



# *Kiwi Coast Annual Report 2019*

Kiwi Coast Trust, July 2019



## Contents

Executive Summary	3
Strategic Approach	4
Role of Kiwi Coast Coordinators	4
Health and Safety	5
Financial Summary	5
New Zealander of the Year Awards 2019	6
Entities Collaborating in Kiwi Coast	6
Predator Control	8
Focus Area 1: Whangarei Heads – Tutukaka Coast Kiwi Corridor	9
Focus Area 2: Mid North – Bay of Islands	11
Piroa – Brynderwyns High Value Area	13
Far North and Western Areas	14
Improving Dog Control and Raising Awareness	14
Events & Engagement	15
Skill Building Workshops	15
Communications	16
Results and Monitoring	17
Indicator Species Monitoring	18
Research and Technology	22
Summary	23
References	23
Appendix 1: Kiwi Coast- NRC Partnership Financial Summary	24
Appendix 2: Entities, projects and groups involved in the Kiwi Coast as at June 30, 2019	25

## Executive Summary

This Annual Report presents key activities and achievements from the sixth year of operation of the Kiwi Coast from July 1, 2018 – June 30, 2019 and a summary of achievements to date against Key Performance Indicators, Objectives and Goals identified in the [Kiwi Coast Strategic Plan](#).

Since getting underway six 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, 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, 2019, 129 entities have linked into Kiwi Coast, 122 of which are community-led groups and active projects. Collectively, these groups and projects manage approximately 155,000 hectares.

Kiwi Coast's main priorities are to reduce threats to kiwi survival and engage 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 shows that 297,753 animal pests were caught in traps by groups and projects involved in the Kiwi Coast over the last six years and more than 1,000 pests are now being removed from the Kiwi Coast each week.

Over the past six years 44 skill building and trapper training workshops have been held with a total of 13,373 people attending Kiwi Coast supported events and workshops. These events were also prime opportunities to deliver key messages around kiwi recovery and the importance of good dog control to kiwi survival.

Northland brown kiwi populations continue to increase in most project areas linked into Kiwi Coast, and kiwi were confirmed at a number of new sites over the past year. The confirmed dispersal of translocated kiwi between the Whangarei Heads peninsula and the Kiwi Link Community Pest Control Area indicates that the assumptions, methods and hard work from all the landowners, organisations and agencies involved is beginning to yield the much sought after result of a functioning kiwi corridor and a thriving Northland brown kiwi population, free to roam in safety.

## *Strategic Approach*

The Kiwi Coast Trusts 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.

## *Role of the Kiwi Coast Coordinators*

Connecting people and ensuring the Kiwi Coast remains strong and dynamic is a pivotal role which the Kiwi Coast Coordinators have achieved through:

- 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 on statutory plans and processes.
- 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.

## Health and Safety

Kiwi Coast Trust has joined *Sitewise* for accreditation of its Health and Safety system, which has helped to improve and refine existing policies and procedures.

Kiwi Coast Coordinators completed Workplace Assessments and Chemical Inventories for both the Whangarei and Bay of Islands storage sheds containing pest control equipment, including hazardous materials. Hazard Identification and Risk Management forms were completed in conjunction with site hosts at all events led by Kiwi Coast. Two out of three main contractors have successfully completed their annual Health and Safety Review, with the third review to be completed in August 2019.

Incidents reported by Kiwi Coast contractors during the year were two wasp stings, a cut to a finger and an observed traffic risk that was rectified. All incidents were logged and raised for corrective and preventative action. Having a record of incidents allows Kiwi Coast Trust to continually improve its procedures.

## Financial Summary

Kiwi Coast Charitable Trust continues to both seek and generate funds to enable Northland community and hapu-led kiwi recovery and pest control projects. A summary of the 2018/19 financial year (Appendix 1) shows the key contributor to the Kiwi Coast Trust was the Northland Regional Council through the NRC-Kiwi Coast Partnership. Additional funds were received from local sponsors and the Trust's own fundraising activities. The 2018/19 year saw the completion of funding grants from the Department of Conservation Community Funds and NZ Landcare Trust.



Kiwi Coast's income generating mechanisms now include merchandise sold at events and through an online shop, the supply of traps and modified trap boxes for Northland conditions, local fundraising opportunities (For example Z's 'Good in the Hood') and the growing '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 the Kiwi Coast.

## *New Zealander of the Year Awards 2019*

Kiwi Coast was proud to shine the light on all the hard-working Northland groups and projects when nominated for the 2019 New Zealander of the Year Award in the Community Category. Being one of the top three finalists for the award was a highlight of the year shared with partners Northland Regional Council.

