



TAWHARANUI OPEN SANCTUARY SOCIETY INC.
Newsletter No. 49 May 2014



Takahe are coming to Tawharanui in September. They visited briefly in this painting by the late Diane L Stewart exhibited at Art in the Woolshed 2004. At the time who would have believed that in exactly ten years takahe would be arriving to live at Tawharanui.



Well feed native wood pigeons at Tawharanui.

Tawharanui Open Sanctuary is a joint project with Auckland Council.



Coming Events—Sunday in the Park

<u>Sunday 15 June</u>	11.30 am Farewell to Steve and Penny Palmer. All welcome. Whangateau Hall bring salads drinks and gold coin donation to cover hall costs.
<u>Sun. 6 July</u>	9.15 am. Planting Day. Hosts: Ngaire Wallen and Ray Blackburn. BBQ provided.
<u>Sun. 3 August</u>	9.15 am. Planting Day. Hosts: Doreen Guest and James Ross. BBQ provided.
<u>Sun. 7 Sept.</u>	9.15 am Sunday in the a BBQ and the AGM.

Chair's Report

The nursery group has again worked splendidly over the past season and we now have 20 000 trees awaiting some more rain and the public planting days. With Paul Williams completing his term as nursery leader there was some anxiety that this season might be more of a struggle. However the team has developed considerable skills over the past years and members of the team were quick to take on more responsibilities. All the members of the team worked well and if I started naming those who contributed more than was expected of them I wouldn't be able to stop. So thank you all and I am sure all of the TOSSI membership and the Park Management team join in those thanks.

We have made minor changes to the nursery routine in particular sowing of seeds for next season. This year we benefited from some early sowing of seeds so we were able to avoid the summer peak by having a reasonable number of plants potted up before Xmas. We have already sown seeds for next year and some have been left at the nursery at Tawharanui. We have been hesitant to do this in the past as the seed trays are left without the usual close observation that they get when the trays are kept outside the park. It appears however that we have good germination despite relative neglect and next season should get off to a flying start in the spring. We also learnt from last year that sedges grow very quickly so we sowed the seed much later and now have robust plants without the unwanted seeding that we got last year from early sowings. One of the pleasures of nursery work is the fact there is always more to learn.

We grew sedges again this year in anticipation of the arrival of takahe as we expect these birds will enjoy some areas of wetland that are more open and have tempting plants for them to browse on. The arrival of takahe at Tawharanui will clearly be the highlight of the year and confirmation that Tawharanui Open Sanctuary is an important national sanctuary. I am sure that when Rhys Thompson and others established TOSSI some 12 years ago they did not anticipate that Tawharanui would be caring for a critically endangered species in such a short time. Many of us will think of Rhys's efforts when these birds are released.

The cost of the takahe project is a little daunting so we are very grateful that the Mitre 10 Mega Warkworth store is supporting us by providing the basic fence material without charge. We believe that TOSSI's relationship with Mitre 10 Mega Warkworth will be ongoing and enable TOSSI to publicise and promote the park within the Warkworth store. The central office of Mitre 10 Mega has sponsored the takahe recovery programme for a number of years but the support we are receiving is additional and is being provided from the local franchise holder which is much appreciated.

The Tindall Foundation has also been very generous with a grant that will cover the stainless steel mesh used in the fence. The grant from the Tindall Foundation ensures the financial viability of the project with a shortfall of only \$10 000 to cover the cost of transmitter equipment needed for monitoring the birds. The TOSSI committee wishes to thank both organizations for their generous support.

On a personal note this will be my last contribution to the newsletter as Penny and I will be leaving the district in the next couple of months. We have both enjoyed our time in TOSSI and our involvement with the wonderful project of helping to restore the ecology of Tawharanui. We feel privileged to have been able to work with so many dedicated volunteers, as well as the enthusiastic rangers and park management team. Thank you all.
Steve Palmer



It is with regret that we say goodbye to Penny and Steve Palmer who are moving to live in the South Island. Steve has been on the committee since 2007 and been chairperson since 2010. They have both worked tirelessly in the nursery, from germinating plants through to getting them into the ground. As well they have established rare plants such as *pomaderris kumeraho* and *ileostylus mistletoe*. They are TOSSI mentors setting a high standard of guidance and leadership. TOSSI members and friends say a big thank you and wish you all the best for the future. James Ross will take over leading the takahe project and stand in as chairperson till the AGM in September.
Alison Stanes Editor





Open Sanctuary Coordinator update

New Zealand dotterel evolved over millions of years to be a non-descript sandy colour possibly so that they were camouflaged from high-flying aerial predators, maybe native falcons, eagles and harriers. Boring their colour might be but not their personalities. Dotterel at Tawharanui have colour bands so that individual endearing characters and behaviour patterns are often observed. NZ dotterel are endemic to NZ with only 2000 birds left.

