



TAWHARANUI OPEN SANCTUARY SOCIETY INC.
Newsletter No. 43 December 2012



North Island Robin BB-WM, (Blue, Blue,-White Metal,) is one of the seven surviving founding robins released at Tawharanui in 2007. His territory is in Takatu Bush. To avoid anthropomorphism few birds are named at Tawharanui. BB-WM was nicknamed Richard after Richard Branson, as he had a mind of his own and was difficult to catch for translocation. He also had a fantastic territory on Tiritiri Matangi, which seemed to have everything.



Chairman's Report

Over recent months the sanctuary at Tawharanui has again proven its value. The fence does not prevent all pest incursions, but with the active trap lines in place the small number of incursions have quickly been controlled. To the best of our knowledge no predator incursion has been associated with significant impact on wildlife within the sanctuary. At this time of year it is pleasing to see the nesting of a wide range of birds. Pateke ducklings have been seen in a number of sites. The robins will soon be starting on their second clutches. Kakariki are being seen more frequently and a successful breeding season this year will likely ensure their establishment in the sanctuary.

Of special note is the report of the first saddleback chicks. Saddleback are regarded as an indicator species in that they are highly susceptible to predation. The fact that they are presently thriving gives additional confirmation that pest incursions have been dealt with successfully.

Perhaps the most exciting recent news from the sanctuary was the discovery of a diving petrel chick. The sound anchoring systems have now been operating for approximately a year. We have been aware that the systems have been attracting increasing numbers of seabirds, particularly grey faced petrels. There have been a number of sightings of diving petrels on land near the sound systems, but there was little expectation that breeding would occur so soon. There had not even been time for us to install breeding burrows, which is the next stage in the project. The success of the seabird project, at such an early stage, is as much a reflection of the effectiveness of predator control within the sanctuary as it is of the sound anchoring system.

It is doubtful that the early success with saddleback, and the return of seabird breeding at Tawharanui, could have been achieved without the predator fence and active trap lines. Trapping by itself certainly can achieve ecological gains, but not to the level we are seeing at Tawharanui. We have recently been tramping in an area of the South Island that is intensely trapped. It was satisfying to see mohua, (yellowhead), and rifleman but we were struck by how silent the forest seemed in comparison to Tawharanui. I believe our fence and trapping systems will allow us to anticipate further exciting ecological gains in the future.



Steve Palmer

Open Sanctuary Coordinator Update

If it is possible to hold your breath for seven months I realised I was doing just that when I heard the exciting news that saddleback/tieke are breeding at Tawharanui. Ah, the excitement and ah the relief! The reintroduction of this highly predator sensitive species has always been a high risk endeavour. With tieke beginning to breed we develop greater resilience in the population through greater numbers, which in turn enhance prospects of weathering adversity such as predators or disease.

Other exciting news this month is the discovery of diving petrel breeding, most likely as a result of the seabird acoustic anchors broadcasting 'noisy seabird community' sounds. Who knows what new species might arrive next?

A series of interpretation panels will shortly be installed along the Ecology Trail telling some of the stories of the park, the open sanctuary and the ecological recovery made possible by the hard work of volunteers and park staff. It was quite a challenge deciding just which of the many stories to tell. These panels complement the new bird collection and panels in the Sanctuary Hut at Anchor Bay. While the birdsong and healthy forests tell their own tale, we hope these panels tell some of the back story.



Kind regards, Matt Maitland

I can be contacted at matt.maitland@aucklandcouncil.govt.nz or 09 426 1200

First Line of Defence

Everyone knows the first bit of the story: beautiful peninsula; mainland sanctuary concept; pest-proof fence; bait drops to eliminate pests; bellbirds, kiwi and so forth. Too easy!

Well, not quite. While it's true that only small numbers of rabbits, mice and hedgehogs remained after the bait drops, Tawharanui is an open sanctuary and there are many obvious ways that pest animals can invade. We have coasts, a vehicle gate, lots of visitors with cars, gear and boats, as well the odd truck and tractors, and occasional damage to the fence.

Inevitably animals will get in. In fact all but one of the seven eradicated species have been detected inside the fence since 2004 (no ferrets, yet). I should point out that none of these incursions has caused any appreciable loss of wildlife values. To cope with this threat a comprehensive array of traplines has been established by Auckland Council within Tawharanui to detect and intercept incursions. Over the past decade this has been modified as more is learnt about the pattern of invasions and how best to deal with them. While they are found throughout the park, traplines are concentrated in areas of 'weakness' and potential dispersal - coasts, car-parks, the camp-ground, drainage lines and so forth. In recent years the number of traplines in the buffer zone outside the fence has been increased to strengthen our defence against invasions.

