



TAWHARANUI OPEN SANCTUARY SOCIETY INC.
Newsletter No. 47 December 2013



This small bird is a common diving petrel. Last year this pair had the first known nest at Tawharanui and possible the first nest on mainland NZ. They have nested again this year and have a chick.



Fluffy big grey-faced petrel chicks at Tawharanui.

Tawharanui Open Sanctuary is a joint project with Auckland Council.



Coming Events

No Sunday in the park in January 2014.

Next 'Sunday in the Park' Sunday 2 February, Sunday 2 March

Range of jobs to choose from. Wear suitable clothing and bring a drink and snack.
Meet at the woolshed 9.15 am. BBQ lunch provided followed by lectures by researchers.

Chair's Report December 2013



TOSSI has recently hosted the Auckland Botanical Society for their Xmas picnic. It coincided with one of our Sunday Volunteer days and gave us the opportunity to learn from the experts. A small group of nursery volunteers also has had the opportunity to walk through ecology trail with Maureen Young, one of the stalwarts of the society.

Although TOSSI's major botanical efforts are in the area of revegetation it is important that we take note of naturally occurring native vegetation, not only to guide our revegetation but also to ensure that we do not lose already existing biodiversity. Maureen pointed out, what for most, would be an insignificant plant, but a plant that is nationally threatened, *Centipeda minima*, which could easily be destroyed when working on tracks. We are now working on a registry of threatened or uncommon plants that are present on the park.

Where possible the species are located with GPS and the coordinates recorded.

Some of these uncommon plants raise awkward management questions as to whether they should be propagated or not. There is a single specimen of *Brachyglottis kirkii* var *kirkii*, Kirks tree daisy, present towards Tokuto point. We attempted to germinate the seeds last year but failed. This failure avoided the need for further discussions on the ecological appropriateness of planting plants originating from a single plant. There are differing opinions as to whether this single plant is likely to represent a previous more robust population at Tawharanui or is a single outlier from one of the gulf islands.

We have only attempted to translocate two new botanical species into the park, *Ileostylus micranthus*, green mistletoe and *Pomaderris hamiltonii*, pale flowered kumeraho. Both attempts have been partially successful although the species are not yet established in the park. Although such success is satisfying it is still more important for us to protect what is already in the park and any additional knowledge that we can pick up from groups such as the Auckland Botanical Society, helps to guide our efforts.

Steve Palmer

Nursery Changes

After 8 years Paul Williams has decided to step down from his role as project leader of the nursery. Undoubtedly his leadership will be missed but it is also a compliment to his efforts that to date the nursery team continues and has produced 130 000 plants in tubes or PB3s so far this season.

Although Paul would be the first to give credit to others in helping with the establishment of the nursery it is a fact that without Paul the nursery would never have been established. Prior to the nursery getting into full production planting days at Tawharanui were restricted to approximately 5 000 trees a year. We are now able to satisfy four public planting days and generally raise and plant approximately 20 000 trees a year. The nursery and planting projects represent TOSSI's major effort in the park. Although we have other projects none have the community involvement of the planting project and without the nursery we would struggle to obtain sufficient plants to continue our plantings. In time the focus of the nursery will change as there will be greater demand for infill planting but for the next five years our aim will be to continue revegetation in open areas.

Since Paul has stepped down, we have been looking at how best we can distribute the various responsibilities within the nursery. For a volunteer project the effort to run the nursery is more than can be expected from one person. Fortunately there is a very enthusiastic team, which over the years has developed considerable expertise and knowledge. The team has shown considerable cooperation in our attempts to fill Paul's large boots. As always we are keen to attract new members to the nursery group's sessions on a Tuesday morning and if anyone is interested they can enquire through the TOSSI website or ring Steve Palmer, 422 6441.

Open Sanctuary Coordinator Update



The crimson blaze of pohutukawa across the park and region tells us that summer and holidays are upon us again. I hope you all get a chance to visit Tāwharanui Open Sanctuary and enjoy the sweet smells, sights and sounds of this conservation success story. Thanks to all our supporters and volunteers who help make this a reality – we couldn't do it without you.

