

Kiwi Link

Community Pest Control Area **Annual Report**

30 June 2017



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Kiwi outside Bob & Carol Gibsons, Franklin Rd, Dec 22 2016.

Waikaraka Stream, Mt Tiger.

Background

Community-led conservation groups involved in Kiwi Link are working together to restore biodiversity over approximately 13,624ha between Taraunui and Ngunguru Ford in eastern Whangarei. This project has been named the 'Kiwi Link', as the primary goal is to rebuild kiwi populations and connect the kiwi strongholds of the Whangarei Heads peninsula and the Tutukaka Coast. The Kiwi Link CPCA got underway with Northland Regional Council (NRC) in January 2017.

The vision of Kiwi Link is "Flourishing flora and fauna, with abundant kiwi roaming safely between Taraunui and Ngunguru Ford by 2026".

Kiwi Link enables the creation of New Zealand's first kiwi corridor as identified by the Kiwi Coast. Kiwi Link feeds into the strategic goals of the Kiwi Coast and is part of the 'first focus area' identified in the Kiwi Coast Strategic Plan (2017).

Goals

To achieve its vision the Kiwi Link will:

- Work together as communities and land managers to restore the native flora and fauna between Taraunui and Ngunguru Ford.
- Fill the remaining gaps to complete a continuous predator trapping network that will significantly reduce predators and assist native biodiversity to thrive.
- Coordinate animal and plant pest operations for maximum efficiency and effectiveness.
- Rebuild the small remnant kiwi populations and ensure their genetic viability by reducing key predators and translocating more and genetically diverse kiwi into the area.
- Carry out monitoring to inform decision making and track progress towards goals.
- Secure funds and resources to ensure all existing community-led conservation projects in the area continue to operate successfully.
- Motivate and empower further landowners to actively participate in environmental stewardship/ kaitiakitanga by holding joint community events and skill building workshops.
- Link in and coordinate with the Kiwi Coast and enable the creation of NZ's first kiwi corridor.

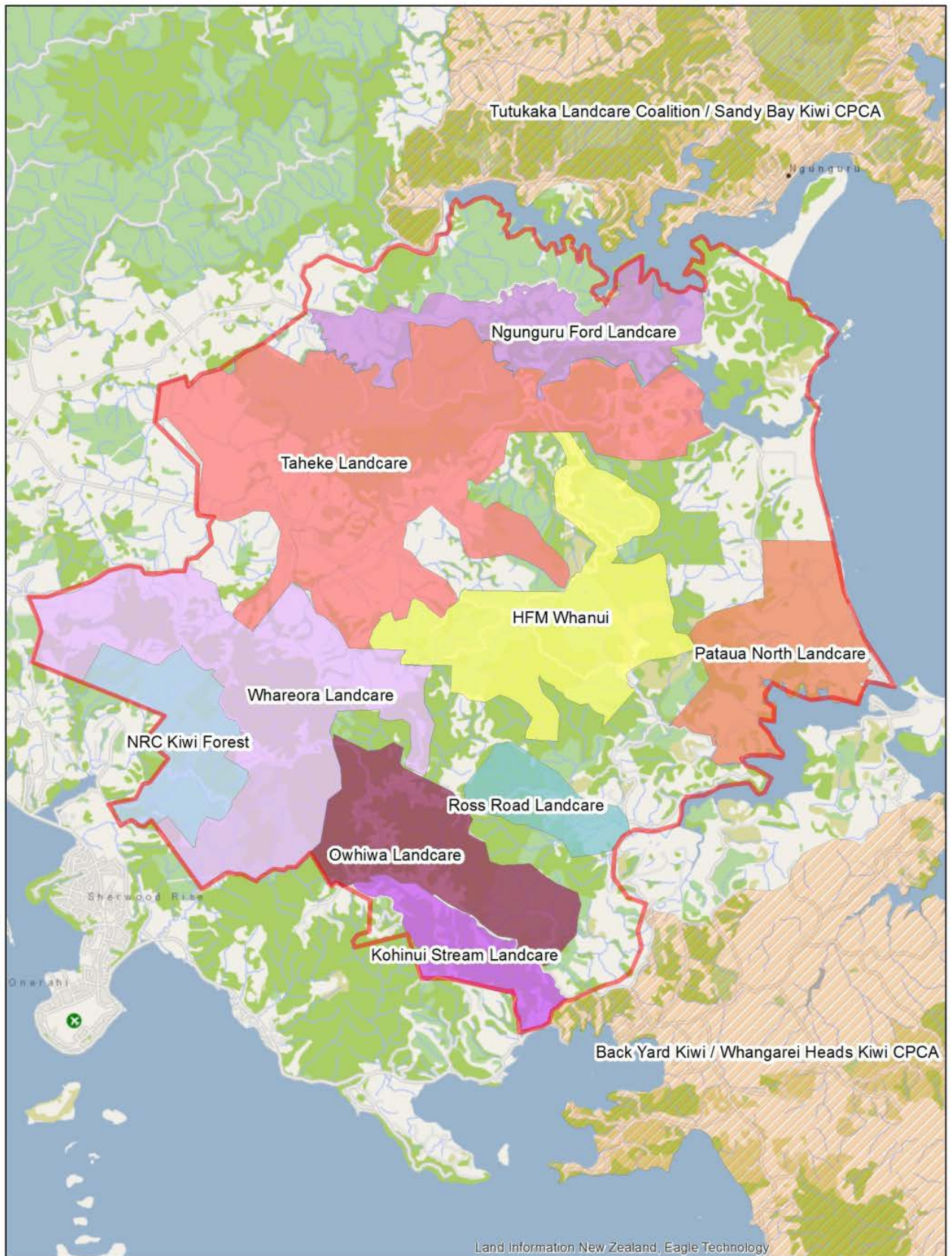
Animal and plant pest species controlled through this project area include:

