



Mamaku Point  
CONSERVATION RESERVE

# ANNUAL OPERATIONS REPORT

## November 2018



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# Background

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## Description

Mamaku Point Conservation Reserve is located 4km north-west of Oban township on the north-eastern coastline of Stewart Island \ Rakiura, which is situated 27km off the southern coastline of the South Island, New Zealand \ Aotearoa.

The Reserve makes up most of a 172 hectare property encompassing an entire headland comprised of rugged hilly terrain, rewilding grasslands, pristine sandy beaches, streams and some of the oldest native podocarp forest in NZ.

Since 2005 the Reserve has been enclosed by a 2.1km long biosecurity fence extending from Horseshoe Bay to Lee Bay, preventing the movement of non-native mammals into the Reserve. An extensive biosecurity grid is maintained both inside and outside the fence , and both the fence and the biosecurity grid are remotely monitored using VHF, cellular and satellite communications to ensure that any biosecurity breaches are detected immediately.



As a result of the comprehensive biosecurity programme, the Reserve is a thriving habitat to over 126 native species, including at least 18 native bird species, scores of native invertebrate species, and one of the highest concentrations of Kiwi for its size.

Located within the Reserve is an environmental education centre, which in past years accommodated school parties of up to 40. Today the education centre includes a kitchen, communal space, shower and bathroom blocks, and sleeps a dozen people comfortably. The first tenting school groups were welcomed back in 2018, and additional bunk rooms will soon be added so that the centre can again accommodate up to 40 comfortably from spring 2019.

## History

Prior to November 2000 the property was privately owned and managed as a farm by the Turnbull family, with the seaward faces used for sheep and cattle grazing, while the higher inland areas remained as native bush. In November 2000 the Dancing Star Foundation purchased the property and set about turning most of it into a biosecurity preserve for native flora and fauna.

In 2017, the Reserve was purchased by a family trust associated with Roy and Rachel Thompson, who subsequently established the Mamaku Point Conservation Trust in order to engage the wider community in their biodiversity, education and sustainability objectives for the Reserve.

The name Mamaku Point is taken from a prominent landmark within the Reserve close to Nathan's Island. Mamaku is the Maori name of the [black tree fern](#) (*Cyathea medullaris*), which are found on the point.

## Mamaku Point Conservation Trust

The Reserve is leased and managed by the Mamaku Point Conservation Trust, an incorporated [charitable trust](#) and [registered charity](#), the Trustees of which are:

- Professor Philip Seddon (chair)
- Phillip Smith
- Roy Thompson

The primary objectives of the Trust are:

1. maintaining and enhancing **biodiversity** within the Reserve;
2. making the Reserve accessible by the public for conservation **education** and eco-tourism activities; and
3. working toward the financial and environmental **sustainability** of the Reserve's operations.

Day to day management of the Reserve is delegated to our fantastic General Manager, Antony Simpson, who is supported in his efforts by a large number of wonderful and valued supporters who give their time generously toward achievement of the Trust's objectives, including:

- Andrew King
- Derek & Julie
- DOC Rakiura
- Ernie Mason
- Jo Ritchie
- Margaret Feringa
- Willie Gamble

Special thanks are also extended to Phillip and Dianne Smith, who kindly donated a new upsized chainsaw to assist with the clean-up of the felled exotic trees, and to Noel Bulman, who donated a new clean-burning wood burner for the education centre.

The following report details the objectives, strategies and highlights of our first year of operation, through to 31 October 2018.

# Biodiversity

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## Biodiversity Objectives

The Trust's primary objective is to conserve and enhance the health and diversity of the native flora and fauna within the Reserve. Specifically, the Trust will:

- Ensure that the biosecurity of the Reserve is maintained to the best of the Trust's ability;
- Seek opportunities to re-establish native species not currently found within the Reserve.

## Flora Strategy

The Trust's 2018 strategies in respect to flora were to conserve the existing native flora and to help facilitate the rewilding of those areas that were previously cleared for farm grazing.

