

MIRO

2017 Annual Report

Chair's Report

Our Pest Control Work in the Northern Forest with Greater Wellington

Possums

During the year we experimented with lures that would be more resistant to being eaten by rats and mice. Plastic lures with scented dough have not been very successful, so will be discontinued, but fresh apple and also cereal lures wrapped in wire mesh have worked well. We also increased the trapping effort on East Ridge by organising enough trappers to undertake fortnightly servicing trips, as this area has the highest catch rate and is our eastern boundary. The year's catch was slightly down on last year, but is still the second highest in ten years (details of catches are included as supplementary material below).

In mid-May 2017, OSPRI undertook a 1080 drop over part of the Northern Forest and this will be followed by intensive ground control using poison bait feeders at about a 100m spacing in the rest of the forest. The intent is to knock down the possum population to extremely low levels, which should result in the eradication of Bovine TB. The possum population is expected to recover in about 3 years, but may need further treatment by OSPRI to ensure TB eradication. The expected effect on our possum trapping will be a near-zero catch in all but the most northern parts of the park for a number of years. There has been no possum population monitoring since August 2015.

Mustelids

During the year we have been rolling out DOC200 traps across the Northern Forest, installing them at every second existing trap site. At the time of writing we have about 80 new traps installed and a further 60 traps ready to deploy, which will bring the total to a little over 200. Our existing 60 DOC200's that cover the Mainland Island were all sensitivity-tested during the year and 16 very old ones were replaced. 12 mustelids were trapped during the year, up from 9 the previous year, this increase being consistent with having more traps deployed.

Rats

We have continued to poison rats at all trap sites, with bait consumption up on last year's, but still not as high as some earlier years. The DOC200 and A24 rat catch was 176, up from 37 in the previous year. We do not understand what is behind this increase, as it is far too big to be due to having more traps deployed. Results from Greater Wellington's rodent monitor, with which we assist, are given below.

During the year we were also able to deploy 22 Goodnature A24 self-resetting traps along two of our trap lines in the forest, with the aim of becoming familiar with their operation and effectiveness. This deployment was made possible through the generous donation of a total of \$3,700 by two of our members. Our catch statistics show that the A24s are about equally effective at catching rats as the DOC200s, but are over twice as expensive to buy and are not expected to last as well as a stainless steel DOC200. Catch rates for both trap types are surprisingly low (roughly averaging 0.15 rats/trap/month), so at this rate the multi-kill feature of the A24s is not much advantage. Given that at least one study has shown that A24s do not control stoat populations effectively (at least with

current lures), we are not planning further deployments at this time, but we will continue our own experimentation with lures. We would like to especially thank the two MIRO members for their donations, for without them we could not have begun testing the A24s' effectiveness.

While the aerial 1080 and ground-based poisoning is expected to knock the rat population down to very low levels, the rats are expected to reinvade even the most remote parts of the forest within 6 months and the mustelid population will similarly increase, albeit with some time lag.

Deer

We continue to be concerned about the level of browsing by deer on native vegetation near private properties on the western flanks of the Northern Forest. This browsing badly impacts some specific native plant species and, as a consequence, there is a lack of food at certain times of the year for important bird species such as bellbirds. During April, professional hunters contracted by GWRC culled 7 deer over a period of five days, so a similar total to the previous year's cull of 10. Sadly, further damage to plants was seen soon after this, as well as a sighting of a large stag in the pines above Days Bay. We will continue to keep up the discussion with Greater Wellington about how we can do more to reduce the deer impact.

5-Minute Bird Counts

Five-minute bird counts took place in October across the Northern Forest with twenty different species being recorded. In total 32 different species have been recorded across the forest since counts began. Predominant species, as usual, were Grey Warbler, Silvereye, Tui and Blackbird. Most of our regionally rare endemic species continue to be recorded including: Fantail, Bellbird, Kingfisher, Whitehead, Wood Pigeon, Rifleman, Tomtit, as well as nationally threatened Falcon and Kakariki (yellow and red-crowned).

The migratory Shining Cuckoo was also recorded in the counts (as is usual), while the Long-Tailed Cuckoo was absent (not having been recorded since 2014), but was recorded once informally outside of counting. No North Island Robins were recorded during the counts, but there was one observation of 3 robins on the ridge east of Gollans Stream (between trap sites E16 and E17) in December 2016.

