



Mamaku Point
CONSERVATION RESERVE

ANNUAL OPERATIONS REPORT

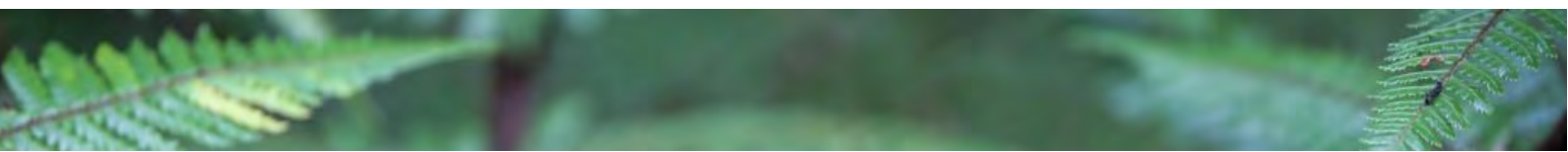
NOVEMBER 2023





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EXECUTIVE SUMMARY

The twelve months to the end of October 2023 have seen the completion of the last of the major infrastructure upgrades required within the Reserve, continued growth in visitor numbers and revenue, and continued investment in our biosecurity defences.

Highlights have included:

- Visitor numbers climbed to a new high of 1,298 (in the financial year ended 31/03/23)
- Revenue was the second highest on record (in the financial year ended 31/03/23)



- PurePods opened their new Tokoeka and Hananui accommodation units to a fantastic reception
- The new access road connecting Horseshoe Bay Road and the camp was completed, improving vehicle access and resolving long-standing historic boundary issues
- The 15,000 native seedlings planted over 18 ha of coastal faces in August 2021 continued to thrive
- The Yellow-eyed Penguin Trust rehabilitated a second intake of 24 birds through the yellow-eyed penguin recovery centre
- The biosecurity team continued to suppress deer and possums entirely, to successfully suppress a feral cat incursion early in the year, and to suppress rats to low numbers
- The Trust continued to strengthen and upgrade our biosecurity defences, through the introduction of additional high-tech biosecurity tools, and a critical upgrade and extension to the Horseshoe Bay end of the predator proof fence
- The camp facility was readied for connection to the Island's central sewer network, allowing the decommissioning of the old septic tanks
- The Trust completed the year with no health and safety incidents

These projects and outcomes are all outlined in greater detail later in this report.



INTRODUCTION

Mamaku Point Conservation Reserve is located on the north-eastern coastline of Rakiura Stewart Island, Aotearoa New Zealand. This special bioreserve makes up most of a 172-hectare headland and is enclosed by a 2.1km long ecologically engineered predator-proof fence to inhibit the movement of non-native mammals from the surrounding area.

Our vision is that Mamaku Point Conservation Reserve is and remains a healthy, predator free, and self-sustaining indigenous ecosystem, where visitors and school groups can experience nature at its best.

Our primary focus is to conserve and enhance the health and diversity of native flora and fauna within the Reserve, by ensuring that the biosecurity is maintained, and by reintroducing and protecting endangered native species not currently found within the Reserve. Our secondary objective is to facilitate education, eco-tourism, research, and public awareness of the importance of restoring and conserving our native flora and fauna.

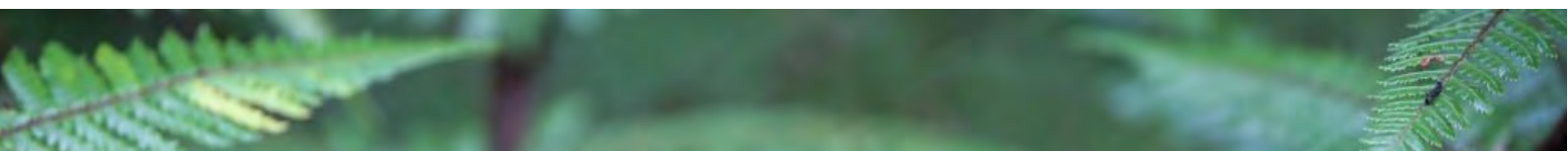
Within the sanctuary we undertake significant pest control, with an extensive grid of protection in place, including monitoring of the fence security, monitoring of traps & bait-lines, and trail-cam video surveillance.



