Newsletter 53 has a recurring theme of volunteers seeing something special while working on the park.

TAWHARANUI OPEN SANCTUARY SOCIETY INC.

Newsletter No. 53 June 2015

This banded rail was feeding on the lagoon margins while I was checking for unwanted sharp rush. Banded rails tend to feed early morning, late afternoon or in the rain. Who knows what natural treasure one might find while volunteering at Tawharanui?

These little black shags were photographed recently from the bird hide on the lagoon. The bright blue eye viewed through binoculars identifies them from the slightly larger black shag. Little black shags generally work together feeding in large flocks. Alison Stanes Editor.

Tawharanui Open Sanctuary is a joint project with Auckland Council.

Coming Events

Sun. 5 July. 9.15 am. Planting Day. Hosts. Ngaire Wallen and Karyn Hoksbergen. BBQ provided.
Sun. 2 Aug. 9.15 am. Planting Day. Host. Ray Blackburn BBQ provided.
Sun 6 Sept. Sunday in the Park. Host David Stone BBQ and AGM.

Bring sturdy footwear, rain coats, drink for morning tea.

Volunteer Days

Tuesdays 9am. The nursery team meets at the Tawharanui nursery. If you would like to join this dedicated team:
Contact: Ray Blackburn 425 4995
Thursdays 9 am. A small group of volunteers meet at the Vol Hole for interesting track and maintenance work:
Contact: Roger Williams 425 9127

Volunteer checking to be done in your own time
Pest Proof Fence Checking. Contact: Jenni McGlashan 422 3733 (See page 11 for more information.)
Trap lines. Contact: James Ross 422 6760 (See page 11 for more information.)

Chair's Report

I got asked if I had anything important to say which is a silly question if you know me, but in the interests of fitting in James' chart on endangered species, I will be brief…

The one important species that has had the most significant and enduring impact on Tawharanui is of course us - people. The story of what we have done here has been sadly missing from the park. A small sub-section of us (Auckland Council, Ngati Manuhiri, Rangers, Designer & Me as representing TOSSI) have been working very hard of late to rectify this situation.

The results will start to show up on the Park in June. You may be surprised. You may be educated. You may be amused. Most of all I hope you find it interesting, love it or hate it. We will be having some sort of official opening later in the year.

This year the Council are also celebrating 50 years of Regional Parks and Tawharanui is still considered something of the jewel in the crown. I got asked if I would mind being quoted in material the Council is preparing, closely followed by what I was apparently going to say. It is something about endangered species. See you at the planting days. Cheers Ngaire

Open Sanctuary Coordinator update

Congratulations to TOSSI foundation member Barry Lett who became a Member of the NZ Order of Merit for services to art and conservation this Queen's Birthday. Barry has a long history in the art world, and pertinent to Tāwharanui he was a key leader of the Art in the Woolshed exhibitions which were synonymous with TOSSI and an excellent source of funds and support for the open sanctuary.

I first met Barry when he reported kaka behaviour in his yard on the Takatu peninsula. I receive many wildlife reports including possible kaka nesting. Usually reporters describe the raucous and clownish behaviour these gregarious parrots are renowned for. Barry's story was different, describing furtive arrivals and departures from a single puriri and a range of soft sibilant whistles and cee-cee calls. As a recent immigrant from South Is beech forests I knew this perfectly described kaka nesting behaviour I'd been working to protect. Barry was only too happy to have us come along and confirm the nest in the tree and implement predator control. A few months later young kaka nestlings fledged, and these would certainly be some of the first successful kaka chicks on the Auckland mainland after decades of absence. So Barry, thanks for the phone call and demonstrating the fundamental skill of ecologists and conservation managers, that of quiet observation of the natural world around us.

Barry's story epitomises the dedication and hard work demonstrated by so many TOSSI volunteers, amazing everyday people who get stuck in to make a difference, simply because they love the park and its wildlife and are keen to make a difference. Thank you all.

Another tale of an astute observer had a less positive outcome but is equally significant. A trio of takahē have firmly established themselves in the Mangatawhiri wetland with regular daily forays into the workshop yard. Cont.

