# Kiwi Link

High Value Area



Strategic Plan 2021 - 2026

# Background

Community-led conservation groups involved in Kiwi Link are working together to restore biodiversity over approximately 15,000 ha between Taraunui and Glenbervie 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.

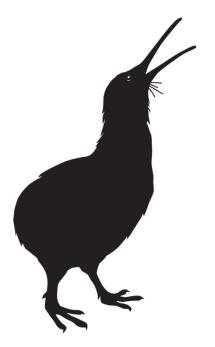
Kiwi Link got underway as a Community Pest Control Area (CPCA) with Northland Regional Council (NRC) in January 2017. As of July 1, 2021 it became Northland's sixth High Value Area (HVA).

The vision of Kiwi Link is:

"Flourishing flora and fauna, with abundant kiwi roaming safely between Taraunui and Glenbervie by 2036."

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).

As Kiwi Link grows, it seeks to strengthen relationships with hapū and iwi and work in partnership to support and enable kaitiakitanga throughout the area.



#### Goals

To achieve its vision the Kiwi Link will:

- Work together as communities and land managers with hapū, iwi and stakeholders to restore the native flora and fauna between Taraunui and Glenbervie.
- Fill the remaining gaps to complete a continuous predator control 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 enabling dispersal, reducing
  key predators, encouraging good dog
  control 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, public kiwi releases and skill building workshops.
- Link in and coordinate with the Kiwi Coast and enable the creation of NZ's first kiwi corridor.

Front cover photo: Ross the Pataua North Kiwi, May 2020. (Photo: Anne Stewart, Pataua North Landcare)

#### Pests controlled

Kiwi Link focuses on controlling the following animal and plant pests:

#### **Animal pests**

- Possums
- Rodents
- Mustelids
- Feral cats
- Feral pigs
- Myna
- Magpies
- Hedgehogs
- Wasps

#### **Plant pests**

- Asparagus sp.
- Banana Passionfruit
- Elaeagnus
- Jasmine
- Moth plant
- Small and Large-leaved privet
- Taiwan Cherry
- Tradescantia
- Wild ginger
- Wilding pine
- Woolly nightshade

# Kiwi Link Groups and Projects

There are 11 projects working together as Kiwi Link over 15,175 hectares:

- Glenbervie Landcare
- Harris Rd Area Landcare
- HFM Whanui Project
- Kohinui Stream Landcare
- Ngunguru Ford Landcare
- NRC Mt Tiger Forestry Block
- Owhiwa Landcare
- Pataua North Landcare
- Ross Road Landcare
- Taheke Landcare
- Whareora Landcare

Map 1 shows the location of the project areas.

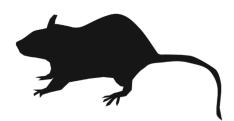
# Tāngata Whenua

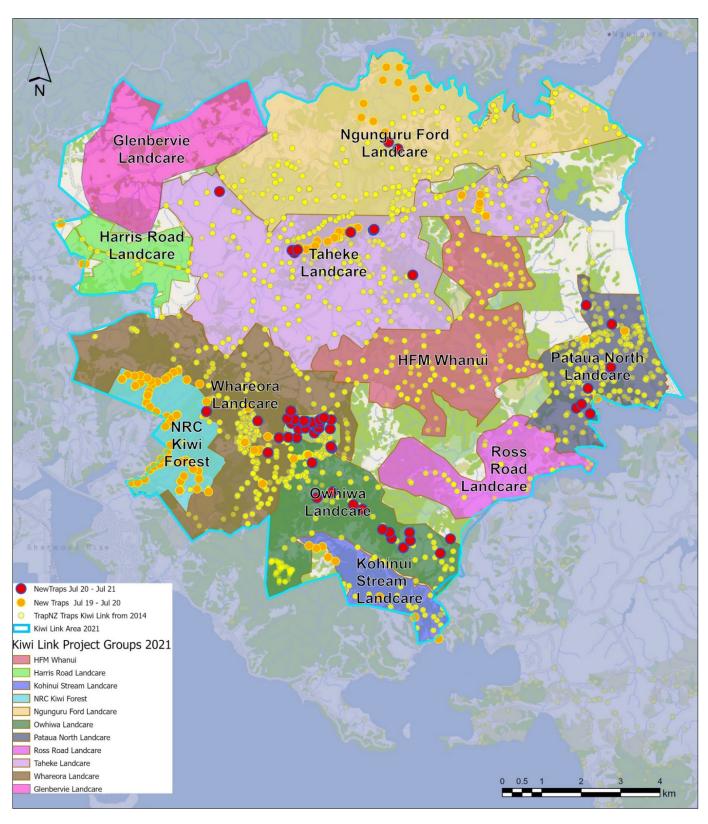
Strengthening relationships with tangata whenua of Kiwi Link, requires growing our knowledge of the iwi and hapu within the project area and establishing connections.