Drone image by Fynn Turner

Mamaku Point is managed by the Mamaku Point Conservation Trust, an incorporated charitable trust and registered charity, which is focused on:

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





SUPPORTERS

Responsibility for the day-to-day operation of the reserve rests with General Manager Antony Simpson, and Biosecurity Rangers Matt Hare and Ernie Mason, supported by numerous advisers and volunteers who give their time generously, working toward the achievement of the Trust's objectives.

We would like to acknowledge and thank the a number of people in particular for their contributions over the last year:

- The biosecurity team of **Antony Simpson, Matt Hare** and **Ernie Mason**
- **Phillip Smith, Prof. Phil Seddon** and **Roy Thompson** for their advice, and time, as Trustees
- **Rachel Thompson** for her time and perseverance as Funding Manage
- **Ange Simpson** for looking after the camp and PurePods
- **Rakiura Maori Land Trust, SIRCET, DOC Rakiura** and **Predator Free Rakiura** with whom we share ideas, experience and support
- **Bridget Carter** for her help retrieving and analysing the ground temperature loggers

The Trust also received invaluable support this year from several financial supporters, who have been critical to progressing the objectives of the Trust and the individual projects ongoing within the reserve, and to whom we cannot give enough thanks.

The Trust has successfully applied for the following funding applications:

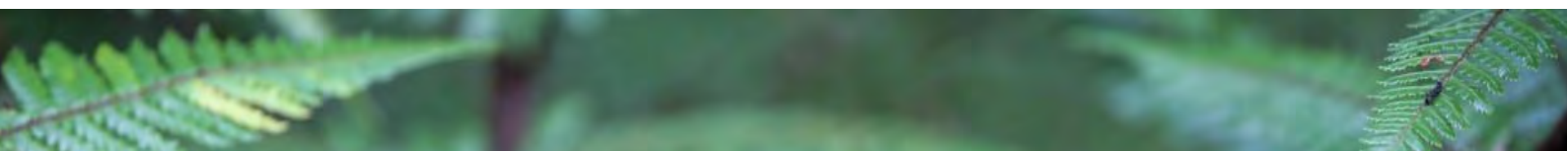
- **Environment Southland**, who granted \$20,000 toward the upgrade of 600 bait stations
- **Community Organisation Grants Scheme**, who granted \$3,600 to allow a school camp or youth group to travel to and stay at Mamaku Point for minimal cost
- **ANZ Staff Foundation**, who granted \$1,900 toward the purchase of educational equipment

The Trust has a number of funding applications currently being considered:

- **Lotteries Environment & Heritage**, for \$29,433 toward the cost of solar panels for the school camp
- **Pacific Development Fund**, for \$3,330 toward the cost of planning lizard translocations.

The Trust has unsuccessfully applied for the following funding applications:

- **Department of Conversation**, for \$105,000 toward the cost of ongoing biosecurity work
- **The Lion Foundation**, for \$40,000 toward the cost of a replacement utility vehicle





The Trust plans to apply for the following funding applications before the end of the year:

- **Auckland Zoo**, for assistance toward the cost of planning lizard translocations
- **Aotearoa Gaming Trust**, for assistance toward the cost of new steps along the inside of the fence
- **Community Trust South**, for assistance toward the cost of new steps along the inside of the fence

Finally, the Trust would also like to acknowledge and thank the many businesses, volunteers and individuals who contributed to our projects this year, including:

- **Trent Bell** and **Daron Titus** and volunteers for help with the lizard investigation
- **PurePods Limited** for partnering with Mamaku Point Conservation Trust to bring the PurePod accommodation units to the Reserve
- **Myell Smith** and the team from **My Electrician** in Queenstown, who have again generously volunteered their time and materials for **electrical** work around the camp and Yellow-eyed Penguin Trust recovery centre shed





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.

STRATEGIES

The Trust's 2023 flora strategies were to protect existing native flora, continue the control and removal of invasive non-native flora including Darwin's barberry, gunnera, Chilean flame creeper, gorse and macrocarpa, and to continue rewilding those areas that were historically cleared for farm grazing.

The Trust's 2023 fauna strategies were to protect existing native fauna, continue the control and removal of invasive non-native pests including cats, rats, possums, and deer, and to seek opportunities to re-establish other absent native species.

