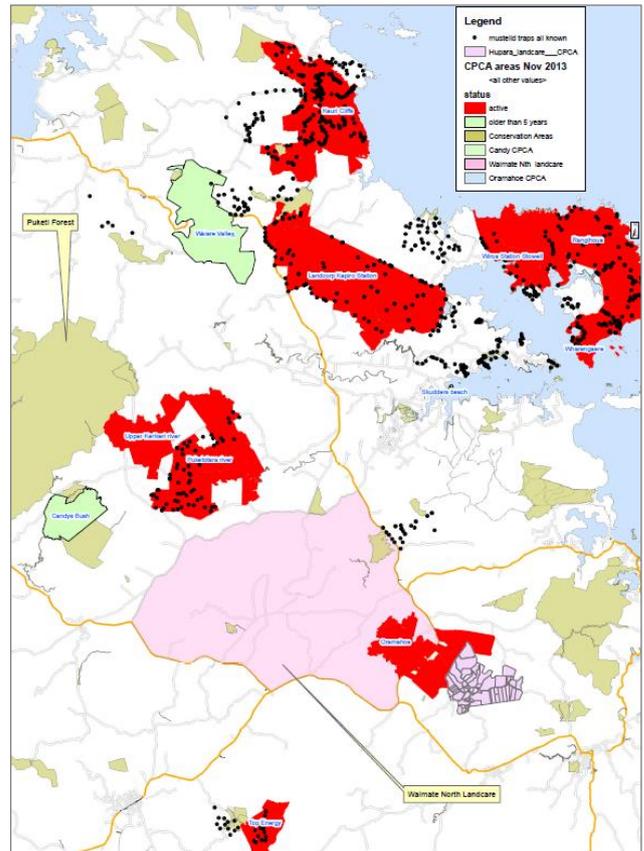
Map 4: Predator Traps between Whangarei Heads and Tutukaka, June 2018. Map: NRC

Focus Area 2: Mid North – Bay of Islands

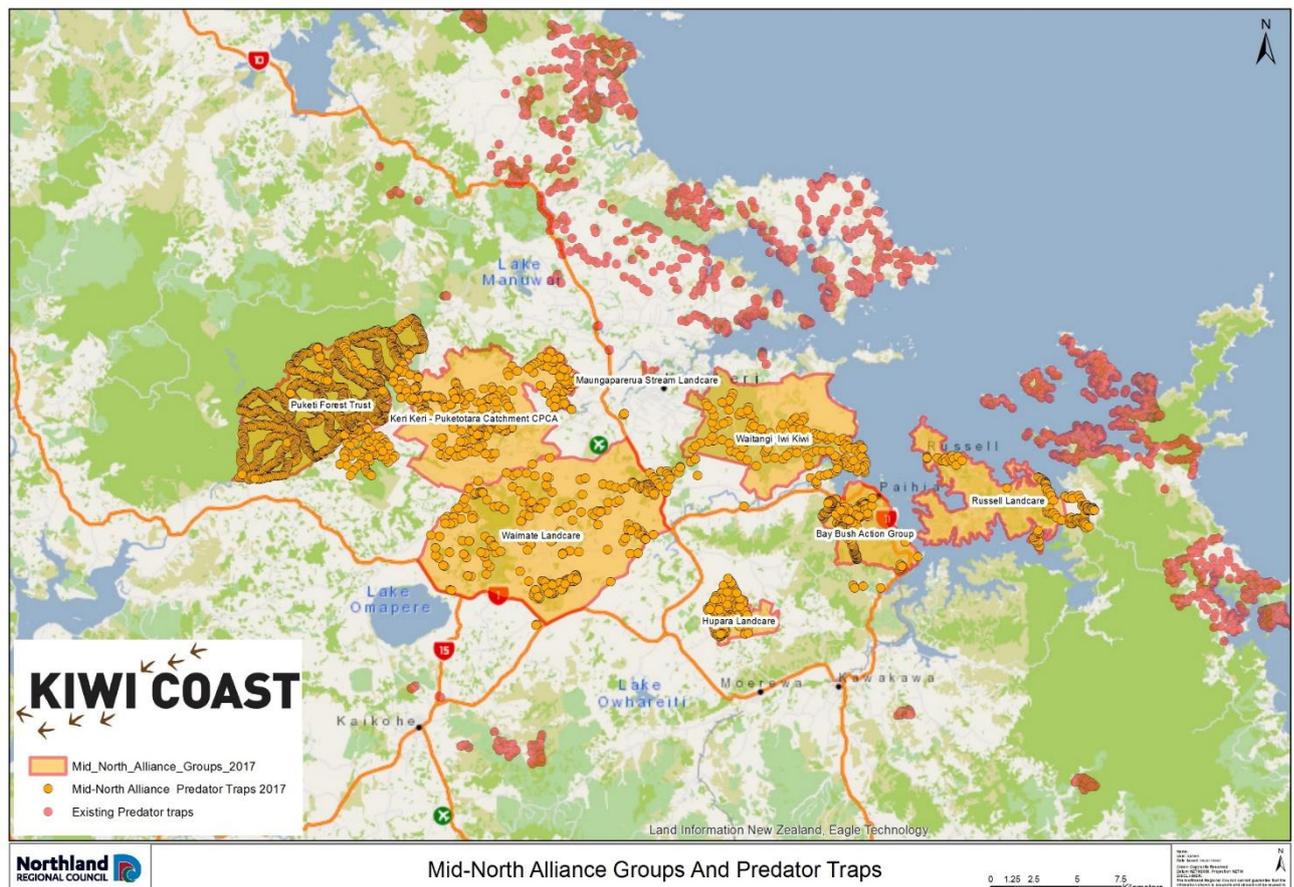
The second focus area is centred on the Bay of Islands. In this area 23 community, iwi and hapu-led conservation projects are working collaboratively through the Mid North Alliance that has been supported by Kiwi Coast and the Department of Conservation. Through the Mid North Alliance, collective predator trapping networks have potential to not only link some of the highest concentrations of Northland brown kiwi, but also benefit other endangered species such as kokako.