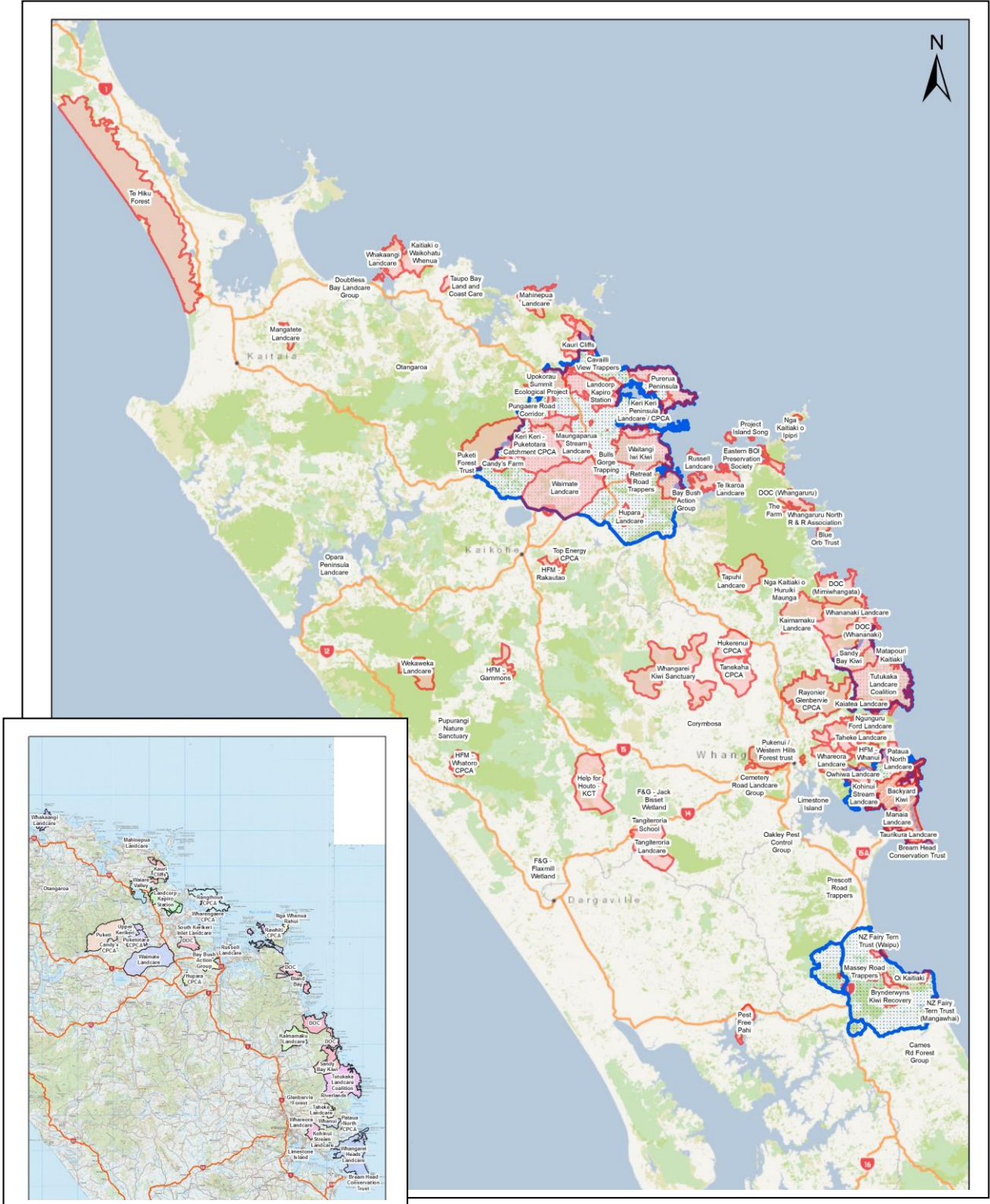


**New Zealander of the Year Awards Ceremony (Photo: Heather Hunt)**

## *Entities Collaborating in Kiwi Coast*

The number of entities collaborating in Kiwi Coast has more than quadrupled, increasing from 32 in Year 1 to 129 entities in Year 6 (See Maps 1 and 2). This includes 122 active groups and projects and 7 supporting agencies, organisations, businesses and educational institutions. Collectively, these groups and projects manage approximately 155,000 hectares (See Appendix 2).

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. Supporting groups to connect trapping networks, find efficiencies and maximise ecological gains remains a key focus of the Kiwi Coast Trust.



Map 1: Kiwi Coast 2012, 32 projects.

Map 2: Kiwi Coast 2019; 122 groups and projects (Maps: 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 six years the Kiwi Coast has collated annual trap catch data from all the projects involved. During 2013 – 2018, 297,753 animal pests were caught in traps by groups and projects involved in the Kiwi Coast. 115 Northland projects, groups, and organisations sent in their data, setting a new record with 68,756 pests collectively trapped on the Kiwi Coast in 2018 alone. Over 1,000 pests are now removed from the Kiwi Coast each week.

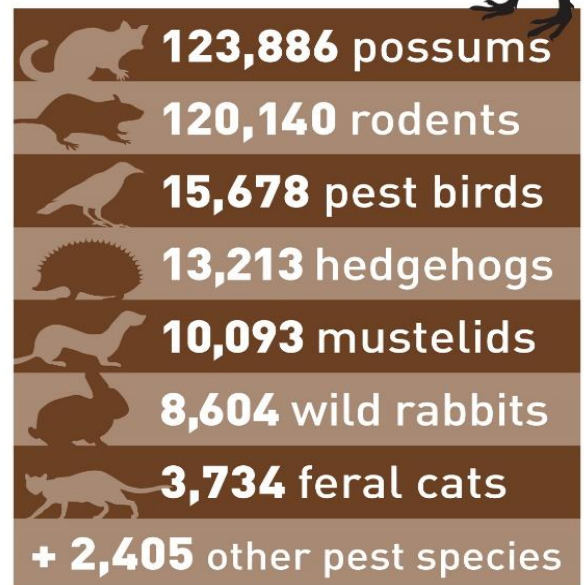
These results not only demonstrate the sheer hard work and scale of effort, but also generate a sense of pride and mana in the work being done and the results achieved. It helps to show that individually, groups are achieving great results, but together they are achieving something truly phenomenal.

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.

In line with the Kiwi Coast Strategic Plan (2017) Kiwi Coast strategically supports predator control in key areas to link distinct projects and create continuous trapping networks across the landscape that boost kiwi survival and allow their safe dispersal into new areas. Kiwi Coast Coordinators provided targeted support to three main areas during 2018/19: the Whangarei Heads – Tutukaka Kiwi Corridor, Mid North High Value Area, and Piroa – Brynderwyns Landcare.



Northland is better off with  
**297,753**  
animal pests  
**GONE!**



These figures show pests trapped by Kiwi Coast groups and projects over the past 6 years.

For annual figures, go to <http://www.kiwicoast.org.nz/kiwi-protection/>

[kiwicoast.org.nz](http://kiwicoast.org.nz)





## Focus Area 1: Whangarei Heads – Tutukaka Coast Kiwi Corridor

**Focus Area 1** aims to create the first functioning kiwi corridor within Kiwi Coast, by linking the two established biodiversity strongholds of Whangarei Heads and Tutukaka with a continuous predator trapping network and good dog control.

Over the past year, the community-led projects on the Whangarei Heads peninsula and the Tutukaka Coast continued to operate extensive trapping networks and work with dog owners, ensuring a range of threatened species could flourish including kiwi, pateke, NI robin, NI kaka, whiteheads and bittern.

Maps 3 and 4 show how the number of predator traps and community groups between these strongholds has increased markedly over the last six years with the support of Kiwi Coast and Northland Regional Council. This is known as the “Kiwi Link Community Pest Control Area” and involves ten projects working together over 14,133 hectares. Landowners and managers within the Kiwi Link CPCA contributed over \$130,000 of unpaid labour and direct contributions over the last year.

An additional 228 predator traps were deployed into key gaps within the Kiwi Link CPCA. This took the total number of predator traps to 1,554 and further linked traplines of neighbouring groups, building a collective trapping network. Trap catch data for 2018 shows 6,244 animal pests were trapped by the Kiwi Link CPCA, including 178 stoats. Removing these roaming predators would have benefitted not only the local native wildlife, but also that of the adjoining strongholds.

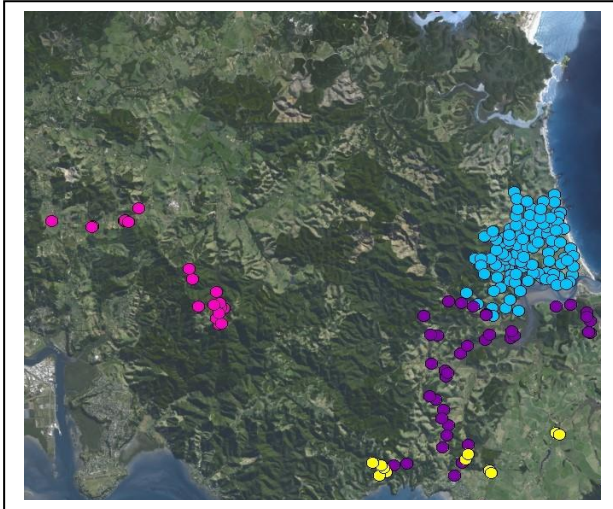
Building capacity of the groups to carry out their own outcome monitoring, has been successful with the establishment of baseline native bird abundances achieved across the Kiwi Link CPCA. The response of native bird populations to the pest control work being carried out in this area can now be measured over future years. All groups and projects in Focus Area 1 successfully participated in the 2019 Annual Kiwi Call Count Survey with either human listening stations or Kiwi Listening Devices.