- Possums
- Rodents
- Mustelids
- Feral cats
- Feral Pigs
- Woolly nightshade
- Elaeagnus
- Climbing asparagus
- Taiwan cherry
- Wild ginger
- Moth plant

Kiwi Link Groups and Projects

With the establishment of Ross Road Landcare, there are now 9 projects working together as Kiwi Link. Map 1 shows the location of the project areas.

- Ross Road Landcare
- Kohinui Stream Landcare
- Owhiwa Landcare
- Whareora Landcare
- Taheke Landcare
- Pataua North Landcare
- Ngunguru Ford Landcare
- Northland Regional Council Mt Tiger Forestry Block
- HFM Whanui Project



	<h2>Kiwi Link Groups 2017</h2>	<p> <small> Crown Copyright Reserved Projection NZTM Datum NZTM2000 DISCLAIMER The Northland Regional Council cannot guarantee that the information shown is accurate and should not be reused in any manner without proper consultation with its owner. </small> </p>  
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Map 1: Groups involved in Kiwi Link and their project areas as at June 30, 2017. Map: NRC

Objectives

The Kiwi Link progressed all five key objectives in Year 1:

Objective 1: Enable the groups to continue their existing work

The first priority of ensuring each group had the resources to continue their work was achieved. All seven initial Landcare projects involved in Kiwi Link were enabled to continue their environmental stewardship activities and paid professional trappers were sustained at all existing projects. All animal and plant pest control resources requested were provided to the groups including traps, lures, toxins, bait stations, weed spray, monitoring and safety equipment.

Objective 2: Fill the gaps to complete a continuous predator control trapping network