Each line consists of a variety of tools such as tracking tunnels, bait stations, snap-traps, Fenn and DOC traps, set at stations 50m apart. All lines are checked monthly or fortnightly to replace baits and check and service traps. The lines are maintained by rangers and TOSSI volunteers and can be switched from surveillance to incursion response easily without bringing in new equipment. The aim is to quickly detect incursions and then switch to a more active response to prevent any build-up of pests.

This approach has demonstrated clearly that pest incursions can be detected and addressed on an on-going basis. What is important to realize is that some pests inside the fence are inevitable and that this is not a 'failure' of the Sanctuary concept.

TOSSI Volunteers can 'adopt' a trapline that suits their schedule and abilities. As well as providing a vital first line of defence, maintaining a line can take you to less trodden parts of the park and provides a real opportunity to keep in touch with the seasonal moods of the plants and animals of the sanctuary.

And despite what you might think, gruesome encounters are actually extremely rare!

James Ross Deputy Chair



A DOC 200 Trap baited with an egg and rabbit meat

To 'adopt a trapline' contact James Ross jamesross@paradise.net.nz



Traplines can take you down secluded forest paths.



Unexpected wildlife sightings are one of the rewards

A clip from the Tawharanui diary in the Rangers' Office.

Surprise encounter Ecology Bush. While doing a trap line in Ecology Bush I saw a saddleback and stopped to get its band combinations (it was too quick). But, while I stopped, a kaka climbed up the tree in front of me, two kakariki were in the branches above, a flock of whiteheads flew in, a robin hopped around my boots, and tui and bellbirds and two saddlebacks were nearby. An incredible moment. Jacinda Woolly AC

Success for Seabird Sound Systems



Chris Gaskin with a Tawharanui grey-faced petrel chick.



An adult diving petrel or kuaka. The Maori name refers to the female call. Photo Graeme Taylor

New Zealand dotterels banded



NZ dotterel OW-GR was banded as a chick by John Dowding at Jones Bay Nov. 2010. OW-GR has a nest with three eggs at Te Haruhi Bay, Shakespear Open Sanctuary.



In November, John Dowding banded an adult and two chicks at Tawharanui. Chicks YO-BO at Jones Bay and OR-KY at Anchor Bay. The colours are read left to right top to bottom.



Success for Seabird Sound Systems

A diving petrel chick was a surprise discovery during a visit to the Tawharanui Open Sanctuary by a bird-banding training course. A tiny noise from under a flax bush alerted Department of Conservation seabird specialist Graeme Taylor to a new 'first' for the sanctuary. Diving petrels are known to breed on many of the smaller islands around the Hauraki Gulf and on islands elsewhere in New Zealand, but this is thought to be the first recent record of this species breeding on the mainland.

For the past year, three sound systems have been broadcasting a variety of seabird calls from the headlands of Tokatu Point far out over the waters of the Gulf. The aim is to give the impression of a busy seabird rookery, encouraging passing birds to investigate and ultimately make this site their new home.

Automatic cameras placed close to the speakers have shown that large numbers of grey-faced petrels, fluttering shearwaters and diving petrels, as well as at least one Cook's petrel have been induced to land by the 'birdy stereos'. However, the presence of a diving petrel nest just a few meters from a speaker is stunning confirmation of the success of the project.

Local seabird expert Chris Gaskin has been instrumental in developing the seabird project at Tawharanui, and has recently completed a Seabird Restoration Plan for Tawharanui Regional Park. Chris commented that this is the first full season that the sound systems have been in operation, so to get a species to breed in such a short time is amazing. The next step is to install artificial burrows for seabirds at key sites to make the area even more attractive as a breeding site.

This is the second self-introduced breeding seabird at Tawharanui: grey-faced petrels have been recorded breeding at Tawharanui every year since 2009. Our aim is to encourage seabird colonies, as they play a major role in ecological restoration by importing marine nutrients to the land, where it is deposited as guano. This improves the soil fertility providing improved growing conditions for plants and associated land-based animals. James Ross



Hundreds of seabirds have been attracted by the sound systems.

Note: The sound systems were funded and installed by TOSSI with the help of Chris Gaskin, Auckland Council, the Lion Foundation and International Student Volunteers.

Banding Birds

Accurate measures of survival, productivity and dispersal can be obtained from banded birds. Bands used to be hand-made, however most are now manufactured commercially. Bands are small and light, and each species takes a particular size. All banded birds in NZ usually have a metal band, with a unique number and the DOC address on it, so that if a dead banded bird is found, details can be sent to the DOC Banding Office, where records of all birds banded in New Zealand are held. Colour bands allow individual combinations to be used, enabling identification and studies of behaviour and ecology from a distance. In early November, a three-day banding course was held at Tawharanui. The open sanctuary is an excellent place to run these courses because of the variety and abundance of birds. About 80 birds of different species were mist netted and banded. A previous course was held at Tawharanui in March 2009.

