



We've been here before – why isn't it getting easier



Reflections (social and technical) on 8 animal pest eradications

Tatai whenua, tatai tangata, tatai oranga



Connecting the land, the people and their wellbeing

Whanaungatanga

- *All embracing relationships*
- *Working with others to make a difference*
- *Trust and respect are paramount*



Kaitiakitanga

- *An intimate relationship with the environment*
- *The health of a community is reflected in its environment*
- *Building relationships & empowering people as guardians of our environment is vital*



ROTOROA



Rotokare Scenic Reserve Trust



Rakitu Island Scenic Reserve



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Te Korowai o Waiheke

Draft Trap Layout



Scale @ A1

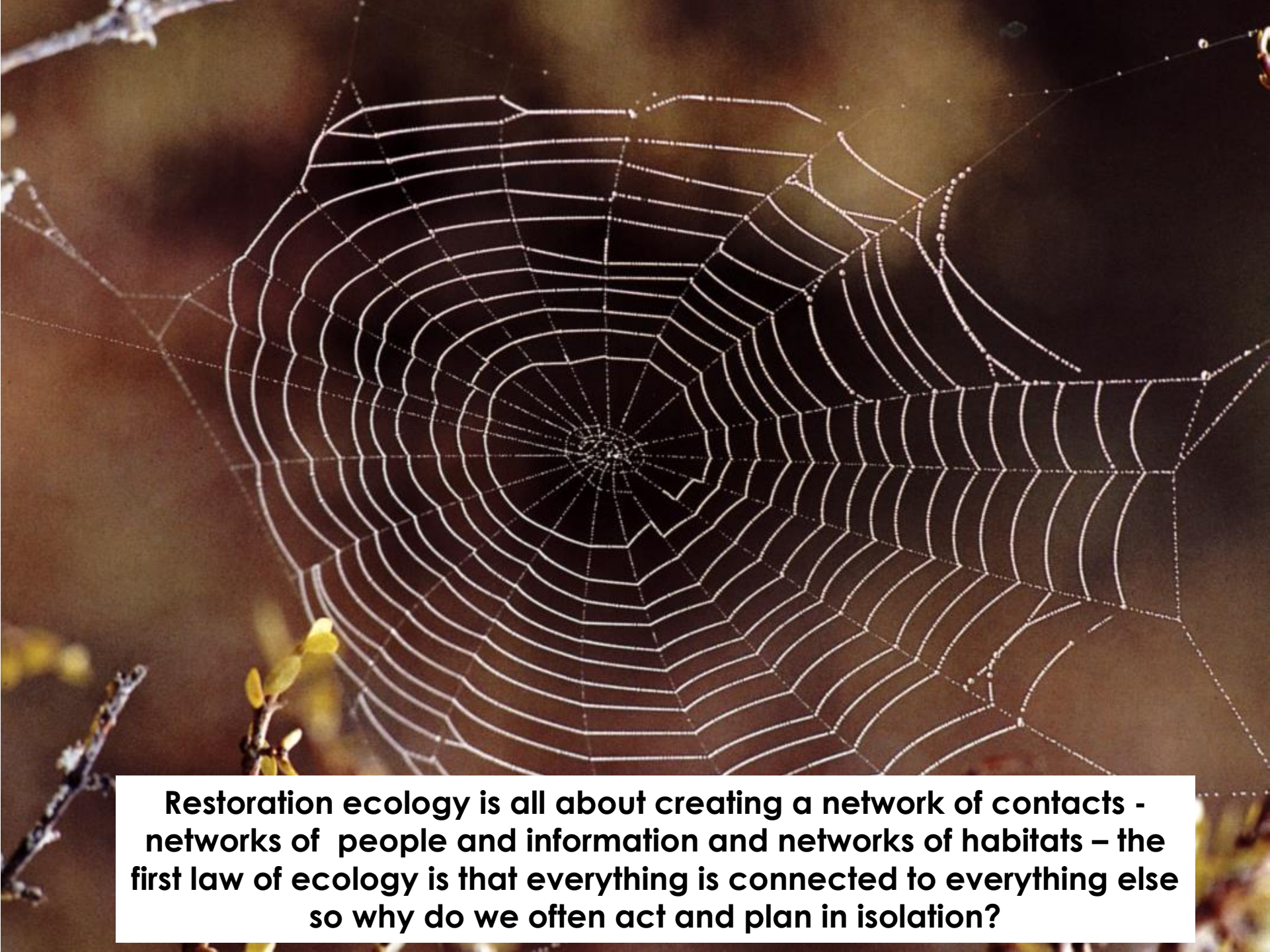
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"...but in the hands of an expert, carefully prepared,
it is a rare delicacy."