Annual MIRO Walk

The annual MIRO walk took place on Sunday 5th March this year. Fourteen members of the public joined four MIRO Members and Mark McAlpine for a walk up the Muritai Park Track along to Middle Ridge to view the giant rata. We then continued down Middle Ridge for a short time, where a Possum Master had conveniently caught a possum for us to show the group, before dropping down a Greater Wellington rat line to Butterfly Creek and then back to Muritai Park. While the turnout was lower than expected, this enabled good interaction with those attending, making the event very worthwhile.

Our Work at Parangarahu Lakes with Taranaki Whānui and Greater Wellington

Since March we have been invited to the Taranaki Whānui/Greater Wellington co-management meetings for the Lakes, and have attended two meetings so far. The meetings have been very positive and should lead to a more cohesive approach to solving the challenges ahead of us all at the Lakes. In addition to this, Taranaki Whānui have helped with planting revegetation plots and banded dotterel monitoring, and some MIRO Committee members participated in the Parangarahu Lakes area Māori history walk, which was part of Greater Wellington's Great Outdoors summer

programme. We greatly appreciate Taranaki Whānui's efforts to build a closer relationship with MIRO.

Pest Control

In March 2016 MIRO volunteers increased the servicing frequency of about 90 DOC200 and Timms traps at the Lakes from 2-monthly to monthly. The Timms traps are at our revegetation sites to protect the young trees from possums, while the extensive DOC200 network aims to keep mustelids and hedgehogs under control in order to protect ground-nesting seabirds, especially the banded dotterel.

Revegetation

This was our 10th year of restoration plantings at the Parangarahu Lakes. Over the winter period 1,000 pioneer trees were planted out in Plot 10, which is an extension of Plot 9 near the upper lighthouse and another 800 pioneers were added to Plots 7, 8 and 9. A small number of emergent trees were also infilled in Plots 5 and 6. In addition to Taranaki Whānui (mentioned above) and MIRO volunteers, we had assistance with planting from Conservation Volunteers, Reserve Bank of NZ and GNS Science, whose help is greatly appreciated.

Thanks are due to GNS Science for continuing to host our tree nursery at their Gracefield site and, also to a Greater Wellington who provided the funding to upgrade the sprinkler system at the nursery to give improved coverage while using less water. Around 1,000 surplus trees were also shared with other local conservation projects including: Friends of Waiwhetu Stream; Lower Hutt Forest & Bird for Manor Park; Waiu Wetlands (Wainuiomata); Pauatahanui; Wainuiomata Water Catchment Area; and Belmont Regional Park.

The Key Native Ecosystem (KNE) plan for the Parangarahu Lakes is currently being revised. We have met with Greater Wellington and provided input about what future revegetation work we think it is appropriate to undertake over the next few years.

Protecting Banded Dotterels

This season, Banded Dotterels arrived at both the Parangarahu Lakes and the Eastbourne foreshores in August. Twenty volunteer nest finders and monitors were trained so that nests could be marked (for protection) and then checked weekly. In addition, a high impact permit was obtained with permission from the Department of Conservation, OSNZ, Hutt City Council, Taranaki Whānui and Greater Wellington to band some of the birds and chicks over a period of four years so that local survival rates of chicks between hatching and fledging, local survival rates of adult birds, recruitment/return rates of locally-fledged birds and winter movements, of both adults and juveniles, could be determined. This knowledge will then be used to better manage the birds' survival.

In December, an attempt was made to train some of our volunteers as banders, but due to an issue with the diameter of the bands supplied, banding had to be postponed until next season. Overall there were 7 nests at the Lakes foreshore, of which two successfully hatched one or more chicks. At Eastbourne there were 3 nests, all of which hatched chicks. Overall, this is a high nesting success rate compared to previous seasons, indicating that the nest management being undertaken by Greater Wellington and MIRO in partnership with Taranaki Whānui is working. A project debrief was held at the end of the season, with lessons learned captured so that we can work even more effectively next season. GIS in Conservation has provided invaluable support with the dotterel monitoring by mapping nest sites and managing the monitoring data.

ERAT—Our Urban and Foreshore Trapping Initiative with Hutt City Council

The ERAT project has progressed well during the year. Building on what has been learnt from the original 3-month loan scheme of Goodnature A24 self-resetting traps, we have now designed a project that we hope will achieve sustainable predator control within the residential areas of Eastbourne, from Point Howard all the way to Burdans Gate and including the foreshore. This will be achieved by working with residents to create and run trap lines using a mix of traps (DOC200's, Snap-E rat traps in tunnels and Goodnature A24 self-resetting traps) to establish an 80m² grid. Once in place, this will greatly diminish pests such as rats, mustelids (e.g. stoats and weasels) and hedgehogs, which will in turn help the survival of many of our native species such as lizards and ground-nesting penguins and dotterels, who have had to cope with so much habitat destruction and disturbance already.