Over the last five years, NRC and Kiwi Coast have worked with groups to map existing project boundaries and trap locations, fill gaps to link neighbouring predator traplines into collective networks and support new community-led projects to get underway.

Maps 5 and 6 show the progress made over the last five years.



Map 5 (top): Bay of Islands Groups and predator traps at June 2013 and Map 6 (bottom), as at June 2017. Maps: NRC



Improving Dog Control and Raising Awareness

Improving dog control is a key issue for kiwi survival in Northland. Kiwi should live for 50-65 years but have an average lifespan of just 13 years in Northland due to being killed by dogs. Raising awareness of the issue and stressing the need for good dog control was a recurring theme at all Kiwi Coast events, workshops and wild kiwi experiences. As dog control is inherently a human issue the engagement of dog owners with their kiwi is vital.

The Kiwi Coast participated in Northland Kiwi Forum Working Group discussions regarding dog control and submitted at the Far North District Council Dog Bylaw hearing.

A number of Kiwi Coast projects held 'Kiwi Aversion Dog Training' workshops targeted at hunting and working dogs including Taupo Bay Coast and Landcare, Tutukaka Landcare Coalition, Taheke Landcare and Marunui Conservation Limited.

Kiwi Coast 'Kiwi Live Here' signs, customised with group names and selected dog control messages have proven to be popular with projects, as have fridge magnets for holiday houses.

Presentations and Events

Kiwi Coast has supported and promoted community-led kiwi recovery at a multitude of events, workshops and A&P shows over the past five years. A total of 9,685 people attended Kiwi Coast supported events and workshops between July 2013 and June 2018.

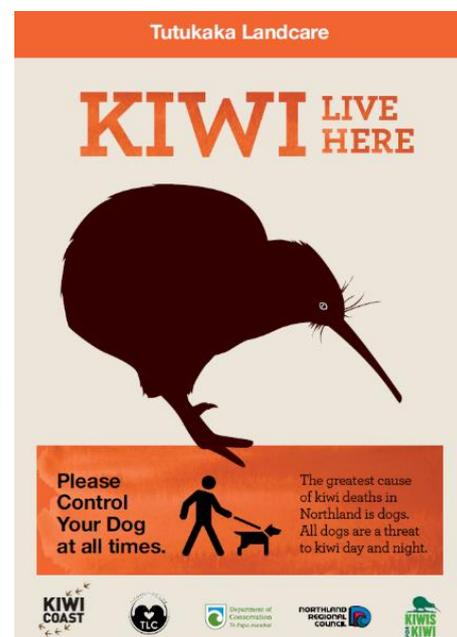
These people came together to celebrate kiwi as a taonga, build skills and deepen their understanding about how to help kiwi thrive. Just as importantly as allowing people to engage with kiwi, these events also provided prime opportunities to deliver key messages around kiwi recovery and the importance of good dog control to kiwi survival.

Presentations have been given to numerous community group meetings, AGMS, government departments and scientific societies. Kiwi Coast has also participated in regional forums including the Northland Kiwi Forum Working Group and the Northland Biodiversity Forum.

Pataua Nth Landcare Kiwi Release, October 2017. Photo: Anne Stewart



Tutukaka Landcare dog control sign



Skill Building Workshops

Community leadership and kaitiakitanga have been enabled and supported through a range of skill building workshops. These were provided upon request and tailored to build knowledge and specific skills within the hosting community or project.

A total of 34 workshops have been held since 2013 throughout the Kiwi Coast. Each collaborative workshop shared technical knowledge and expertise from a range of sources including local professional predator trappers, community leaders, NRC Biosecurity Staff, Department of Conservation and professional training providers.

Skill building workshops over the past five years have included:

- Northland Pest Control Workshop
- Local 'Trapping for Success' workshops
- 'Practical Pest Control' fieldtrips
- 'Caring for Kiwi' workshops
- Trap mapping and data management training workshop
- Outdoors First Aid Course
- Controlled Substance Licence Course
- Professional Trappers fieldtrips
- On Site Kiwi Call Count Training Evenings

Tutukaka Trapping Workshop 2017, Photo Kiwi Coast Malcolm Pullman



Communications

Kiwi Coast has implemented an integrated communications strategy over the last five years. This has been designed to:

- build linkages between projects via sharing information, stories and successes,
- celebrate kiwi as a taonga,
- engage people in caring for kiwi,
- build acceptance of animal pest control practices required to protect kiwi,
- positively encourage good dog control, and
- establish the Kiwi Coast as a successful and accessible initiative in which everyone can participate.