A suggested initial list of iwi and hapū include:

- Ngāti Wai
- Ngāti Kororā
- Te Waiariki
- Ngāti Takapari







Map 1: Kiwi Link HVA Groups & Predator traps as at June 30, 2021. (Map: A. Duxfield)

#### **Land Tenure**

The 15,000ha area encompassed by Kiwi Link is predominantly in private ownership. There are 54 QEII Trust covenants throughout the area which together protect 495.96 ha of private land. An additional 65 council covenants are managed by Whangarei District Council (WDC), taking the total number of covenants within Kiwi Link to 117.

Public land totals 1075ha, comprised of small areas of WDC land and five small DOC reserves.

The DOC reserves account for 295ha, or just 1.96%, of the Kiwi Link area as follows:

- Maungatika Scenic Reserve (150ha)
- Taheke Scenic Reserve (76ha)
- Whanui Scenic Reserve (50ha)
- Ngunguru River Scenic Reserve (15ha)
- Horahora Conservation Area (4ha)

Maungatika, Taheke and Whanui Scenic Reserves are managed by Whareora Landcare, Taheke Landcare and Hancock Forest Management (HFM) respectively under Community Management Agreements with DOC. The major forestry companies operating in the area are Hancock Forest Management and Northland Forest Managers. NRC also manage 520ha of pine forest on Mt Tiger.

The only settlement of any kind is the beachside community at Pataua North. Otherwise, the Kiwi Link encompasses a series of rural communities on farms, and increasingly, lifestyle blocks.

Essentially, it is up to the private landowners that together own the bulk of the 15,000ha between Taraunui and Glenbervie to protect and restore the biodiversity values of the Kiwi Link.

Kiwi Link brings together the 11 local projects that each support and coordinate their local landowners to participate in biodiversity stewardship. Building the skills, capacity and resources available to these landowners through the conduit of their local Landcare Groups are the key mechanisms for the Kiwi Link HVA to realise its goals.



Mt Tiger forest. (Photo: Whareora Landcare)

# **Biodiversity Values**

The Kiwi Link HVA is located in the Whangaruru Ecological District and is characterised by a patchwork mosaic of native and exotic forests, farmland, wetlands, estuaries, and sandy coastlines criss-crossed by a network of small streams.

Kiwi Link contains high biodiversity values centred on lowland indigenous forest remnants and associated streams. The Whangaruru Ecological District Protected Natural Areas Programme Report (Booth, 2005) identified over 100 'Level 1 Significant Sites' that together account for over a third of the Kiwi Link Area.

These significant sites predominantly occur on private land. Within the mosaic, across the Kiwi Link landscape the significant sites are both buffered and interconnected by indigenous and exotic forest, scrublands and many bush streams with high ecological values for fish and invertebrates.

Booth (2005) noted that this Ecological District has a 'disproportionately high number' of threatened and significant native species.

Forty-one species with a threat status of at least 'Regional Significance' or higher are known to visit or inhabit the Kiwi Link area:

- Rare and endangered birds include Northland Brown Kiwi, North Island Kākā, North Island Tomtit, bellbird / korimako, pāteke/brown teal, NZ dotterel, Australasian bittern, fernbird, four species of shag, dabchick, banded rail and variable oystercatcher.
- Land snails include Amborhytida dunniae and two species of Punctidae considered to be nationally endangered.
- Significant flora includes Adders tongue, Parietaria debilis, carmine rātā, and sand daphne.
- Lizards include the green gecko
   (Nautlinus elegans) and pacific gecko
   (Dactylocnemis pacificus).
- The threatened native fish, banded kōkopu, occurs in many of the streams.



Green gecko, Maungatika Scenic Reserve. (Photo: Whareora Landcare)



Pāteke /brown teal. (Photo: Malcolm Pullman)



Sand daphne. (Photo: Ngaire Sullivan)



Amborhytida dunniae. (Photo: Nan Pullman)

## **Outcomes & Objectives**

Kiwi Link is a collaborative initiative that brings together a wide network of community-led projects, government agencies, organisations, iwi/hapū, schools and commercial forestry companies. In order to assist the collaborative operate cohesively and efficiently, Kiwi Link HVA is coordinated and administrated by the Kiwi Coast Trust.