Kiwi are going from strength to strength throughout the Whangarei Heads – Kiwi Link – Tutukaka Coast area. The confirmed movement of transmitters between the Whangarei Heads peninsula and the Kiwi Link CPCA indicates that the assumptions, methods and hard work from all the landowners, dog owners, organisations and agencies involved is beginning to yield the much sought after result of a functioning kiwi corridor, with kiwi roaming safely between project areas.

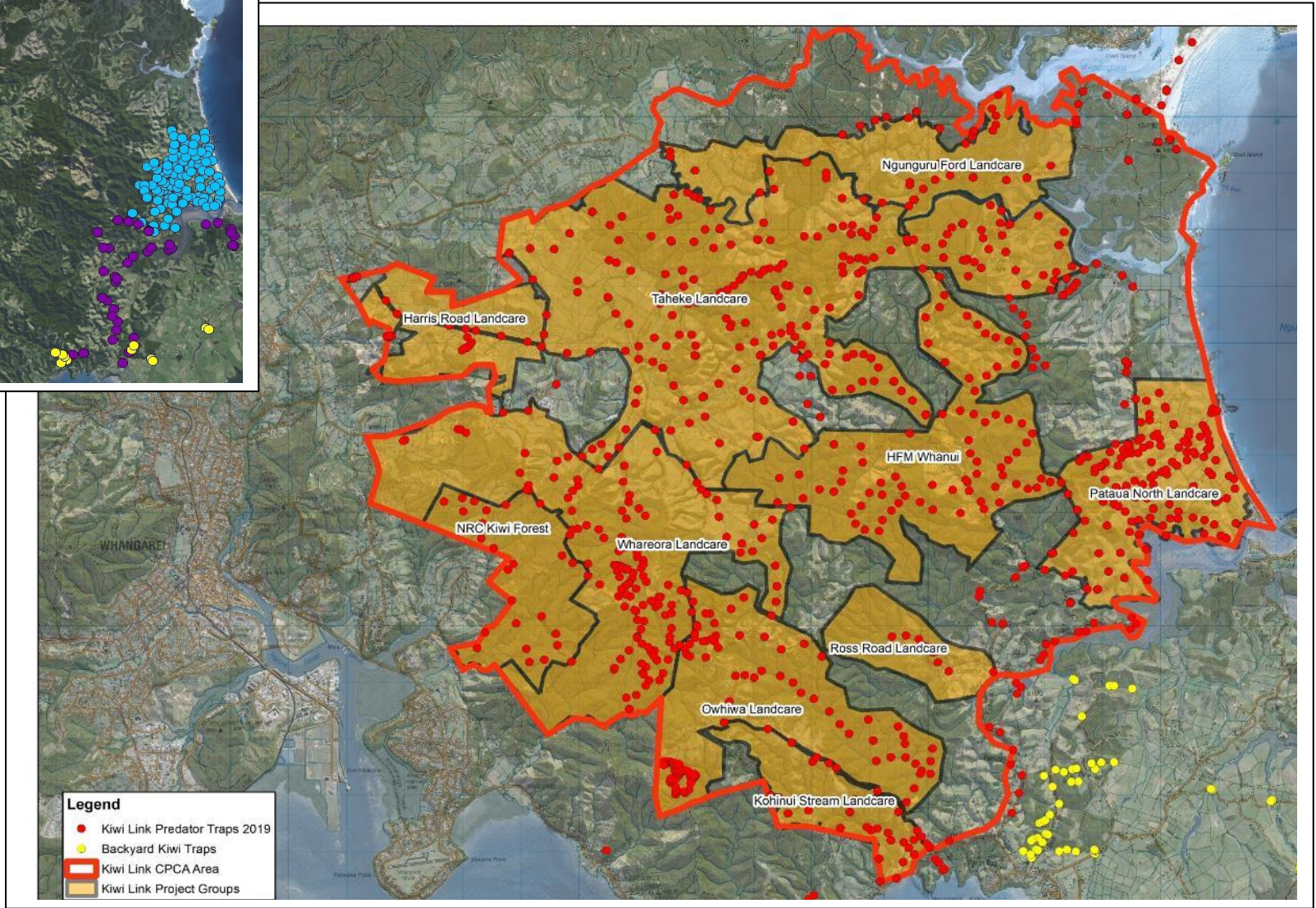


**Tamiti - Marohi the kiwi's 4<sup>th</sup> chick of the 2018/19 season.**

**Photo: Malcolm Pullman**



Map 1: Predator Traps 2013. Map: NRC



Map 2: Predator Traps between Whangarei Heads and Tutukaka, June 2019. Map: NRC

## Focus Area 2: Mid North – Bay of Islands

The Mid North area of Kiwi Coast has gained momentum towards a landscape scale pest control area.

An additional 600 mustelid and 500 feral cat traps were added into the Mid North collective network over the last year. Kiwi Coast Mid North Coordinator Andrew Mentor assisted with delivering the traps and upskilling landowners in their use to ensure the traps catch well and are used safely. Andrew has also helped community groups through funding processes and worked with the NRC to assist groups design their pest control plans to ensure coordination of effort and maximum chance of success.

Building on the considerable history of community-led pest control work in the Bay of Islands, the additional traps have assisted new community projects to get up and running, infilled some existing project areas to increase trapping densities and connected projects together into continuous trapping areas. Maps 5 and 6 show the progress made over the last six years.

Kiwi Coast, working with NRC Biosecurity staff and the Northern Regional Corrections Facility at Ngawha have built hundreds of wooden boxes for stoat and rat traps. Making the trap boxes locally in Northland rather than sourcing them from elsewhere has saved thousands of dollars and allowed trap boxes to be modified to suit Northland trapper requirements, keeping curious kiwi and weka safe.

