



TAWHARANUI OPEN SANCTUARY SOCIETY INC.
Newsletter No. 60 March. 2017



The first takahe chick at Tawharanui.



Thirteen New Zealand dotterel chicks fledged this season.
These three are exploring their new world at Tawharanui.

Tawharanui Open Sanctuary is a joint project with Auckland Council.



Coming Events

Saturday 25 March 9 am Conservation Organisations Sharing Sausage and Information Day (COSSI Open Day) Meet at the Woolshed. Morning tea followed by guided walks, BBQ lunch and an afternoon guided walks. Please RSVP to alison.purple@xtra.co.nz with the names of those coming and the word TOSSI on subject line. Come and enjoy the day. See you there.

Sun 2 April 9.15am. Sunday in the Park. A range of light tasks around the park followed by BBQ.

Sun 7 May 9.15am. Sunday in the Park. A range of light tasks around the park followed by a BBQ.

Sun 4 June 9.15 am. Sunday in the Park. Planting followed by a BBQ and a celebration of 200,000 trees planted.

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 magsandray@gmail.com

Thursdays 9am A small group of volunteers meet at the Vol Hole for interesting track and maintenance work.

Contact: Roger Williams 425 9127 port.williams@clear.net.nz

Volunteer checking (to be done in your own time) See inside of the back page.

Chair's Comments

Visits to Tawharanui for volunteers can lead to unexpected encounters, both good and not so good. One day towards the end of January I was delighted to see seven New Zealand dotterel chicks close to fledging. On the same day I saw a kaka chick that Ranger Colin found and for the first time I saw the takahe chick. It occurred to me that there is probably nowhere else in New Zealand one might have seen this combination of threatened species chicks all on the same day.

Later in the month I was at West End again monitoring New Zealand dotterel, when I discovered 26 pateke, those precious rare brown teal ducks, resting beside the stream mouth. They were obviously a mobile flock because a week later there were only four.

Ranger Maurice had a delightful encounter when a baby kiwi visited him in the pest shed in broad daylight. It was gently retrieved and released in Mangatawhiri wetland. Kiwi sightings increased after Christmas as kiwi are no longer incubating eggs. Recently kiwi have been seen at night near the sanctuary info hut and another pair have a territory near the pump shed. So you don't have to go far to see them but one needs to be patient and quiet and use red cellophane over your torch.

While monitoring takahe Karen Tricklebank had a memorable encounter. She was distracted by the screeching demands of a shining cuckoo chick. It was being fed by a grey warbler. Karen was able to take the amazing photo on the back cover of this newsletter.

And the not so good encounters. Recently I spent a day working with summer rangers removing some very big woolly nightshade that nobody had noticed for a long time! They were in the wetland near the camp ground, covered in the biggest sweetest looking orange succulent fruit which we carefully removed and bagged. A few days later Ranger Maurice armed with a chain saw joined me to remove an enormous woolly nightshade specimen from Swede bush. The leaves and fruit were high in the manuka canopy. Goodness knows how many times volunteers removing woolly night shade -including myself- had walked underneath it. We dragged out five large rubbish bags of fruit and figured that the birds would have to find some native fruit to eat instead.

Removing unwanted plants from Tawharanui can be very satisfying especially if you go into areas where once there was a weed problem and now they are gone. I was in a north coast gully recently and able to indulge in some self satisfaction as there was no pampas, bone seed, woolly night shade or mistflower all of which we have removed over the years. In another gully on the south coast persistent removal of ragwort has put a stop to its occurrence. It is said with weeds, "The longer they are left the bigger the mess." Early intervention pays off!

Even casting an eye over the dunes is a pleasure with only a few lupin and apple of sodom compared with what it might have been had we not dealt with them. Sharp rush on the edges of the wetlands has been dramatically reduced. This all supports the Auckland Council who employ professional weed contractors to take on the more serious weed invaders.

Please send us any photos of exciting encounters on the park. The interesting thing is that those unexpected surprises only seem to happen when you are out on the park working! So if you are interested, check out this newsletter, and get involved and become a volunteer. Cheers Alison Stanes



Open Sanctuary Senior Ranger update



Planning is underway to replace our automated pest proof vehicle gate this autumn. The current gate was installed as part of the original pest proof fence construction in 2004 and has since delivered in excess of 1.5 million openings. Over this time it has performed remarkably well; only one car vs gate incident that I am aware of (as evidenced by a few light lens fragments and a scrape on the gate frame) and occasional periods where the gate has failed to operate.