HIGHLIGHTS

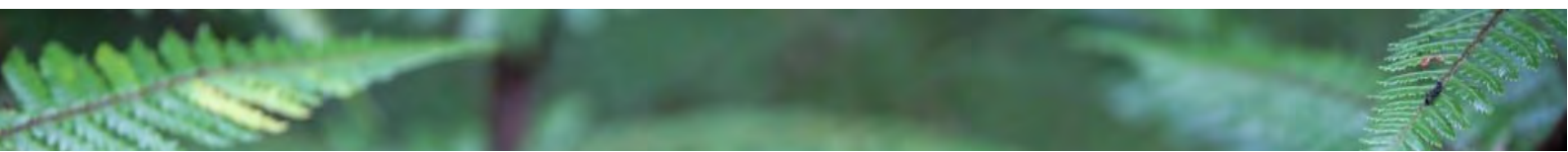
Our biodiversity highlights this year included:

- Seeing the 15,000 native seedlings planted across 18 ha of coastal faces continue to thrive
- Receiving detailed research on the feasibility of Mamaku Point as a habitat for the translocation of threatened lizard species, undertaken by Trent Bell and Daron Titus
- Seeing 24 yellow-eyed penguins | hoiho rehabilitated through the recovery centre
- Continuing to assess the feasibility of the reserve as a breeding habitat for tuatara
- The return of at least three breeding pairs of Fiordland crested penguins again

YELLOW-EYED PENGUINS

In 2020 we started working with the the Yellow-eyed Penguin Trust and the Department of Conservation to establish a recovery centre for yellow-eyed penguins | hoiho within the reserve, and this facility was opened in early 2022. In the 2022 moult season the recovery centre was used to rehabilitate 8 birds, and during the 2023 moult season this number increased to 24.

The Mamaku Point team of Antony Simpson and Matt Hare also built a storage shed to house their equipment this year. We're looking forward to having Trudi Webster from the Yellow-eyed Penguin Trust returning for the 2024 season's moult between March and April.





TUATARA

Mamaku Point Conservation Trust are interested in whether the Reserve would be suitable habitat for tuatara, a taonga of New Zealand that is sensitive to increasing temperatures, meaning there's a pressing need to extend their habitat range in the face of climate change.

To determine whether tuatara might be expected to survive and thrive in the Reserve, the Trust is investigating soil temperatures at three sites within the Reserve; Nathan's Island, one of the clearings near Lee Bay fence line and at Bob's Cove headland.

With funding from Pierre and Ziba de Weck, the Trust was able to purchase 9 ground temperature data loggers, which Bridget Carter installed to monitor temperatures across a 12 month period in 2022/23. Bridget and the Trust will now work with tuatara specialists Scott Jarvie and Anne Besson to understand what the temperatures recorded within the Reserve mean for tuatara. Is the Reserve warm enough for tuatara? Is the soil warm enough for egg incubation? By answering these questions we start to determine whether the Reserve might be a sanctuary for tuatara in future.

NATIVE PLANTING

The Trust continues to plant natives around the camp, the new access road, and to maintain prior year's plantings in Lee Bay and the coastal faces. With help from Environment South, we now have weed mats to keep the weeds down around some of the seedlings.

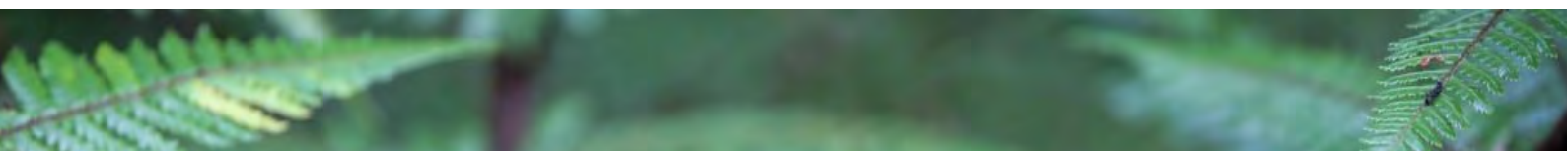
The 15,000 native seedlings on the coastal faces continue to thrive, which is a huge relief given the effort that went into collecting, nurturing and planting these seedlings.