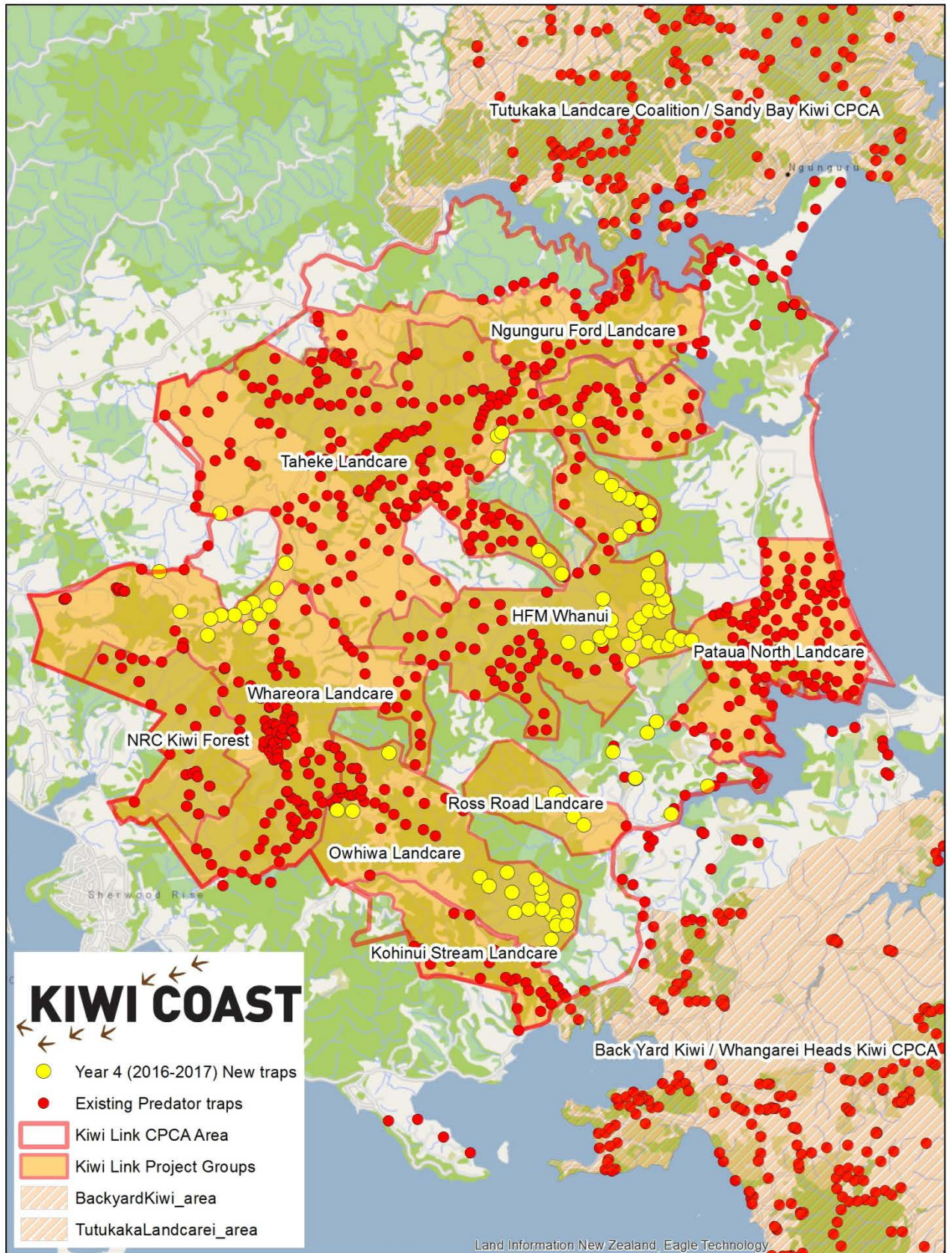
The Kiwi Link predator trap network targets feral cats and mustelids (weasels, stoats and ferrets). These animal pests predate on a wide range of native fauna, including kiwi. As stoats predate 95% of kiwi chicks before they are one year old, their numbers must be reduced if kiwi populations are to increase.

In July 2016, there were 672 predator traps being operated within the 13,624ha Kiwi Link area by a mix of unpaid community volunteers, paid community-based professionals and trained staff from NRC and DOC. Map 2 shows the new predator traps added into the network during the year, both infilling and expanding the trapping areas of groups as new landowners got involved. Significantly, new predator traps deployed during the year linked traplines from different groups together for the first time.

A new Landcare Group was supported to get underway at Ross Road and they immediately joined the Kiwi Link. A paid professional predator trapper was resourced for Ross Road Landcare and the first predator traps have been deployed to start building their predator control network. Twenty-seven locals also attended the Ross Road Trapping Workshop that helped to build the skills and capacity of local landowners to carry out animal and plant pest control work.



Ross Road Trapping Workshop: Professional Predator Trapper Todd Hamilton (Backyard Kiwi) demonstrates the DOC 200 mustelid trap.