Ranger Maurice observed one Sunday morning that only two birds were doing their usual walkabout. Interest piqued and armed with telemetry aerial, Maurice tracked down bird number three who was cowering in the shelter of a flax bush. A quick Sunday afternoon phone call to me and we determined the bird was seriously unwell, as it was so docile allowing itself to be picked up without a fight. Action stations! Phone calls quickly made to DOC's takahē team and Auckland Zoo's vets and before you know it the bird was on its way to hospital. At the triage room we uncaged Minaret and the extent of his illness was very apparent and deeply troubling. My grateful thanks to Zoo vets Sarah and James who were more than happy to do their best to save this bird late on a foul rainy Sunday night. Unfortunately Minaret didn't recover and died that night.

Any takahē death is significant; these birds have a threat classification of Nationally Critical. Unusually among threatened birds there is a shortage of males. This is reflected at Tāwharanui with Minaret being one of four males among 11 birds. A post mortem was undertaken to understand the cause of death. Immediate concern was for the park's surviving takahē, particularly Minaret's two regular companions, in case an infectious or toxic agent was present in the local environment. Foremost in my mind was what if any changes must we make to safeguard the remaining ten?

Physical exam showed no obvious cause of death in good condition and with a full gut. A bacterium noted in a blood sample was identified as being erysipelas, a widespread bacterium in the environment that can affect a range of hosts. It is an identified known risk and all takahē are vaccinated as juveniles, ours included. Although a known risk, erysipelas has only been implicated in the death of a couple of takahē in the last decade. In response to this information and with expert advice we will be rounding up all resident takahē to give them a vaccination booster. Despite this setback, Tawharanui remains an important site for takahē recovery, and this single event will only have a very minor impact on the future potential of this site. In all other respects things are going great guns and on track for future breeding when the birds get old enough.

Just as we benefit from the hard physical efforts of TOSSI supporters, we greatly value your observations. If you see interesting wildlife or suspected pest activity, please report this. We'd rather follow up a false alarm than let predators roam free because of doubt on behalf of the observer.

With kind regards, Matt Maitland. I can be contacted at matt.maitland@aucklandcouncil.govt.nz or 09 426 1200

How Important is Tawharanui Open Sanctuary for Fauna Conservation?

The introduction to Tawharanui Open Sanctuary of Takahe (a species that is regarded as 'Nationally Critical') led me to ponder the question, "what other fauna species of conservation significance does Tawharanui support?"
The answer is one that surprised and shocked me.

At present there are twenty three species of birds and reptiles regarded as being threatened in New Zealand that are resident at or use the sanctuary regularly. Even more astonishing, eighteen of these species currently breed at Tawharanui. [See table]

On the one hand these are statistics to be very proud of – it is after all a small sanctuary of only thirteen years standing. On the other hand it is appalling that so many of New Zealand's fauna species struggle so hopelessly outside islands and areas where there is a high level of pest control.

Other species on the Threatened Species Lists (see page 5) have also been recorded from Tawharanui including Reef Heron, North Island Fernbird, Royal Spoonbill, Wrybill, Bar-tailed Godwit, Black Shag and Little Black Shag. There are also species that are common at Tawharanui that are locally and regionally rare such as Bellbirds, Whiteheads and North Island Robins.

Threatened species use a variety of habitats at Tawharanui: wetlands, shorelines, forest, scrub, coastal cliffs and even pasture. They also increasingly use areas that have been planted and restored by TOSSI volunteers. In short, all the habitats available within the sanctuary are of value for threatened fauna.

And just a reminder: all of this is only possible because of the pest-roof fence and on going pest control.
James Ross

Sunday in the Park

Sunday in the park organised on the first Sunday of each month has seen passionate volunteers remove lupin and woolly nightshade, remove the temporary takake proof fence at West End, clear trails on Takatu Point, tending the bird hide garden and numerous other tasks. The efforts of these volunteers are greatly appreciated and so are the sausages prepared by the dedicated cooks. Thank you. Also thank you to New World who contributed $200 to our barbecues and Tom Morrison of Kennilworth Orchard who help out with the fruit. Alison

Kerrie McGee prepares more grey faced-petrel nest boxes which have since been installed on Tokatu Point.