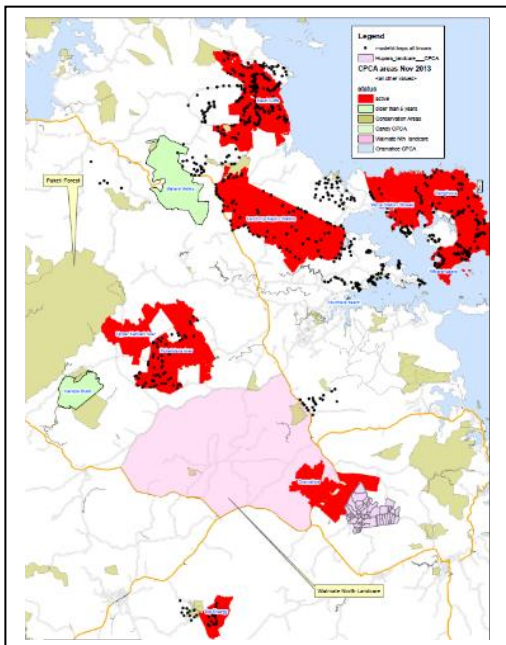


**500 new DOC 200 double trap boxes made by Ngawha Corrections Facility for the Mid North**

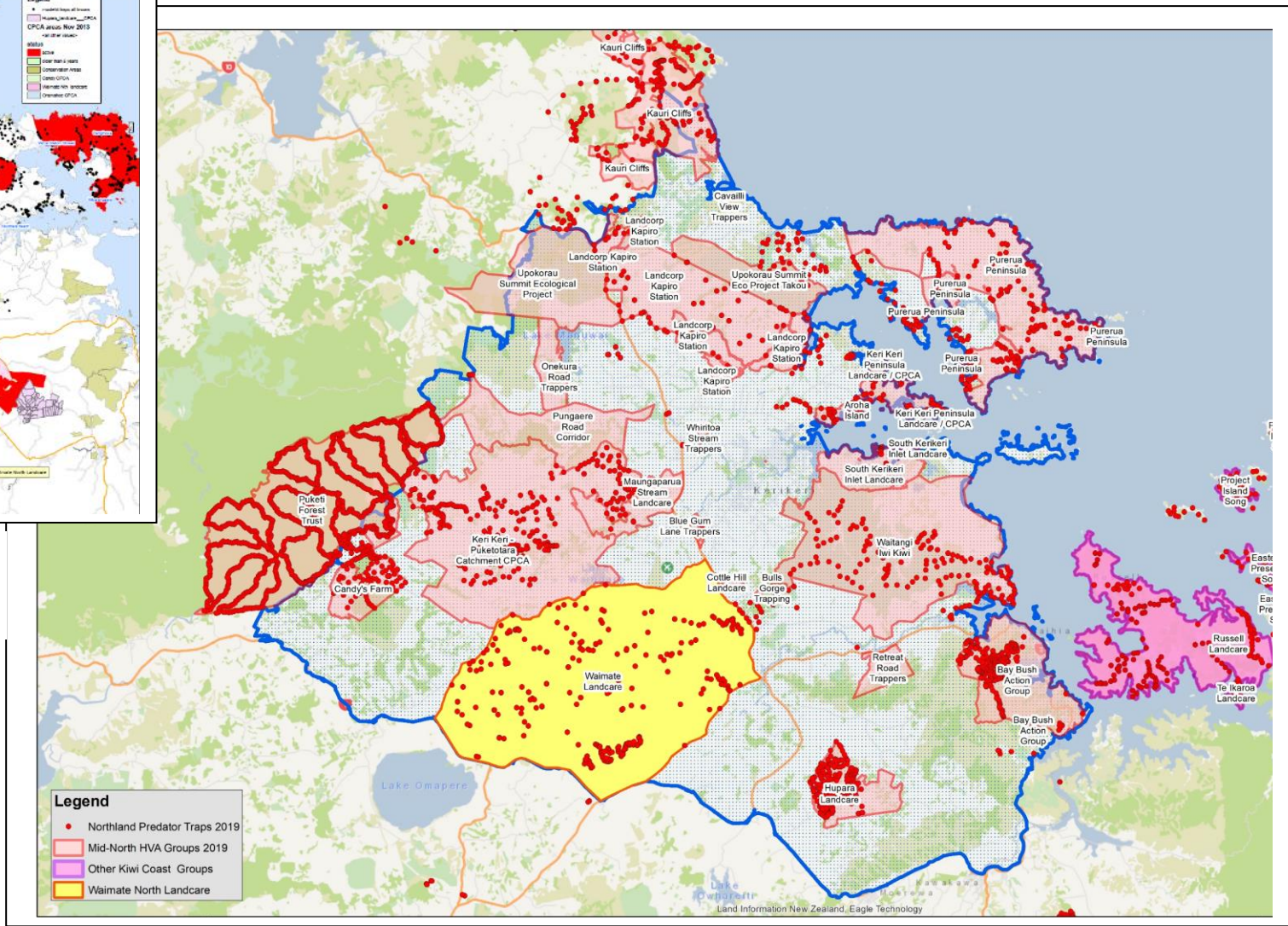
A local Community Pest Working Group has been established to ensure appropriate resources are allocated where needed within the Mid North High Value Pest Control Area.

The increased funding has enabled community groups in the area to substantially increase their pest control work. As a result, more native forests and wildlife are now actively protected and groups are better resourced to take active care of their environment.

Ongoing challenges include constructive engagement in dog control and subdivision developments in relation to kiwi survival, training to up-skill trappers and ensuring ongoing trapping is supported.



**Map 5: Mid North Groups and Predator Traps at June 2013 (Map: NRC)**



**Map 6: Mid North Groups and Predator Traps as at June 2019 (Map: NRC)**



## Far North and Western Areas

Kiwi Coast Coordinators also provided support, training and assistance to groups and projects in the Far North and western areas of Northland.

The growing number of community-led projects linking into Kiwi Coast from these areas is helping to protect local kiwi populations that may be genetically distinct from those on the east coast, and establish the first building blocks of a west – east kiwi corridor across Northland.



Kiwi Coast Billboard at Hihi (Photo: Bruce Jarvis, Whakaangi Landcare)

## Improving Dog Control and Raising Awareness

Improving dog control is a key issue for kiwi survival in Northland as uncontrolled dogs are the most significant threat to adult kiwi 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.

***“Visitors to Northland are often surprised to learn that we have kiwi roaming free in the wild, and that they are not in a zoo or contained within a predator proof fenced sanctuary like some other regions. We need to let people know that kiwi roam free in Northland and dogs need to be under good control to help keep them safe” – Ngaire Sullivan, Kiwi Coast Coordinator.***

‘Kiwi Live Here’ signs, customised with group names and selected dog control messages continue to be popular with community groups, as have fridge magnets for holiday houses.

2018 saw the first of the Kiwi Coast roadside billboards go up on State Highway 1 at Hikurangi and on Ngunguru Road, followed in 2019 by a billboard in Te Reo Maori and English at Hihi. Each billboard is located at a site where local kiwi are being protected through community-led predator control projects. The billboards were resourced by the Department of Conservation and designed by Kiwi Coast with the relevant local communities to ensure a good fit. Further billboards have been created for Mangamuka and the Bay of Islands.

## Events & Engagement

Kiwi Coast continued to support, assist and promote community-led biodiversity stewardship/kaitiakitanga at a multitude of events, workshops, presentations, workshops and A&P shows.

A further 3,688 people attended Kiwi Coast supported events and workshops throughout the year, taking the total number of people over the last six years to 13,373.



**Pukenui Kiwi Release (Photo: Pukenui-Western Hills Forest Trust)**

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.

## 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 44 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.

The 2019 Northland Pest Control Wananga/Workshop at Akerama Marae was a resounding success with over 200 attendees, representing 73 community and hapu led projects from across the region.