Map 2: New predator traps added to the Kiwi Link predator trapping network

Objective 3: Establish a combined bait station network over 13,624ha

The mapping of the existing bait station network was begun and further bait stations were supplied to groups upon request.

Due to the willingness of the groups and the observed rise in possums and rats through some project areas, the first trial of a coordinated pest knockdown across Kiwi Link is being planned for winter 2017. NRC Biosecurity staff provided technical assistance and the toxin brodifacoum will be used in a controlled pulse in order to make use of its secondary poisoning effects. This will mean that along with rats and possums, predators such as feral cats and mustelids that have become trap-wise will also be reduced.

Objective 4: Rebuild Kiwi Populations

A dual approach is being taken to rebuild the kiwi population of the Kiwi Link. Firstly, the existing low numbers of kiwi are given protection via extensive predator control in order to boost breeding success. Secondly, further kiwi are being translocated into the area to supplement the existing kiwi populations and ensure genetic viability.

In May 2017 the Department of Conservation (DOC), Kiwis for Kiwi Trust and Kiwi Coast assisted Pataua North Landcare with a very successful release of 10 kiwi. The kiwi released were welcomed by 225 number of people, including Mayor Sheryl Mai, MP Dr Shane Reti and Ngati Wai kaumatua Hori Parata.

DOC also trained Pataua North Landcare community members to carry out the subsequent telemetry monitoring. Trained kiwi monitors from Backyard Kiwi and Sandy Bay Kiwi projects also assisted with post-release monitoring, creating further connections between Kiwi Link and Whangarei Heads and Tutukaka kiwi recovery projects.



Rolf Fuchs (DOC) at the Pataua North Landcare kiwi release. Photo: Kiwi Coast: Malcolm Pullman.

Objective 5: Plant pest control

A potential negative effect of animal pest control is an increase in plant pests. Groups involved in Kiwi Link continued their plant pest control, targeting moth plant, eleagnus, wild ginger, climbing asparagus, woolly nightshade and Taiwan Cherry.

Contact has been made with the Weed Action Whangarei Heads coordinator to investigate linking in with their weed campaigns, and gaining assistance with the distribution of herbicides in small amounts for landowner use and the organisation of coordinated weed control action.

Monitoring

All monitoring due from January 2017 has been completed – see Table 2.

Kiwi listening was completed by all Kiwi Link projects and in addition, there are now ten kiwi with transmitters being monitored by Pataua North Landcare.

Pataua North Landcare reports:

“From the first week six of the kiwi started moving around looking for a preferred place to live. Three (male & 2 females) have stayed near their release site near John & Anne’s house. One other (male) settled down quickly on the track leading to Ohuatahi with a female within a few hundred metres.