Restoration ecology is all about creating a network of contacts - networks of people and information and networks of habitats – the first law of ecology is that everything is connected to everything else so why do we often act and plan in isolation?



It's often also about taking a great leap forward and trusting that the community does know what its doing – every single person has something to contribute

Walking side by side



**Building mutually beneficial working
relationships in the community**



Coming together is a beginning
Keeping together is progress
Working together is success

**The biggest communication problem is that often we don't
listen to understand**



**We often listen only
to reply**

Three arrests as Brook Sanctuary poison drop in Nelson turns nasty

Cherie Sivignon • 18:47, Sep 02 2017



**Community perceptions on toxins.... Some ways to deal with them
– empathy goes a long long way**



**Mussel farms along Kaikoura coast – no real information existed
to satisfy farmers on effects of brodifacoum on mussels**







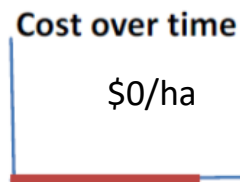
Pest Control Strategies: 'Sustained Control' - 'Zero Density' - 'Eradication'

NO PEST CONTROL

Default 'pest equilibrium state', where pest populations reach whatever density food (fruit, seed, inverts, etc), den site resources and/or climate allow. Native biodiversity/ecology slowly declines over time with increasing extinctions.



Rubber band analogy: (level of effort required to reduce pests and sustain gains) is in an "unstretched" state (no management)

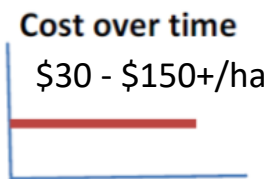


SUSTAINED CONTROL

Ongoing pest management regimes to achieve and maintain pest densities below damage thresholds for valued resources (e.g., <5%RTI for rats to allow robin breeding;; <2%RTI to allow for kokako breeding; <2%RTI for stoats to allow for Kaka breeding).



Rubber band analogy: (level of effort required to reduce pests and sustain gains) Band is in a Moderately "Stretched" state

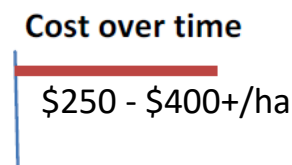


ZERO DENSITY/DETECTION

Ongoing pest management regimes that virtually eliminate pest impact. Will allow for the existence of more pest sensitive resources (*Dactylanthus*, many larger lizards, large invertebrates). **Assumes low numbers of animals remain in a treatment area and/or ongoing re-infestation of treatment area** Pest infrastructure intensity is significant.



Rubber band analogy: Band is in a Highly "Stretched" state



ERADICATION

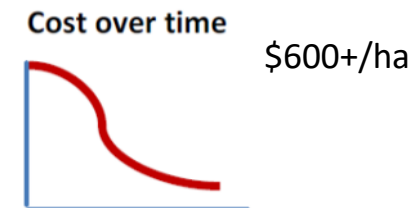
Pest populations are completely removed with little or no chance of reinvasion.

The most pest sensitive resources (e.g., kakapo, Tieke, Hihi, titi, tuatara, wetapunga) can thrive