Megan Friesen and Jenna Herman check over a grey-faced petrel chick and band it at Tawharanui.

While out one evening Tristan Cullen spotted this centipede on a manuka near the pump shed.

While working on Fishermans track Roger Williams found this stinkhorn fungi.

Some of the Mahurangi College students learning a few nursery skills while on school camp.

Threatened Species at Tawharanui

Species	National Status	Status at TOS
Takahe	Nationally Critical	Introduced.
Australasian Bittern	Nationally Endangered	Regular visitor. Resident? Breeding?
Northland Brown Kiwi	Nationally Vulnerable	Introduced. Breeding.
Kaka	Nationally Vulnerable	Resident. Breeding.
Northern NZ Dotterel	Nationally Vulnerable	Resident. Breeding.
Red-billed Gull	Nationally Vulnerable	Resident. Breeding.
Pied Shag	Nationally Vulnerable	Resident.
Caspian Tern	Nationally Vulnerable	Regular visitor.
Northern Blue Penguin	At Risk	Resident. Breeding.
Banded Rail	At Risk	Resident. Breeding.
Pied Stilt	At Risk	Regular visitor
White-fronted Tern	At Risk	Resident. Breeding.
Auckland Green Gecko	At Risk	Resident. Breeding.
Forest Gecko	At Risk	Resident. Breeding.
Ornate Skink	At Risk	Resident. Breeding.
Pateke	Recovering	Introduced. Breeding.
Variable Oystercatcher	Recovering	Resident. Breeding.
North Island Saddleback	Recovering	Introduced. Breeding.
Red-crowned Parakeet	Relict	Introduced. Breeding.
Northern Diving Petrel	Relict	Resident. Breeding.
Spotless Crake	Relict	Resident. Breeding.
Fluttering Shearwater	Relict	Resident. Breeding.
Long-tailed Cuckoo	Naturally Uncommon	Seasonal migrant. Breeding

Mahurangi College students help out while at School Camp

During early March Mahurangi College students camping at Tawharanui Regional Park spent time in the Tossi nursery learning how it runs and potting manuka seedlings for the 2015 winter public planting days. A team of our volunteer nursery workers showed students what was required in potting a seedling then supervised each group for an hour as they filled trays and kept us busy.

Two hundred and ten Year 8 students potted 2,360 manuka seedlings assisted by some parent help and senior students attending the camp. The enthusiasm with which these students worked was great to see, and frequently commented on by the volunteers assisting with the nursery side of the college camp. All were encouraged to return and plant the seedlings they had potted on one of the public planting days during winter. Many thanks Mahurangi College, we'll see you again soon. And thank you to those Tossi nursery volunteers who spent those extra days assisting with the nursery side of the college camp. Kerry McGee

WaiCare Montioring

WaiCare monitoring sessions for the Mahurangi College Camp were organised by Doreen Guest, James Ross and Auckland Council WaiCare staff. Water quality testing and invertebrate sampling was conducted over four days in the Ecology Stream. These sessions were well received as they complemented the work that students had been doing in Geography at school. The children thoroughly enjoyed their camp and the activities with TOSSI. It is hoped that this can be continued in future years. James Ross

This season's planting is well under way.

Photo Jenni McGlashan.

The nursery team have again produced 20,000 very healthy native plants. These members of a dedicated nursery team turned up on a wet Tuesday to tend to the plants in the rain. Several other nursery members were in the comfort of a warm sheltered Vol Hole attending a Technical Workshop meeting. A year ago these healthy plants were seeds, collected from within the park. Amazing! Well done to our fantastic nursery volunteers. Anyone wanting to join this team is in for a good social time with lots of home cooking for morning tea.

Two days before Queen's Birthday weekend volunteers took on the huge task of delivering 9,100 plants to M16

If the bridge needs shifting and there is no tractor and front end loader available just pick it up and shift it!

Queen's Birthday weekend planting.