Communications have included a live, continuously updated website, Facebook page and regular electronic newsletter. Over the last five years, Kiwi Coast communications have reached thousands of people, both locally and internationally:

Sessions by City

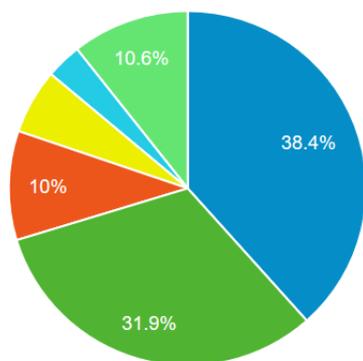
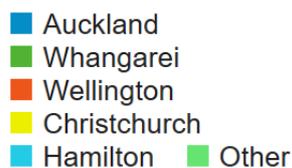


Figure 2: Location of New Zealanders using the Kiwi Coast Website

Sessions by Country

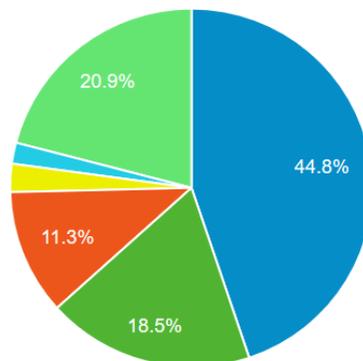
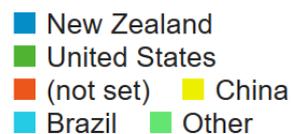


Figure 3:- Origin of international visits to the Kiwi Coast Website

Since going live in June 2014 a total of 27,108 people have visited the Kiwi Coast website. As at June 30, 2018, 1,336 people 'liked' the Kiwi Coast on Facebook with the largest reach of a single post reaching 10,652 people in 2016.

Kiwi Coast has also enjoyed a strong media presence, with articles featuring in an array of local, regional and national media including Radio NZ and MORE FM radio stations and the NZ Herald, Northern Advocate, Whangarei Report online and printed newspapers and magazines.

Results and Monitoring

Kiwi Coast is underpinned by a robust scientific monitoring framework that ensures accurate measurement of outcomes. The Kiwi Coast’s ‘Kiwi Monitoring Plan’ (Topia, 2014) is based on best practice kiwi monitoring protocols developed by the Department of Conservation, including annual kiwi call counts and the use of Kiwi Listening Devices.

In 2014 the Kiwis for Kiwi Trust reported a national trend of 2% decline per annum in kiwi populations. As per previous years, analysis of the 2017 Northland kiwi call count data demonstrated that the overall trends of kiwi populations are generally stable or increasing at almost all sites managed for pest control on the Kiwi Coast (Craig, 2018). In 2016, the Department of Conservation updated their Northland brown kiwi distribution map to show the increase in call count rates as some sites and their presence in new areas (Map 5).

The Kiwi Coast works with the Department of Conservation (DOC) each year to encourage, support and coordinate groups to carry out annual Kiwi Call Count Monitoring. The data are analysed by DOC in the annual ‘Northland Kiwi Call Count Report’ (available on the Kiwi Coast website at www.kiwicoast.org.nz/kiwi-resources).

“The general pattern of a slow and steady increase for the 12 original listening stations on the Kiwi Coast listened from since 1995 is positive and is very likely a reflection of the extensive kiwi protection effort that has already been happening throughout this area. As the Kiwi Coast project gathers and maintains momentum, this pattern is likely to intensify, particularly in the areas that have been identified as linkages...”
(Craig, 2013).

As the Kiwi Coast has only been in operation for five years, it does not claim these results as its own success, but rather seeks to ensure the upward trend is sustained.