The use of Trap Line Operators to service the trap lines in each area is aimed at overcoming three main difficulties: people's common dislike of trapping, especially handling dead animals; sustaining the effort over a long period—people tend not to keep traps serviced when catch rates are low; and to ensure that trapping is carried out safely, especially with regard to children and pets. We envisage that we will need a dozen or more trap line operators to cover the area. At the time of writing an ERAT project launch has been scheduled, trap lines are being established in Tawa Street and in York Bay and a rodent monitoring network is being planned. Already nearly 100 traps are deployed (some of these pre-existing), with about 400-500 required to give sufficient coverage. Hutt City Council have been very supportive of the project, supplying 20 A24 traps for the loan scheme, subsidising the cost of DOC200 traps that are deployed on trap lines, and providing half of the ~150 traps that will be required along the foreshore. The rest of the foreshore traps and associated costs for the overall ERAT project are being covered by a grant of almost \$35,000 from the Ministry for the Environment's Community Environment Fund. This funding is spread over three years, during which time we aim to roll-out the foreshore traps and get all of the urban trap lines in place.

In the long-term we hope that ERAT will: greatly reduce pest animal numbers so that the urban area cannot act as a reservoir that supplies predators to the Northern Forest; protect ground nesting birds such as penguins and dotterels on the foreshore; produce the next cohort of volunteers that will enable MIRO to undertake more comprehensive pest control in the park in future; and contribute to a more resilient community by building better communication between local people.

Health & Safety

We have made good progress on Health & Safety guidelines over the past year, with the finalisation of the MIRO H&S Policy and, thanks to excellent input from our trappers, completion of the MIRO Trappers' Handbook in March. We have also finalised H&S guidelines for work in the nursery, tree planting and clearing at the Parangarahu Lakes, and banded dotterel monitoring. This still leaves guidelines for lakes trappers, 5-minute bird counters and ERAT trap line operators to be developed to form a complete set covering all that we do, but these should all be in draft form before the end of June. No 'notifiable events' (similar to the former 'serious harm incidents') have been reported in the past year. Near the end of the year, Mark McAlpine organised the purchase of blue Hi Viz vests for trappers.

Recognising Those Who are Helping us Achieve our Goals

In addition to those already mentioned, there are many other people and organisations we need to thank for their contribution to MIRO's successes over the past year. First and foremost, we would

like to thank our volunteers and other helpers who again have got through a lot of work with trap roll-out and servicing, tree propagation, tree planting and clearing, bird counting, predator monitoring, dotterel protection and other less visible tasks.

We again enjoyed great support from our partner Greater Wellington during the year, especially through the efforts of Kim Broad and Mark McAlpine. This year's funding has bought a further 60 DOC200 stoat traps to complete the roll-out in the Northern Forest. Mark and Kim's support was again great, be it at Committee meetings, MIRO events, or in getting things done in the field. We are also very grateful to Janet Lawson and Craig Cottrill of Hutt City Council for their support in getting the ERAT Project off the ground and in securing the MfE grant. This was also assisted by Chantelle Charlton of Abbot group through her helping source liability insurance for the project.

We would also like to thank the Hutt Mana Charitable Trust for the previous year's grant of \$900, \$600 of which was used to supply soil and compost to our tree nursery over the past year (with the difference having been spent for the same purpose in the previous year). We are very grateful to GNS Science for the continued use of their land to house the tree nursery, to George Tuffin, for his auditing of our accounts, to the Days Bay Menzshed for managing poisons, trap repairs and other supplies. Finally, thanks are due to Spiral Web Solutions for continuing to provide and sponsor all of our web services.