Students from India who are followers of Dera Sacha Sauda, 'influence of all religions', came both Saturday and Sunday to help plant trees. This is a world organisation dedicated to selfless service to humanity and the environment. They came from the Green 'S' Welfare Force Wing. The teams that planted at Tawharanui showed determination and commitment. We could not have managed planting 9,100 trees without their help.

On Saturday volunteers planted under a clear blue sky.

On Sunday volunteers planted all morning in teaming rain. One enterprising volunteer turned a blue rubbish bag, for collecting the black polythene planter bags, into a rain coat.

Australian Blue Moon butterfly *Hypolimnas bolina nerina*

While out on Tokatu Point dealing to pampas I was delighted to discover two Australian Blue Moon Butterfly. They are as large as the monarch butterfly. They were feeding happily on the hebe flowers.

Most of the time they are brown and white and then without warning exquisite blue circles appear around the white. The blue is refractive, so it varies on the angle you see them. According to the internet NZ butterfly Info site these butterfly get blown over to NZ occasionally sometimes in big numbers but have never been known to breed here in the wild.

However, I am told that the blue moon butterfly is an indicator of westerly wind currents from Australia which unfortunately could bring spores of an unwanted myrtle rust. The blue-moon butterfly is an indicator of potential incursion sites.
Alison Stanes

In 2014 DOC/Council/MPI received reports of Australian butterflies being found in the Bay of Plenty and other locations. Those sightings last year were attributed to the weather events such as Cyclone Ita that hit Queensland before arriving in New Zealand. More reports of the butterfly have continued into this year from on going trans-tasman weather flow.

This indicates that New Zealand can expect the possibility of increased sightings of Australian organisms including arthropods and fungal spores, such as myrtle rust.

Information on myrtle rust:

From the Ministry of Primary Industries fact sheet.

Myrtle rust is a fungus with a wide range of host species within the Myrtaceae family including iconic New Zealand plants pohutukawa, manuka and rata as well as commercially-grown exotic species such as eucalyptus and feijoa.
Myrtle rust has been in Australia since 2010 and is now established in New South Wales, Queensland and Victoria. In 2015 myrtle rust was confirmed in Tasmania and a biosecurity response is now underway.
Airborne myrtle rust spores can travel very long distances and are considered capable of reaching New Zealand this way.
New Zealand has strict measures on material that may carry myrtle rust (especially nursery stock and cut flowers and foliage). Cut flowers and foliage of the Myrtaceae family from New South Wales, Queensland and Victoria is currently prohibited from importation into New Zealand due to the risk of myrtle rust transmission.
Rust diseases are notoriously difficult to control – myrtle rust has not been eradicated anywhere from its current range - so early detection is our priority. I

Information on myrtle rust

From Auckland Council Biosecurity team.

What does myrtle rust look like? The rust will generally appear as bright yellow spots on the new growth, flower or even on the fruit of some plants. It could kill the new growth completely, cause brown spots on the upper leaves and holes in the leaves. The rust can appear red when the sexual types of spore are being produced.
Where might you see it? You might find it on native plants pohutuawa, rata, ramarama, rohutu, manuka and kanuka, and the introduced eucalyptus, guava and feijoa.
Where did it come from? Myrtle rust is a native of South America that jumped from native species there to planted eucalypt forests. It is not yet known to be in New Zealand but the rust is now established in Australia's east coast, New Caledonia, South Africa, Hawaii and is also considered established in parts of Indonesia, China and Japan.
There are three predominate strains. The strain in Australia is the most likely one we could get because of the large number of flights to and form Australia, the westerly winds and the movement of migratory birds and insects and butterflies.

What you can do? If you see something that you think may be myrtle rust at Tawharanui.
Do not touch or collect samples as this may spread the disease.
Report it immediately to the Auckland Council Matt Maitland 09 426 1200 or
the biosecurity team call 09 3010101 email biosecurity@aucklandcouncil.govt.nz.

Auckland Council's Technical Advisor for myrtle rust: Dr Nick Waipara
021 021 2229067 nick.waipara@aucklandcouncil.govt



The Australian Blue moon butterfly; the blue being refractive and varying according to the viewing angle.

Myrtle rust on pohutukawa.

Myrtle rust on Australian myrtle.

More examples of myrtle rust.