Steps continue to progress reintroduction of giant kokupu, the largest of our native freshwater fish (excluding eels). This species was present (a single record!) in the un-named stream through Ecology Bush prior to the construction of the dam which provides water for the farm. Surveys show that this species is no longer found in this waterway or in the Mangatawhiri stream which feeds into the lagoon. Monitoring work last summer during the drought showed that dissolved oxygen content dropped to very low levels at times when water take for the farm exceeded input levels, not good news for fish and aquatic

life. This raised a few questions as to how 'normal' these snapshot observations are, and how much impact could be attributed to the significant drought. Sophisticated loggers have been deployed to track conditions in the dam and further upstream this summer to give a better picture of what happens over a summer. With luck we'll have regular rain and avoid another drought and establish an idea of 'normal' as well as the extremes observed last year. Results will inform further decisions about fish reintroduction.

With the success of our sound systems attracting seabirds (this summer we have six grey faced petrel chicks and one, perhaps three, common diving petrel chicks) we're investigating establishing other seabirds at Tawharanui. Australasian gannets have been identified as a candidate as unlike our other seabirds they are active during the daytime, nest above ground and as a result will be more obvious and accessible to park visitors. A site has been selected on a headland east of Anchor Bay and the coastal section of the Ecology Trail. This site is accessible and provides the height necessary to obtain the updrafts gannets require for launching. TOSSI have begun the process of seeking funds to install a sound system to broadcast gannet calls during the day, and painted gannet decoys to place on the ground – both elements aiming to fool passing gannets into believing the site is an active and busy colony and worth joining. This sounds far too simple to work but this very method has had success at other locations. Decoys need to be robust to withstand the elements and the amorous inspection of curious gannet visitors.

Still on the seabird front I attended a recent workshop on 'Developing a Seabird Smart Culture'. The aim is to develop fishing awareness and techniques to limit the impacts of recreational fishing on seabirds, building on the success of recent work with the commercial sector which has vastly reduced their impacts. Simple steps such as tidying up waste line, sinking baits fast when birds are about, and dissuading nosy birds with 'super soaker' style water guns can all reduce the estimated 2000 annual fatal recreational fishing interactions with seabirds. For further information visit www.haurakigulfforum.org.nz and scroll down to 'Seabird smart recreational fishing' and learn about seabirds, how to identify them, the impact of fishing and how to reduce this, and what to do if you do hook a bird. Share this information with your fishing friends and family.

All the best to you all for the coming summer and festive season. With kind regards,
Matt Maitland I can be contacted at matt.maitland@aucklandcouncil.govt.nz or 09 426 1200



A gannet second from left inspects decoys at Moturua Island Bay of Islands. Soon we may see this at Tawharanui.



James Ross, Fauna coordinator on the TOSSI committee, carries nesting boxes for grey-faced petrel tot one of the sites on Tokatu Peninsula.



Megan Frieson a researcher checks out a grey-faced petrel chick.



As well as installing nesting boxes holes are drilled to encourage nesting in burrows.



Tim Lovegrove, Regional Advisor of Fauna, Auckland Council helps install nesting boxes.



This adult diving petrel has the first known nest at Tawharanui. Its weight is 130 grams.



This grey-faced petrel chick weighs 300 grams more than twice the weight of the adult diving petrel.

Petrels at Tawharanui: ambassadors for conservation

My first visit to Tāwharanui was at night looking for diving petrels. I had moved from the US to Auckland only a few weeks before to begin my ecology doctorate research on petrels, an elusive group of seabirds that most people in the world will never see. New Zealand is petrel Mecca, with more breeding species than any other country in the world. Although the plethora of seabirds had been my major incentive for moving to New Zealand, I was surprised on that first visit to Tāwharanui how close it is to Auckland, and more shockingly for petrel research, that the park was attached to the mainland. My previous work on petrels has required cross continental flights, hitching boat trips from fisherman, and even sailing to remote islands that remain unclaimed by any country. A quick trip like this was unfathomable to me. I have been regularly visiting and monitoring the grey-faced petrels that are attempting to build a colony at Tāwharanui during this past year, but it's the park's proximity and accessibility to people that most strikes me as making it a critical place for seabird conservation, particularly through education.