BIOSECURITY

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 has been possible for mammals to swim/walk around both fence ends at low tide
- The second line of defence is provided by fenced cells on the reserve side of each fence end. These cells act to contain rats, cats and possums making it around the fence ends in a small area with a high density and diversity of traps
- 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 have also historically trapped and baited cats, rats and possums 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. Whenever cats are sighted or detected within the Reserve they are targeted and destroyed as a priority.
- Possums and rats are controlled via a network of traps and more than 600 bait stations

The outcome of our biosecurity activities are summarised in the tables below::

Trapped/Shot	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	YTD 23	Total 22
Deer	0	0	0	0	0	0	0	0	0	0			0	0
Possums	1	0	0	0	0	0	0	1	0	0			2	12
Cats	13	3	2	0	0	1	1	0	0	0			20	15
Rats	2	4	3	7	5	9	6	2	1	4			43	

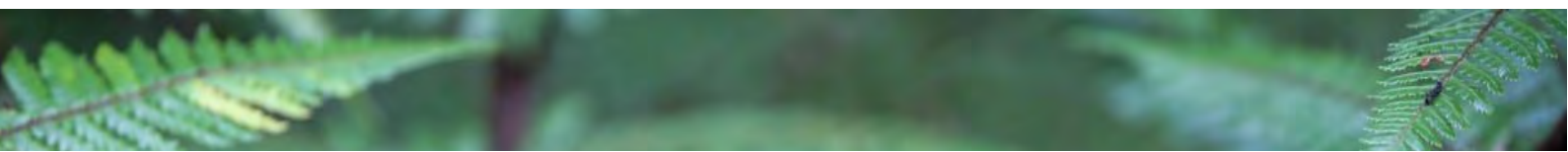
Empty bait stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2022	NA	NA	152	NA	108	300	369	NA	500	78	0	0	1507
2023	NA	9	NA	56	63	88	53	NA	68	71			337

Whilst we have had no deer make it around the fence, and only two possums, both of which were trapped quickly, our main challenge this year was to get on top of a significant incursion by feral cats early in the year. These predators were successfully trapped between January and July and we are not aware of any cats now remaining in the Reserve.

As flagged in last year's report, we are no longer actively trapping on the outside of the predator proof fence, so as to focus all our efforts on and inside the fence. This strategy seems to be paying off.

The combination of the intensive network of rat traps around the inside of the fence ends, coupled with the network of bait stations right across the Reserve, remains effective at suppressing rat numbers to low densities. Higher levels of rat activity were detected in the coastal faces over the first half of the year, however intensive baiting has been successful in suppressing numbers in this area.

As always our main rat control challenge is kiore, due to their small ranges which fall within our 50x100m bait station grid.



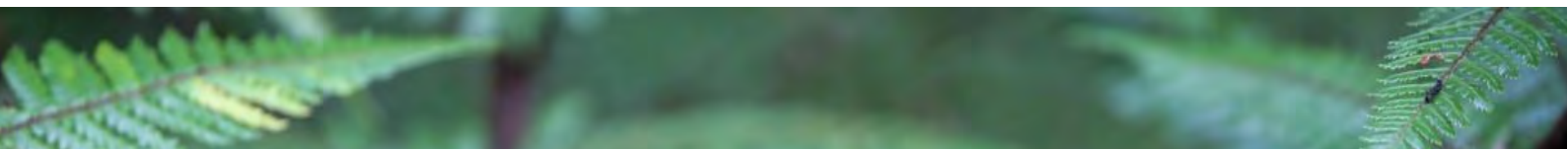


As advised in the previous annual report, since early 2022 we have been trialling Selontra rat bait manufactured by BASF (active ingredient(s): 0.75 g/kg cholecalciferol) in place of brodifacoum. Selontra is a soft bait that combines exceptionally rapid and efficient control of rats, and unlike first and second-generation anticoagulants, its active ingredient is neither persistent or bio accumulative. It is rapidly metabolised by rats and breaks down quickly in the environment.

We have now used more than 1000kg of Selontra on an exclusive basis in our bait stations over the last year. It seems to be continuing to work extremely well, with 350kg taken and the balance retrieved and disposed of. We are therefore encouraged that it may prove a more efficient, effective and environmentally sustainable alternative than brodifacoum.

Our next biosecurity project, which we have just commenced, is to open up all our bait lines, and reposition the 600 plus bait stations to the centre of these bait lines (most are currently attached to trees to the side). We are also attaching new cattle tags with barcodes to enable rapid capture of bait take data via Trap.NZ.

We've made significant improvements to the Horseshoe bay end of the fence, as can be seen from the before and after photos below. Our thermal AI driven camera at that fence end has not detected any incursions since the completion of this work.