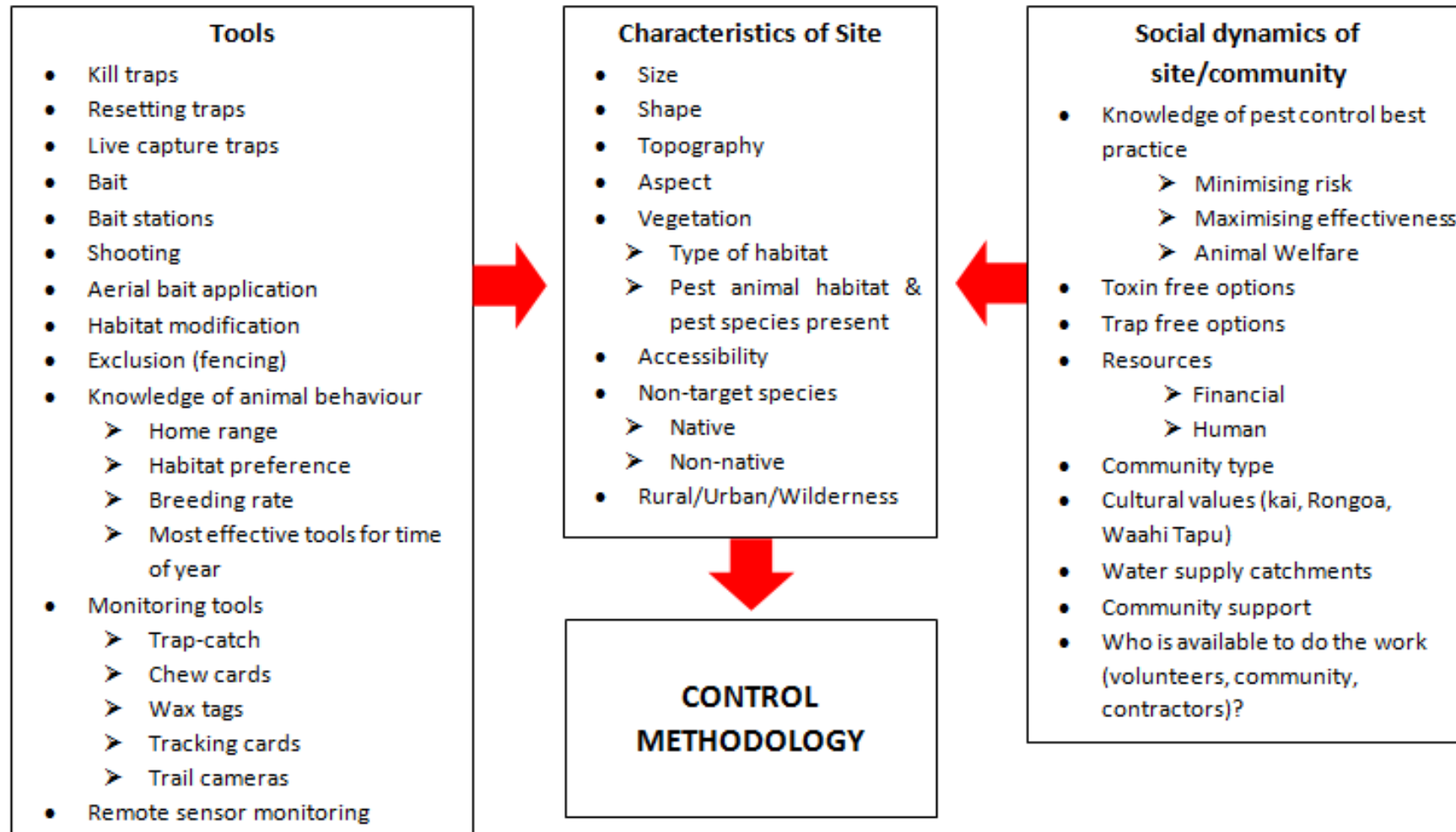
Requires intensive biosecurity; ongoing maintenance of intensive pest monitoring & detection regimes; and robust pest incursion response procedures to remove any reinvaders before they breed or impact on sensitive species



Rubber band analogy: Band is "Broken"



Selecting from the tool box - What tools where & when?



Building a toolbox with the community







Animal pest management is a means to an end – a thriving natural environment on an island where people live work and play – **biodiversity indicators measure progress, build understanding and inspire citizen science initiatives**, killing pests does not motivate everyone