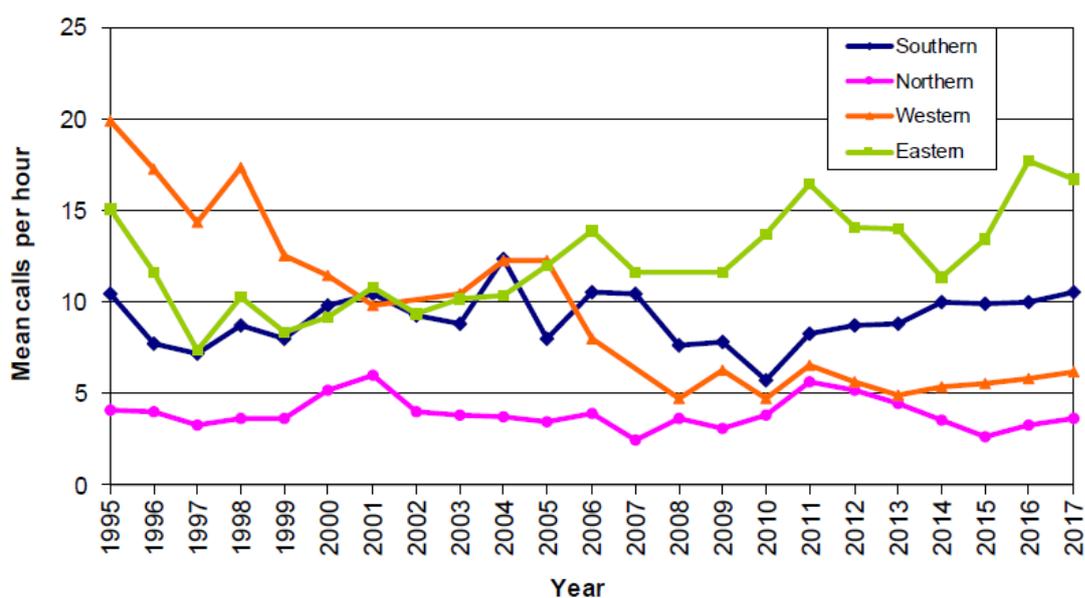
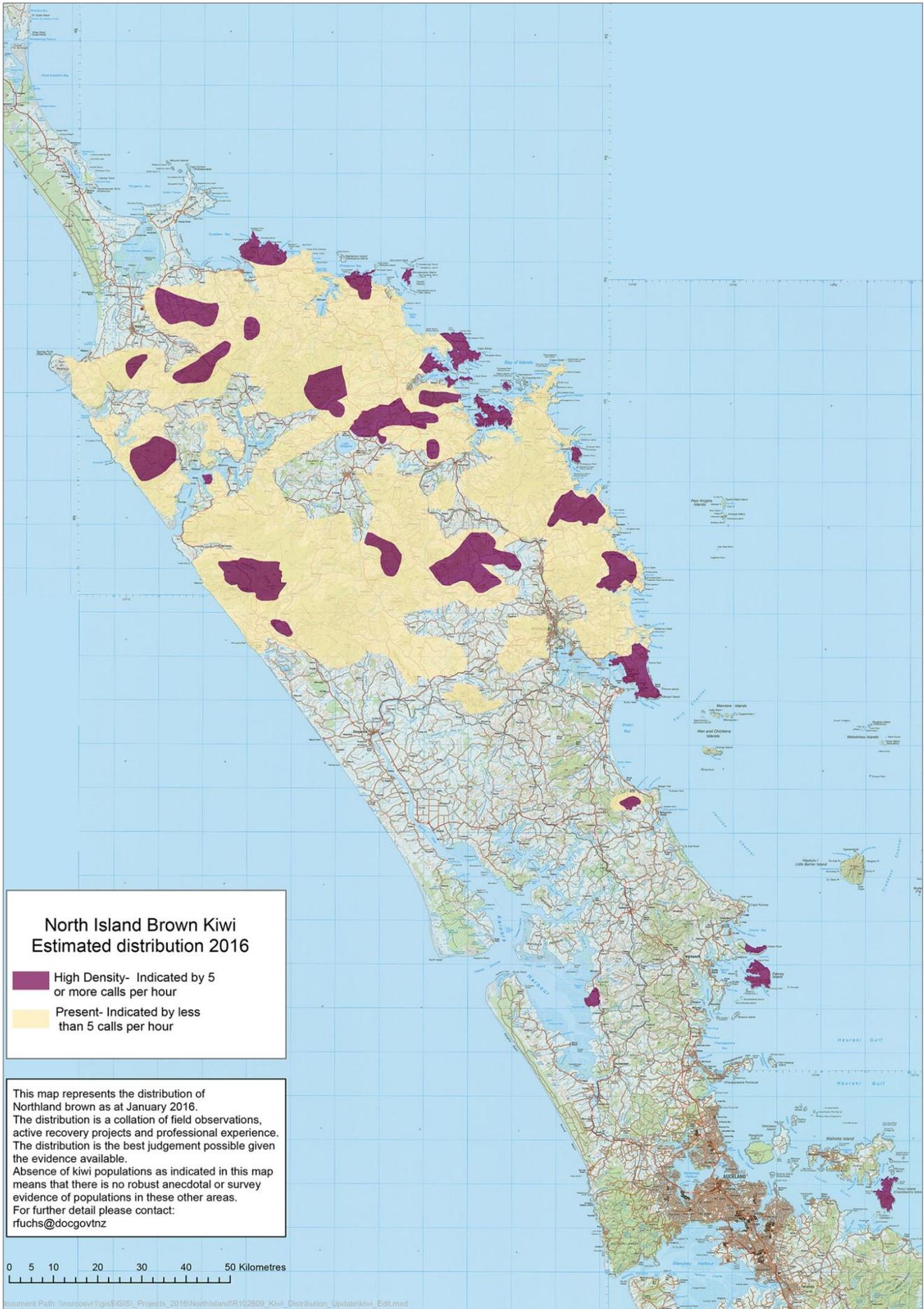


Figure 4: Kiwi Call Count Data for Kiwi Coast areas (Craig, 2018)



Map 5: Updated Northland Kiwi Distribution. Map: Department of Conservation, 2016.

Indicator Species Monitoring

In order to document the response of native wildlife other than kiwi to predator control and community stewardship, the Kiwi Coast Indicator Species Monitoring Program has studied the populations and distributions of pateke, kaka and bellbird.

Pateke

Each year from 2014 – 2018 the Kiwi Coast worked with community groups, specialist staff at the Department of Conservation (DOC) and NorthTec to assist with the Annual Pateke Flock Counts between the Bay of Islands and Ngunguru and investigate new sites. The data collected (Figure 5) shows a steady upwards trend of pateke abundance in eastern Northland.