Takahe are coming! This exciting development is further recognition of the safe environment that Tawharanui Open Sanctuary can provide for threatened native wildlife. Our track record with other predator-sensitive species such as tieke/saddleback guide us in this assessment.

A few preparations and site modifications are required in order to give this project and birds the best chance of success. Our coast-to-coast pest-proof fence is very effective at managing pest incursion to near zero. However, the fence does stop at the high water mark and as there is a manageable risk of pest incursion, there is also a small risk of wildlife dispersal. Whilst happy to share many of our resident robin and bellbird with the wider world, takahe must be contained within the safety of Tawharanui.

Most takahe live either in the vast mountainous habitat of Fiordland or are confined to islands or ring-fenced mainland sanctuaries. As such, post-release dispersal is a relatively unknown quantity, as in most previous cases the birds can wander at will without leaving the security of their new home. Our approach is to be cautiously conservative and identify and address possible risks before they have any chance to become real.

The park boundary fence will be renewed and modified with mesh to contain any birds that might choose the long walk along the northern coast and unintentionally leave the security of the sanctuary. Given the harsh coastal conditions, this fence needs to be constructed from robust materials including stainless steel mesh. This fence is a major component of the current TOSSI fundraising appeal and I encourage you all to spread the word and consider how you can help make this exciting project a reality.

The southern coast poses a few more challenges to similarly reduce risk of dispersal beyond the safe confines of the sanctuary. The park access road and local topography make an anti-dispersal fence as proposed for the north coast an unworkable proposition. Fence modifications within the park will be made to reduce the potential of birds to migrate to encounter the pest-proof fence end at Jones Bay. The last line of defence here will be technological. With expert advice, we are exploring options that work in conjunction with the birds' radio transmitters to detect and alert us to any birds that come close to the fence end or beyond, allowing us to intervene through recapture and relocation back in the safety of the park.

All takahe will be fitted with radio transmitters to enable volunteer monitors to keep tabs on the new arrivals. As with our successful kiwi and pateke reintroductions, radio transmitters allow us to observe and quantify aspects of the birds' life in their new home. Most important are survival and dispersal. Transmitters allow accurate location of birds and the tags contain smart technology that report on activity patterns, including identifying mortality. If mortality does occur, we want to know how and why so we can work to prevent it happening again. More positively, radio transmitters enable exploration of some of the social and domestic aspects of these birds in their new homes. Who pairs with whom and how do territories and neighbourhoods overlap? What is their ranging and foraging behaviour in these northern climes with a predominance of kikuyu pasture in contrast to the tussock of their traditional homes? Whether takahe prosper at Tawharanui will only be known with time. We are committed to working closely with the DOC to monitor and review progress and help make a significant contribution to takahe recovery.

Future projects like takahe capture the imagination of staff and sanctuary supporters and energise us to continue with the many ongoing tasks to maintain and grow a successful open sanctuary. This summer has seen several animal pest incursions detected and resolved. Weed management continues and was recently boosted with TOSSI-secured grant funds to enable aerial spraying of inaccessible pampas on coastal cliffs. Wildlife programmes monitoring seabird restoration, saddleback, robin and shorebird success continue thanks to the dedication of passionate and skilled volunteers, researchers and staff.

Join us this winter to help plant another 20,000 quality trees grown on site by your TOSSI nursery. Four planting days this winter offer plenty of opportunity to enjoy a day (or more) in the park with friends and family, helping out with this important and satisfying task of improving and increasing habitat for our wildlife. Matt Maitland can be contacted at matt.maitland@aucklandcouncil.govt.nz or 09 426 1200



The volunteers at Sunday in the Park on May 4 tied Steve and Penny Palmer to the cattle yard fence to try prevent them from escaping to the South Island.



The Coming of the Takehe

What is all the fuss about, you might wonder, reading a recent newspaper announcement that Tawharanui Regional Park is about to become home to a new breeding population of takahe?