Localised 'Trapper Workshops' aimed at building practical pest control skills for landowners also continue to be popular.

Ten skill building workshops were held over the past year:

1. Far North Total Pests Workshop
2. Kiwi Link Weeds Workshop
3. Oakley Trapping Workshop
4. Waipu Trapping Workshop
5. 5 Minute Bird Count Training Workshop
6. Northland Professional Trappers Fieldtrip
7. Piroa-Brynderwyns Kiwi Listening Training
8. Totara North Trapping Workshop
9. Taupo Bay Land and Coastal Group Kiwi Listening Training
10. Northland Pest Control Wānanga/Workshop

## Communications

Kiwi Coast implements an integrated communications strategy 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.
- establish the Kiwi Coast as a successful and accessible initiative in which everyone can participate.

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

As at June 30, 2019:

- An average of 969 people visited the Kiwi Coast website every month.
- 737 people subscribe to Kiwi Coast's monthly e-newsletter.
- 1,609 people 'follow' the Kiwi Coast on Facebook.

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, Northland Age Whangarei Report online and printed newspapers and magazines.

One News coverage of the Pataua North Kiwi Release featured on the 6pm Sunday news, reaching an estimated 96,400 people.



Northland Pest Control Wānanga /Workshop, Akerama Marae 2019. Photo: Malcolm Pullman



## Results and Monitoring

Kiwi Coast is underpinned by a robust scientific monitoring framework that ensures accurate measurement of outcomes. Table 1 presents a summary of monitoring results and the Kiwi Coast Trust's achievements to date against Key Performance Indicators identified in the 2017 Strategic Plan.

### Kiwi

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 count surveys and the use of Kiwi Listening Devices.

The Kiwi Coast works with the Department of Conservation (DOC) each year to encourage, train and coordinate groups to carry out annual Kiwi Call Count Monitoring. The data are analysed by DOC and presented in the following year in the 'Northland Kiwi Call Count Report'. Preliminary results from the 2018 Annual Kiwi Call Count Survey are presented in Figure 4.

As per previous years, analysis of the 2018 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, in prep.). This contrasts with the national trend of 2% decline per annum in kiwi populations reported by the Kiwis for Kiwi Trust in 2014.

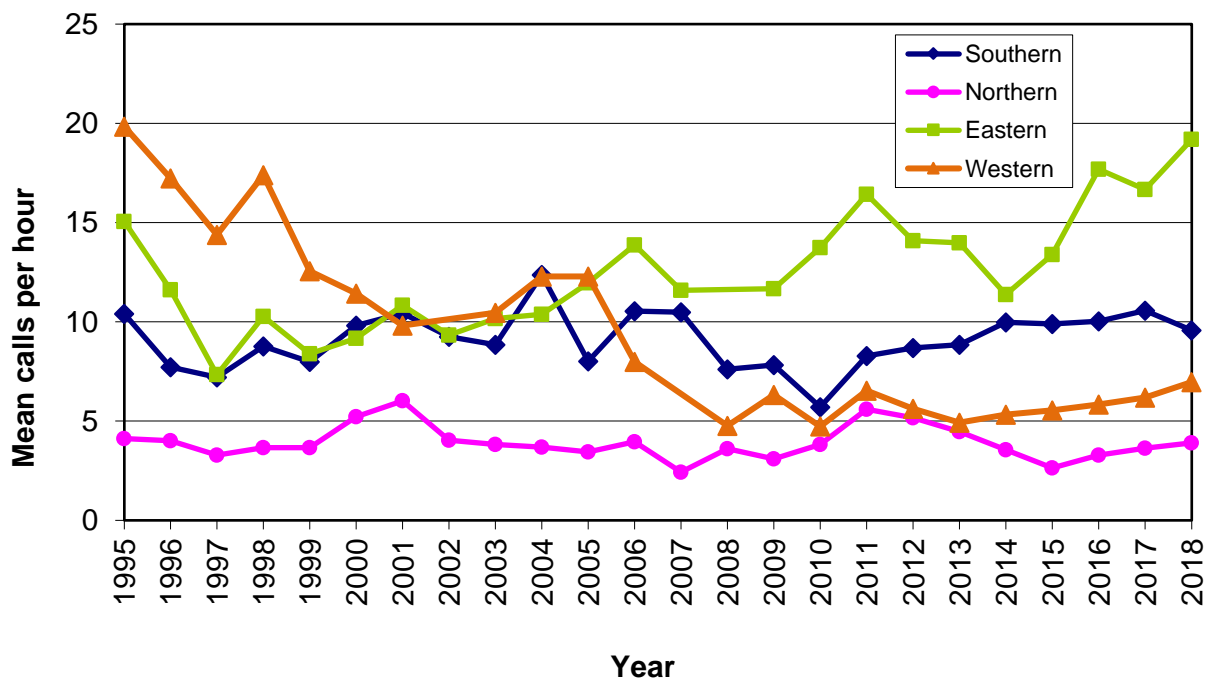


Figure 4: Annual Kiwi Call Count Survey Data, 1995 – 2018 (Craig, 2019)

## 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 studies the populations and distributions of pateke, kaka and bellbird on a regular basis.



Pateke at Tutukaka. Photo: Malcolm Pullman

### Pateke

Kiwi Coast works each year 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.

Analysis of the 2019 Annual Pateke Flock Count data has confirmed that pateke, or brown teal, are flourishing in eastern Northland, particularly at sites with sustained and intensive predator control. The survey recorded the third highest flock count on record (Figure 5) and birds counted at new sites indicates that their distribution continues to expand.