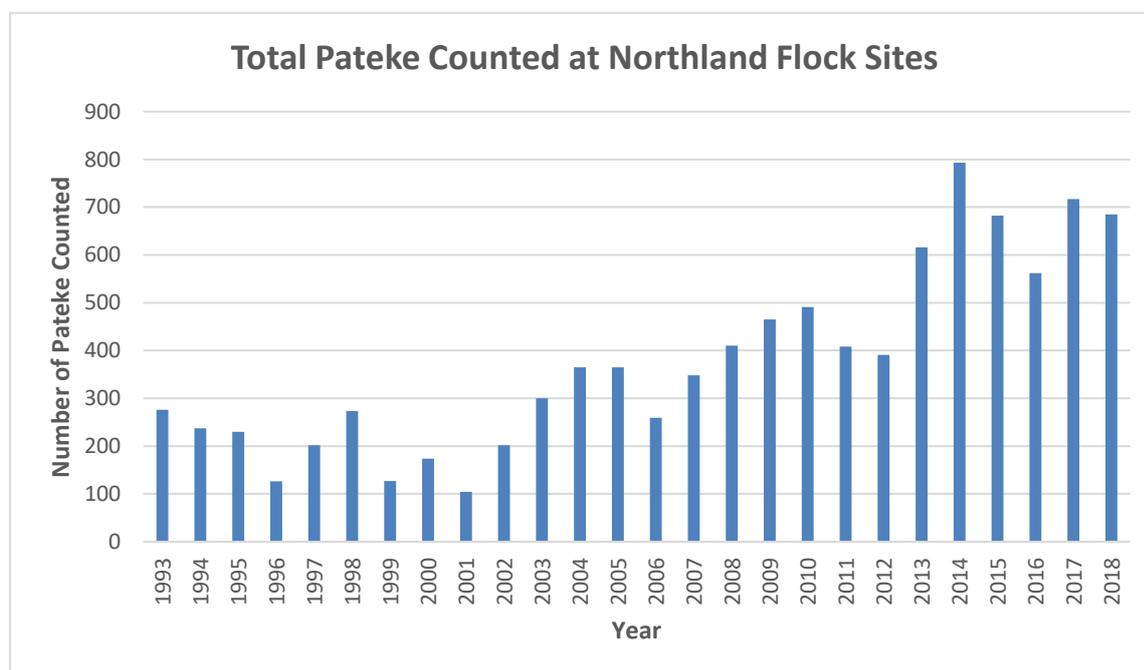
Pateke at Tutukaka. Photo: Kiwi Coast Malcolm Pullman

Vivienne Lepper, from DOC 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 estuaries including the Horahora, Pataua and Taiharuru. These pateke surveys recorded pateke for the first time in the Horahora estuary and farm ponds near Parua Bay and Pataua. This helped to confirm that this rare duck is not just increasing at known sites but also increasing its distribution and moving into new areas on the Kiwi Coast where there is sustained predator control.

Figure 5: Northland Pateke Flock Count Data (Source, Dept of Conservation, 2018)



Kaka and Bellbird

Over the 2015/16 summer Kiwi Coast supported NorthTec Conservation Environmental Management students and staff to develop and implement a monitoring program for bellbird / korimako and kaka distribution in eastern Northland. This fieldwork provided baseline distribution data for the remaining two species that have been selected as indicators for quantifying Kiwi Coast outcomes.

“Bellbird and kaka are suitable indicator species as they are highly conspicuous and easily identifiable. Their known source populations are offshore islands in close proximity to the Kiwi Coast and anecdotal evidence suggests that resident populations are limited in areas associated with the Kiwi Coast. It is hoped that data collected in the current study will be used as a baseline for future surveys (i.e., in 2020) so that the change in bellbird and kaka distribution can be documented over time and potentially used as another measure to quantify the success of on-ground management.” (Sullivan et al., 2016)

Twenty three sites were surveyed between Bream Head and the Hihi peninsula. Kaka were detected at three sites - Bream Head Scenic Reserve, Taurikura Ridge and Manaia Ridge Scenic Reserve. Bellbirds were only detected at the Bream Head Scenic Reserve.

Bellbird observed utilising winter food sources by Ngunguru Ford Landcare.



