



CAPE TO CITY

It's in our nature

 Facebook: Cape to City

Survey shows strong support for predator programmes

A survey of landowners within the Cape to City footprint as well as landowners within 15 kilometres gives us confidence that the wide scale predator programme is on track to be a success.

The study undertaken by a Stanford University Student Becky Niemiec proved that landowners are willing to participate in Cape to City based on the overall success of the Possum Control Programme that first began in 2000. Most survey participants (95 percent) believed the possum control programme was either “very or extremely effective”.

The study has reinforced what farmers value and want out of predator control programmes.

We got a great insight into the benefits, opportunities and risks to farmers of introducing a predator programme that extends past possums to include stoats, feral cats, rats and mustelids.

The key findings were that farmers like the idea of doing additional predator control if it doesn't add costs to them; they value not only the economic benefits but also the environmental benefits such as increased biodiversity and reducing risk of the disease toxoplasmosis. The study also provided an understanding of the barriers for participating in predator control including what they saw as risks, one of which is a concern around an potential increase in rabbit numbers.

STUDY RESULTS

- 95% thought possum programme was very or extremely effective
- Nearly 90% participate in a conservation activity on their land
- 85% want better control of feral cats
- 75% want better control of stoats
- 55% want better control of rats



Becky Niemiec from Stanford University

All of this has created a technical pathway for success for the programme which is, that it needs to be introduced at low cost so that it's a long term solution, very much in a similar way to the possum control programme.

Close to 90 percent of respondents said they participate in a conservation activity on their property with the most common being fencing off wetlands, native bush and planting of trees.

One commented on the outcomes “better planted tree survival, easier planting due to less protection required”.

“People will be into it [Cape to City] because we have all seen the success of the possum one. There was a real noticeable number of birds that came back.”

Campbell Leckie says the survey has provided some real insights into how farmers view integrating predator control into the existing successful possum control programme.

“These insights will be really valuable as we develop Cape to City as a possible path to reducing the impacts of predator pests across our region alongside our success against possums. The importance of a high level of communication with landowners, demonstrating the economic benefits of control efforts and sharing the monitoring results with everyone involved were some key messages we got”.

Education Update

Our children are our future and it is their commitment to the environment that will bring long term success.

Education is alive and well in the Cape to City project!

Cape to City education programmes are working with students but also aim to 'teach the teachers' and inspire, encourage and equip them to "reconnect students with nature" and encourage "education where the context is the environment".

Three schools participated in Cape to City education programme and the plan is to involve six schools each year. These programmes are led by Department of Conservation's education programme coordinator Robyn McCool with project Ambassador Ruud Kleinpaste's support and input.

Robyn said the positive response and feedback from schools involved has helped confirm that there is a real hunger for this type of programme and it is worth expanding into other schools.

Ruud says the course content has been developed in ways that encourages creative hands-on education using the environment as a context for learning across the curriculum. He adds that most of the school curriculum can be taught in a nature context.

"It's easy to get inspired by nature. When we are teaching the teachers, we just take them outside and walk around and as they start to observe the environment the questions start coming and they form their learning and content from there.

There are so many teachable moments outside!"

Be part of the Mānuka success story

The Hawke's Bay Regional Council is a partner in an initiative to grow the Mānuka honey export industry to \$1.2 billion by 2028 and you could be a part of it!

The council has joined Mānuka Research Partnership Limited (MRPL) which has its sights on increasing the supply of highly sought after medical-grade mānuka honey.

Other partners are Arborex Industries Limited, Comvita NZ Limited, DC and CY Tweeddale Partnership, Hawke's Bay Regional Council, Landcorp Farming Limited, Nukuhau Carbon Limited and Te Tumu Paeroa. Massey University is the group's independent science partner.

HBRC has a trial site in Tutira which is among other trial sites throughout New Zealand testing a range of mānuka varieties. There are plans for a 40ha trial within the Cape to City footprint.

The first release of seedling to landowners throughout New Zealand was a sell out and commitments are open for 2017.

The council is a partner because we see the economic and environmental benefits for landowners and the wider community.

Hawke's Bay landowners, especially those with erosion issues can access funding support to establish mānuka plantations through the Ministry for Primary Industries' Afforestation Grant Scheme (AGS). Applications opened in April each year for planting each winter.

Visit www.manukafarmingnz.co.nz

The role of research in Cape to City

By Campbell Leckie – project team leader

The vision of Cape to City is "native species thrive where we live, work, and play" and research has a critical role in achieving this vision.