We have all laughed at the bumbling pukeko in the power company advertising, with their big red feet and comical red 'faces'. Takahe, *Porphyrio hochstetteri*, might well be confused as a bigger version of the same thing, and they are in fact distantly related. Where pukeko, (*P. porphyria*) with their ability to fly short distances, have thrived since people inhabited this country, the takahe has declined. In fact it is one of the rarest birds on the planet. Our very own dodo, you might say. Unlike the extinct dodo of Mauritius, the takahe is not extinct, and with continued support and protection, we hope it never will be.

Takahe were once found on both islands of New Zealand. The north island species, *moho*, is extinct. It is the South Island species, *porphyrio hochstetteri*, that tatters on the brink of survival. It too was declared extinct, until a small population was found in the remote Murchison Mountains, in Fiordland, South Island, in 1948. The current population is estimated to be 280 birds. The recovery plan has identified the need to establish additional breeding

populations at separate locations such as Tawharanui. The aim is to reduce vulnerability to such events as an explosion of rodent population during a seed mast year. Such an event wiped out 30% of the Fiordland population a few years ago.

In their natural habitat, takahe eat snow tussock shoots and seeds, and fern roots. They also graze on grass, and it is the combination of bush and open pastures at Tawharanui, combined with protection from introduced predators, that makes the park an ideal place for them.

Takahe are the largest living members of the rail family – an adult male can weight up to 3 kg – and are flightless. Takahe are a purple-blue colour, and have large red frontal shields and beaks to match their stout red legs.

Takahe nest in spring, building a large bowl of grass in which 1 – 3 eggs are laid and incubated by both parents for an average of 30 days. Chicks are fed by their parents for the first three months. In their natural habitat, usually only one chick survives the first winter. Young birds often stay with their parents and help raise next year's chick.

There are free-ranging breeding populations in Fiordland, four offshore islands, and Maungatautari, and captive breeding populations in Te Anau, Burwood, and Pukaha Mt Bruce. A pair of birds retired from the breeding programme on Mana Island have become advocacy birds at Zealandia, Wellington, where they can be seen at close quarters.

The Tawharanui population will be free-ranging, and therefore not 'on view' unless you happen to come across them. Behind the scenes, however, each bird will be closely monitored by radio tracking to maximize their well-being. We are even fitting them with ankle bracelets, much like those used for home-detention, to ensure that if they do stray from behind the fence, they can be quickly found and returned. Once breeding starts, we will again monitor each nest carefully to maximize the survival rates for chicks.

Takahe are officially *taonga* or treasures that belong to Ngai Tahu, of the South Island. The population at Tawharanui will continue to belong to them. We have been honoured with the opportunity to care for these treasures. It is hoped that one day we might be able to send some of our chicks back to their *takiwa*, or ancestral home, to further support the survival of their species. Ngaire Wallen

Welcoming Takahe to Tawharanui

Although the Tawharanui Open Sanctuary is thought to be a very suitable environment for takahe there is still considerable preparation required before the birds are released. Given these birds are critically endangered it is important that we do all we can to ensure that all birds released survive.

The biggest danger to the takahe that has been identified at Tawharanui is the possibility of birds escaping from the safety of the sanctuary. As readers will know our predator fence does not go down to the low tide line and it is possible for animals to make their way around the fence ends. We are aware that some pests enter the sanctuary by this means and there are a number of pest incursions into the sanctuary each year. These incursions are managed with our live trap lines and we manage to keep the sanctuary essentially pest free. Until now we have not been concerned with leaks out of the sanctuary. However a wandering takahe is another matter. The west, ocean beach, end of the fence is thought to be the more vulnerable end as it is likely that takahe will enjoy the dunes and nearby pastures. The solution for this potential leak is for an additional fence to block off the gap between the fence and the ocean. The fence will run from the pest proof fence to a cliff on the adjoining property cutting off any possible escape route.

I believe the decision to bring takahe to TOS is a significant step in the development of the Tawharanui Open Sanctuary and a considerable vote of confidence in our progress to date.

A fence to prevent takahe escape would be quite simple but we have decided to upgrade the additional fence to one that will at least be rabbit proof and discourage other pests such as cats and rats. Hence the cost of the fence will be of the order of \$40 000. We are fortunate that Mitre 10 Mega at Warkworth has enthusiastically joined the project and will be donating significant quantities of fence material. We will still need to raise funds for stainless steel mesh and the construction of the fence.

The other significant cost in having takahe at Tawharanui is the need for close monitoring of the birds. Particularly in the early stage of the project all birds will be monitored with telemetry, much as we did for the kiwi and pateke. Again because of the status of takahe, monitoring will need to be more frequent and prolonged. At the entrance end of the park, where no additional fence is proposed a "check out" system will be installed so that there will be early warning of any birds leaving the park. In all the monitoring equipment will cost around \$10 000.