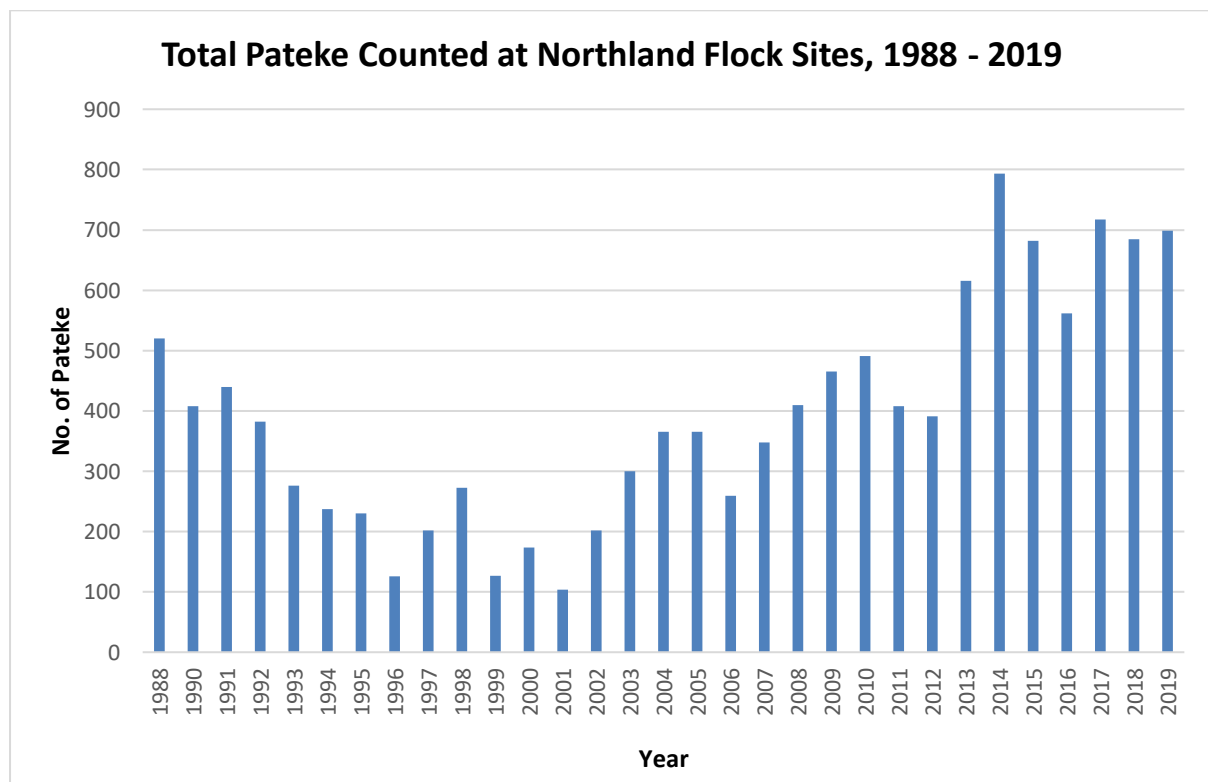


Figure 5: Northland Pateke Flock Count Data (Source, Dept of Conservation, 2019)

**Table: 1: Kiwi Coast Key Performance Indicators, Measures and Outcomes**

Objective	Key Performance Indicator (KPI)	Source of Measure	Expected Outcome	Baseline Information	Results Summary as at June 30, 2019
Northland brown kiwi populations in eastern Northland are increasing.	An overall upwards trend of kiwi populations in managed sites on the Kiwi Coast.	Annual Kiwi Call Count Survey.  Northland brown kiwi distribution map of high and low density kiwi populations (DOC)	Increased kiwi population.	Northland Annual Kiwi Call Count Survey data since 1995.  DOC Kiwi Distribution Maps	Kiwi call count data from 1995 - 2018 shows overall trends of stable or increasing kiwi populations at managed sites.  Map updated by DOC in 2016 showing new kiwi populations.  No analysis to date of changes in kiwi population density.  DOC Kiwi Call Count Report for 2018 and 2019 pending.
Northland brown kiwi are dispersing into new sites.	Northland brown kiwi confirmed at new sites.	Kiwi Coast 5 yearly Kiwi Listening Blitz	Expanded Northland brown kiwi distribution.	Kiwi Coast Baseline Kiwi Listening Blitz (2016)	First Kiwi Listening Blitz completed. Next Blitz scheduled for 2021.
Northland brown kiwi populations are linked via safe kiwi corridors.	Northland brown kiwi are moving between separate populations.	Telemetry monitoring of transmitted kiwi.  Or use of Celium technology to monitor kiwi movement.  Possible DNA monitoring as techniques and expense allows.	Kiwi tracked moving safely through and between project areas.	Existing telemetry data.  DOC dead kiwi database.	Transmitted kiwi tracked moving between Whangarei Heads and Kiwi Link CPCA.

<p>Northland's biodiversity flourishes</p>	<p>Increased populations and distribution of key native indicator species.</p>	<p>Kiwi Coast Indicator Species Monitoring Program:  Participation in DOC led Annual Pateke Flock Counts  Three yearly bellbird and kaka distribution surveys</p>	<p>Populations of native species increase.  Expanded distribution of native species in Northland, including return of species currently restricted to offshore islands back to mainland.</p>	<p>DOC Annual Pateke Flock Count Survey data since 1993.  Kiwi Coast Baseline Kaka and Bellbird Monitoring Survey (2016).</p>	<p>2019 Pateke Flock Count completed. Data shows pateke distribution continues to expand on Northland's east coast and population size is increasing.  Baseline of kaka and bellbird distribution established. Next survey scheduled for 2019.</p>
<p>Animal pest populations are reduced by landscape scale predator trapping networks.</p>	<p>Animal pests in eastern Northland are being actively controlled to declared levels.</p>	<p>Annual collation of trap catch data.  Hectares under pest control.</p>	<p>Kiwi populations increase and can disperse safely into new areas.  Populations and distribution of native species increase in Northland.</p>	<p>Annual collation of pest control results and hectares under pest control since 2013.  Annual group reporting and NRC GIS analysis of project area extent.</p>	<p>297,753 animal pests collectively trapped over past six years.  Approximately 155,500 hectares collectively under active management by groups and projects.</p>
<p>Community, iwi/hapu-led conservation projects are linked through the Kiwi Coast</p>	<p>Numbers of community, iwi/hapu-led conservation projects participating in the Kiwi Coast.</p>	<p>Tally of number of entities involved.</p>	<p>Community-led projects work together towards the shared vision of building NZ's first kiwi corridor.</p>	<p>No. of projects involved tallied since Year 1.</p>	<p>129 groups, projects and organisations involved (See Appendix 2).</p>

Community and iwi/hapu have the skills and resources needed to engaged in biodiversity stewardship / kaitiakitanga to the full extent they wish.	Capacity and skill building workshops are held upon request of communities.	Number of skill building workshops held.  Number of people attending Kiwi Coast supported events and workshops.	Communities, iwi and hapu are actively and effectively involved in biodiversity stewardship / kaitiakitanga.	Number of workshops held recorded since Year 1.  Number of people attending events and workshops recorded since Year 1.	44 workshops held since 2013.  Total number of people at Kiwi Coast supported workshops and events since 2013: 13,373.
Increased understanding, knowledge and support for kiwi recovery.	Integrated communications system has strong regional and national presence.	Communications reach.	Increased number of people engaged in kiwi recovery and accepting of methods needed for success.	Analysis of communications data since Year 1.	Total visits to the Kiwi Coast Website June 2014 – June 2019: 38,736  Facebook ‘Follows’ as at June 30, 2019: 1609  Electronic newsletter: 737 subscribers, 54.5% opening rate (Industry average is 19.02%).
Kiwi Coast has a financial mechanism in place to generate independent income	Financial mechanisms developed and generating income.	Amount of independent funds being generated.	Kiwi Coast has an independent income stream to help sustain community-led kiwi recovery.	No financial mechanism in place in Year 1.	Kiwi Coast online store and merchandise range developed and extended.  Charitable Trust status gained in 2017 to enable donations and sponsorship.  “Follow a Kiwi” sponsorship scheme launched in 2017.

## Research and Technology

### *Celium Technology Trial*

This trial has continued, with the scheduled firmware upgrade completed by *Encounter Solutions* in 2018, and hubs and nodes redeployed within the Kiwi Link CPCA in 2019.