The replacement gate will in fact be two. One entry and one exit gate will provide for better traffic flow during busy periods and importantly will provide a backup system for park visitors and sanctuary pest security in case of gate failure. The new gate arrangement will cater for our visitor growth as the region grows and more people need wild places for respite from our busy world.

The big July rain and subsequent flood that damaged our pest proof fence in the Mangatawhiri wetland also destroyed the 'fish pass'. A consequence of keeping the 'bad guys' (pests) out is that those same barriers can impede movement of the 'good guys' (our valued natives). Eels and galaxiids (native fish making up the whitebait group) need to move up and down stream at various stages of their lifecycle, all having some marine or estuarine life-stage. We have enabled fish movement through the pest proof fence using a submerged pipe that is difficult for pests to locate and even harder for them to hold their breath long enough to traverse. With the flood ripping out the pipe work in July we have had to keep this pathway blocked to both pests and fish. With a 'silver lining' outlook we can view these damage events as opportunities to improve. In this case we have redesigned the fish pass to ensure the passage is drought proof, the previous model would during very dry periods becoming partially exposed and we would need to cap it. Fortunately this coincided with periods of no or limited fish movement so impact on the fish was negligible. The new design includes a submerged sump to ensure year round water flow and pest security. Unfortunately good old Murphy has decided to deliver a deluge on top of our partially constructed replacement, I hope it survives this flood!

Further on the subject of native fish, we have begun planning to reintroduce the Giant Kokopu (*Galaxias argenteus*) the largest species in our whitebait group, to Tawharanui. We have historic records of this fish from the Waikokowai (Ecology) stream, but none from recent times. Unfortunately this scenario seems to be replicated across the Auckland region. In a recent region-wide effort, 25 sites with historic records of giant kokopu, were resurveyed and no fish were found. Three new populations have been found recently but the overall health of this species in the region is declining. We tend to think of our mammalian pest control benefitting terrestrial flora and fauna, but this same management can greatly benefit freshwater values. Some animal pests will prey directly upon fish or their eggs laid in riparian areas and these pests also have an impact on the health of the fish habitat through prey (invertebrate) abundance and vegetation shading and cooling waterways. Stay tuned for updates!

Tāwharanui flora has delivered a few exciting results over the last few months. Planted pale flowered kumerahou (*Pomaderris hamiltonii*) in the 'kiwi slip' area have produced seed this year. Translocated green mistletoe (*Ileostylus micranthus*) have flowered and fruited near the pumpshed. The threatened sand coprosma (*Coprosma acerosa*) planted in the Anchor Bay dunes are settling in nicely. Dutch intern volunteer Daan van Oosten is working on a project to establish the nationally critical (similar threat status to takahe) *Hibiscus richardsonii*. This coastal short lived perennial species has quite showy flowers and requires disturbed sites without competition from other plants that will shade it. It is a species that grows in association with seabird sites due to the high fertility resulting from imported marine nutrient. Daan will investigate the impact of our remaining pests rabbits and mice upon the plants and their seed, as well as the impact of competing weeds.

With kind regards,
Matt Maitland



The nursery volunteers are known for their skills in home baking. Two cakes arrived recently for celebrations. A cake to celebrate 200,000 plants and a cake to celebrate a birthday with 12 edible takahe and a chick!



Once a again the Nursery team indulges in an excellent Christmas lunch.



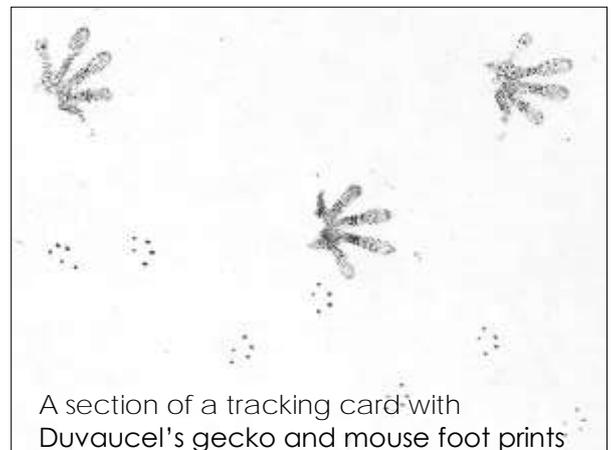
Nursery volunteers with Ranger Maurice admire their efforts at building a new potting mix storage area. The new bin will make handling of the mix easier and safer. Thanks to ITM Matakana for their assistance.