Given the importance of this translocation TOSSI will use its accumulated funds if need be but it would be preferable if we could raise funds to cover most of the costs. Any donations from the membership specifically for this project would be most welcome. Members can also help by monitoring the takahe and we will be seeking a member to organize a volunteer led monitoring programme. Let me know if you are interested. Steve Palmer

Sea Week

On Saturday the 8th of March, TOSSI was part of Sea Week. A DOC run day in which people, primarily children, get an opportunity to experience the underwater world around our coasts. Our role was to provide an alternative should the weather be unfavourable for snorkelling and to explain to anyone interested the various links between the land and sea, either through our static displays set up in a marquee at the Info Hut, or by directing or guiding walks into the park.

The day dawned clear and calm, never the less, with a rising swell from the North, DOC decided, for reasons of safety, to move the snorkelling to Jones's Bay. What with the non arrival of the expected Forest & Bird tent that was supposed to be next to us, we found ourselves out on a bit of a limb .

Our day was quieter than we'd hoped, with between 50 and 60 visitors to our tent. We did manage to sign up two new members, plus another on the mailing list. We were able to do some directing and some guiding. The takings from the donation box was zero.

Lessons learned.--- Surfers prefer their birds without feathers, joggers and trampers don't carry much small change, a little more promotion would have gone a long way.

From an advocacy angle it was a great success and I don't think it did our long term relationships with DoC and the Auckland Council any harm either.

Many thanks to all who helped with the exhibits, the setting up and on the day. All in all, the whole event ran very smoothly and we will probably be asked to participate again next year.

Ray Blackburn



Ray Blackburn and Keith Edwards sign in visitors at the TOSSI marquee at Anchor Bay.



Ray Blackburn demonstrates the new speaker system to be installed for attracting gannets to a nest site.



Roger Grace takes to the water with friends.



Family experience snorkelling at Jones Bay.

Sea Week



At Jones Bay Jenny and Tony Enderby give snorkelling instructions.



A great day was had by all those who participated.

Botanical Gardens Visit

The Nursery work for the season was completed by early March giving the team the opportunity to contemplate next season's requirements including increasing our knowledge base. We are grateful to the TOSSI committee for agreeing to fund a visit to the Auckland Botanical Gardens nursery. So on a glorious sunny day a group of very enthusiastic volunteers from TOSSI travelled to the nursery in Manurewa.

We were very fortunate to have a morning allocated to be with Billie Elliot who is the plant propagator at the nursery. Billie is exceptionally knowledgeable and very keen to share her skills and experience with us. The nursery at the botanical gardens propagates and grows around 60 000 native plants for revegetation planting in the various parks in the Auckland region.

Billie receives numerous batches of seeds from the Auckland regional Parks and her first lessons revolved around how she set out preparing the different sorts of seeds for immediate sowing, dry storage or cold stratification. She then moved on to sowing techniques stressing the timing, treatment and depth of sowing for the different seeds. Along the way she showed us some of the ways she had learnt to overcome pitfalls such as soil compaction and damping off. She also reviewed propagation with cuttings although that is not a technique that has much application at Tawharanui as we aim to preserve local plant populations' genetic diversity in our re-vegetation plantings.

Apart from a review of propagation the visit also gave us the opportunity to look at the facilities at the gardens and there were a number of ideas that may be useful at Tawharanui especially if we move to more on site propagation.

Thanks to Billie's tuition we were soon able to test our skills at Tawharanui. We have good stocks of eco-sourced seeds this season and chose to hold a couple of sowing sessions to test out fresh seed germination. To date germination looks good and we hope that the seedlings now appearing will be ready for pricking out and then potting on in the spring ensuring sufficient, well grown plants for the 2015 planting season.

Ngaio Forsyth-King



Approximately 20 members of the TOSSI nursery group travelled to the Auckland Botanical Gardens on Tuesday 11/03/2014 to spend the morning with Billie the nurserywoman. She briefed us on their methods in the handling, storage and recording of seed from a wide range of native species, many found on Tawharanui Regional Park.



Preparation for Queens Birthday Weekend planting on Twin Hills. Plants are checked out of the nursery and loaded on to all available park transport, - farm tractor and quad with trailers, and the mules. It is an enormous team exercise over two days coordinating TOSSI and CVNZ volunteers getting 9500 plants to the plant site.