Phase 1 of the trial has proven that the technology works well in the undulating eastern Whangarei topography of the Kiwi Link CPCA across several projects. Phase 2 has involved relocating the nodes to a more concentrated area across just two projects – HFM Whanui and Pataua North Landcare - so that the technology can now be trialled for improving trapping efficiency and management.

Initial stages of Phase 2 are looking promising. In June 2019, Cam McInnes, professional predator trapper for Pataua North Landcare, reported checking a trap three weeks ahead of schedule after being texted by *Celium* that the trap had been sprung. Clearing a fresh stoat from a kiwi breeding area and resetting the trap so it was available for further predators, made the extra effort worthwhile.

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 continue with ‘Hub & Node’ system developers and other kiwi recovery projects around New Zealand interested in partnering to enable this work.



Stoat caught in DOC 200 trap at Pataua North on egg and stoat bedding, which was notified to the trapper by the *Celium* node. (Photo: Cam McInnes)

### *Experimentation with stoat bedding as a long-life lure*

Kiwi Coast obtained stoat bedding from the *Zero Invasive Predators* (ZIP) research facility at Lincoln University and distributed it to several professional predator trappers across Northland so they could experiment with it in the field and test its attractiveness as a long-life stoat lure in their traps. Results to date have been encouraging, with some experienced trappers reporting a higher than usual catch rate of stoats on well-established traplines when the bedding was paired with an additional lure such as salted rabbit or egg. ZIP have now expressed interest in developing this experimentation into a scientific trial.

Field testing of further pest control equipment is also poised to get underway in the Mid North with the AT220 resetting possum and rat trap and the *Enviromate* automated bait station.

## Summary

The NRC – Kiwi Coast partnership and the Northland pest control rate has made a tangible difference over the last year to the support and operating capacity of community-led conservation projects in the region.

Thousands of new traps have been added into Northland's predator trap network. The Kiwi Coast Coordinators have provided on-the-ground support, training and practical workshops to help ensure each trap is serviced to a high standard and achieves maximum results.

The 297,753 pests trapped over the last six years are testament to the ongoing hard work of Northlanders on the farms, forests and private blocks. Kiwi Link CPCA landowners alone contributed over \$130,000 of unpaid labour and in-kind resources to their project during the year – just one example that the resources provided by funders, agencies and organisations to support community-led projects is a worthy investment yielding good returns and results.

Kiwi Coast has continued to assist with linking traplines of neighbouring projects into continuous trapping areas. As a result, predator trap networks within the Whangarei Heads – Tutukaka, Mid North and Piroa-Brynderwyns areas now span tens of thousands of hectares. The expanding populations of indicator species such as pateke, as well as the first successful tracked movements of kiwi between distinct project areas, signals that these trapping networks are yielding the desired results.

Kiwi remain their own best ambassadors – winning hearts and minds, motivating action and inspiring improved dog control at public kiwi releases. Kiwi Coast continued to support Northland kiwi recovery with a dynamic communications network sharing news, events and success stories throughout the year.

Kiwi Coast's momentum continues to grow, with kiwi leading the charge. The rising number of groups and projects getting underway and linking in, especially from the west and Far North, signals Kiwi Coast requires additional resources to ensure quality support can be provided to communities across the region.

Seeking efficiencies, maximising gains and ensuring upward trends of kiwi populations are sustained remain key strategic priorities of the Kiwi Coast Trust. Emerging opportunities to support communities towards predator free peninsulas and develop new technology will be explored further over the upcoming year.

The Kiwi Coast Trust again thanks all the groups and projects for their enduring and relentless hard work. Many thanks also to our partners Northland Regional Council and sponsors and funders including the Department of Conservation Community Fund, NZ Landcare Trust, Gilbert Pest Traps and Key Industries. We are privileged to work with you all on this amazing initiative.

## References

Craig, E. (in prep.). *Call Count Monitoring of Northland Brown Kiwi 2018*. Department of Conservation.

Kiwi Coast Trust. *Kiwi Coast Strategic Plan 2017 – 2022*. Unpublished report.

Topia, M. 2014. *Kiwi Coast Kiwi Monitoring Plan*. Unpublished report.

**Appendix 1: Kiwi Coast- NRC Partnership Financial Summary: July 1 2018 – June 30 2019**

<b>Income</b>	
NRC- Kiwi Coast Partnership Funding	\$188,480
DOC Community Fund	\$15,000
NZ Landcare Trust	\$5,000
NRC Reimbursement of New Landcare Group Start Up Funding	\$2,000
Donations and Sponsorship	\$6,805
Merchandise Sales	\$5,638
<b>Total</b>	<b>\$222,923</b>
<b>Expenditure</b>	
Kiwi Coast Administration, financial management and auditing of accounts	\$15,732
Kiwi Coast Coordinators: labour, mileage and meeting expenses	\$188,829
Pest Control: professional predator trapping, equipment and trapper mentoring	\$5,700
Start up support for new groups	\$2,000
Community capacity building: workshops, fieldtrips and education	\$4,746
Community engagement, kiwi events and advocacy	\$7,365
Communications, website, newsletter, design, info, printing, dog signs	\$3,838
Monitoring and research	\$1,000
<b>Total</b>	<b>\$229,210</b>
<b>Balance</b>	<b>-\$6,287</b>



**Appendix 2: Entities, projects and groups involved in the Kiwi Coast as at June 30, 2019**

<b>No.</b>	<b>Name</b>	<b>Location</b>	<b>Project Area (ha)</b>
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	10.1
5	Blue Orb Charitable Trust	End of Whangaruru Peninsula	413
6	Bream Head Conservation Trust	Bream Head	861
7	Brynderwyns Kiwi Recovery (Marunui)	Brynderwyns	1377
8	Bulls Gorge Pukewhau Trappers	Kerikeri	19
9	Cames Rd Forest Group	Mangawhai	12
10	Candy's Farm	Okaihau	598
11	Cavalli View Rd Trappers	Takou Bay	1
12	Cemetery Road Landcare	Maunu	80
13	Corymbosa Charitable Trust	Ruatangata West	8
14	Cottle Hill Landcare	Kerikeri	50
15	DOC Whangarei Kiwi Sanctuary and Pateke projects	Various	13268
16	Doubtless Bay Landcare	Taipa, Cable Bay and Coopers Beach	10
17	Eastern Bay of Islands Preservation Soc.	Eastern Bay of Islands	n/a
18	Fish & Game - Flaxmill Wetland	Dargaville	69
19	Fish & Game - Greenheart Wetland		33
20	Fish & Game - Jack Bisset Wetland	Poroti	80
21	Friends of Matakoho/ Limestone Island	Whangarei Harbour	39
22	Friends of Rangikapiti Pa & Mangonui School	Coopers Beach	33
23	Gilbert Pest Traps	Ngunguru	1
24	Hancock Forest Management: Brynderwyn Kiwi Project	Brynderwyns	1800
25	Hancock Forest Management: Gammons Block	Mangakahia	1368
26	Hancock Forest Management: Rakautao	Kaikohe	647
27	Hancock Forest Management: Whanui Project	Pataua North	927
28	Hancock Forest Management: Whatoro CPCA	Kaihu	1414
29	Harris Rd Area Landcare	Glenbervie	452
30	Hupara Landcare	Hupara	821
31	Hukerenui CPCA	Hukerenui	100
32	Jude Rd Forest Care	Mangawhai	350
33	Kaiatea Landowners	Ngunguru	320
34	Kaimamaku Landcare	Kaimamaku – Kaikanui	3126
35	Kaipara Forest Restoration Trust	Houto	5000
36	Kaitiaki o Waikohatu Whenua	Taemaro and Waimahana Bays	1665
37	Kauri Cliffs	Matauri Bay	2172
38	Kerikeri Peninsula Pest Control	Kerikeri Peninsula	504
39	Kerikeri-Puketotara Catchment CPCA	Kerikeri - Puketotara	5792
40	Key Industries	Auckland	