Petrels' transition from an ocean-faring life to their nest sites is one of the most extreme imaginable. Living entirely on the far reaches of the ocean for years, most petrel species eventually return to land to nest in a burrow that can be metres underground and usually only return to these burrows at night. This extreme behaviour has led these seabirds to sense the world around them in unique ways. My research involves understanding how petrels use senses, particularly smell and sound, to interact on breeding colonies that they usually never see during the light of day.

Due to lack of native mammals, petrels would have historically lived throughout mainland New Zealand. The introduction of mammalian predators has devastated nesting sites, which are easily accessible to animals like rats and stoats. The problem of predators on petrel breeding colonies is a global phenomenon, and in association with other major hurdles like incidental bycatch by commercial and recreational fishers, ocean pollution, and habitat development and degradation, petrels are amongst the most threatened groups of birds in the world.

My research interests are focused on how a better understanding of the way petrels sense the world around them can help inform conservation managers to more effectively encourage the development of new breeding colonies and the growth of existing colonies. Aside from these research goals, I strongly believe that without the support of communities around the world the future of these seabirds is grim. One of the biggest dilemmas in educating people about the risks petrels face and the importance of conserving them is how few people are able to experience them, or are even aware of their presence. It is personal experiences such as these that I believe will resonate with people and ultimately make them feel they are worth protecting.

Coming from North America, where petrels breed exclusively on offshore islands due to native mammalian predators, I see Tāwharanui as a unique location where visitors can come to the park and know that they are sharing that piece of restored headland with some of the most vulnerable birds in the world. With the vast number of tourists that visit Tāwharanui, not only from New Zealand but around the world every year, the park represents a potentially critical interface between restoring New Zealand wildlife and introducing a global audience to these seabirds of the night that so desperately need their attention and care.

Megan Friesan

Pukeko Study

Cody Dey studying pukeko frontal shields has made an excellent video on the topic. This can be found on <https://sites.google.com/site/mcmasterquinnlab/home> and select news. It is well worth a visit not only for the information but for the splendid portrayal of Tawharanui.

Photo. Pukeko cooperatively breed. Here is the evidence, a communal nest site observed at Tawharanui recently.



Volunteers at work at Tawharanui



TOSSI volunteers have upgraded the lower section of the Ecology Trail making easier access for walkers to enjoy the magnificent canopy of ancient forest.



Volunteers assist Tim Lovegrove with installing more roosting and nesting boxes for saddleback. Saddleback are breeding successfully. Birds without colour bands have hatched on the park and are seen regularly.



Kings College Duke of Edinburgh award students help re-align sand ladders accessing Anchor Bay. Two now lie in an acute angle from the sea giving them more protection against storms.



26/09/13 A bar-tailed godwit paid a surprise and fleeting visit to Tawharanui. It was after a stormy few days that it took a rest on Jones Bay lawn and befriended this New Zealand dotterel for five minutes. The godwit was most likely returning from breeding in the northern hemisphere. The two flew down to the beach together and then the godwit flew off south leaving the dotterel alone and bewildered.



Seven pateke ducklings with parents sunbathing on the sinking boat behind the pump house in Ecology Bush. They used this roost successfully through out their development, relaxing out of reach from the interfering pukeko, until they fledged and moved off to other territories.

New Zealand dotterels reassess their nesting sites



Eleven pairs of New Zealand dotterels are well into the nesting season at Tawharanui. Two chicks have fledged from Jones. Unfortunately the female parent had to rear the chicks on her own for the last two weeks. The male partner with colour bands GO-YO was picked up deceased on the east side of the stream at Jones Bay.

Also there is a small chick strutting out on Ocean Beach belonging to parents with no colour bands. See photo left.

Three other pairs, after losing first nests, have reassessed the situation and made dramatic nest shifts. This is most likely to gain better protection from aerial predators who see their tracks and movement from above. Are dotterels are more clever than we give credit?