#### **Ten Year Outcomes**

Over the 15,000ha collective area, by 2031 Kiwi Link aims to:

- Increase the kiwi population by 10%
- Have a continuous predator control network with an average trap density of 1 trap per 10 ha
- Have at least 1 observation per year of bellbird or pāteke or kākā in at least 5 of the 11 project areas
- Increase native bird diversity and abundance by 20%

#### **Objectives**

Kiwi Link HVA has five key objectives:

Objective 1: Enable the groups to carry out efficient and effective integrated animal and plant pest control

Resources will be provided to groups including traps, lures, toxins, bait stations, weed spray, monitoring and safety equipment as requested for the use of private landowners.

The unpaid pest control work of the many private landowners involved will be complemented by professional predator trappers managed by Kiwi Coast.

Annual skill building workshops will be held to continue to build the capacity of the communities involved to carry out efficient and effective integrated pest control.

Opportunities to work in partnership with Predator Free Whangarei, NRC and Kiwi Coast to trial and implement new pest control and monitoring tools will be implemented to full advantage.



Kiwi Link Pest Control Workshop, 2019.

# Objective 2: Complete a continuous predator control network

The Kiwi Link collective predator control network targets feral cats and mustelids (weasels, stoats and ferrets). This network includes a variety of predator traps and bait stations.

Over the next five years, subject to sufficient resources and landowner permissions, this network will be further infilled and linked to reduce gaps and achieve an average density of one predator control device per 10 hectares.

Kiwi Link will also work with Tutukaka and Whangarei Heads HVAs, Rayonier Matariki Glenbervie Forest and emerging neighbouring community-led projects to participate in the collaborative Predator Free Whangarei 60,000ha predator suppression zone.



Stoat caught in DOC 200 trap at Pataua North after notification by Celium node. (Photo: Cam McInnes, June 2019)

Objective 3: Coordinate animal and plant control operations to maximise efficiencies and biodiversity gains

Pest control operations will be centrally coordinated and synchronised across the Kiwi Link HVA, including trap checking frequencies, lure changes and toxin pulses. Technical advice will be sought from the NRC Biosecurity Team to ensure the most effective methods are used.

Kiwi Coast will support professional predator trappers to maintain a high skill level and keep up to date with new technologies and methods via it's Trapper Mentoring Program. DOC and NRC may also conduct trapper audits as required to ensure Best Practice Standards are being met.

Toxins will continue to be pulsed and cycled each year to avoid a build-up of bait shy animals to any particular pest control tool. Possum and rat knockdowns in late-winter each year will be coordinated with willing landowners across the Kiwi Link as far as practically possible, and as resourcing allows. Agencies and organisations will be asked to complement work carried out on private land by leading synchronised toxin operations on the blocks under their management.

There will be special emphasis on a toxin operation every three years through strategic areas of the Kiwi Link HVA, to minimise the build-up of trap wise predators.





#### Objective 4: Rebuild Robust and Resilient Kiwi Populations

Kiwi Link HVA embraces the opportunity to be part of building New Zealand's first kiwi corridor. As such, while the pest control work carried out benefits all biodiversity, special emphasis will be placed upon rebuilding local kiwi populations and ensuring successful dispersal can occur both within the project and across its borders.

Kiwi Link HVA will continue its multi-pronged approach to building a robust and resilient kiwi population through increasing numbers, ensuring strong genetic diversity and restoring healthy habitats.

Firstly, the breeding success and survival of existing kiwi will be protected and enhanced with intensive professional predator control. Secondly, dog owners will continue to be engaged in the need for good dog control to ensure kiwi longevity.

In addition, Kiwi Link HVA will work in with Backyard Kiwi, Tutukaka Landcare, Kiwi Coast, Department of Conservation and Northland Regional Council to support kiwi releases both within the Kiwi Link area where possible and also at neighbouring sites.

A Kiwi Link website will be established to keep landowners and interested parties informed and updated. Full advantage will be made of opportunities such as kiwi releases to engage further local landowners in active stewardship, improve dog control and enable effective pest control.

Kiwi Link will work with Kiwi Coast and the Department of Conservation to monitor released kiwi to investigate breeding and dispersal success.