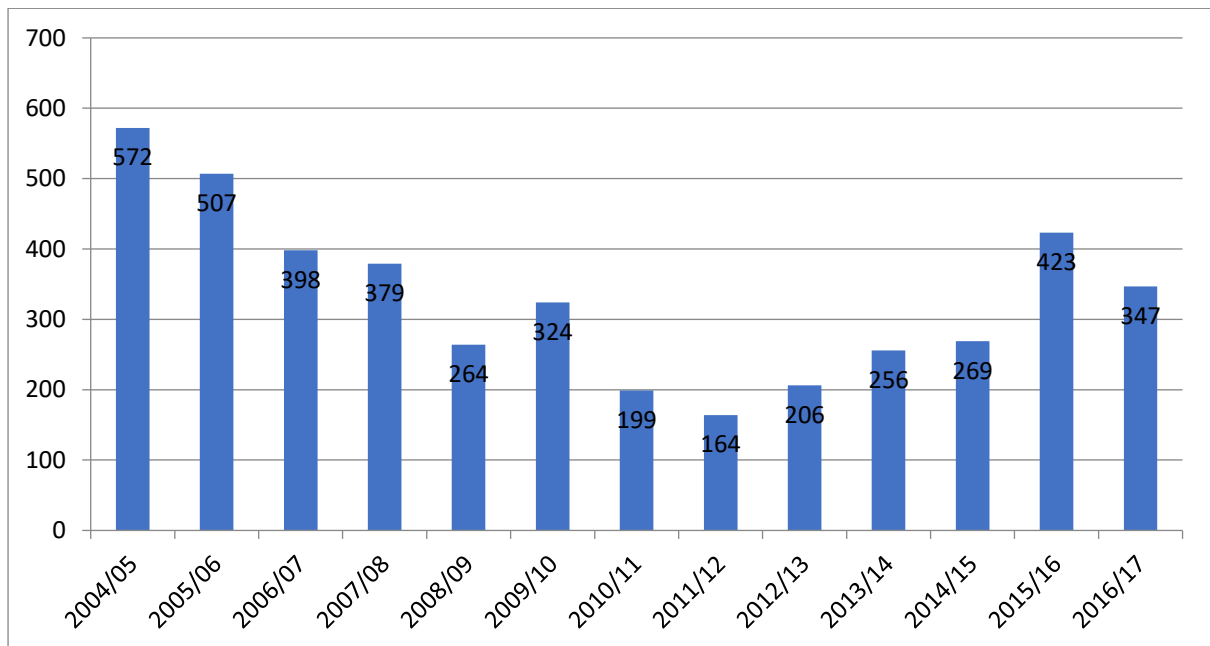
The MIRO Committee

The past year has seen no changes in membership off the MIRO committee, so it comprised Gail Abel, Jill Bagnall, Sally Bain, Parker Jones (Secretary), Keith Levy, Linda Mead, Owen Spearpoint and Terry Webb (Chair and Acting Treasurer). Having taken on the role of Chair at the last AGM, I look forward to handing over the Treasurer role in the near future. I am very thankful for the effort put in by our committee members over the past year—we met ten times, with an average attendance of over 80%, which I think is excellent for a volunteer organisation like MIRO. A very similar level of attendance was achieved by our Greater Wellington representatives Mark McAlpine and Kim Broad, which is a great effort as they need to make a special trip to Eastbourne in the evenings to attend our meetings.