Behind the scenes Kerry cleans plant trays as they are returned.



Oops while delivering plants to the Twin Hills volunteers have to help Roger out of a slippery situation.



Steve and Penny oversee the whole operation of plant delivery to Twin Hills.



Jill and Dorothy take an opportune break while placing out plants on the Twin Hill slopes.



Two perfect sunny autumn days bring streams of volunteers including a bus load of Auckland University Volunteer Club members to plant all 9500 plants. Well done and a big thank you to all involved.

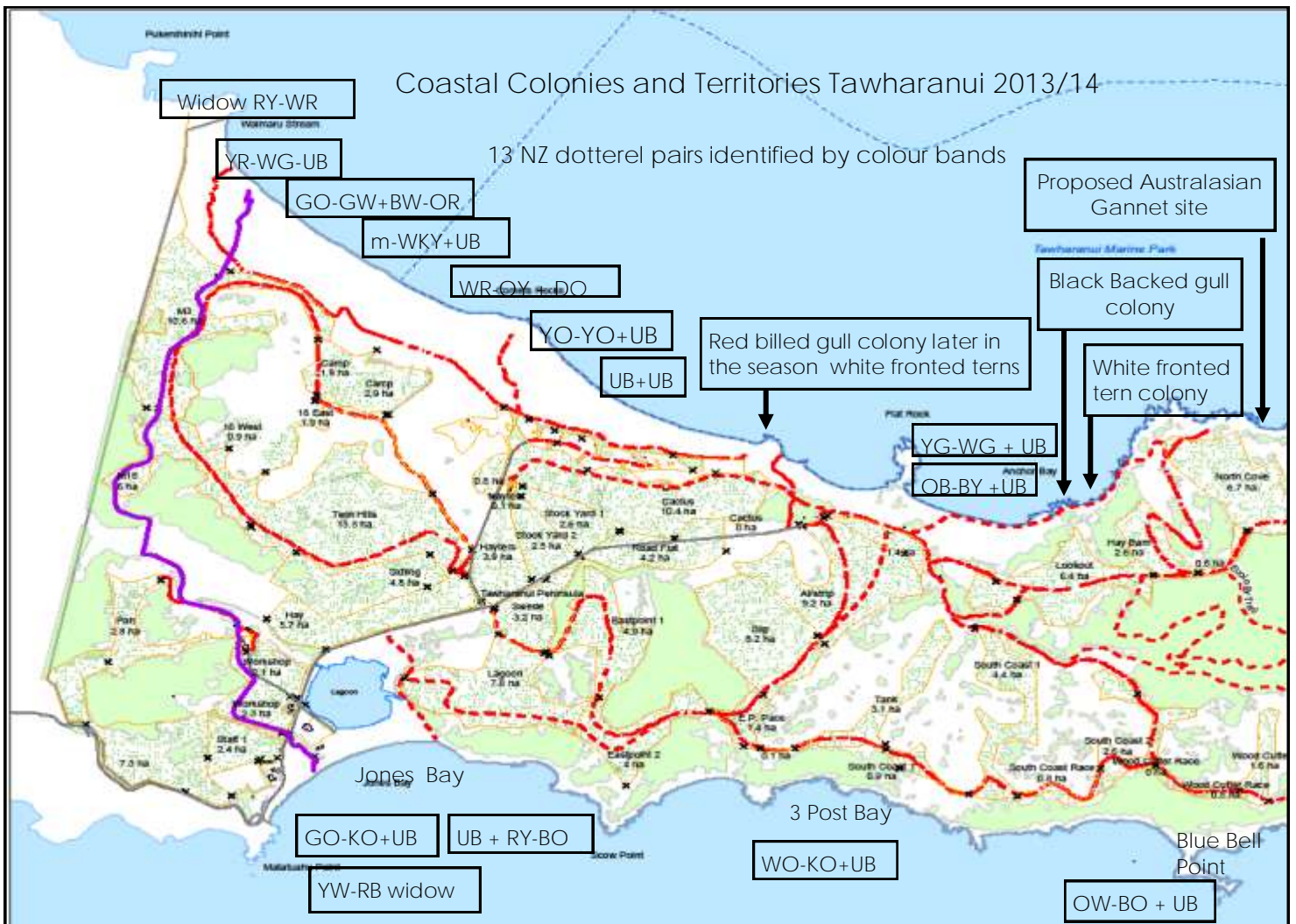
Black-backed gulls

Supreme scavengers black-backed gulls have a very large gape and can carry full size hen eggs and swallow young chicks easily. Black-backed gulls like pukeko and harrier were less abundant prior to human settlement when lowland NZ was almost entirely covered by native forest. Pukeko were confined to wetlands, black-backed gulls were mainly in coastal areas and harrier were relatively uncommon. They all flourished when humans arrived and cleared bush to open up farm land.