# Objective 5: Improve coordination and effectiveness of plant pest control

Although in relatively low numbers compared with elsewhere in Northland, plant pests continue to be a pervasive issue across the Kiwi Link HVA.

A potential negative effect of animal pest control is an increase in plant pests. This may occur due to a reduction in browsing pressure on weeds by introduced animal pests and also due to an increase in the dispersal of plant pest seeds as bird numbers increase in response to pest control.

Plant pests within the Kiwi Link HVA are mostly found within localised problem patches, along roadsides, near recently harvested plantation forests and at roadside dumping hotspots.

Adopting a strategic and more coordinated approach to plant pest control across the Kiwi Link CPCA will assist with effectiveness. Boosting private landowner efforts with coordinated "Weed Action" style events and workshops will help keep plant pests low and maintain the integrity of native forest areas throughout the area.

### Monitoring

In order to allow for adaptive management and sound decision making, coordinated monitoring will be carried out across the Kiwi Link in the form of:

- Trap catch records, trap mapping and trap reporting through the Trap.NZ
- Annual Kiwi Call Count Surveys a minimum of one listening site within each group's project area, using either Kiwi Listening Devices or trained human listeners
- Radio telemetry monitoring of released kiwi for dispersion, survival and breeding success
- Participation in Annual Pāteke Flock Counts
- Annual Targeted Five Minute Bird Counts at least 10 station per group area
- Participation in Kiwi Coast's Five Yearly kākā & bellbird counts
- Participation in Kiwi Coast's five-yearly Kiwi Listening Blitz
- Weed Action records, including before and after photos of weed control.

#### **Animal Pests**

All Kiwi Link projects record their trap catches and submit their results to Kiwi Coast as part of the annual collation of Northland data.

Landowners across the Kiwi Link HVA remain concerned about feral pigs, illegal pig hunting activity, pig damage to native forest health and the risk posed by hunters and pigs in spreading Kauri Dieback Disease (KDB).

Kiwi Link will continue to work with NRC, Kiwi Coast, Department of Conservation (DOC), Whangarei District Council (WDC), local Landcare Group representatives and professional pig hunters to protect healthy kauri forests, reduce the feral pig population and coordinate the collaborative Pig Control Plan developed in 2019 by Good Wood Aotearoa.



#### Kiwi

All Kiwi Link projects participate in the Annual Kiwi Call Count Survey, either with human listeners or with Kiwi Listening Devices (KLDs) at less accessible sites or where no kiwi are yet known to be present.

Results to date indicate that kiwi numbers are increasing at some areas within the Kiwi Link HVA, as well as expanding into new sites.

Radio telemetry tracking of a small proportion of kiwi within Kiwi Link will assist with monitoring dispersal, survival and breeding success. This will increase our understanding of how kiwi move through corridors and indicate the success or otherwise of measures to continually improve dog control throughout the area.

#### **Pāteke**

Pāteke (brown teal) are the rarest mainland duck in New Zealand. Kiwi Link groups will continue to work each year with Kiwi Coast, specialist staff at the Department of Conservation (DOC) and NorthTec to assist with the Annual Northland Pāteke Flock Counts and investigate new sites.

#### **Five Minute Bird Counts**

Targeted Five Minute Bird Counts will continue to be carried out annually using special methodology developed by Dr Dai Morgan, NorthTec Conservation Management Tutor. Eight key native bird species are monitored: tuī, kingfisher/kōtare, waxeye/riroriro, kūkupa, tomtit/miromiro, fantail/piwakawaka, kākā and bellbird/korimako.



Kāka and korikmako monitoring crew 2021. (Photo: Kiwi Coast)