A young Duvaucel's gecko at night on the forest floor. As part of their natural behaviour Duvaucel's gecko may occasionally embark on expeditions and can travel 50 or even 100 metres in a single night, but typically will return to their home shelter sites and show remarkable site fidelity.

Duvaucel's gecko update

With the release of eighty Duvaucel's geckos last November came the task of setting up a population monitoring programme that allows us not only to assess gecko-mouse interactions but also to detect possible early dispersal movements away from the release sites. Three Massey University summer students (Caitlin, Jessie and Harry) and the Auckland Council Conservation intern Luc helped keeping a close eye on gecko and mouse activity during the first few months after the release. This is the time window when the dispersal risk is generally greatest.



Fortnightly surveys between November and early February using foot-print tracking cards provided valuable information on gecko core activity areas and distribution. This extra effort was warranted because potential early dispersal movements of a large number of founders can easily remain undetected if monitoring occurs less frequently during this early establishment phase. As a consequence ongoing population monitoring would be extremely challenging.

As part of the release in November, we placed each gecko with their transport PVC pipe in suitable habitat at 32 different locations. Our post-release surveys revealed that the geckos consistently re-visited the majority of these release locations throughout the three months monitoring period, evidenced by footprints on un-baited ink tracking cards that we placed inside their release pipes. Baited tracking tunnels positioned along monitoring transects that lead away from the release sites detected movements of few geckos beyond the 45 m mark. We recorded one set of prints at ca 150 m distance, but the majority of prints occurred in the vicinity of the core release areas. In the first week of February, we managed to recapture 26 founder geckos with the help of 40 live-traps; a recapture rate of over 30%! The lizards were measured and checked for scars or tail loss to assess their condition and health. We observed no mouse predation marks or deteriorated body condition and all appeared to be healthy. Five geckos were recaptured at least twice throughout the survey period in close proximity to their first capture point indicating that these individuals may have settled and already established home sites. Mouse activity was successfully suppressed until the end of January (< 20% tracking rate) but picked up in February.



A female recaptured during the February survey

These are very encouraging results but we still have a long way to go before we are able to determine successful population establishment of this slow breeding species.

Manuela Barry
(Project enquiries: m.barry@massey.ac.nz)

Out and about the Open Sanctuary.



This pateke, in a very sick state, was brought in by a group of campers. After a few days at the vets the same campers help release the same much improved pateke back to meet its partner.



A New Zealand dotterel chick poses beside the image printed on an A frame shelter designed to protect them from black-backed gulls. A variable oystercatcher chick has also been seen using the new shelters.



A kingfisher was rescued and nursed back to good health in the Vol Hole by a student Ranger.

North Island kaka are breeding at Tawharanui. This chick, with a mixture of fluffy and mature feathers, had fallen out of its tree cavity nest. Adult birds were seen feeding it.



On 5 February Anchor Bay was crowded and New Zealand dotterel chicks' feeding area was completely taken over. Beach visitors said that the dotterel had been on the beach earlier but had eventually given up and gone up the bank.



And there they were, the adult dotterel, surveying the feeding territory, crowded with humanity, while the two juveniles were less concerned. High tides also cover feeding areas so the birds are opportunists and feed at night as well as during the day.



Campers have again helped out in the nursery. Some of the regulars have been back year after year.



Thank you campers for giving up a morning of your holiday time to pot up native trees and support TOSSI.

Nursery report

The last two months in the nursery have been very productive. Despite a couple of down days over Christmas we are well ahead of last year and quickly approaching our targets.

January saw us playing hosts to any campers who wished to join us. Either we're getting better or the campers are. Whatever, we managed to bag close to 7,000 plants with their help. One particular day saw just a touch over 2,000 trees go out the door. Many thanks to Maurice for organising the help. Some of these people were back for their second and third years which makes things an awful lot easier.

