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*Newsletter editor.*

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*Administrator*

**Ken Bain** *Auditor.*

**Peter Hayward** *Trust*

*employee.*

**Tony Giles** *Trust employee.*

### Summit Plaques.

Five years ago the Trust received a grant from the Canterbury Community Trust to install information panels on the Island.

The panels for the summit were to show and name, in English and Maori, the landforms surrounding the island: the peaks and bays.

The task of creating these panels was more difficult than originally expected. The first step was to take photos, 360 degrees, from the summit. These were transformed into a silhouette using computer technology. The company Signwise agreed to carry out the project and their expertise is seen in the finished product.

The next step was to take the draft to the Department of Conservation for their approval and then to Ngati Wheke for the Maori names of the local landforms.

The Trust made the decision to produce a lasting product by casting the panels in bronze rather than using other cheaper options.

The bronze casting took place in Auckland.

Because of the weight of the two panels it was decided to mount them on galvanised steel.

On Monday, 28 March, the panels were taken to the island with the help of volunteers who had to carry the two heavy bronze panels and their supports over the badly damaged overbridge to the Blackcat ferry in Lyttelton.

They were mounted on either side of the summit track by our workers Peter Hayward, Tony Giles and volunteer Andrew Luddington with the unnecessary supervision of Ian and Bev MacDonald.

Next time you are on the island follow the now mown summit track and enjoy the plaques and the view.

Photos taken by Ian MacDonald





Plate 1 Shows the sign on Walkers beach where the transect line was started.



Plate 2 Shows the type of habitat that the transect line was placed in.



Plate 3 Shows a gee-minnow trap. These traps were originally designed to catch fish in streams. However they also catch ground lizards quite well.



Plate 4 Shows pitfall traps and lids before they are dug into the ground.



Plate 5 Shows a tracking tunnel. A plastic tray was placed inside the tracking tunnel with an ink pad in the center and two pieces of card at each ends.

The Otamahua/Quail Island Restoration Trust was established in 1997. Its intention is to provide a framework for the reestablishment of sustainable indigenous ecosystems on Canterbury's largest island (86ha) similar to that of pre-European times.

Quail Island is a recreation reserve. This allows the general public open access to the island. The aim is to enhance public appreciation and enjoyment of plants and animals in an ecologically restored environment.

Restoration work, has been ongoing for the last 15yrs. Native trees have been planted in a number of areas. These include species such as cabbage trees (*Cordyline australis*), ngaio (*Myoporum laetum*), broadleaf (*Griselinia littoralis*), mahoe (*Melicactus ramiflorus*), kanuka (*Kunzea ericoides*). On the southern slopes there are small leaved shrubs (many of them coprosma sp).

I have recently been allowed access to Quail Island and over the last few months have undertake a number of field research experiments regarding the native lizard fauna present on the island.

*The ecologically and taxonomically diverse lizard fauna is probably one of New Zealand's best kept biological secrets* – Daugherty *et al.* (1994).

New Zealand's lizard fauna currently consists of at least 90 native species all belonging to genera unique to this country (Daugherty *et al.* 1994; Jewell, 2008) and play a large part in our ecosystem (Hudson, 1994). Once New Zealand was the home to as many reptile species as terrestrial birds (Wilson, 2004). Now almost half of all reptiles in New Zealand are threatened or endangered. All New Zealand lizards are absolutely protected under the Wildlife Act 1953, meaning that they cannot be captured, collected or deliberately disturbed without a permit issued by DOC (Lettink & Whitaker, 2004).

One of my aims whilst working on the island was to compare a number of different reptile trapping/surveying techniques. Each technique(s) chosen is currently being used regularly in the field by professionals working with reptile fauna. The question I have set myself to answer: is there a significant statistical difference in trapping/surveying efficiency among the three different sampling methods?

My experimental design consisted of a 210 metre transect line running up hill from Walkers beach (see Plate 1), Quail Island, Lyttelton Harbour, Canterbury.