EDUCATION

OBJECTIVES

The Trust's second objective is to facilitate education, research, and public awareness of the importance of restoring and conserving native flora and fauna.

STRATEGIES

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 supports such groups by making the reserve and accommodation facilities accessible to them at minimal cost.

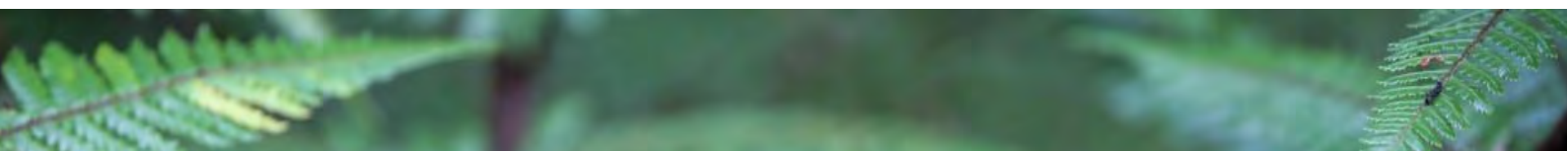
The Trust's strategy in respect to scientific and academic research is to proactively seek out those tertiary institutions, Government agencies and NGOs who are involved in researching methods of restoring and protecting the biodiversity of New Zealand's natural environment. The Trust supports and assists selected researchers by making the reserve accessible to them and by making the accommodation facilities available to them at a relatively low cost.

The Trust seeks to open the reserve to the local community, domestic visitors, and foreign tourists to promote a greater awareness and understanding of the biodiversity of our natural environment when freed of non-native mammals.

HIGHLIGHTS

We were thrilled to be able to welcome 9 schools to the camp this year for 13 camp weeks.:

- **Tahuna Normal Intermediate** from Dunedin made their 4th and 5th consecutive stays in Oct 2022 and Sep 2023
- **St Paul's College** from Hamilton made their 1st visit for a service trip in Oct 2022
- **Girl Guides** made their 1st visit in Oct 2022 and second in Jan 2023
- **Queenstown Primary School** made their 6th and 7th consecutive visits in Nov 2022 and Oct 23
- **Steiner School** from Dunedin made their 1st visit in Nov 2022
- **John McGlashan College** visited for a 5th consecutive year in Dec 2022. Although McGalshan have now purchased their own camp in Te Anau we hope to see them back!





- **Te Wharekura o Arowhenua** from Invercargill made their 1st visit in Dec 22
- **Maniototo Area School** from Ranfury made their 3rd consecutive visit in Dec 22
- **South Otago High School** from Balclutha made their 1st visit in Mar 23
- We also have 1st time visits booked in for Nov 2023 by **Queens High School** in Dunedin and **Remarkables Primary School** from Frankton.

It's wonderful to see children from all over the country visiting the reserve including from Invercargill/Southland, Lake Tekapo, Napier, Wanganui, Auckland, Christchurch, Waikato, Wellington, Queenstown, New Plymouth, Tauranga, Palmerston North;



New Yellow-eyed penguin storage shed



SUSTAINABILITY

OBJECTIVES

The Trust's third major objective is to work toward environmental and financial sustainability in all aspects of its operation.

STRATEGIES

The Trust's environmental sustainability strategy is to apply best-practice energy use in its operations, including minimising the use of non-renewable energy, which is particularly challenging on Stewart Island, given that the local electricity supply remains 100% non-renewable and the Island receives relatively low sunshine hours. The funding of solar panels may be a consideration in the future to reduce the burning of wood. The Trust aims to minimise the generation of non-recyclable waste and to ensure that the environment within the reserve is as pristine as possible.

During 2023 our environmental sustainability activity has focused on these areas:

1. Cementing the energy and water efficiency plans put in place previously;
2. The continued removal of defunct plant, equipment, fencing, and rubbish left over from the days when the property was an operating farm, which is now almost complete.