March will see us hosting the students from Mahurangi College. After that we should be pretty much done for the season,

The bulk bin is finished and is holding it's first load of soil. Thank you Roger Grove and team.

Special plants.

NZ Hibiscus. Thanks to Matt M we have found ourselves with a crop of NZ hibiscus. They are thriving and we are busy collecting seeds off them every week for distribution later.

Kirks Daisy. We're down to one healthy specimen. At least we now know cuttings can work. We'll take some more in the Spring.

Mistletoe. It seems we missed the flowering. The specimens by the pump house are now in fruit mode. Not much but a good start. Cheers, Ray Blackburn



Left. Mule training course was held by Farm Safe for Auckland Council, and capably run by Robin Grieve from Whangarei. We all passed ! Kerry McGee



Right. The kiwi given to TOSSI has been doctored by taxidermist Brian Stanes and is well received as an excellent teaching aid.

Removing weed seeds from Tawharanui



Volunteers Steve and Keri Abraham pull moth plant off manuka and collect the pods for destroying.



This prevents thousands of moth plant seeds being dispersed across the park by wind.



Luscious woolly night shade berries are collected for disposal.



This prevents birds from dispersing the seeds.

School visits



Ruiha the most recent takahe arrival is on the move around the park. She was photographed outside the nursery but only two days before had been in Ecology bush.



Sally Richardson gives a talk to students from Kristin School using a takahe model that definitely has the right stance! Five minutes after the children left from the talk three takahe wandered by!



After a visit to the Sanctuary Information Hut the students sit in the shade of a pohutukawa for an informative talk.



With much hilarity, some of the students display frozen predators. They learnt that Tawharanui is an example of what predator free NZ could look like.



At the nursery volunteer Sue Gibbings talks to students from Mahurangi College about plant germination and nursery procedures.



The students were camping at Tawharanui and came daily to the nursery for a talk and groups helped with potting up plants.

Bird notes

New Zealand dotterel. Thirteen pairs made twenty nests this season and fledged thirteen chicks. They had to work hard to do this as twelve nests were unsuccessful, losing chicks or eggs. A camera on a nest at Jones Bay gave an excellent image of a harrier eating three eggs. So even without mammalian predators avian predators of gulls and harriers make life difficult for them. Thanks to Sharon Kast and Cheri Crosby for helping throughout the season. Alison Stanes

Pateke. The annual pateke count has just taken place. A big thank you to all who participated in the 2017 pateke survey. It was great to get the team back together to bash through bush along streams, ponds and mud to count the elusive pateke keeping cool under the overhanging grasses or in some cases just basking on banks under a very hot sun.

The total count in the extended area for the 2017 pateke survey was 144, an increase of 72 birds for 2016. 58 pateke were counted in the Omaha area and 36 in the Christian Bay area. 50 pateke were counted in various wetlands in the Sanctuary. Sharon Kast

Takahe numbers worldwide have now climbed to the 300 mark (i.e. in New Zealand) and since we have a healthy 12 adult birds in our care, we take the responsibility seriously. They each have a transmitter attached to their backs on a harness which fits snugly under their wings. Each bird has its own transmission number that the receiver can pick up and thus monitor each takahe's whereabouts. The birds are monitored every six days by a consistent team of volunteers who enjoy getting out in the park and contributing to something useful.

Our chick (pictured) won't be counted in the NZ flock until later this year but it's almost fully grown, if a bit gangly. The colours are immature so far but it's doing well and we're very proud of our first "baby". Names are being discussed and the bird is likely to be taken off to a different location to be part of the takahe breeding recovery programme.

Look out for our takahe as you walk in the park. They are in several locations and you could meet one - or four - anywhere. Sally Richardson

Bellbird Research



What had threatened to be an overcast and rainy day soon turned into a lovely day to collect some data and samples from bellbirds caught on the Ecology Trail in Tawharanui. I am a Masters student from Massey University in Albany and on the 20th of February Daniel Thomas, Michael Anderson (my MSc co-supervisors), Aaron Harmer (Ecology Lab technician and manager at Massey) and I travelled to Tawharanui to get set up. An aspect of my research involves catching bellbirds in mist-nets, banding them, taking some photographs and body measurements, and finally some blood samples.