Bittern visits Tawharanui.

Many of the threatened species at Tawharanui are easy to see but the Australasian Bittern is very cryptic! This one I spotted in the Mangatawhiri Wetland when returning from checking a trapline. It has adopted a 'freeze' or 'surveillance' pose with its bill pointed skyward allowing it to blend perfectly with the mangrove roots and reeds whilst maintaining a good view of its surroundings. James Ross (see page 11 for answer.)

Bird news

The three takahe at Mangatawhiri greedily feed all together.

Takahe. Takahe monitors enjoyed a beautiful shared lunch at the home of Mel Wilson to celebrate a successful season. Thank you Mel. Since then we lost Minaret.
Peti was shifted from Tawharanui to Motutapu because of her wandering habits. News from Hazel Speed on Motutapu Island is that Peti continues to lurk around the plant nursery and is seen just about every day!! Resident takahe Westy, Ariki and Raumati also hang around the plant nursery. So it seems at last Peti has settled down. More recently she has been caught and her transmitter repaired.
Spotless Crake. These shy birds are being noticed more frequently as they dart for cover in wetland areas. While having morning tea at the nursery Mark Patterson and Ray Blackburn observed one sunbathing among the nursery plants. But where is the photo?
Australasian Bittern. A single bird is visiting Tawharanui quite regularly. It may be seen in Mangatawhiri wetland or beside the culvert over the Mangatawhiri Stream. It is has been observed by Ray Blackburn and James Ross.

This time of year birds are already presenting breeding plumage. Watch out for NZ dotterel with chestnut coloured breasts, paradise duck displaying magnificent green speculum and the cock pheasant ring necks in full colour. Alison Stanes

Mid-week volunteers
Left; Luke Fourie and Sharon Kast build a bridge over a drain approaching Mangatawhiri wetland from the car park.
Right; Roger Williams builds steps on the Fishermen's trail.
If you would like to join this small team contact Roger Williams 425 9127

Another week day activity takes place on Fridays. Keith Edwards and Ray Blackburn help the Council manage rabbits. The dune vegetation is responding well as a result. Everybody except the rabbits are grateful for their efforts!

Mamaku – tree fern forest engineer

Across the southern slopes of the Tāwharanui Peninsula are stands of the black tree fern or mamaku (*Cyathea medullaris)*. These stands established spontaneously after kikuyu grass was sprayed in 2005 [*get Matt to confirm*] and have slowly been developing, with silver fern, hangehange and a coprosma or two joining the stands as an understorey. Mamaku is an unusual tree fern compared to most other New Zealand tree ferns, in that it grows in open, relatively exposed sites and doesn't need a forest structure around it. It's possible to see isolated stands of mamaku right across the Auckland region and over most of the North Island.

As part of my PhD research I recently undertook a study on mamaku stands like these, young and old, to identify what species were growing beneath them and to see what sort of bush might develop from these stands. As a first step I was interested to see if mamaku supported a distinctive group of plants (a community), and whether they were associated with a different community to that associated with tea tree. The next aspect of the study was to identify whether mamaku and tea tree communities ultimately produced different types of forest. Why tea tree? Tea tree are considered the 'go-to' species to kick-start forest regeneration in forest restoration projects. Although mamaku tree ferns establish naturally all over the North Island, no-one has checked to see if these, like kānuka, trigger a natural process of forest regeneration.

By surveying mamaku communities across the Auckland region from Tāwharanui to the Hūnua, and by acquiring data held by Auckland Regional Council, I was able to compare plant communities associated with mamaku to those with tea tree over an approximate 120 year time period – from early establishment through to the development of an early forest community.

What I discovered is that mamaku form a nursery for a distinct plant community that develops into a forest type dominated by broadleaved species like tawa, taraire and kohekohe. What is really fascinating is that my study has shown that the tree fern process is quite different to the tea tree associated community and the subsequent forest, which eventually supports more kauri, tanekaha and māmangi.

The data analysis is not yet complete. I hope to publish the results in 2015, but in the meantime, establishing mamaku in the unplanted gullys at Tāwharanui would be a novel alternative to planting tea tree and, looking to the future of the open sanctuary, would start the natural regeneration of an increasingly diverse suite of forest communities from which the native species will benefit. James Brock Researcher

Keeping our threatened species safe.