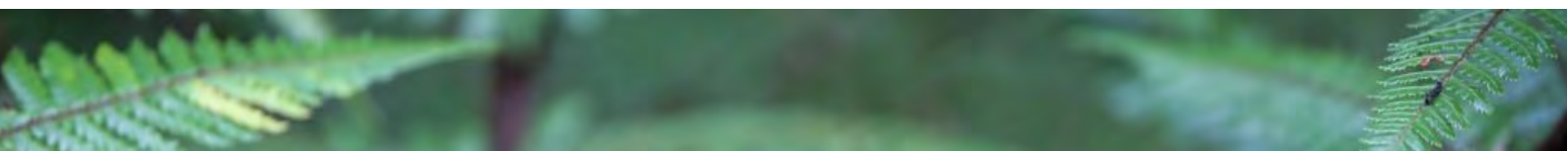
The biosecurity of a privately-owned conservation reserve such as Mamaku Point is always vulnerable to uncertainty of funding, so the Trust unashamedly strives for financial sustainability. The Trust therefore looks for financial contributions from visitors to the reserve and proactively seek grants and other donations toward its biodiversity and education objectives. The Trust aims to be financially self-sustaining by 2025.

HIGHLIGHTS

During the financial year ended Mar 23, a total of 1,298 people visited the reserve, including 9 school camp groups, casual visitors, PurePod guests and kiwi spotting tourists.

HEALTH & SAFETY

Key to maintaining the sustainability of this conservation project is to ensure the health and safety of our staff and visitors. The Trust is pleased to report that there have been no accidents or near misses over the last 12 months. Health and safety equipment is replaced and upgraded as required. As part of this process, we plan to upgrade and install additional warnings adjacent to bluffs around the camp, and improve the health and safety briefing process, over the coming months.





PUREPODS

The Trust has leased two small sites in Lee Bay to PurePods Limited for the next 30 years, providing an important revenue contribution toward the cost of maintaining the Reserve into the future.

The Hananui and Tokoeka PurePods opened in late 2022 and found immediate success in the market for high end eco-accommodation experiences.

Forward bookings received a major boost following a much watched episode of Lap of Luxury on 24 June (season 3, episode 6 <https://www.tvnz.co.nz/shows/lap-of-luxury/episodes/s3-e6>).

CARBON CREDITS

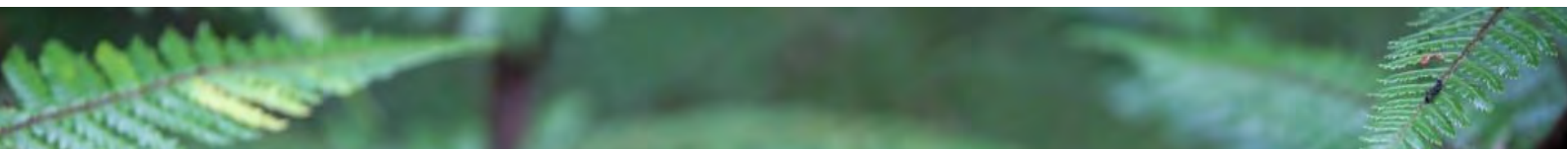
The Trust planted 18 ha in native trees with the support of MPI's Billion Trees program in 2021. This land was registered with NZ's ETS program and carbon credits have started flowing, providing an important revenue contribution toward the cost of maintaining the Reserve into the future.

KIWI SPOTTING TOURS

Ulva's Guided Walks continues to grow their kiwi spotting visitor numbers, with 549 people joining their tours in the financial year ended March 2023.

GRANTS

The Trust has been fortunate to have received \$25,500 in grants and donations toward specific projects from external donors over the last 12 months. The shortfall between the total costs of maintaining the reserve, and revenue from grants, camps and eco-tourism is donated annually by Earnslaw Family Trust. Mamaku Point Conservation Trust is grateful for the support of the organizations acknowledged in the Supporters section of this report, without whom achievement of the objectives outlined in this report would not be possible, so a huge thank you from all reserve residents and stakeholders.





FUTURE FUNDING PRIORITIES

Biodiversity

1. biosecurity labour
2. hiring a part-time translocation specialist
3. materials for walking and biosecurity track upgrades along the fence
4. additional trail cameras to identify pest incursions and assess kiwi population
5. fence additions such as access hatches and a new vehicle gate

Education

1. solar panels to reducing reliance on the Island's diesel-generated electricity
2. conservation educational resources
3. repaint the camp buildings
4. upgrade the ablutions block

Sustainability

1. debt funding to allow the Trust to purchase 50% of the PurePods to generate for an revenue stream
2. removal of the remaining legacy farm fences throughout the Reserve



Long tailed cuckoo in the Reserve