For my MSc research I am studying carotenoid concentrations in bird blood. Carotenoids are micronutrients that have important functions in the body like acting as immune system stimulants. From this research I hope to obtain baseline data on the blood carotenoid concentrations in New Zealand bellbirds and investigate how the carotenoid concentrations correlate with other measures of body condition.

During the day we caught 16 Bellbirds and all of them were un-banded except for one. So if you see a bellbird with the band combination of BM-IBY (blue, metal- light blue, yellow), then she seems to be popular with the students from Massey who are catching along the Ecology Trail. While mist-netting we also caught (and promptly released!) a saddleback and a juvenile fantail, both of which were un-banded.

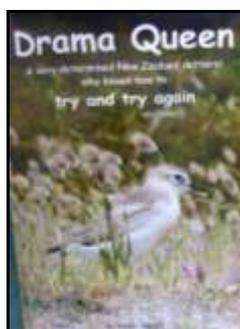
All in all, it was a great day and we gained a good amount of samples for me to work through. I am looking forward to the next time we can make it to Tawharanui again to collect some more samples. Special thanks to Matt Maitland and Maurice Puckett for helping to organise our field work. Ewan Aiken



TOSSI monogram patches are available for sale with black or white surrounds, to sew on garments –hats shirts, fleeces etc. \$15 each.

Phone Sally 09 4250161

These can be embroidered straight on to your own garments
Cost \$10 to \$13 Phone Sally 09 4250161



Children's Book Drama Queen

At last a reprint is available!

A delightful story about a New Zealand dotterel that lives at Tawharanui. Excellent Birthday or Christmas gift. For sale

COSSI Day 9 am Sunday March 25

Conservation Organisations Sausage and Sharing Information day.

This will be an opportunity to share Tawharanui with the committee and friends of other conservation organisations.

There will be short talks and guided walks through out the day and a barbecue provided.

So if you have not been to the park for a while here is an opportunity to visit or to help with the day. Pencil it in your diary and watch for further information.
RSVP alison.purple@xtra.co.nz

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.



The Spirit of New Zealand sailing by Tawharanui recently. Hopefully they park off shore to hear the dawn chorus. Apparently it is amazing heard from the sea.

TOSSI Committee

Chair	Alison Stanes	09 524 0291
Vice Chair	Roger Grove	09 422 3459
Secretary	James Ross	09 422 6760
Treasurer	Karyn Hoksbergen	09 5851315

Committee	Ray Blackburn	09 425 4995
	David Stone	09 422 9415
	Sally Richardson	09 425 0161
	Gilbert Barruel	09 425 7081

Newsletter Editor Alison Stanes 09 524 0291

Membership Secretary Janet Barruel

E letter Janet Barruel 09 425 7081

Email: secretary@tossi.org.nz

Website: www.TOSSI.org.nz

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

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

Name(s): _____

Address: _____

Phone No. _____

E-Mail _____

Membership fee:

\$20 single membership \$ _____

\$30 Family membership \$ _____

Additional contribution (optional) \$ _____

(Donations over \$5 are tax deductible)

Membership as a gift to family or friends:

A gift membership will be sent to you.

Name: _____

Address: _____

Total amount enclosed \$ _____

Please make cheques payable to Tawharanui Open Sanctuary Society Inc. and return to

TOSSI Membership Secretary
P.O.Box 112 Matakana 0948

You can also pay by bank transfer to:
ANZ 06-0483-0072390-00

Surname & Initials	Payment details	Membership
Bloggs J.	S20/F30	Bloggs Family

The membership name should be clearly referenced if the payee name is different to the membership name.



Nurturing the baby takahē, like pukeko, seems to be a co-operative effort. Here two females Pleiades left and Maaka right take turns at protecting and mothering!



This grey warbler feeding a large shining cuckoo chick was caught on camera by Karen Tricklebank in the planting beside the drain at West End. Like other cuckoos, shining cuckoos hijack other breeding birds by laying in nests of other species and so take no part in incubating or feeding the young. Generally grey warbler get a brood of their own fledged before the shining cuckoos arrive back in New Zealand from the Solomon Island area in the Pacific.