The previous owners maintained a policy of minimising the removal or destruction of non-native plants such as gorse, macrocarpa and eucalypts. While the Trust understands the reasons for this policy, our strategy is to remove or destroy all non-native plants within the Reserve, to the extent practical, and in particular to eliminate all:

- Gorse
- Macrocarpa and eucalypt trees
- Darwin's Barberry
- Gunnera
- Ragwort

## Flora Highlights

A significant and pressing challenge facing the Trust on takeover of the Reserve was the presence of many large exotic trees immediately around the education centre. These trees threatened the biosecurity of the Reserve, due to the risk that a limb or entire tree could fall across the fence, and they also presented a risk to life, in case a tree should fall on the education centre itself. In addition these trees were self-seeding within the Reserve.

Asplundh were contracted in June to fell all the large exotic trees, which the Trust is now turning them into firewood for the Stewart Island community (before and after below).



Gorse is gradually being controlled, particularly around the education centre and above Lee Bay, but significantly more effort will be required in 2019 before all gorse is eliminated from the property. In addition to its ongoing work cutting, spraying and clearing gorse, the Trust is also investigating aerial spot spraying as an option to speed this process. Areas being cleared of gorse are being assisted back into native state through selective planting of native species.

## Fauna Strategy

The Trust's 2018 strategies in respect to fauna were to conserve the existing native fauna, to help grow the populations of the resident species and to seek opportunities to re-establish other absent natives such as [Yellowhead](#) (Mōhua, *Mohoua ochrocephala*) and [South Island Saddleback](#) (Tieke, *Philesturnus carunculatus*).

The Trust is particularly interested in the potential to establish [tuatara](#) (*Sphenodon punctatus*) within the Reserve. There is a pressing need to find new locations for the expanding population of captive bred tuatara and it is the Trust's understanding that the Reserve represents a very suitable habitat due to its north facing aspect, abundance of invertebrate populations on which tuatara predominantly prey; including beetles, crickets and spiders, and an absence of the weka.

The ongoing control of non-native mammals is critical to the health of both flora and fauna within the Reserve, and is enforced through a strategy involving three lines of defence:

- The first line of defence is provided by the biosecurity fence. However, as the fence terminates at the high tide mark at each end, it is possible for these mammals to swim or walk around the fence ends at low tide.
- The second line of defence is provided by fenced cells on the Reserve side of each end of the fence. These cells act to contain any rats, cats and possums making it around the fence ends with a high density and diversity of traps within a small space.
- The third line of defence is provided by trapping and baiting throughout the property and immediately outside the biosecurity fence.

In addition to the three lines of defence, we are also actively trapping and baiting for cats, rats and possums on our property outside the biosecurity fence to minimise the pressure on the fence in the first instance. Overlaying the three-lines of defence biosecurity strategy, the Trust maintains the following priorities:

- A zero-tolerance policy in respect to cats within the Reserve. Should cats be sighted, or any sign of cats be detected, the animal(s) will be found and destroyed as a priority.
- Ongoing rat and possum baiting within the Reserve is focused around the fence ends, particularly around the more susceptible Lee Bay end.
- The bait stations within the central part of the property will be retained in situ but only activated when required in response to any infestations.

## Fauna Highlights

During its first year of operation the Trust identified 4 species of native bird living within the Reserve in addition to the 16 previously identified:

- Fernbird
- Long-tailed cuckoo
- Shining cuckoo
- Rifleman

Immediate challenges facing the Trust on takeover of the Reserve were to develop and implement a comprehensive and effective biosecurity management programme, and to carry out some overdue maintenance on the fence. During the first 12 months a large number of biosecurity initiatives have been undertaken, including:

- Repairing and reactivating the biosecurity fence remote monitoring system
- Clearing bush encroaching on the biosecurity fenceline
- Cleaning and repairing the biosecurity fence
- Removing rusted lateral wires from the biosecurity fence
- Purchase of 20 new Steve Allen cat traps
- Purchase of 15 new Good Nature A12 rat traps
- Purchase of 15 new Good Nature A24 possum traps
- Purchase of 4 new trail cams
- Purchase of new baits and lures for all traps and bait stations
- Purchase and installation of new Celium remote trap monitoring system with 190 nodes



*Celium VHF Hub*

During the first year the Trust trapped the following:

- Cats                    1 inside and 8 outside the fence
- Possums                6 inside and 28 outside the fence
- Rats                     5 inside the fence (rats outside were not recorded until Aug 18)
- Deer                     0 inside the fence

A rat incursion occurred over the months of February to April and was attacked with vigour via a successful programme of intensive baiting. Of the 590 bait stations in the Reserve, only 8 stations (1.5%) were found to be empty of bait in September, indicating a very low presence of rats as we close out the first year of operation.