Table 1: Kiwi Coast Monitoring Results Summary: July 2013 to June 2018

Measure	Method	Results Summary
<i>Distribution of Northland brown kiwi populations</i>	<i>Northland brown kiwi distribution map (DOC)</i>	<ul style="list-style-type: none"> • Map updated by DOC in 2016 (Map 5)
<i>Estimation of number of adult Northland brown kiwi</i>	<i>Annual Northland Kiwi Call Count survey (DOC)</i>	<ul style="list-style-type: none"> • Kiwi call count data from 1995 - 2017 shows overall trends of stable (Northern and Southern) and increasing (Eastern) kiwi populations
<i>Indicator Species Monitoring: Pateke, Bellbird/korimako and kaka</i>	<i>Participation in DOC led Annual Pateke Flock Counts Five yearly bellbird and kaka distribution surveys</i>	<ul style="list-style-type: none"> • Pateke distribution is expanding on Northland's east coast and population size is increasing. • Baseline of kaka and bellbird distribution established
<i>Number and type of animal pests trapped annually</i>	<i>Total tally of trap catch data from groups and projects</i>	<ul style="list-style-type: none"> • 229,372 animal pests collectively trapped over past five years
<i>Area under active pest management</i>	<i>Annual collation of data (NRC GIS analysis).</i>	<ul style="list-style-type: none"> • 146,801 hectares collectively under active management by groups and projects
<i>Number of entities involved</i>	<i>Total tally of entities</i>	<ul style="list-style-type: none"> • 120 groups, projects and organisations (See Appendix 1)
<i>Number and type of capacity building workshops</i>	<i>Total tally of workshops</i>	<ul style="list-style-type: none"> • 34 workshops
<i>Number of people attending Kiwi Coast supported events and workshops</i>	<i>Coordination of workshop registration forms and head counts at events</i>	<ul style="list-style-type: none"> • Total number of people at Kiwi Coast supported workshops and events: 9,685
<i>Communications reach</i>	<i>Compilation of electronic data</i>	<ul style="list-style-type: none"> • Total visits to the Kiwi Coast Website June 2014 – June 2018: 27,108 • Facebook 'Likes' as at June 30, 2018: 1,336 • Largest reach of a single Facebook post: 10,652 (2016) • Electronic newsletter: 485 subscribers, 48.9% opening rate (Industry average is 18.6%)

Research and Technology

Each summer, Kiwi Coast has worked with the NorthTec Conservation Management Department on research projects with a twofold purpose:

- 1) Conduct specific research for the Kiwi Coast based on current information gaps and needs
- 2) Create employment opportunities and provide practical fieldwork experience for committed students

Over the past five years NorthTec Summer Research Projects have investigated:

- The use of Acoustic Monitors for native bird monitoring
- Presence and distribution of bellbird and kaka on the Kiwi Coast
- Pateke Flock Count Monitoring and distribution mapping
- Effectiveness of chew card and tracking tunnel monitoring methods for rat abundance

Each research project has been written up by NorthTec Conservation Management Tutors and students into scientific articles that have been published in journals and presented at conferences.

NorthTec students Raureti Sullivan and Alisha Frost surveying for bellbird and kaka in the Mt Tiger forest



Celium Technology Trial

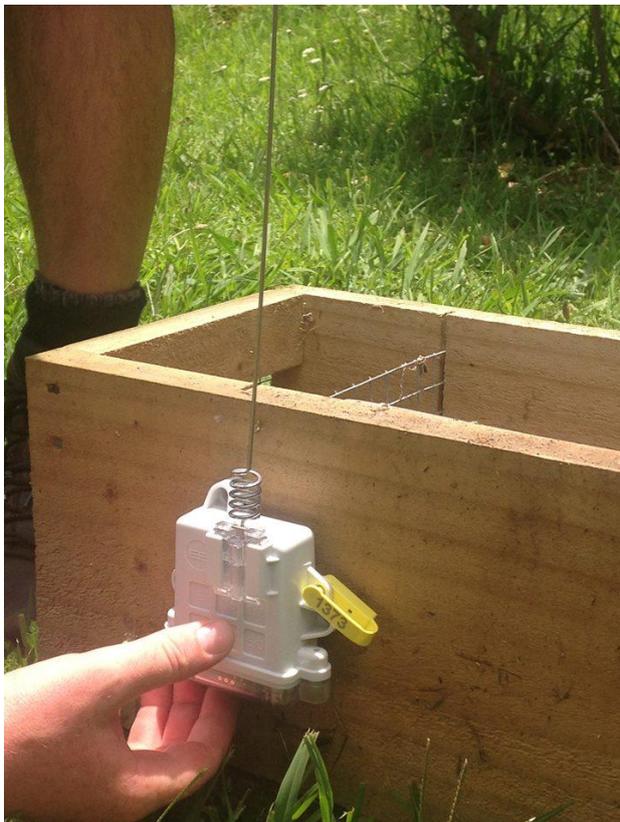
Over the past year, Kiwi Coast and NRC have partnered to trial the [Celium technology](#) developed by Encounter Solutions. NRC supplied 150 Celium nodes and two Hubs to establish a basic trial network. The nodes were attached to DOC 200 trap boxes in the Tutukaka, Ngunguru Ford, Whareora, Whanui and Taheke Landcare project areas. The Celium nodes relayed trap status information (ie when the trap has been sprung, reset or is in need of attention) via two receiving Celium hubs located at Mt Tiger.

Kiwi Coast resourced two of the professional predator trappers to trial the technology and investigate its feasibility within the Kiwi Link and Tutukaka CPCA areas. Initial results look promising, with the technology working well in the undulating eastern Whangarei topography.

The next steps are for the nodes to have a firmware upgrade and be redeployed in a more concentrated network through the Whanui and Pataua North Landcare projects with the aim of progressing the use of the technology for trap management. For example, a DOC 200 trap baited with eggs in winter may not need to be visited every three weeks as per the current schedule if the trap has not been sprung, saving considerable time and energy. Alternatively, a sprung trap within a known kiwi or pateke pair's territory during the breeding season may be checked more often to increase chick survival rates.

Ultimately, Kiwi Coast and NRC would like to support the development of the technology to enable the Celium nodes to receive information from kiwi transmitters to assist with tracking kiwi movements. Discussions are currently being held with transmitter makers and other kiwi recovery projects around New Zealand interested in partnering to enable this work.

Installing the Celium nodes, December 2017.