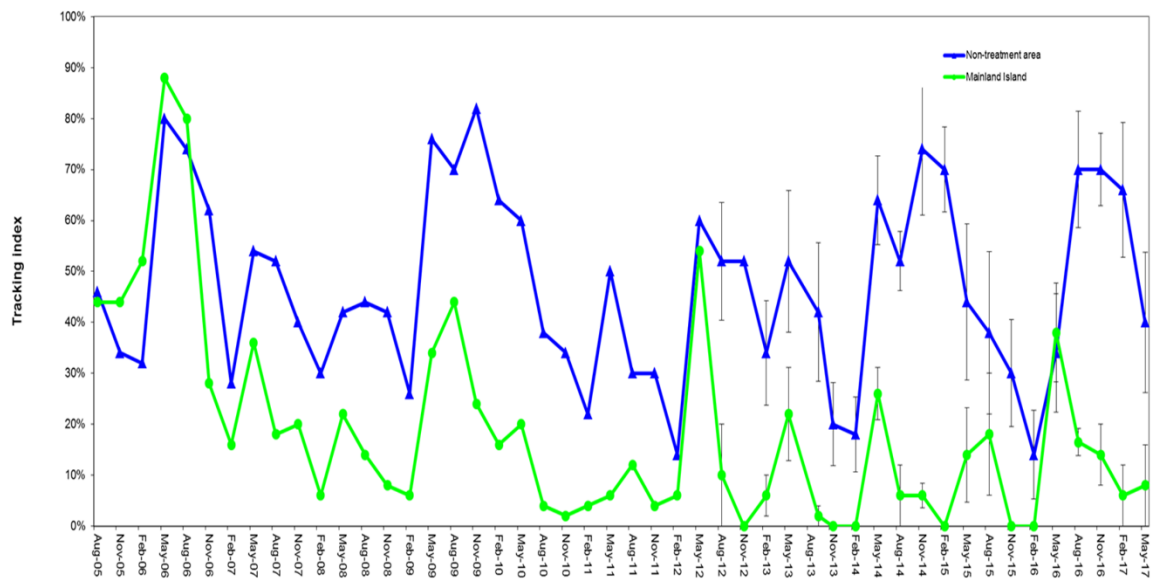
Terry Webb, MIRO Chair
June, 2017

Supplementary Material

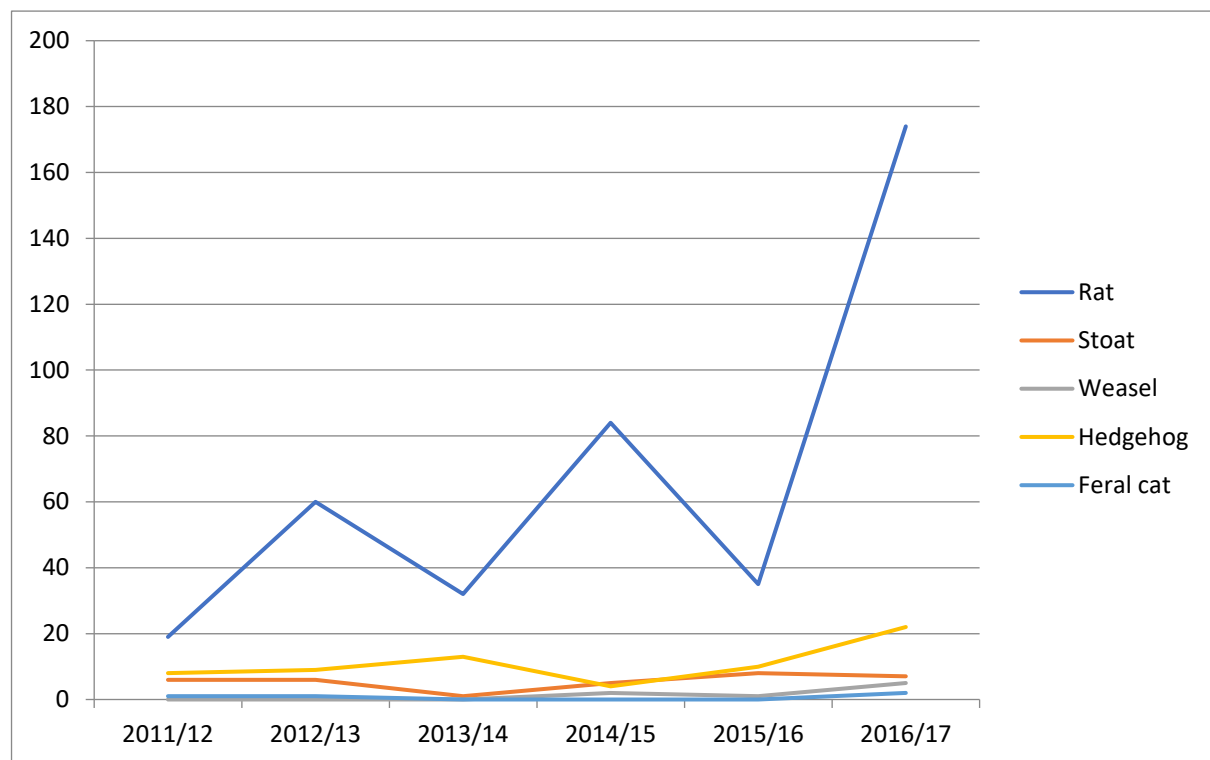
Northern Forest Annual Possum Catch



Greater Wellington's Northern Forest Rodent Monitoring Results



Northern Forest—Other Catch



Statement of Accounts

MAINLAND ISLAND RESTORATION OPERATION (MIRO) INC.									
Statement of Financial Performance									
For the year ended 31 March 2017									
INCOME				2017				2016	
<u>GRANTS</u>				\$				\$	
Hutt Mana Charitable Trust				0				900	
Eastbourne Games Charitable Trust				0				1100	
Graeme Claridge Trap Grant				0				2000	
Previous Year's Unexpended Grants				3700					
TOTAL GRANTS				3700				4000	
LESS Unexpended Grants				100	3600			3700	300
<u>GWRC INCOME</u>									
Sale of trees (Honda Tree Fund)				0				0	
AGM Reimbursement				0	0			233	233
<u>OTHER INCOME</u>									
Subscriptions				270				305	
Donations				2000				105	
Trap sales				309					
Bank Interest				82	2661			164	574
TOTAL INCOME					6261			1107	
EXPENDITURE									
<u>OPERATIONS</u>									
Nursery				817				615	
Trapping				5325				0	
Penguin Aversion Training				1000				0	
Robin Monitoring				0	7142			1650	2265
<u>MISCELLANEOUS</u>									
AGM and Meeting Costs				52				391	
Men's Shed				0				0	
Grey Power Stall				0				0	
High Viz Vests				0				0	
Post Box				175				175	
Sundry				58	285			307	872
TOTAL EXPENDITURE					7,427			3,138	
NET INCOME (LOSS)					-1,166			-2,031	

MAINLAND ISLAND RESTORATION OPERATION (MIRO) INC.

Statement of Financial Position

As at 31 March 2017

	2017	2016
CURRENT ASSETS	\$	\$
Kiwibank-Call Account	4,167	4,093
Kiwibank-Front Runner Account	3,088	7,928
LESS Unexpended Grants	100	3,700
Net Assets	7,155	8,321
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MEMBERS' FUNDS		
Balance 1 April	8,321	10,352
Surplus (Loss) for year	(1,166)	(2,031)
BALANCE 31 MARCH	7,155	8,321
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MAINLAND ISLAND RESTORATION OPERATION (MIRO) INC.
Notes to the Financial Statements
For the Year Ended 31 March 2017

Incorporation

The Mainland Island Restoration Operation (MIRO) was constituted by a resolution dated 5 June 2009 and was incorporated under the Incorporated Societies Act 1908 on 18 June 2009.

MIRO was previously part of the East Harbour Environmental Association (EHEA).

