



December 2013

Special points of interest:

- Editorial
- Trips to Mana Island
- Flax Weevil evil
- Fluttering Shearwater
- Photo Points
- White faced storm petrels
- Committee

FRIENDS OF MANA ISLAND INC

P O Box 54101, Mana, Porirua, 5247

FOMI Newsletter 54

President's Editorial

Hi

The festive season is upon us, and hopefully we are over the worst of the equinoctial gales and weather and looking forward to a warm and sunny summer. We, at FOMI, have some good news to impart as well.

At long last DOC have sorted out some sort of structure which now means we have an entity to which we can relate, talk and discuss projects, plan and understand the sort of support which they would like to have. The first step along this new path was taken at our last Committee Meeting when Jeff, the DOC Ranger on the Island, Angus and Matt, both designated as DOC Partnership Rangers attended. We covered all the roles of the Committee members and the current projects and what the future may hold for the partnership. It is now clear that DOC have put some priority on managing efforts and funding from outside their own structure to achieve outcomes and obligations required with their substantially reduced budget.

Our first step has been to identify projects and work which FOMI have the necessary skills, resources and funding to achieve so that they can be managed and fit the resources available within DOC. This process will be ongoing but we are comfortable that the major projects we have planned, Whitaker Skinks, Floral Diversity and the translocation of Fairy Prion will proceed as planned. There are many other opportunities for volunteers, such as weeding, endangered plant care, maintenance and nursery work which will receive attention and be planned and resourced including transport. Once this schedule has been prepared we will publish it so that you can participate.

In the past month we have also update our Web site, www.manaisland.org.nz so that it now has a new look and feel, but more importantly, can be updated and added to without the need for expensive external input. We would welcome any comment or input from you all.

The New year promises to be far more productive for FOMI than has been the case over the past 18 months, but your Committee has used that time wisely and put a substantial effort into the planning of work and projects to further the conservation effort on Mana Island forward for 2014, 2015 and 2016.

We wish you a Merry Christmas and a fruitful New Year.

Brian Paget,
President

Guided Trips to Mana Island !

FOMI have arranged trips to Mana Island through Eliot Falconer the owner of Predator, who to date has been focussed on taking School trips to the Island, see Newsletter 53.

The dates are Saturday 1 March 2014 (limited capacity), 15 & 22 March 2014. The cost will be \$40.00 per head to cover the cost of the boat, the guide and a donation to FOMI for the Whitaker Skink and other projects.

To book email:
info@manaisland.org.nz



A Plague of Flax Weevils—a conservation hyper success story

A Blog Posted 13 November 2013 by [Colin Miskelly](#)

Most people think of weevils as little maggoty grubs that infest stored grain products. Which is true, but the reality is that the weevil family is the most diverse family of organisms on the planet, with more than 50,000 species. Weevils are beetles, and adults are characterised by having a long snout and antennae bent at right-angles. They range in size from less than 2 mm to about 50 mm long. Weevils all start their lives as eggs from which larvae (grubs) hatch, and it is the larvae of the maize weevil or rice weevil (both in the genus *Sitophilus*) that you might find in your old opened packet of muesli.

New Zealand has a diverse weevil fauna that includes several large flightless species at risk of extinction. Many weevil species feed exclusively on a single plant species, or group of related species. One example in New Zealand is the flax weevil (*Anagotus fairburni*) – a flightless species about 20 mm long. Flax weevils occur only on New Zealand flax – both harakeke (*Phormium tenax*) and the smaller wharariki (*Phormium cookianum*). The larvae live in the soil and feed on the flax roots, while the adults emerge at night and gnaw on the edges of the leaves.

Predation by rats and mice has confined flax weevils to a few small rodent-free islands plus some alpine areas where few rodents live. They formerly occurred throughout New Zealand, as evident from their relic distribution from Northland (the Poor Knights Islands) to Fiordland (islands in Breaksea Sound), as well as on a few islands in the Marlborough Sounds.

As part of the ecological restoration of Mana Island, 80 adult flax weevils were translocated from Maud Island (Marlborough Sounds) in 2004. The weevils thrived at their release site on Mana Island, where mice had been eradicated in 1989. Within a few years their characteristic ragged feeding sign was evident on flax leaves, and adult weevils were readily found at night.

But the weevil population kept growing and growing. By 2013 the flaxes at the release site had collapsed and died, and adult weevils swarmed over unopened flower stalks on nearby plants, consuming them before they could grow and open. The weevil population is in the tens of thousands, in contrast to other islands, where usually only a few adult weevils occur on each plant, and cause only cosmetic damage to the leaves. So why have flax weevils become so abundant on Mana Island? There are several theories, but no answers as yet.

The two main theories are:

1. That the flaxes on Mana Island are less resistant to weevil browsing than those on islands where weevils still occur. The flaxes at the release site are a hybrid swarm between native wharariki from the nearby cliffs and a harakeke cultivar planted as windbreaks when the island was farmed in the 1970s. Maybe the artificially selected cultivar has lost some level of immunity to weevil browse.
2. That the weevils had benefited from some form of predator or parasitoid absence when they were translocated. Many beetle species are attacked by parasitoid wasps that lay eggs in their larvae or pupae, consuming them alive before they can mature into adults. Maybe moving only adult weevils broke the life-cycle of an as-yet unrecognised parasitoid that infests flax weevils, allowing the new population to grow unchecked.

The answer to the riddle is likely to require detailed field studies and possibly planting trials of different flaxes – and would be an ideal thesis topic.

There are conservation values at risk from too many flax weevils on Mana Island, and restoration of the island could benefit from an understanding of what usually limits their population. Mana Island holds the largest population of the rare goldstripe gecko, a lizard species that on the island lives almost exclusively within flax bushes. In addition, tui, bellbirds and two species of geckos (common geckos and goldstripe geckos) feed on flax nectar.