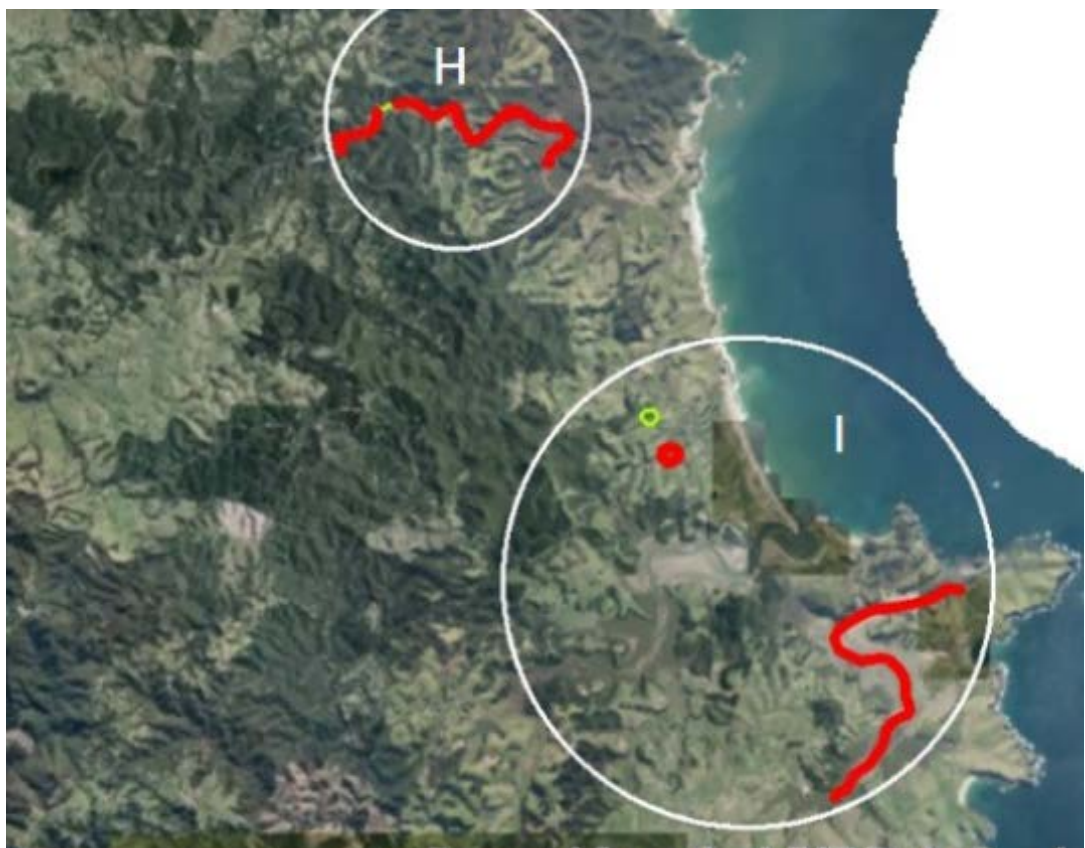
The rest are in need of Kiwi Link. Two have headed west and another northwest toward Whanui Landcare. Another has setoff back along Pataua North Road in the direction of Ngunguru Ford Landcare. The tenth bird is being elusive. All birds appear to have stopped moving but none are breeding yet. Positive discussions to extend the Pataua North trap area are in progress with a number of landowners in order to protect the closest kiwi along the road.”

All Kiwi Link projects continued their animal pest control and recorded their trap catches. In addition, chew card monitoring of possum and rat populations was completed in June, with all projects participating, see Map 4. Table 1 shows the individual group results. Overall, possum abundance was 66% and rat abundance was 40%. This establishes a baseline of possum and rat abundance for the Kiwi Link.

Table 1: Group Averages of Rat and Possum Abundance from Chew Card Monitoring

GROUP	RAT ABUNDANCE	POSSUM ABUNDANCE
Kohinui Stream Landcare	64%	61%
NRC Mt Tiger Block	23%	67%
Ngunguru Ford Landcare	14%	80%
Owhiwa Landcare	58%	47%
Pataua North Landcare	17%	87%
Taheke Landcare	65%	53%
Whareora Landcare	35%	72%
Whanui	n/a	60%
Average	40%	66%

Groups in eastern coastal areas of the Kiwi Link CPCA also participated in the Kiwi Coast and Northtec summer research that investigated pateke distribution.