Humans provided black-backed gulls with huge additional food sources, rubbish dumps, sewer outlets, abattoirs fish processing plants, fishing boat scraps and farm paddocks especially ploughed fields. Unfortunately the gulls success has been detrimental to threatened native bird species such as the NZ dotterel, white fronted tern, red billed gull and little blue penguin. The predatory gulls harass nesting parents, eat eggs and chicks. In 1995 on Matakana Island near Tauranga, when 3000 black-backed gulls were poisoned a record number of dotterels fledged. As a native predator their numbers have increased hugely impacting on other native and threatened species.

Over the last two seasons red billed gulls and white fronted terns have moved on to rock stacks on the north coast for nesting. The black-backed gull colony already established nearby will thrive on the extra food source of chicks that will support their diet. The 2013-14 NZ dotterel season lost 25 chicks from the north coast most likely to black backed gull. A black-backed gull was videoed gulping down three NZ dotterel chicks at a nest in less that four seconds. The black-backed gull colony beyond Anchor Bay hopefully will be monitored during the nesting season and a base line of data kept to insure the numbers do not increase.
Alison Stanes



Rhys Thompson

TOSSI members and friends are saddened to note the passing of Rhys Thompson. Rhys was instrumental in establishing TOSSI, its structure and constitution and in fundraising for the pest proof fence. His vision and foresight was accompanied by hard work, on traplines, track work and any volunteer task in the sanctuary requiring manpower. Together with his wife Sheila, he produced the newsletter for several years and provided the administrative support for Art In The Woolshed, TOSSI's main fundraiser.

We remember his quiet and careful organisation even in the midst of chaos during AITW. Many of Rhys's achievements passed unnoticed because of his unassuming manner and the fact that his ground work was so thorough others were able to follow and build on what he had established.

We know how Rhys loved the sanctuary and we see its continuing development as his fitting legacy for future generations. We wish to express our sympathy to Sheila, their children and grandchildren.



The Warkworth Expo, Rodney in the Spotlight, was held last Saturday, 1st March, in the Mahurangi College Hall, Warkworth. The Rodney Local Board arranged it in conjunction with the Auckland Council. A Special thank you to Patte Williams Ray & Maggie, Doreen and Karyn for help with the Expo, Saturday

Sunday in the Park, March 2

Volunteers under the leadership of Doreen Guest made a fantastic effort completely clearing lupins in the western section of the dunes. While others cleared the seeds from near the bird hide. After lunch Liz chamberlain- a Massey student gave an interesting talk about the NZ gecko. Thank you to everyone.

Sunday in the Park, April 6

Volunteers headed to Tokatu Point and cleared tracks with Roger Williams while others repaired the end of the fence at Jones Bay with Mark Paterson. Thank you. After lunch two presentations followed. James Ross spoke about enticing gannets back to nest and Steve Palmer spoke about the return of Takahe to Tawharanui.

TOSSI Committee

Chair	Steve Palmer	09 422 6441
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Treasurer	Ngairie Wallen	09 627 1526
Editor	Alison Stanes	09 524 0291
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	Ray Blackburn	09 425 4995

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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:

- | | |
|--|---|
| <input type="checkbox"/> Planting/workdays | <input type="checkbox"/> Bird Counts |
| <input type="checkbox"/> Fund raising | <input type="checkbox"/> Administration |
| <input type="checkbox"/> Monitoring Pests | <input type="checkbox"/> Nursery |
| <input type="checkbox"/> Predator fence monitoring | |
| <input type="checkbox"/> Environmental educational | |
| <input type="checkbox"/> Publicity/promotion | |
| <input type="checkbox"/> Art in the Woolshed | |
| <input type="checkbox"/> 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



Grey-face petrel (above) are large pelagic ocean wanderers capable of going 770 kilometres off shore. They soar with ease over the high seas and feed on zooplankton, squid and crustaceans. Grey-faced petrel are already back nesting at Tawharanui. A specially trained dog visited to find new burrows. However, the dog was trained for kiwi as well and kept getting distracted by active kiwi near Elephant Point. Grey-faced petrel chicks will start hatching August to mid September. Alison Stanes