Pair One. RY-BO+UB first nest was among kikuyu right on edge of the lagoon near Jones Bay. Last year a nest in this area was successful but this year their access created a track in the kikuyu which mapped their location for harriers and gulls flying above. For their second nest they have shifted 75 metres to a site in the Jones Bay enclosure. The second nest is neatly built among pebbles at the base of driftwood with no tracks evident to and fro. See photos top next page.

Pair two. OB-BY +UB nest in the enclosure at Anchor Bay. Their first nest disappeared. The second nest seven metres away had a camera on it which clearly depicted a harrier eating the eggs. This was a two egg nest instead of the normal three possible because of the quick turnaround time and a shortage of minerals. In the video footage, after the harriers visit, the female dotterel returned and ate the egg shell most likely to replenish calcium reserves. Twelve days later the pair had a three egg nest 200 metres away on Phoenix Rock within three metres of an oystercatcher nest and ten metres of a red-billed gull colony. These neighbours may offer protection from the harrier but may present other complications when the chicks arrive. See middle photos next page.

Pair Three. An un banded pair of dotterel nested on Ocean Beach near the bank on the beach. The Huntsmen camera videoed a high tide sweeping out their nest. The dotterels in the video look rather puzzled about the experience. They have moved along the beach and re-nested up the bank as shown in the circle in a photo on the next page. The gained height will offer protection from a spring tide and the VOC who have the nest nearby will offer some protection from aerial predators. See lower middle photos next page.

Dotterel monitors wait hoping that the change of nesting sites will bring these three pairs successful results.

Other pairs. m-WKY. Some readers may remember reading about m-WKY in the last newsletter. After five years at Omaha she is back in her old territory at Tawharanui with a handsome new male. They have a three egg nest due to hatch while this newsletter is going to print.

YG-WG+UB three egg nest in the Anchor Bay enclosure, vanished with no trace of egg shell. The second nest ten metres away also vanished. Black Backed gulls in flocks of eighteen to twenty on the beach nearby have been suspected because gulls are known to carry off whole eggs leaving no trace of egg shell, as well as eating chicks. Harriers generally leave a mess of broken shells. With the video of the female dotterel returning to eat the broken shell after the harriers visit, leaving a clean nest site, dotterel monitors have had to review their detective skills. Has a harrier learnt that this area provides eggs. Are the black backed gulls on the beach innocent and a harrier responsible for the loss of three other nests this season as well as nests lost last season?

Alison Stanes

YG-WG+UB two nests in the Anchor Bay enclosure that have eggs vanish this season.





RY-BO+UB first nest for the season beside the lagoon. was most likely taken by a harrier. (UB is un-banded.)



RY-BO+UB second nest has no track leading to it. We have to wait and see if this nest is successful.



OB-BY+UB second nest, the Huntsmen camera activated by movement caught a harrier eating the eggs.



OB+BY third attempt at nesting is secluded on Phoenix Rock near a VOC nest and a red-billed gull colony.



UB+UB had an exposed first nest on Ocean Beach just below the bank. They lost it to a high tide.



UB+UB second nest is above the tide and hidden in the grass circle. An oyster catcher nest is in the square.



A new in experienced un banded pair nested on Jones Bay below the tide line. It was a difficult nest to copy and shift.



However later in the day the female seems satisfied with her new site 50 cm. further in and higher. This nest will required shifting again before the spring tide.

A Year In The Life Of a Bait liner and his wife.

It's probably been a couple of years since we first considered doing a bait line. We'd been part of the Fence Monitoring team for several years and felt it was time to consider doing something different. The thought kind of meandered for some time, as they do, until James did a bait line promo' one Sunday in the Park. I was particularly taken by his blank screen presentation.

After an initial hands on demo' by James I investigated a number of options and finally Maurice came up with probably the easiest and most straight forward line on the block. Being a lazy sod at heart, that was for us. Hence we became the proud stewards of North Coast `B', which runs from the Information Hut, along the Anchor Bay dunes to `The Fence'. It's not the most exciting line but we can't get lost very easily.