Summary – reflections and lessons learnt

Over the past five years the Kiwi Coast has grown rapidly and learnt much.

The ‘can-do’, action-on-the-ground, community led style of the Kiwi Coast has engaged the hearts and minds of many Northlanders, inspiring and motivating more and more communities and hapu to get involved and actively look after “their patch” and “their kiwi”.

While the focus of Kiwi Coast is on kiwi, noticeably, there has also been a multiplier effect. Once groups gain confidence and skills from kiwi recovery based pest control and monitoring, they quickly turn their attention to other biodiversity restoration goals. While kiwi often remain the iconic goal, groups are also involved in a multitude of other activities such as pateke recovery, forest health, weed control, kauri dieback prevention, reintroductions of threatened species such as robins, forest fencing and riparian planting, etc.

A priority of the Kiwi Coast over the next five years is therefore to secure additional resources to ensure that gains made to date in community, iwi and hapu-led kiwi recovery are not only sustained but enabled to grow further.

The formation of the Kiwi Coast Trust provides an entity to enable strategic partnerships to be formed with like-minded organisations and sponsors to allow the work of Kiwi Coast to continue. An example of this has been the Kiwi Coast – NRC partnership that got underway in September 2017. Working together, Kiwi Coast and NRC can ensure gains made to date are not lost and a strategically coordinated regional approach to be implemented.

Working with partners to bring new technology and research to enable predator control and kiwi kaitiakitanga at a regional scale will assist the successful operation of NZ’s first kiwi corridor and ensure that this iconic taonga species is here for generations to come.

The task ahead for the Kiwi Coast is to maintain momentum and strategic direction to ensure the continued wise use of resources that will most benefit Northland brown kiwi and ensure communities, iwi and hapu are firmly in the driving seat of New Zealand’s first kiwi corridor.

The Kiwi Coast Trust wishes to thank all the groups and projects for their enduring and relentless hard work controlling animal pests, advocating for improved dog control, and ensuring Northland’s kiwi, forests and native wildlife can thrive. Thanks also to our supporters, sponsors, fundraisers, donors, partners and funders including the Northland Regional Council, NZ Landcare Trust, Reconnecting Northland, WWF-NZ, Tindall Foundation, Foundation North and Department of Conservation Community Fund. Working collaboratively together has made a real and tangible difference where it matters most – on the ground and in the kiwi burrow!

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Appendix1: Entities, projects and groups involved in the Kiwi Coast as at June 30, 2018

	Name	Location	Project Area (ha)
1	Aroha Island	Kerikeri	18
2	Backyard Kiwi	Whangarei Heads	5845
3	Bay Bush Action	Opuia, Bay of Islands	1724
4	Blue Gum Lane	Kerikeri	36
5	Blue Orb Charitable Trust	End of Whangaruru Peninsula	413
6	Bream Head Conservation Trust	Bream Head	861
7	Brynderwyns Kiwi Recovery	Brynderwyns	1377
8	Bulls Gorge Trappers	Kerikeri	19
9	Cames Rd Forest Group	Mangawhai	12
10	Candy's Farm	Okaihau	598
11	Corymbosa Charitable Trust	Ruatangata West	8
12	Cottle Hill Landcare	Kerikeri	43
13	DOC Whangarei Kiwi Sanctuary and Pateke projects	Various	13268
14	Eastern Bay of Islands Preservation Society	Eastern Bay of Islands	
15	Fish & Game - Flaxmill Wetland	Dargaville	43
16	Fish & Game - Jack Bisset Wetland	Poroti	106
17	Friends of Matakoho/ Limestone Island	Matakoho/ Limestone Island, Whangarei Harbour	39
18	Friends of Rangikapiti Pa	Coopers Beach	17
19	Gilbert Pest Traps	Ngunguru	1
20	Hancock Forest Management: Brynderwyn Kiwi Project	Brynderwyns	243
21	Hancock Forest Management: Gammons Block	Mangakahia	1368
22	Hancock Forest Management: Rakautao	Kaikohe	647
23	Hancock Forest Management: Whanui Project	Pataua North	927
24	Hancock Forest Management: Whatoro CPCA	Kaihu	1414
25	Harris Rd Area Landcare	Glenbervie	452
26	Hupara Landcare	Hupara	821
27	Jude Rd Forest Care	Mangawhai	15
28	Kaiatea Landcare	Ngunguru	338
29	Kaimamaku Landcare	Kaimamaku – Kaikanui	3126
30	Kaipara Forest Restoration Trust	Houto	4590
31	Kaitiaki o Waikohatu Whenua	Taemaro and Waimahana Bays	1665
32	Kauri Cliffs	Matauri Bay	2172
33	Kerikeri Peninsula Pest Control	Kerikeri Peninsula	504
34	Kerikeri-Puketotara Catchment CPCA	Kerikeri - Puketotara	5792
35	Kiwi North	Whangarei	
36	Kiwis for Kiwi Trust	New Zealand	
37	Kohinui Stream Landcare	Kohinui Stream Catchment	354
38	Landcorp Kapiro	Kaipiro Station	3185