Three methods of trapping/surveying lizards were used and these are 20 pitfall traps, 20 gee-minnows and 20 tracking tunnels. All are passive methods for monitoring reptile fauna in habitats ranging from grasslands, rocky outcrops through to forest and shrubland environments. Each method has its advantages and disadvantages in the field. This study was set up to assess the effectiveness of each survey/monitoring method, also to determine whether pitfall traps or gee-minnows are superior in their ability to trap lizards in a variety of habitat types.

Each trap (pitfall, gee-minnow and tracking tunnel) had a 3 metre proximity/spacing to the next and ran in formation order up the hill from Walkers beach (i.e. pitfall, gee-minnow, tracking tunnel, pitfall, gee-minnow etc). A GPS co-ordinate was taken at each trap site/location and a piece of brightly colored flagging tape was also used to assist in the re-location and recovery of all traps at the end of the study.

Traps and tracking tunnels were baited with a piece of canned pear for the duration of the study (7 days). All traps were checked every 24hrs in accordance with animal ethics regulations. Pear baits were replaced every second day or when bait was missing (removed by either target species or rodents).

Tracking tunnel (Plate 5) papers were replaced every second day whilst baited with pear. On the 8<sup>th</sup> day the pear bait was replaced with peanut butter, and new papers were placed in all 20 tracking tunnels. Tracking tunnels were left baited for 24hrs in accordance with monitoring methods used by the Department of Conservation. This was done to gain an idea of rodent population and dispersal along the length of the 210 meter transect line. All pitfall traps and gee-minnows were either removed or closed prior to tracking tunnels being baited with peanut butter. This was for the safety of the lizards as we were encouraging rodent activity in the monitored area.

Two species of skink were caught, these were *Oligosoma nigriplantare polychroma* (Common skink / mokomoko) (Plate 6) which is a brown diurnal skink (up to 16cm long) SVL up to 79 mm. Markings are similar to those of *O. maccanni* but without prominent straight edges (castilation). They have been known to occupy a variety of different habitats including beach litter, sand dune vegetation, farmland, coastal shrub land, tussock grasslands, suburban parks and gardens (Lettink & Whitaker, 2004). Females breed annually, producing 1 – 10 young in each litter from about January to February (Jewell, 2008).

## Herpetological Fieldwork on Quail Island - Chris McClure- continued.

*Oligosoma maccanni* (McCann's skink / mokomoko), is a brown diurnal (avid sun-basker) skink (up to 16cm long), with a SVL of up to 73 mm, and distinct striped longitudinal markings. This species can be very difficult to positively distinguish between *O. nigriplantare polychrome*. They also occupy a variety of different habitats including beach litter, sand dune vegetation, coastal shrub land, suburban gardens and tussock grasslands (Lettink & Whitaker, 2004) and are very common in drier regions of the South Island (Jewell, 2008). Distinguishing features include a mid-dorsal stripe that becomes notched or wavy/blotchy toward the tail (unlike *O. nigriplantare polychrome*). Its throat is whitish grey and usually bears fine black speckling (Jewell, 2008). Females breed annually, producing between 1 – 6 young in each litter, from about January – March.

Data collection (in the field) was completed by mid Feb 2011. All results from these experiments will be published in full through Lincoln University in association with my Honours dissertation.

I would like to take this opportunity to thank some of the people who have helped and devoted their time to my work on Quail Island. Thank you to: the Quail Island Restoration Trust; Bev and Ian MacDonald for our over nights in the hut, company during earthquakes and lovely dinners and wine; to Peter Hayward, Tony, Giles, Andrew Luddington and Bernice Cournane, thanks for all their kind words and companionship; to Liz Griffiths for making me smile and for taking some wonderful photos along the way; to Lincoln University were I am undertaking my post-graduate study and finally to Marieke Lettink who is my inspiration, and I could not have designed and implemented all of my field work without her knowledge and expertise.

Photos taken by Chris McClure



Plate 6 *Oligosoma nigriplantare polychroma* (Common skink / mokomoko). Picture shows a neonate with a silver mark.



Plate 7 *Oligosoma maccanni* (McCann's skink / mokomoko). Picture shows a juvenile with a silver mark.