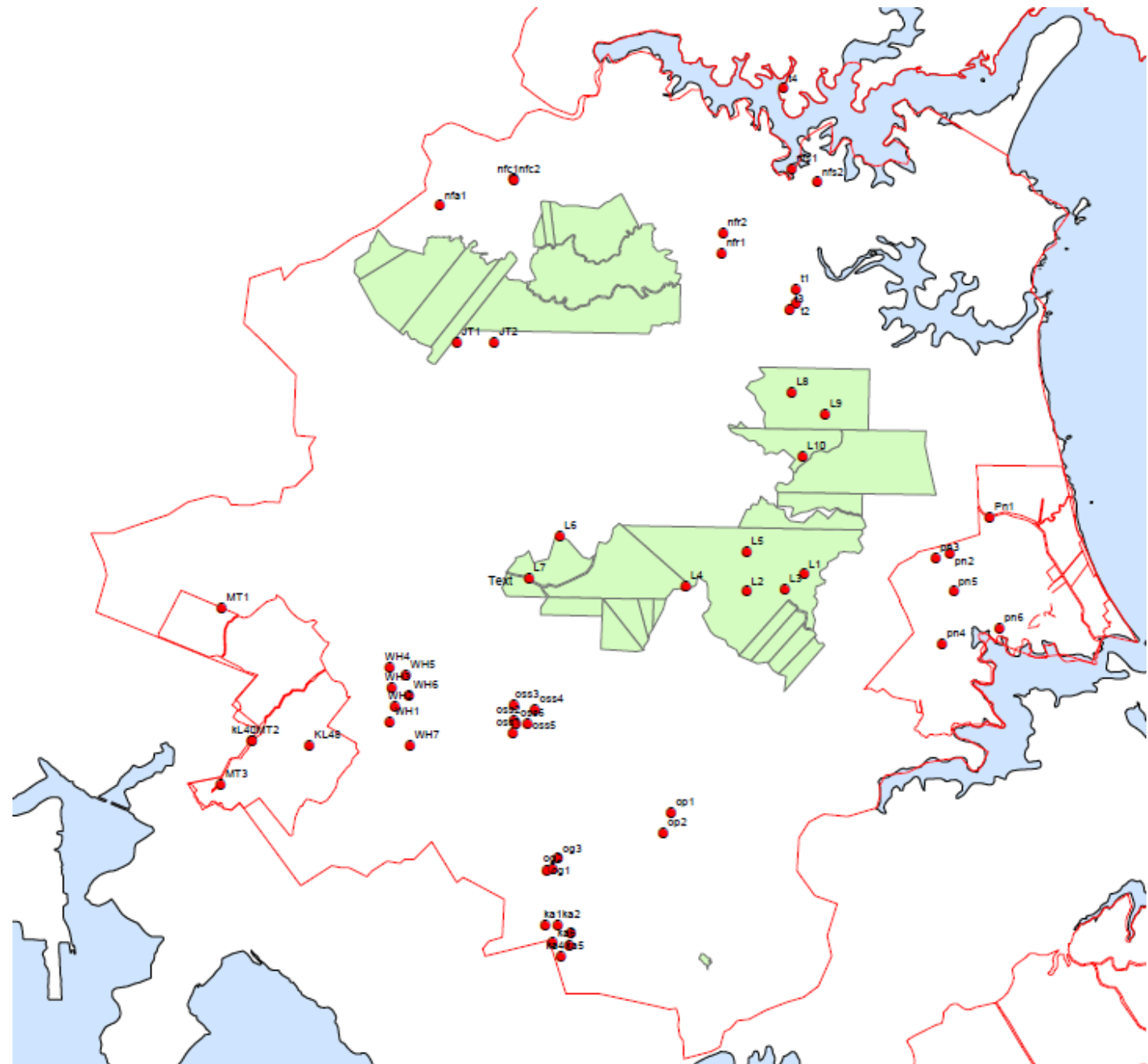
Map 3: Current pateke distribution in the Kiwi Link CPCA

Areas within white circles show where pateke surveys were carried out within the Kiwi Link CPCA as part of the NorthTec Summer Research. 'H' represents the Horahora site; 'I' represents the Pataua North. Green circles or lines indicate areas where pateke were detected during surveys; red circles or lines indicate areas where pateke were not detected (Hartigan, et al., 2017).

Table 2: Kiwi Link Monitoring Results

SPECIES	MONITORING METHOD	RESULTS
Mustelid/Feral cat	All predator trap results entered into Trap.NZ	Completed – see Kiwi Link predator results entered
Possum/Rodent	Trapping records Chew Card Monitoring	Annual trap catch data due for collation January 2018 Chew card results: Overall possum abundance: 66%. Overall rat abundance: 40%
Kiwi	Kiwi Call Count Survey (Human Listener (HL) or Acoustic Recorder (AR)) Minimum 1 site per group	Kiwi Call Count Survey Completed. HL data submitted to DOC for analysis. AR data in analysis with Kiwi Coast. Kohinui Stream Landcare: HL 1 site. 2 males heard. Owhiwa Landcare: AR 5 sites Whareora Landcare: HL 1 site: kiwi pair confirmed. AR: 1 site Taheke Landcare: HL 1 site. No kiwi heard Pataua North Landcare: telemetry monitoring of 10 kiwi Ngunguru Ford Landcare: Kiwi Listening Devices deployed at 2 sites Northland Regional Council Mt Tiger Forestry Block: Kiwi Listening Devices deployed at 6sites
Pateke	Pateke Flock Count	Participation in Annual Pateke Flock Count: Kiwi Coast & NorthTec Summer Research revision of Pateke Distribution Map.
Native forest birds	5 Minute Bird counts and/or kaka and bellbird surveys	Due summer 2017/18
Pest Plants	Before and After photos and records of work undertaken	Due summer 2017/18