39	Langs Cove Trapping Group	Langs Cove	27
40	Living Waters	Tangatapu Catchment, Bay of Islands	4
41	Mahinepua/Radar Hills Landcare	Mahinepua – Radar Hills	1150
42	Manaia Landcare	Whangarei Heads	484
43	Mangatete Landcare	Fisher Riley Rd, Kaitaia	724
44	Massey Road Trappers	Massey Road, Waipu	429
45	Matapouri Kaitiaki	Whale Bay - Matapouri	17
46	Maungaparerua Stream Landcare	Kerikeri	648
47	Nga Kaitiaki o Huruiki Maunga	Mt Huruiki between Whangapara and Whangaruru	315
48	Nga Kaitiaki o Ipipiri	Cape Brett peninsula	482
49	Ngati Wai Trust Board	Ngati Wai rohe	
50	Ngunguru Ford Landcare	Ngunguru Ford	730
51	Ngunguru Sandspit Protection Society	Ngunguru	103
52	Ngunguru School: Restoring Food Chains	Ngunguru	3
53	Northland Regional Council	NRC Mt Tiger block	
54	NorthTec Conservation Management		
55	NZ Fairy Tern Trust	Auckland, Northland	332
56	NZ Kiwi Foundation	Various sites around Bay of Is	
57	NZ Landcare Trust	New Zealand	
58	Northland Forest Managers	Northland (Waikaraka Forest)	
59	Ocean Beach Landcare	Ocean Beach, Whangarei Heads	73
60	Oi Kaitiaki	Langs Cove to Bream Tail Farms	444
61	Onekura Rd Trappers	Waipapa	419
62	Opara Peninsula Landcare	Hokianga	559
63	Otangaroa Landcare	Otangaroa	58
64	Owhiwa Landcare	Owhiwa	819
65	Papakarahi Landcare	Whangarei Heads	
66	Papa Taio Wainui Project	Wainui	2
67	Parihaka Community Landcare	Mt Parihaka, Whangarei	69
68	Parua Bay School Wildlife Walkway	Parua Bay	5
69	Parua Cemetery Road Landcare	Parua Bay	50
70	Pataua North Landcare	Pataua North	796
71	Pest Free Pahi	Pahi Peninsula, Paparoa	879
72	Project IslandSong	Islands in the Bay of Islands (centered on Urupukapuka)	436
73	Puke Kopipi Restoration Group	Ngunguru	6
74	Pukenui/Western Hills Forest Trust	Whangarei	2043
75	Puketi Forest Trust	Puketi	5043
76	Pungaere Road Corridor	Kerikeri	1513
77	Pupurangi Nature Sanctuary	Kaihu	102
78	QEII National Trust	New Zealand	
79	Rangihoua Community Pest Control Area	Purerua Peninsula	3337

80	Rayonier Matariki Forests – Glenbervie Forest Project	Glenbervie	188
81	Reconnecting Northland	Te Tai Tokerau	
82	Reotahi Landcare	Whangarei Heads	82
83	Riverlands Landcare	Ngunguru river	83
84	Ross Road Landcare	Taraunui	337
85	Russell Landcare	Russell, Bay of Islands	2969
86	Russell-Orongo Bay Holiday Park	Russell, Bay of Islands	1
87	Sandy Bay Kiwi	Sandy Bay	3590
88	South Kerikeri Inlet Landcare	South Kerikeri Inlet	660
89	Springbank Collective	Kerikeri	7
90	Taheke Landcare	Centered around Taheke Scenic Reserve	2634
91	Taiharuru Catchment Care Group	Taiharuru, Whangarei Heads	322
92	Taipa Area Predator Control	Taipa	17
93	Tanekaha Community Pest Control Area	Hikurangi	2919
94	Tangiteroria Landcare	Tangiteroria	3170
95	Tangiteroria School	Tangiteroria	3
96	Tapuhi Landcare	Tapuhi	2911
97	Taupo Bay Coast and Landcare	Taupo Bay	188
98	Taurikura Ridge Landcare	Taurikura, Whangarei Heads	255
99	Te Hiku Forest	Aupouri Peninsula, Far North	18683
100	Te Ikaroa Landcare	Bay of Islands	53
101	Te Tangi o Te Ata	Eastern Bay of Islands	970
102	The Farm	Whangaruru	259
103	The Shadehouse Volunteers	Kerikeri	1
104	Tikipunga Possum Control	Tikipunga	1
105	Top Energy CPCA	Ngawha	425
106	Tutukaka Landcare Coalition Trust	Tutukaka	6725
107	Upokorau Summit Ecological Project	Upokorau	2907
108	Vision Kerikeri	Kerikeri	
109	Volunteering Northland	Northland	
110	Waimate North Landcare	Waimate North	9395
111	Waipu Kiwis	Waipu	128
112	Waitangi Iwi Kiwi Project	Waitangi, Bay of Islands	4747
113	Weed Action Whangarei Heads	Whangarei Heads	
114	Whakaangi Landcare Trust	Hihī peninsula	1940
115	Whananaki Landcare	Whananaki	3617
116	Whangarei District Council	Whangarei	
117	Whangaruru Nth Residents & Ratepayers	Whangaruru Peninsula	284
118	Whareora Landcare	Whareora/Mt Tiger	2159
119	Whiritoa Stream Trappers	Waipapa	29
120	World Wildlife Fund NZ	New Zealand	
Total hectares			146,801

Principal Partner



Collaborating organisations and companies



Direct funders and sponsors