## Trust News and Biographical Notes.

A Special Meeting of the Trust resolved to change the Constitution to increase the number of elected trustees from seven to nine. The increased number of trustees will allow people with specialist knowledge to contribute to the work of the Trust.

At the monthly meeting of the Trust, Graeme Sleeman was elected as Treasurer and Andrew Luddington was elected to take specific responsibility for the management of the Trust boat. Biographical notes of these new trustees will be included in the September *Quail News*.

**John Lewis** is the Te Hapu o Ngati Wheke representative on the Trust. John worked in a number of positions for 24 years with the New Zealand Forest Service, before a 5 year spell, from 1987 to 1992, as the Auckland Regional Manager, Ministry of Forestry. He then retrained as a counsellor and had his own practice in Auckland before moving to Rapaki in 1997. John undertook a variety of jobs before becoming the first Administrator for Te Runanga o Koukourarata, then an Investigating Officer with the Office of the Ombudsmen. After 11 years in this position John retired in late 2010. He has a keen interest in the environment and if he is absent from one of our meetings it is probably because he is a volunteer hut warden at French Ridge on Mt Aspiring, a Kakapo nest minder on Codfish Island, or undertaking some other work for DOC on D'Urville Island.



**Barbara Price** is the Administrator employed by the Trust. Barbara writes:

I worked for Trust Bank Canterbury for 14 years starting as an accounting clerk and progressing to Audit Supervisor, Manager Lending, to Manager Accounting Administration. On the formation of the Trust Bank Group I was recruited for the role of Financial Systems Accountant, setting up financial systems and controls for the Treasury /Money Market operation and then the Settlement functions with the Reserve Bank. I then moved to the position of Manager of Group Management Information systems for the Trust Bank Group. I left paid employment 18 years ago to start a family with my husband, Nigel, when he entered the NZ Police Force. Since having our children, Emma 17 and Daniel 13, I have done voluntary work for the various organisations they have been associated with: Church pastoral care; Treasurer and then President of the Christchurch branch of NZ Gifted Children's Assn, organising children's workshops, parent/teacher education nights; parent help at school and sewing for ballet/drama productions; fundraising for Olympia gymnastics club.



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### Lyttelton Port of Christchurch Continues to Support the Trust.

Lyttelton Port of Christchurch (LPC) is committed to supporting the local community and is a long-term sponsor of Otamahua/Quail Island Ecological Restoration Trust.



## Fungi on Quail Island



Suillus subacerebus

On a visit to Quail Island early in May fungi had appeared all over the island.

These photos were sent to Jerry Cooper, Landcare Research, Lincoln, who very kindly identified the fungi.

He said that all these fungi are very common and are essentially introduced fungal "weeds" of modified habitats.

He advised that pictures could be found on the NZFUNGI website <http://nzfungi.landcareresearch.co.nz/>



Amanita muscaria mycorrhizal



Luccaria proxima (probably)



Photos taken by Ian MacDonald and Liz Griffiths



Need to see gills as well as cap to identify.



Lepista irina



Suillus granulatus

### Work Days for June, July and August Planting Days, 2011.

Workdays will continue on the first and third Sundays of June and July. Planting will take place on all Saturdays and Sundays in August.

A team will be required late in July to move the plants from the Motukarara Nursery to the island. Ian will send out an e-mail for volunteers when the arrangements are completed.

As usual, to join a group, **you must book in with - Ian McLennan** e-mail [id.mclennan@xtra.co.nz](mailto:id.mclennan@xtra.co.nz) phone 3845 338

### Visitors to the Island.

On May 9th and 10th six students from Wartburg College, Waverly, Iowa, USA visited the island. On Monday they learned about the fauna of the Island from Mike Bowie. On Tuesday, with the supervision of Ian MacDonald, they planted trees, shifted silver tussocks and cleaned up the plastic rubbish that had blown onto the beaches. They also felt the 5.3 magnitude earthquake on Monday night. An experience to remember!



### Acknowledgements.



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Te Papa Atawhai



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