Flax weevils are neat critters, but healthy flaxes are an important part of the Mana Island ecosystem too.



First and last photos by Jeff Hall, Ranger, DOC.
Middle photos by Colin Miskelly, Te Papa, taken November 2013

Fluttering Shearwater - Annual Monitoring from Dale Shirtliff



August, 2013

Since the 3 translocations of fluttering shearwater chicks to Mana Island in 2006, 2007 and 2008, FOMI contractor Helen Gummer has kept tabs on the returning birds and maintenance of the burrow site. As a result of Helen's perseverance, skill and sheer hard work, this project is turning out a great success, recognised internationally.

Helen has been making the trek to Mana over the last several years to do a 7 night monitoring of the flutterers to determine how many of the original translocated chicks have returned. This also gives her a good indication of how many chicks will be produced each breeding season on Mana. Helen travelled to the island Thursday 22 August and ended up staying 8 nights. These dates match the return of adults to pair up and find and prepare their breeding burrow. I was lucky enough to join her and assist for the first 4 nights.

Fluttering shearwater chicks were brought to Mana from Long Island in Queen Charlotte Sound. They were placed in man-made burrows by FOMI volunteers and fed until they fledged and flew away to sea for at least 4 years. Chicks were banded. The majority of returning birds have Mana bands. These birds return to 'prospect' for a nesting site and to find a mate.

By the end of our first night this visit 47 birds were identified by band, weighed and returned to their burrows. This was an exceptional number, around 10 more than the total for last year. 18 eggs laid last season produced 14 chicks. With at least 51 birds now known to be visiting Mana, Helen expects at least 25 eggs to be laid this season. We are hoping the elements allow this to happen.

A solar panel charges batteries which run a night-time speaker system that encourages flutterers to land. No photos were taken at night to minimize the disturbance to the birds.

The days were strenuous and not for the faint hearted. I have great admiration of Helen's keeping up the routine below over her stay. There are rewards like Helen finding a kiwi on the track and getting close enough to stroke it, afternoon tea with Jeff and having his wife Alicia's cake.

Days are broken into:-

9-10 am start – enter data onto a spreadsheet from the previous night

Lunch and walk 30 minutes to the burrows site. 2-4 hours of site and burrow repair/maintenance. 30 minute walk to the Lockwood.

Evening meal. Walk to the site for an 8pm burrow monitoring round. Hourly rounds continue until around 2am (although most birds are found before midnight) when we walk back, snack, shower and sleep.

FOMI funds Helen's week-long monitoring/maintenance trips.

When she returned home, Helen produced a report and spreadsheet detailing her findings for FOMI and DoC. An excerpt from Helen's report was published in the last newsletter.

Helen and FOMI would like to thank Paul Johnston for all his burrow monitoring efforts in recent years. This helped us identify the fluttering shearwater burrow activity and breeding attempts. Paul has recently left the island. Jeff has agreed to check on the burrows.

November 2013 Update

Jeff has told me that 26 eggs have been sighted in burrows this year. A number of chicks have hatched. It appears a few eggs have failed. It does seem at this stage that the number of chicks that fledge this summer will be up significantly. Helen and I will return in early January to band the surviving chicks before they fledge. We have been reliant on Jeff to check burrows when he can fit it into his busy schedule and to keep us posted. Thanks Jeff.



Mana Island Photo Points

Allan Sheppard, a FOMI Member and a past Committee member, has taken up the challenge of bringing up to date the photos of Mana Island to complete some of the “before and after” images which date back to the DOC photos taken in 1986. Allan has recently been to Mana Island and is working with the historic images supplied by Jason Christensen, and whilst this is work in progress the following images show the quality of the work they are doing as well as a reminder of what has been achieved over the past 27 years, exciting stuff.



Taken in 1986



Taken by Allan Sheppard in November 2013

White-faced storm petrels breeding on Mana Island from Colin Miskelly

I was out on Mana yesterday (4 November 2013) and overnight, mainly to band this year's cohort of diving petrel chicks (7 banded, 3 pairs still on eggs, one burrow too deep to reach chamber).

Three fairy prions were also found on eggs, and laying may yet occur in 2-3 other burrows.

The highlight was a white-faced storm petrel found on an egg - but not at the new sound system. On my last visit (30 Sep - 1 Oct), my son and I completed a check of all 105 old artificial burrows, and noted fresh digging in number 44 - in a cluster of burrows midway between the two old speakers, that has never shown signs of activity. On reaching into the burrow yesterday afternoon I felt a pair of long spindly legs and an egg, so already knew what it was before I extracted the bird - Mana Island's first breeding record for the species, and the fifth species of petrel breeding on the island.

Note that storm petrels have not been translocated to Mana Island. The sound system where the bird was found has been playing white-faced storm petrels calls mixed in with those of three other petrel species since 1993, and two storm petrels have been caught at night in the area before (2 Nov 2000 & 20 Sep 2001). The new (very loud) sound system plays only white-faced storm petrels calls, about 100 m away through dense vegetation.

Jeff Hall and I returned later that afternoon and banded the bird (C-80664).

I visited the new storm petrel sound system in Daylight and twice at night, but did not see or hear any activity there.



Your Committee for the 2013/14 year is:

Brian Paget, President; Jason Christensen, Vice President; Julie Harrison, Secretary, Dick Fernyhough, Treasurer and a Committee of Brian Bell, Linda Kerkmeester, Dale Shirliff, Irene Swadling, Rob Stone or his representative (DoC Rep), Reina Solomon, (IWI representative) and a co-opted Membership Officer, Darlene Adams.

To contact any of the above email them at contactus@manaisland.org.nz