Line_id	rats %	Possum %
JT1	20	90
JT2	0	50
ka1	100	80
ka2	60	80
ka3	100	50
ka4	60	80
ka5	100	90
ka6	90	50
KL48	0	30
kl40	0	30
MT1	20	100
MT2	40	90
MT3	10	10
nfa1	20	100
nfc1	20	100
nfc2	20	80
nfr1	10	70
nfr2	30	80
nfs1	0	50
nfs2	0	80
og1	80	40
og2	60	50
og3	100	0
op1	90	20
op2	60	50
oss1	60	20
oss2	40	10
oss3	10	60
oss4	10	100
oss5	60	80
oss6	70	90
Pn1	40	100
pn2	0	100
pn3	0	100
pn4	0	40
pn5	0	90
pn6	60	90
t1	100	90
t2	100	50
t3	30	30
t4	30	40
WH1	30	80
WH2	50	50
WH3	40	100
WH4	20	100
WH5	0	100
WH6	100	0
WH7	10	80
L1	70	70
L2	0	50
L3	0	40
L4	0	100
L5	0	100
L6	0	40
L7	0	80
L8	0	20
L9	0	80
L10	0	20



Map 4: Location and Results of Chew Card Monitoring Lines. Map: NRC

Financial Summary

Resourcing of Kiwi Link activities has primarily been provided by the Northland Regional Council through the CPCA and the Kiwi Coast as detailed in Table 3. Support has also been provided by the NZ Landcare Trust, Hancock Forest Managers, QEII National Trust, Tahurangi Estate, Kiwis for Kiwi Trust, Whangarei District Council and the Department of Conservation.

Kiwi Link Financial Summary July 1 2016 - June 30, 2017

Kiwi Coast support

Professional predator trapping	\$9,672.00
Community capacity building: pest control events, workshops, etc	\$338.45
Total Kiwi Coast Support	\$10,010.45

NRC CPCA Expenditure

Kiwi Link Admin and Coordination	\$4,388.50
Kohinui Stream Landcare predator control	\$1,810.20
Owiwha Landcare predator control	\$1,830.87
Whareora Landcare predator control	\$4,097.80
Whanui Project Predator Control	\$3,660.00
Taheke Landcare predator control	\$3,667.80
Ngunguru Ford Landcare Predator control	\$2,271.60
Ross Rd Landcare Predator Control	\$140.00
Predator trapping network expansion: New traps, set up and trap checks	\$16,960.00
Animal and plant pest control equipment: Traps, toxins, herbicides	\$16,091.72
Community capacity building: pest control events, workshops, etc	\$1,020.00
Engagement and advocacy: Kiwi release, school visits, signage etc	\$3,364.80
Monitoring	\$696.71
Total CPCA Expenditure	\$60,000.00

Grand total	\$70,010.45
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Summary

The first year of the Kiwi Link has been a success with good progress made towards all five objectives. All groups involved have worked well together, carrying out animal and plant pest control and monitoring over 13,624 hectares.

The Kiwi Coast provided support for key operations until the CPCA with NRC became operational in January 2017. The combined resourcing ensured all groups were able to continue their active stewardship or kaitiakitanga across the Kiwi Link. Significantly, new predator traps deployed linked a number of traplines of different groups together for the first time.

The establishment of the Ross Road Landcare Group fills a key gap on the edge of Kiwi Link near the Whangarei Heads kiwi stronghold. This will provide protection for any kiwi dispersing out from the peninsula and into Kiwi Link.

The translocation of ten kiwi into the Pataua North Landcare area was a highlight of the year, engaging over 200 people and boosting both kiwi genetics and numbers for Kiwi Link.

Additional monitoring carried out established baselines of rat and possum abundances and demonstrated the need for the next combined effort of Kiwi Link – the Winter Knockdown.

References

Hartigan, B., Arcus, N. and Morgan, D. 2017. *Pateke Surveys on the Kiwi Coast*. NorthTec.