41	Kiwi North	Whangarei	2
42	Kiwis for Kiwi Trust	New Zealand	
43	Kohinui Stream Landcare	Kohinui Stream Catchment	354
44	Landcorp Kapiro	Kerikeri	3185
45	Langs Cove Trapping Group	Langs Cove	27
46	Living Waters	Tangatapu Catchment, Bay of Islands	4
47	Maclester Group	Brynderwyns	21
48	Mahinepua/Radar Hills Landcare	Mahinepua – Radar Hills	1150
49	Manaia Landcare	Whangarei Heads	484
50	Mangatete Landcare	Fisher Riley Rd, Kaitaia	724
51	Massey Road Trappers	Massey Road, Waipu	100
52	Matapouri Kaitiaki	Whale Bay - Matapouri	17
53	Maungaparerua Stream Landcare	Kerikeri	648
54	Millington Rd Kiwi Group	Maunu	40
55	Nga Kaitiaki o Huruiki Maunga	Mt Huruiki between Whangapara and Whangaruru	315
56	Nga Kaitiaki o Ipipiri	Cape Brett peninsula	2300
57	Ngati Wai Trust Board	Ngati Wai rohe	
58	Ngunguru Ford Landcare	Ngunguru Ford	730
59	Ngunguru Sandspit Protection Society	Ngunguru	103
60	Ngunguru School: Restoring Food Chains	Ngunguru	3
61	Northland Regional Council	NRC Mt Tiger block	500
62	NorthTec Conservation Management		
63	NZ Fairy Tern Trust	Auckland, Northland	332
64	NZ Kiwi Foundation	Various sites around Bay of Islands	
65	NZ Landcare Trust	New Zealand	
66	Northland Forest Managers	Northland (Waikaraka Forest)	
67	Oakleigh Pest Control Group	Oakleigh/Mangapai	400
68	Ocean Beach Landcare	Ocean Beach, Whangarei Heads	73
69	Oi Kaitiaki	Langs Cove to Bream Tail Farms	444
70	Onekura Rd Trappers	Waipapa	419
71	Opara Kiwi Conservation Estate	Opara Peninsula, Hokianga	559
72	Otangaroa Landcare	Otangaroa	58
73	Owhiwa Landcare	Owhiwa	819
74	Papakarahi Landcare	Whangarei Heads	
75	Papa Taio Wainui Project	Wainui	2
76	Parihaka Community Landcare	Mt Parihaka, Whangarei	90
77	Parua Bay School Wildlife Walkway	Parua Bay	5
78	Parua Cemetery Road Landcare	Parua Bay	50
79	Pataua North Landcare	Pataua North	796
80	Pest Free Pahi	Pahi Peninsula, Paparoa	879
81	Prescott Road Trappers	Ruakaka	35
82	Project IslandSong	Islands in the Bay of Islands (centered on Urupukapuka)	436
83	Puke Kopipi Restoration Group	Ngunguru	6
84	Pukenui/Western Hills Forest Trust	Whangarei	2043
85	Puketi Forest Trust	Puketi	5600
86	Pungaere Road Corridor	Kerikeri	230

87	Pupurangi Nature Sanctuary	Kaihu	150
88	Purerua Peninsula	Purerua Peninsula	3337
89	QEII National Trust	New Zealand	n/a
90	Rayonier Matariki Forests – Glenbervie Forest Project	Glenbervie	640
91	Reotahi Landcare	Whangarei Heads	82
92	Retreat Rd Trappers	Haruru - Puketona	5
93	Riverlands Landcare	Ngunguru river	83
94	Ross Road Landcare	Taraunui	337
95	Russell Landcare	Russell, Bay of Islands	1600
96	Russell-Orongo Bay Holiday Park	Russell, Bay of Islands	1
97	Sandy Bay Kiwi	Sandy Bay	3590
98	South Kerikeri Inlet Landcare	South Kerikeri Inlet	660
99	Springbank Collective	Kerikeri	7
100	Taheke Landcare	Centered around Taheke Scenic Reserve	1965
101	Taiharuru Catchment Care Group	Taiharuru, Whangarei Heads	322
102	Tanekaha Community Pest Control Area	Hikurangi	2919
103	Tangiteroria Landcare	Tangiteroria	3170
104	Tangiteroria School	Tangiteroria	3
105	Tapuhi Landcare	Tapuhi	2911
106	Taupo Bay Coast and Landcare	Taupo Bay	1850
107	Taurikura Ridge Landcare	Taurikura, Whangarei Heads	255
108	Te Hiku Forest	Aupouri Peninsula, Far North	18683
109	Te Ikaroa Landcare	Bay of Islands	53
110	Te Tangi o Te Ata	Eastern Bay of Islands	970
111	The Farm	Whangaruru	259
112	The Shadehouse Volunteers	Kerikeri	1
113	Top Energy CPCA	Ngawha	425
114	Tutukaka Landcare Coalition Trust	Tutukaka	8000
115	Upokorau Summit Ecological Project	Upokorau	2907
116	Vision Kerikeri	Kerikeri	n/a
117	Volunteering Northland	Northland	n/a
118	Waimate North Landcare	Waimate North	9400
119	Waipu Kiwis	Waipu	128
120	Waitangi Iwi Kiwi Project	Waitangi, Bay of Islands	4747
121	Weed Action Whangarei Heads	Whangarei Heads	
122	Wekaweka Landcare	Wekaweka Valley, Kauri Coast	1542
123	Whakaangi Landcare Trust	Hihi peninsula	2400
124	Whananaki Landcare	Whananaki	4624
125	Whangarei District Council	Whangarei	n/a
126	Whangaruru Nth Residents & Ratepayers	Whangaruru Peninsula	284
127	Whareora Landcare	Whareora/Mt Tiger	2159
128	Whau Valley Landcare Group	Whau Valley, Whangarei	15
129	Whiritoa Stream Trappers	Waipapa	29
		<b>Total area managed in ha</b>	<b>155,503</b>

Principal Partner



Collaborating organisations and companies



Direct funders and sponsors



Ngā Kairauhi Papa Forever protected