The purpose of MIRO is to provide benefit to the community through restoration of the natural ecosystems in the East Harbour Regional Park located in Lower Hutt.

Accounting Policies

Reporting Entity:

The financial statements are prepared in accordance with generally accepted accounting practice.

Measurement Base:

The measurement base adopted is that of historical cost.

Goods and Services Tax

The accounts have been prepared on a GST inclusive basis.

Minutes of the 2016 MIRO AGM

MINUTES OF THE MIRO ANNUAL GENERAL MEETING 15 July 2016 EAST HARBOUR WOMEN'S CLUB ROOMS

Present: Gail Abel (Meeting Chair), Sally Bain, Jill Bagnall, Parker Jones, Keith Levy, Linda Mead, Owen Spearpoint, Terry Webb, Kim Broad, Mark McAlpine and approximately 30 others.

Apologies – Reg and Anne Cotter, Colin Ross, Doug Mercer, Derek Wilshire, Ray Wallace

Minutes of the 2015 AGM

Parker Jones reviewed last year's minutes

Accepted Sally Bain/Jill Bagnall

Election of Committee

All nominations for the 2016/2017 were elected by unanimous approval.

The committee is:-

Terry Webb – Chair and Acting Treasurer

Parker Jones – Secretary

Gail Abel, Jill Bagnall, Sally Bain, Keith Levy, Linda Mead, and Owen Spearpoint

Moved and Accepted Gail Abel/Parker Jones

Annual Report

Gail Abel tabled and reviewed the annual report mentioning the following accomplishments and points of note:-

- Health and Safety;
- OSPRI TB Control;
- Northern Forest Pest Control;
- Bird Monitoring;
- ERAT Project;
- Dotterels;
- Nursery;
- Lake Plantings;
- Lakes Pest Control; and
- Annual MIRO Walk.

Terry Webb tabled the Annual Finances. \$8,321 in MIRO's account.

Looking Forward

Extend ERAT project

Extend stoat trapping across Northern Forest

Honda Tree Fund – have to apply directly

Dotterel Banding

GWRC

Kim Broad of Greater Wellington Regional Council express thanks for the volunteer efforts of MIRO.

Conclusion

MIRO noted thanks to Greater Wellington Regional Council for their continued advice and support, George Tuffin for undertaking the annual audit of the accounts, MenzShed for support of the MIRO trappers, GNS Science for hosting the tree nursery, Spiral Web Solutions for providing and sponsoring MIRO's web services and to MIRO's many volunteers for their enthusiasm and on-going efforts to restore East Harbour Regional Park. The Chair then introduced Hamish Campbell, the guest speaker, for his talk entitled 'Exploration in northern Zealandia: the Cook Fracture Zone'.