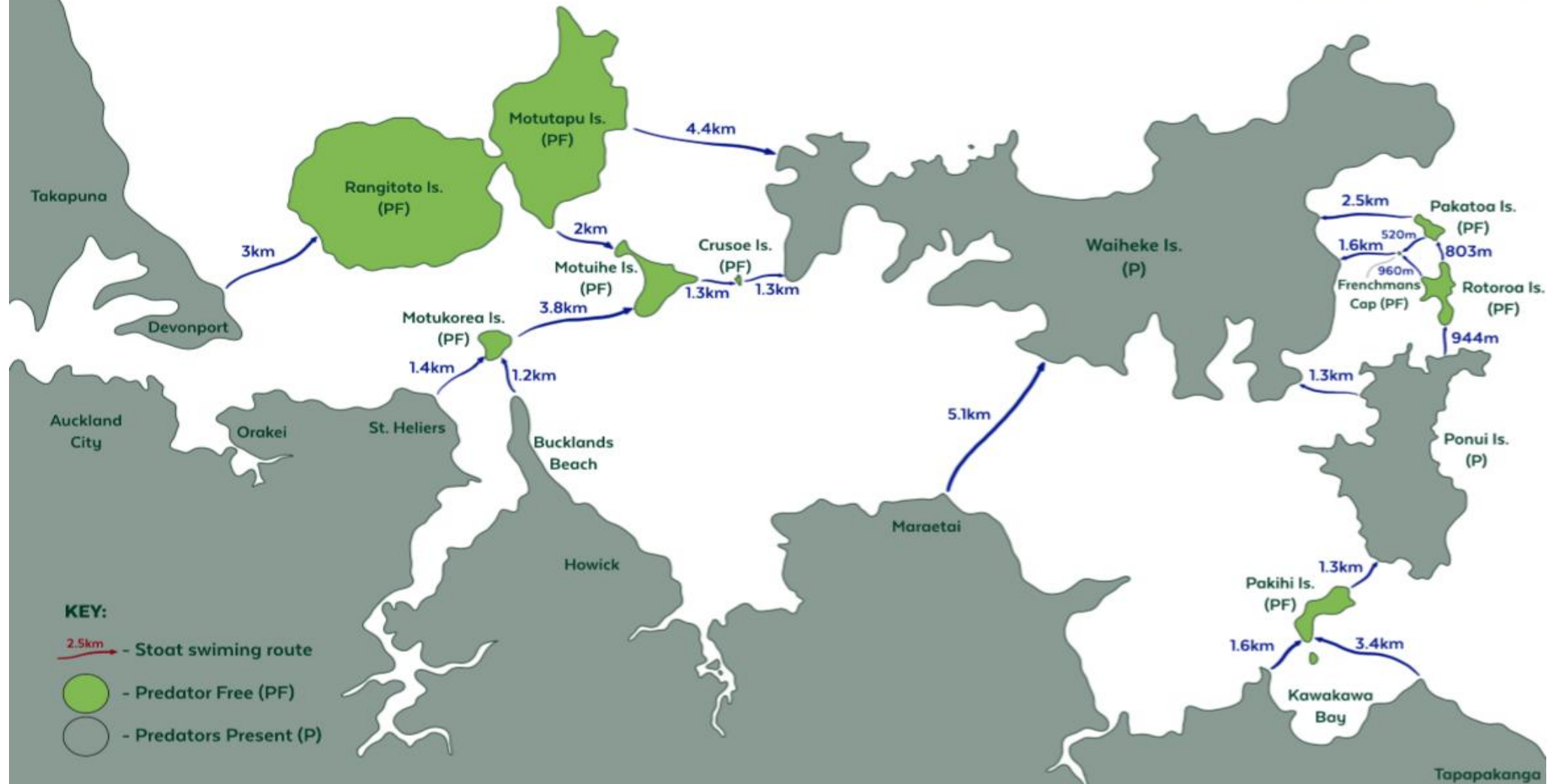


Stoat Swimming Distances

Stoats commonly swim up to 3km, and have been known to swim up to 5km.
The presence of 'stepping stone' islands can enable stoats to swim even further.



Te Korowai o Waiheke
TOWARDS PREDATOR FREE WAIHEKE





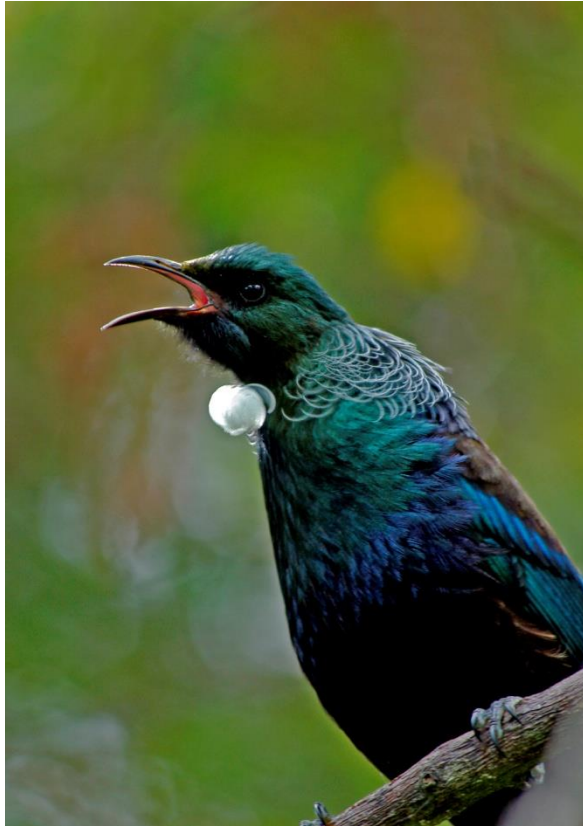
Community based translocations



Helping DoC to help ourselves



Koekoe te tui, e ketekete te kaka, e kuku te kereru



The tui chatters, the parrot gabbles, the wood pigeon coos

Nāu te rourou, nāku te rourou, ka ora te iwi.



**With your food basket and my food basket,
everyone will have enough.**