The importance of research

Research provides insights into challenges and opportunities we previously did not understand and these can often be very important to the 'why and how' of what we do on the ground. There is a wide range of research underway broadly related to predator pest management within the Cape to City project. The project has very strong research partners in Landcare Research and the Biological Heritage Science Challenge. Much of this is breaking new ground in New Zealand. Two examples are:

Toxoplasmosis

Cats are known as the sole reproductive host to toxoplasmosis, which causes abortions. Within sheep farming it can cause considerable financial loss. Toxoplasmosis is also harmful to humans and bird life and can kill kiwi. Research indicates reducing the feral cat population within a rural landscape may eradicate or reduce the incidence of toxoplasmosis, bringing economic, human health and biodiversity benefits.

The link from predator control to reduced predator numbers

We control predators to achieve desired outcomes like reducing economic loss and increasing the number of native birds. To achieve this, we must understand how well our predator control is working. However, predators such as mustelids and feral cats are difficult to reliably find (or track) in the environment, making it difficult to clearly link predator control to a reduction in predators. We are using motion sensitive cameras (trail cameras) to monitor predators before and after control, trends across large areas, and detect hotspots of surviving predators.

Transformational change in predator pest management in New Zealand, with its benefits will take many years to achieve. A key foundation stone to enabling us to achieve the vision "Native species thrive where we live, work and play" is research.

Transformational change and research

Research can help lead transformational change in predator management. However, to achieve success, we also need political, social and operational changes to predator pest management on a large scale. This is why a significant amount of research within Cape to City is directed to understanding the benefits, risks and opportunities of wide-scale predator control and how an understanding of these will transform what we do on the ground.

Habitat Restoration set to get in full swing

Cape to City's habitat restoration programme is set to get underway for 2016 with the planting of 50,000 natives along the Maraetotara River.

A mix of locally eco-sourced natives such as kowhai, flaxes, cabbage trees, toetoe, manuka and kanuka among others will be planted in early June, hopefully after the first of the winter rain.

Residents of Hohepa will plant 5000 natives, following on from the 5500 they planted last year with the remainder being planted by contractors.

Habitat restoration manager for Cape to City Hetty McLennan says the plantings along about 4 kilometres of both sides of the Maraetotara Stream is a work in progress and its significant as it's the only entire river system within the Cape to City footprint.

The upcoming plantings align with the Maraetotara Tree Trust's vision of a healthier river.

The Trust was set up over a decade ago by John Scott, an enthusiastic fresh water angler, who gathered together a group of people who broadly shared his vision to restore Maraetotara River and a bird corridor as a connector for Te Mata Park, Havelock North, Haumoana and Napier.

Once cleared of willows and fenced by Hawke's Bay Regional Council, the Trust set out to plant about 4500 natives trees alongside the river each year, however last year 9,500 native trees were planted, with 13,000 planned for 2016/17.

Trust chair Pat Turley says already 50 percent of the 43 kms rivers length is now reserved and fenced, and by 2017, will be fully replanted with natives.



Residents of Hohepa will plant 5000 natives

As the Cape to City programme gets underway and prepares for the return of native species such as Whio (or blue duck as they are also known) and Kiwi, it's critical to provide habitat through the planting of natives.

The benefits of planting include making the environment more liveable for species as well as reduce erosion, moderate water temperature and improve water quality.

The aim over the Cape to City programme is to plant at least 215,000 natives within the footprint over five years.

For information about the Maraetotara Tree Trust visit www.maraetotaratretrust.co.nz



Rachel Cooper and Alice Ward-Allen

Blake DOC ambassadors get first hand experience

Two students spent a month in Hawke's Bay recently working alongside locals on the Cape to City and Poutiri Ao ō Tāne projects.

As Blake DOC Ambassador award recipients Rachel Cooper and Alice Ward-Allen helped set trap and bait stations, monitor and feed kaka, prepare petrel nest boxes, and monitored other native birds.

Both students brought diverse skills from either end of the country. Alice recently completed a Bachelor of Science majoring in zoology and ecology at the University of Otago while Rachel was studying environmental science and geography at the University of Auckland.

The Sir Peter Blake Trust works with a number of partners each year to provide opportunities to people aged 18-25.

Blake DOC Ambassador awards were awarded to 14 people this year. To be eligible to receive a Blake Ambassador Award applicants must be 18-25 years old with leadership potential and have demonstrated a passion for the environment.

For more information about the awards visit www.sirpeterblaketrust.org/blake-leader-awards

NZ's ultimate predator target of trapping

The cat control programme that is aims to significantly reduce the feral cat population in the Cape to City catchment is underway and already making a positive impact.

The programme started with staged live trapping in the northern end of the project area and has been developed following consultation with Hastings SPCA and Hastings District Council Animal Control and vets from Vet Services.

An awareness campaign kicked off the programme with letters sent to landowners in the first targeted area. Hawke's Bay Regional Council's biodiversity predator control specialists Pouri Rakete-Stones and Shane Diphoorn will then visit landowners to get a better understanding of their environment and record any domestic cats living there or nearby.