# Education

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## Education Objectives

The Trust's secondary objective is to facilitate education, research and public awareness of the importance of restoring and conserving our native flora and fauna. Specifically, the Trust will:

- Allow access to the Reserve, and accommodation in the education centre, for school parties and youth groups;
- Allow access to the Reserve, and accommodation in the education centre, for scientific and academic researchers;
- Allow access to the Reserve to members of the public, via appointed guides, for general conservation education and experiences.

## Scientific & Academic Strategy

The Trust's strategy in respect to scientific and academic research is to proactively seek out those tertiary institutions, Government agencies and NGO's who are involved in researching methods of restoring and protecting the biodiversity of New Zealand's natural environment.

The Trust will support and assist selected researchers by making the Reserve accessible to them at no cost and by making the accommodation facilities available to them at a relatively low cost.

The Trust aims to have at least two research projects ongoing within the Reserve at any one time.

## Scientific & Academic Highlights

With all the other work underway within the Reserve over the last 12 months, there has only been limited focus on the Trust's scientific and academic objectives.

We were however able to support Emma Feenstra, who is completing a PhD in Rakiura tokoeka through Massey University, by enabling her to undertake static monitoring of our tokoeka population using trail cameras over a short period of time early in 2018.

The Trust is also thrilled to have Kathleen Lalor, a Masters of Wildlife Management student from Otago University, based in the education centre from October 2018 until February 2019, in order to complete a habitat and species assessment for the Reserve. This assessment will be used by Kathleen as a basis for the development of a full restoration plan for the Reserve later in 2019.



## Youth Education Strategy

The Trust's strategy in respect to youth education is to proactively encourage the return of school and youth groups to the Reserve, so that young people can gain first-hand experience and knowledge in respect to the biodiversity of our natural environment free of non-native mammals, and hopefully acquire a lifelong passion for the conservation of the natural environment.

The Trust will support such groups by making the Reserve accessible to them at a minimal cost per person per day, and by making the accommodation facilities available to them at a relatively low cost. The Trust aims to have every youth group visiting Stewart Island visit the Reserve within their activity programme.

## Youth Education Highlights

The Trust does not intend to start promoting the education centre as a base for school camps until summer 2019, however we have already hosted two groups: Queenstown Primary School, who brought two groups of 40 children and adults to tent overnight in April and May; and a group of 21 young members of the Ornithological Society of New Zealand who visited on a bleak day in April.



Over the last year the Trust has undertaken considerable work on the education centre in preparation for future school camps, including:

- Improved room configuration in the main block
- A complete repaint of the interior of the main block
- Installation of 7 new bunk beds and a double bed
- Installation of new thermal curtains
- Installation of a new commercial oven, hob and extraction hood
- Installation of new efficient gas hot water heating (in place of 5 electric cylinders)
- Replacement of all fluorescent and incandescent lighting with LED lighting
- Installation of a new efficient wood burner (donated by Noel Bulman)
- Installation of new commercial washing machine and dryer units
- A complete repaint and reflooring of the bathroom block
- Installation of new toilets and a urinal in the bathroom block
- Installation of new shower roses in the shower block
- A complete repaint of the shower block floor
- Installation of a new high-pressure water pump
- Installation of broadband internet

The next major investment in the education centre is planned to be the replacement of the old bunkhouse, as shown in the photo to the left, which is currently used as a tool and equipment shed, with a new bunkhouse sleeping 24.



## Public Education Strategy

The Trust seeks to open the Reserve to the local community, domestic visitors and foreign tourists in order to promote a greater awareness and understanding of the biodiversity of our natural environment when freed of non-native mammals. The Trust aims to have a significant percentage of visitors to Stewart Island include a visit to the Reserve by the end of 2022.

## Public Education Highlights

The Trust was pleased to see the launch of the first eco-tourism activity on the Reserve, with Ulva's Guided Walks hosting a small number of kiwi spotting walks on the Reserve between February and April 2018.

To enable this activity, the Trust undertook the clearing of gorse and bracken above Lee Bay to create a more open area for kiwi to forage, assisted by the purchase of a near-new 1.8-ton digger by the Earnslaw Family Trust. We also removed an old deer fence from the re-wilding bush which was inhibiting the free movement of kiwi in that part of the Reserve.