Table 1: Kiwi Link NRC HVA Budget 2021-2026

Activity	2021-22	2022-23	2023-24	2024-25	2025-26
Kiwi Link Coordination, Administration and Financial Management	10,000	11,000	11,500	12,000	12,500
Kiwi Link Professional Predator Control	41,500	45,000	45,000	45,000	45,000
Border Predator Control	2,000	2,000	2,000	2,000	2,000
Predator Control Network - Infill gaps in predator trapping network, incl servicing by professional predator trappers + 3 yearly toxin pulse	4,000	10,000	12,000	5,000	6,000
Animal and plant pest control: Traps, toxins, herbicides, labour assistance	12,000	17,500	12,000	20,000	10,000
Community capacity building: pest control events, workshops, fieldtrips and education	2,500	3,000	3,500	3,000	4,500
Communications & Engagement: Website, Public Kiwi Releases, school visits, dog control resources and signage etc	6,000	6,000	6,000	6,000	6,000
Support and tools for outcome monitoring	3,000	5,000	5,000	5,000	10,000
Coordinated pig control	3,000	3,000	3,000	3,000	3,000
Wasp control	1,000	1,000	1,000	1,000	1,000
Kiwi tracking and dispersal monitoring	10,000	10,000	10,000	10,000	12,000
Trial and deployment of new pest control tools	3,000	3,000	5,000	4,000	4,000
Plant Pest Control: Weed Action Coordination and Events	2,000	3,500	4,000	4,000	4,000
Totals	100,000	120,000	120,000	120,000	120,000

NB: All figures exclude GST

**Table 2: Estimated Financial and In-kind Contributions** 

Activity	NRC Kiwi Link HVA Funds 2021_22	Community Contribution (\$30/hour)*	Kiwi Coast	DOC	HFM	Martin Trust	Tahi	NRC Mt Tiger Pine Forest	Totals
Coordination, Administration and Financial Management	10,000	15,000	5,000	500	1,000	2,500	1,000	1,000	36,000
Professional Predator Trapping and Pest Control	53,500	50,000	1,000	1,000	8,000	6,500	20,000	5,000	145,000
Animal and plant pest control equipment: Traps, toxins, herbicides	11,000	1,000	10,000	500	0	0	5,000	1,000	28,500
Plant Pest Control Incl. Weed Action Coordination and Events	2,000	5,000	0	0	1,000	2,000	5,000	0	15,000
Native tree planting	0	10,000	0	0	0	0	10,000	0	20,000
Community capacity building: pest control events, workshops, fieldtrips and education	2,000	1,000	5,000	0	0	0	0	0	8,000
Communications & Engagement: Website, Public Kiwi Releases, school visits, dog control resources and signage etc	5,500	5,000	5,000	10,000	0	0	500	0	26,000
Monitoring	13,000	15,000	10,000	5,000	1,000	2,000	2,000	2,000	50,000
Trial and deployment of new pest control tools	3,000	0	5,000	0	0	0	0	0	8,000
Totals	100,000	102,000	41,000	8,000	11,000	13,000	43,500	9,000	327,500

NB: Based on 2019-2020 financial data from Kiwi Link CPCA 2020 Annual Report, all figures plus gst

# **Summary**

Kiwi Link brings together communities and land managers between Taraunui and Glenbervie who have proven their commitment to collaborate towards a vision of creating a 15,000ha safe haven for native biodiversity. Here, kiwi will flourish once more and roam freely between the established strongholds of the Whangarei Heads peninsula and the Tutukaka Coast.

Together, Kiwi Link groups represent hundreds of private landowners actively involved in kaitiakitanga or active conservation stewardship. After five years of successfully working together, those involved are ready to take the next step and form an HVA.

Results achieved to date are promising, with improving forest health, returning birdsong and increased sightings of rare species including kākā, korimako and pāteke.

The challenge ahead is not to just maintain these hard-won gains, but to continue the positive growth. Continuing to build the skills of Kiwi Link landowners and ensure they have the resources to operate at full capacity will be crucial to success.

Kiwi are going from strength to strength throughout the Whangarei Heads – Kiwi Link – Tutukaka Coast area. The confirmed movement of transmittered kiwi between the Whangarei Heads peninsula and through the Kiwi Link CPCA shows the kiwi corridor is beginning to work.

Working with the Predator Free Whangarei project will help amplify existing efforts and boost the projects involved towards pest eradication.

Strengthening relationships and building connections with the Tāngata Whenua of the Kiwi Link area will bring depth to the project and ensure gains made are sustained for generations to come.

With the support and assistance of NRC and Kiwi Coast, Kiwi Link HVA is ready to play its part in creating New Zealand's first kiwi corridor.

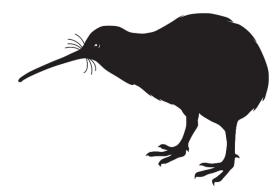


Sue and Brad Walters with Donald the kiwi, Pataua North Landcare Kiwi Release. (Photo: Anne Stewart)

#### References

Booth, A. 2005. *Natural Areas of the Whangaruru Ecological District*. Department of Conservation.

*Kiwi Coast Strategic Plan*. 2017. Unpublished report.



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