Fence Monitors Wanted

The fence monitoring team would love to hear from anyone interested in joining the fence checking team. We work in teams of two, one walking each side the length of the fence, a distance of approximately 6 kms. The purpose is to check the integrity of the fence for the safekeeping of our endangered introduced birds. Full training is offered and initially new volunteers will be on standby to fill in for teams unable do their turn. Teams are on an 11 week roster and have a week, Wednesday to Wednesday to complete the fence check and to enjoy a walk in the park. For more information

Contact: Jenni McGlashan 09 422 3733

Trapline Volunteers Needed

Trapline volunteers help maintain the network of traps and bait stations throughout the park. They serve a crucial role in detecting and eliminating pest predators that have somehow managed to get into the sanctuary. Volunteers adopt a line which they usually service once a month. You can do this alone or with a friend to help share the load. The lines vary in length and difficulty: some are physically demanding, others are literally a walk in the park! If you are interested please contact:
James Ross jamesross@paradise.net.nz.
Full training and advice will be provided.

White paint wanted

The gannet project is in need of some white paint, preferably acrylic. Any old containers of white paint can be left at the park office or the nursery, marked as " gannet project ". It will be used to create splatters of fake guano around the nesting site.
Kerry McGee

Help TOSSI by making a gift

The gifting of funds to TOSSI in your will is something you might like to consider. In our family, we only get to charity in the "What if we are all dead?" option. It is easy to be a bit less dramatic and include a cash bequest to TOSSI, because the Tawharanui Open Sanctuary is a place that has been very special to you or a loved one.
If you would like some advice on how to effect such gifting,
Contact; David Stone, TOSSI Secretary, 09 422 9415.

TOSSI Committee

Chair	Ngaire Wallen	09 627 1526
Vice Chair	James Ross	09 422 6760
Secretary	David Stone	09 422 9415
Treasurer	Karyn Hoksbergen	09 5851315
Editor	Alison Stanes	09 524 0291
	Doreen Guest	09 422 7974
	Patte Williams	09 425 9127
	Ray Blackburn	09 425 4995

Correspondence: Chair or Membership Secretary
P.O Box 112 Matakana 0948

Email: secretary@tossi.org.nz
Website: www.TOSSI.org.nz

The bittern on the previous page is positioned slightly upper middle in the photograph.

Application form for NEW MEMBERS Tawharanui Open Sanctuary Soc.Inc.

Name(s):_____

Address:_____

Phone No._____
E-Mail_____
Occupation_____
How did you hear about TOSSI?

Please tick how you would like to help:
___Planting/workdays ___ Bird Counts
___Fund raising ___Administration
___Monitoring Pests ___Nursery
___Predator fence monitoring
___Environmental educational
___Publicity/promotion
___Other_____

Membership fee:
$20 single membership $_____
$30 Family membership $_____
Additional contribution (optional) $_____
Donations over $5 are tax deductible
Gift Membership:
Please send membership to
Name:_____

Address:_____

Amount of Gift membership(as above)$_____
Total amount enclosed $_____
Please make cheques payable to Tawharanui Open Sanctuary Society Inc. and return the completed form to:
TOSSI Membership Secretary
P.O.Box 112 Matakana 0948

Underwater species observed by volunteers at Tawharanui.

Photo Shaun Lee http://naturewatch.org.nz/observations/1451283

After monitoring takahe Shaun Lee and his son Jett photographed these eagle rays at Anchor Bay. Eagle rays have pointed pectoral fins. They are wider than they are long. They move by flapping their fins, resembling birds in flight.

After a team meeting in the Vol Hole Sharon Kast and Alison Stanes were intrigued by this longfin eel at the bridge in Ecology Bush. The biggest eels are usually old females that have been slow to reach sexual maturity and, for reasons that are not understood, have not migrated to sea to breed. This eel most likely comes in this category. Longfin eel are endemic to New Zealand. The native shortfin eel are also found in Australia. Alison Stanes