Ulva's Guided Walks paid for the construction of a new pedestrian gate which has now been installed in the biosecurity fence at Lee Bay, to make a more convenient exit from the Reserve for visitors undertaking the kiwi spotting tour from November 2018.

The Trust is also excited about the launch on 1 November of Beaks and Feathers' new "Natures Pantry" medicinal and edible plant walk. This ecotourism activity is a first for Stewart Island, and we hope that over time it will become a valued new activity by visitors to the Island.

The Beaks and Feathers team have invested many long hours over recent months preparing bait line 12 as a walking track for their paying clients. They have removed stinkwood to open up the track, improved the walking surface by installing steps and walkways (where necessary) and installed information signs. The Trust is supporting this work through the installation of dunite (gravel) to the pedestrian accessway along the fence outside of the bush.



# Sustainability

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## Sustainability Objectives

The Trust's third objective and final is to work toward financial and environmental sustainability in all aspects of its operation. Specifically, the Trust will:

- Collect donations from Reserve visitors to help fund the Trust's biodiversity and education objectives;
- Apply for grants and seek donations to help fund the Trust's biodiversity and education objectives;
- Minimise the use of non-renewable energy in its daily operations;
- Maximise the generation of renewable energy in its daily operations;
- Minimise the generation of non-recyclable waste.

## Financial Sustainability Strategy

The biosecurity of a privately-owned conservation reserve such as Mamaku Point is always vulnerable to a lack of funding, so the Trust's strategy is to unashamedly strive for financial sustainability.

The Trust will seek opportunities to generate revenue from visitors to the Reserve via access fees and will proactively seek grants and donations toward the Trust's biodiversity and education objectives. The Trust aims to be financially self-sustaining by the end of the financial year ending March 2020.

## Financial Sustainability Highlights

The Trust has been fortunate to have received grants toward specific projects over the last 12 months totalling in excess of \$40,000, and is grateful to the support of the following organisations in this respect:

- ANZ New Zealand Staff Foundation toward upgrades to the education centre
- DOC Community Fund, toward improved biosecurity
- DOC Predator Free 2050 Fund, toward improved biosecurity
- Mazda Foundation, toward improved pedestrian access to the education centre
- Z Energy "Good in the Hood", toward the installation of the new education centre wood burner

## Environmental Sustainability Strategy

The Trust's 2018 strategy in respect to environment sustainability is to apply best-practise energy use in its daily operation, including minimising the use of non-renewable energy and maximising the generation of renewable energy.

These environmental sustainability objectives are particularly challenging on Stewart Island, given that the local electricity supply is 100% non-renewable and the island receives relatively low sunshine hours. The Trust will therefore be pragmatic in pursuing these objectives, balancing the costs of achieving them against the higher objectives relating to biodiversity and education. The Trust seeks to minimise the generation of non-recyclable waste and to ensure that the environment within the Reserve is as pristine as possible.

## Environmental Sustainability Highlights

During the Trust's first 12 months of operation, the environmental sustainability activity has focused on three areas:

### Energy efficiency

The Trust has replaced all the old fluorescent and incandescent lighting in the education centre with modern energy-efficient LED lighting, and replaced the five electric hot water cylinders in the education centre with efficient new gas on-demand water heaters.

### Water efficiency

During the dry summer of early 2018 the education centre ran low on tank water, so the Trust has invested significantly since then to improve water efficiency through:

- Replacement of three old toilet cisterns with more efficient dual flush cisterns
- Replacement of one old toilet with a urinal
- Replacement of 4 old high-flow shower roses with new low-flow roses

### Waste management

The Trust has also invested a significant amount of time this year removing equipment and rubbish left over from the days when the property was operated as a farm. This has involved many trips to the Rakiura Resource Recovery Centre, but we have also recycled locally whatever we could, including old deer fencing which was donated to SIRCET for the new nursery at Trail Park, and stock fences that are being re-used on The Neck.

The Trustees of the Mamaku Point Conservation Trust would like to conclude this report by thanking again all those people who have contributed to the well-being of the Reserve over the last year, and we look forward to continuing to increase the biodiversity within the Reserve, and welcoming increasing numbers of visitors to experience the Reserve, over the upcoming year and beyond.