Domestic cat owners will also be offered identifiable collars, photographic recording of their cat on a database, micro-chipping as well as free de-sexing.

About 30 landowners in the northern end of the C2C footprint are participating in the first of three phases predator control between April and June. Initial results and feedback have been very promising with 16 feral cats caught on 2 properties within a week.

Pouri and Shane say they have been refining the trapping and believe that it's more efficient to map out the trapping plan following a drive over the property with the landowner.

2.5 million feral cats in NZ

With an estimated 2.5million feral cats in New Zealand, cat control is vital to the success of programmes such as Cape to City.

In the rural environment, we know that there are feral and stray cats as well as pet cats. The cat control programme has been devised to eliminate feral cats but minimize the risk of injury to domestic cats.

Feral cats are regarded as 'the ultimate predators' in New Zealand, killing young and adult birds as well as preying on native lizards, fish, frogs and large invertebrates. Both sea and land birds are at risk, particularly those that nest or feed on or near to the ground.

Feral cats also carry parasites and toxoplasmosis which causes abortions in sheep and illness in humans. To many of us cats are also loved companions, therefore we need to ensure that we have steps in place to prevent injury to domesticated cats.

A group has been formed to develop a national cat strategy which aims to balance the positive benefits cats bring with the risk that feral cats are a threat to native species and ecosystems. The group is aiming to have a zero feral cat population by 2025.

The group's intention is to promote responsible cat ownership, environmental protection and humane cat management.

A staged approach to cat control

Hawke's Bay Regional Council biodiversity adviser Rod Dickson says each phase of the cat control on Cape to City covers an area of approx 2,000ha at a time. The goal this year is to over 8000 ha within the 26,000 ha footprint.

Control of these areas will start with 180 traps with wireless nodes will be set up as part of the intensive live capture targeting feral cats and mustelids.



Farmer Kip Coop with live traps ready to be set

"When the traps are activated, the node sends a signal to a satellite, and then to the landowners mobile as a text or email notifying them that a trap has been set off. By only checking traps when you need to, a major saving of time and effort can occur," Rod says.

Motion sensitive infrared trail cameras will be utilised as part of the research component to monitor changes in predator abundance. These cameras will be put out before and after the predator control takes place. Landcare research scientists and a PHD student from Lincoln university are trialing this method, which is the first time it has been done for predators at this scale in New Zealand.

Maintenance to ensure low numbers remain

After the live capture period ends a network of permanent kill traps will be laid out to continue to keep numbers of target species low.

"We will continue to check these traps for a period of 12 months to ensure the initial control has knocked predator numbers down really low for farmers. After that we will provide a pest plan that will integrate predator control either by the farmer or their possum contractor into the existing possum control programme.

Our ultimate goal is to have landowners or contractors only checking traps when they need to be – and this will be possible with the wireless nodes on traps.

Check out our website www.capetocity.co.nz and the FAQ's about feral cats. Feel free to contact us if you haven't received a letter about the trapping programme.

Toxoplasmosis target of predator programme

A monitoring programme testing ewes on six farms, as part of the Cape to City predator programme, has found that up to 30 percent of sheep carry the disease toxoplasmosis, which causes a high abortion rate in pregnant ewes.

Feral cats are the sole reproductive host for the disease toxoplasmosis and are the target of a predator programme that could save Hawke's Bay farmers millions of dollars a year.

Three 'experimental' farms within the 26,000-hectare Cape to City footprint tested feral cats and mice for toxoplasmosis while three 'control' farms outside of the footprint (control farms) tested mice only.

Sixty sheep on each farm were sample tested to form a baseline across the farms that have been matched in size, stocking density and habitat.

Hawke's Bay Regional Council Biosecurity adviser Rod Dickson said the baseline was high but "that was expected" and by reducing feral cats, it is hoped abortion rates will decrease.

"Feral cats are one of the main carriers of toxoplasmosis and if we can reduce the numbers of feral cats, we have a good chance of reducing the high abortion rate in ewes. This could provide a significant economic benefit for farmers," he said.



Cape to City project leader Campbell Leckie checks a trap

Toxoplasma is highly prevalent in New Zealand sheep flocks with a recent survey testing 198 ewe flocks revealed 85 percent of sheep had been exposed to the disease. It is primarily a parasite of cats, with rodents, sheep and people at risk of infection from ingesting infective stages shed by cats.

Sheep become infected from eating contaminated food such as pasture, concentrate feeds and hay. Once ingested, the toxoplasma spreads to the sheep's muscles and brain – and also to the placenta. Shielded from the ewe's defence system the parasite multiplies rapidly, killing cells as infection spreads.