On just our second outing we discovered why this task is so important. Just inside the fence we found we'd caught a weasel, right in the middle of Alison's dotterel habitat. It's an early reminder not to become too complacent.

We've been doing it for almost a year now, so far so good, that has been our only catch of significance. We've caught quite a number of large mice, several small rabbits and a coke can. Our greatest problem would be trap interference around the Anchor Bay car park and beach over the summer, a good kick or a poke with a stick and they go off with a decent `thump'.

Special thanks to Maurice and his team for going out of their way and making life easier for us by chauffeuring us to the start so we can leave our car at the other end. It all adds up to a very pleasant and enjoyable way to pass a morning a month doing something of value for our park.

Ray Blackburn

Post Script. Ray was delighted while working recently on the Ecology Trial upgrade spotted two very tiny robin chicks being feed by parents right alongside his work site. I commented " You get your rewards like this while volunteering at Tawharanui." Alison Stanes Editor.

Notes from a New Trap Liner

Like many others I have enjoyed visiting Tawharanui many times over the past 10 years and have been delighted to see its development as a nature reserve. I recently bought a new camera and resolved return to old interests and to build a personal photographic record of local birdlife. Tawharanui obviously is a key place to start. After several productive walks through Tawharanui I decided to take matters one stage further by offering my services as a volunteer. When I saw the appeal in the last TOSSI newsletter for trap line volunteers I decided this was something that I could combine with my bird watching and photography. On my next visit to Tawharanui I called in at the Rangers' Office where my offer to help was seized with open arms. Within a week I was out with Ranger Hamish Blampied being trained and shown the ropes. My task now is to maintain Lines A-F which extend though the ecology bush from the pump house to the Maori Bay footpath. Forty one stations to check and rebait each month.

On my second visit a month later I was out on my own carrying the trap line kit in one hand and camera round my neck. The main subjects for my photography were all around. Tuis and bellbirds were continually heard and every so often the shrill cries of saddlebacks announced their presence. Kakas could be heard and glimpsed from time to time. Unfortunately though not many photo opportunities this time except for robins that dropped by to have their picture taken. They are surely the most obliging photographic subjects in NZ. On the trap line no pests caught except for several mice that paid dearly for their indiscretion. One trap to my surprise however revealed a weta in residence. I'll check for it next time and try to get a better photo when I have the correct lens. Despite the relative lack of photo opportunities the walk through the bush with a purpose was very rewarding and next time who knows what I will see. I have learned the only way for me to get good pictures is to keep returning and sooner or later the sighting occurs when the camera is ready

My photo record is building up and each visit gives new species or better pictures of already recorded birds. Kakariki are being very shy and still have to be seen by me. Whiteheads seem to be hiding since I got the new camera. Not to worry it means that there is still something new waiting for me to record.

Brian Tuck

See Brian's photos on the back cover of this issue.



Lisa Brunton on the November Sunday in the Park assists with removing Woolly night shade.

Volunteers in the park

The October, November and December Sunday in the park activities as well as the mid week volunteer days are extremely successful. Many jobs are undertaken including track construction and maintenance, plant releasing, putting out nesting boxes and removing unwanted plants. Volunteers prepare fantastic barbecue lunches followed up by interesting speakers. These include Jessica Raeburn on Restoration Plantings, Mike Anderson on nest parasites and the translocation of Long Tailed Cuckoo, and Steve Palmer gave a power point presentation on re vegetation.

A big thank you goes out to all those involved in making these days such a success. And of course the biggest thank you goes to the volunteers who give their time to participate.

Season Greetings Alison Stanes

TOSSI committee and newsletter editor..

TOSSI Committee

Chair	Steve Palmer	09 422 6441
Vice Chair	James Ross	09 422 6760
Secretary	David Stone	09 528 5712
Treasurer	Ngairé Wallen	09 627 1526
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

Application form for NEW MEMBERS Tawharanui Open Sanctuary

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

Art in the Woolshed

Other _____

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Photos by volunteer Brian Tuck taken as he works his trap line at Tawharanui.



North Island robin



Saddleback



Kaka



A cyclist observed checking out the list of TOSSI achievements displayed on the Woolshed.