Feral cats and mouse tissue samples have been tested by Landcare Research with the results from three properties forming an excellent baseline for ongoing testing.

The farms will be tested again in 2017. Over the next four years testing will show if a reduction in Toxoplasmosis is possible after wide scale feral cat control.

"The testing we've done gives us a good baseline to measure and monitor over the five year duration of Cape to City. The outcome will provide a very good measure of potential economic success," says Rod.

Caring for our environment reaps huge social rewards

For many of us touching a tablet screen is more common than getting out into a natural environment and touching species such as kiwi.

Environmental projects like Poutiri Ao ō Tāne, Cape Sanctuary and Cape to City are bringing people from all walks of life – young and old together for new experiences, yet in past generations, these experiences were natural.

Tania Hopmans represents three northern Hawke's Bay iwi on Poutiri Ao ō Tāne: Maungaharuru-Tangitū Trust, Ngāti Pāhauwera Development Trust and Te Kōpere o te Iwi o Ngāti Hineuru. Tania has seen first hand the many benefits of being involved in the project.

Poutiri Ao ō Tāne aims to bring native flora and fauna back into the lives of the local people by embracing the knowledge of a wide range of partners. Poutiri Ao ō Tāne is a unique, collaborative, ecological and social restoration project located in the Maungaharuru-Tūtira catchment, 60km north of Napier with the Boundary Stream Scenic [Mainland] Reserve at its heart.

Already, native species have been re-introduced, such as Titi (Cooks Petrel), Kōruru (Mottled Petrel), Kākāriki and Kākā.

“We did a translocation up at Maungaharuru recently and it's fantastic to see mokopuna and kaumātua working alongside DOC experts to feed the Titi chicks and put them into their burrows.

In our ever busy lives and fast paced society, it really is great to get our children away from screens and instead caring for endangered birds. It makes us all stop, help and learn in what is a pretty isolated environment.

It provides all of us with an awesome opportunity to practice kaitiakitanga (caring for our environment) and get involved with a range of experts. It works for everyone and teaches us that if our environment isn't strong then we won't be either.

To put it into some context, it's not only about reintroducing native species into their natural environment but also reintroducing all of us. We gain more than we give by getting involved. There is a saying 'hoki atu ki tō maunga kia purea ai koe e ngā hau o Tāwhirimātea' – return to your mountain to be cleansed by the winds of Tāwhirimātea. We need to go back to those special places to be re-energised.



Kahurangi Burkitt, age 12 years, helps reintroduce Cooks petrel to Maungaharuru

Tania hopes to see the success of Poutiri Ao ō Tāne and the involvement of southern Hawke's Bay hapū alongside DOC, Landcare Research, HBRC and landowners in the Cape to City project.

It provides all of us with an awesome opportunity to practice kaitiakitanga (caring for our environment) and get involved with a range of experts. It works for everyone and teaches us that if our environment isn't strong then we won't be either.

“There are all these wonderful opportunities for hapū to be involved and we need to understand that everyone has different goals and capabilities; for some it could be providing guidance on cultural matters or working in a governance position while for others it may be planting native trees or feeding a petrel and putting it into a burrow.

Hapū can bring a richness to this type of project. For the Cape to City project we would like to understand the aspirations the local hapū have for their environment, to share our experiences from the Poutiri Ao ō Tāne project and to invite the local hapū to be a part of the Cape to City project.”

Cape to City:

Geographical coverage



 **SIZE:** 26,000 Hectares

Who's Who

The Cape to City project is a team effort. Let's meet some of the key players:



Cape Sanctuary Landowners

Providing knowledge and support based on their own project, the largest privately owned conservation project in New Zealand is spread over 3 farms and a golf course at Cape Kidnappers.

Facebook: Cape Sanctuary



HBRC

Experienced pest control staff have managed a wide variety of animal and plant pest operations. Contractors are used for initial possum knockdowns in PCAs and HuB projects. www.hbrc.govt.nz



Landcare Research

Landcare Research provides scientific credibility nationally and internationally, measured outcomes in terms of benefits, and access to other academic organisations. www.landcareresearch.co.nz



Tangata Whenua

We anticipate a variety of advice, knowledge and involvement from various levels - governance, hapu, and marae - throughout the course of the project.



DOC

Technical knowledge and staff support in all conservation areas. www.doc.govt.nz



168 landowners

Involved through their PCA (possum control area) groups of Te Mata, Haumona, Waimarama A and Waimarama B.



Aotearoa Foundation

Generously providing funding support for both Cape to City and Poutiri Ao ō Tāne.



You

Providing habitat for native birds, insects and lizards in your backyard, controlling pests and weeds, and helping out with community eco-restoration projects.

CONTACT

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