At Tawharanui, various bird species are banded. With the exception of kiwi, which have pit tags, all birds translocated to Tawharanui have individual colour combinations. Other species, such as NZ dotterels, which are being closely monitored, also have colour bands. Kevin Parker is following the recently-released saddle-backs, whose individual combinations allow dispersal and song behaviour of birds from the three different source islands, Lady Alice, Red Mercury and Mokoia to be closely studied. Tim Lovegrove and Richard Chambers rely on colour banding for accurate monitoring of the North Island robins. (See robin update elsewhere in this newsletter). NZ dotterels, which may live 20 years or more, can outlive their colour bands, which sometimes have to be replaced. John Dowding has been studying the Tawharanui dotterels since 1987, and through colour banding has obtained interesting records of local movements and dispersal. For example, a dotterel OW-GR, banded as a chick at Jones Bay in 2010, now lives at Te Haruhi Bay at Shakespear Open Sanctuary, where she is now breeding. Colour-banding shows us that Tawharanui dotterels regularly visit Whangateau Harbour, and many Tawharanui birds also flock there after breeding. Many of the petrels attracted by the sound systems, have also been banded. We will be keeping a sharp lookout in future to see when these same birds return to breed at Tawharanui.

Alison Stanes and Tim Lovegrove

Twas the night before nursery

(With apologies to Clement Clark Moore)

Twas the night before nursery and the team one and all
Were planning and scheming to come to the call
Come Steve come Penny come Kerry and Paul
Come Rhys come Sheila come short and the tall

With lunches all packed and some baking done too
They scurried and hurried to join in the queue
To travel the metal road called Takatu
And along each mile they admired the great view.

With a Hi Elizabeth hi Ray and Maggie's here too
There's Gill and there's Colin and Romilly who's new
The trailer's all loaded with a potting mix brew
And here's Paul with a load of seedlings to do.

The team gets to work and the shed's full of chatter
It's great to come here to have a good natter
We talk travels, books read and items that matter
The plants all get planted and then there's a clatter

That single wheel barrow which we all have to check
It's so hard to balance with a load on its deck
It's soon put to right and we say "what the heck"
There's no damage done, just a pain in the neck

There's tea and coffee so we all take a break
We see Christine has made us another great cake
The smoko is over but make no mistake
The plants come in hundreds and go out in a crate.

The day is soon finished with all plants tucked in bed
So we grab a big broom and sweep out the shed.
We say our goodbyes as homeward we fled
Paul emails our progress before going to bed.

We mark in our diaries the date of the next session
To turn up refreshed with a renewed planting passion.

Wishing you all a Happy Xmas and a great planting year.

Jenni McGlashan Nursery volunteer

The nursery is approaching its busiest time of the year and
we need your help. If you'd like to become involved with
this friendly and enthusiastic group please phone

Paul Williams on 425 9877 or email secretary@tossi.org.nz.

Wanted

A volunteer with mail merger skills to send out 300 TOSSI newsletters four times a year.
Phone Alison 09 5240291

Next Sunday in the Park is Sunday 3 February

You can't hide the lagoon

Construction of a bird hide on the edge of the lagoon begs the question, just what are we looking at? Early Maori settlement centred on the Jones Bay and Mangatawhiri Stream outlet pre-lagoon times. Gardening and fishing took place on the flats and shore. To the east the large pa 'Pā-hī' (the lofty fortified settlement), extends nearly half a kilometre along the ridge. To the west the impressive fortified settlement Ōpōnui (the dwelling place of Pōnui), sits above the park entrance. Terraces, pits and other archaeological features of both are still evident.

On the shore of the lagoon sits the carved pou representing Manuhiri, the ancestor of tangata whenua Ngāti Manuhiri and their kaitiakitanga over Tāwharanui. Carvings illustrate treasures of the natural world and the special place whales hold in local tradition.

The lagoon itself was formed by gravel extraction from what was known as 'Shingle Bay' (Jones Bay) from as early as 1870. In the early days this was loaded onto flat-bottomed scows, which came right up on the beach at low tide then transported the goods to Auckland. In the late 1950's shingle extraction intensified. Shingle was mixed with water in a small lake on the flats then pumped onto old hulks, and in turn loaded into waiting barges. Later, a 450m conveyor jetty was developed to load barges directly. Notable uses of the Jones Bay shingle are St Patricks Cathedral and the footings of the Auckland Harbour Bridge. Commercial shingle extraction ceased in 1967, leaving behind the 4ha lagoon. Occasional gravel extraction for park roads continued through to the mid to late 80's.

The lagoon is tidal and open to the sea most of the time. Occasionally sea action will form a shingle stopbank impeding tidal flow. In some summers this can cause the water level to recede, sometimes exposing shellfish. Storm action clears the entrance and normal flow is resumed.

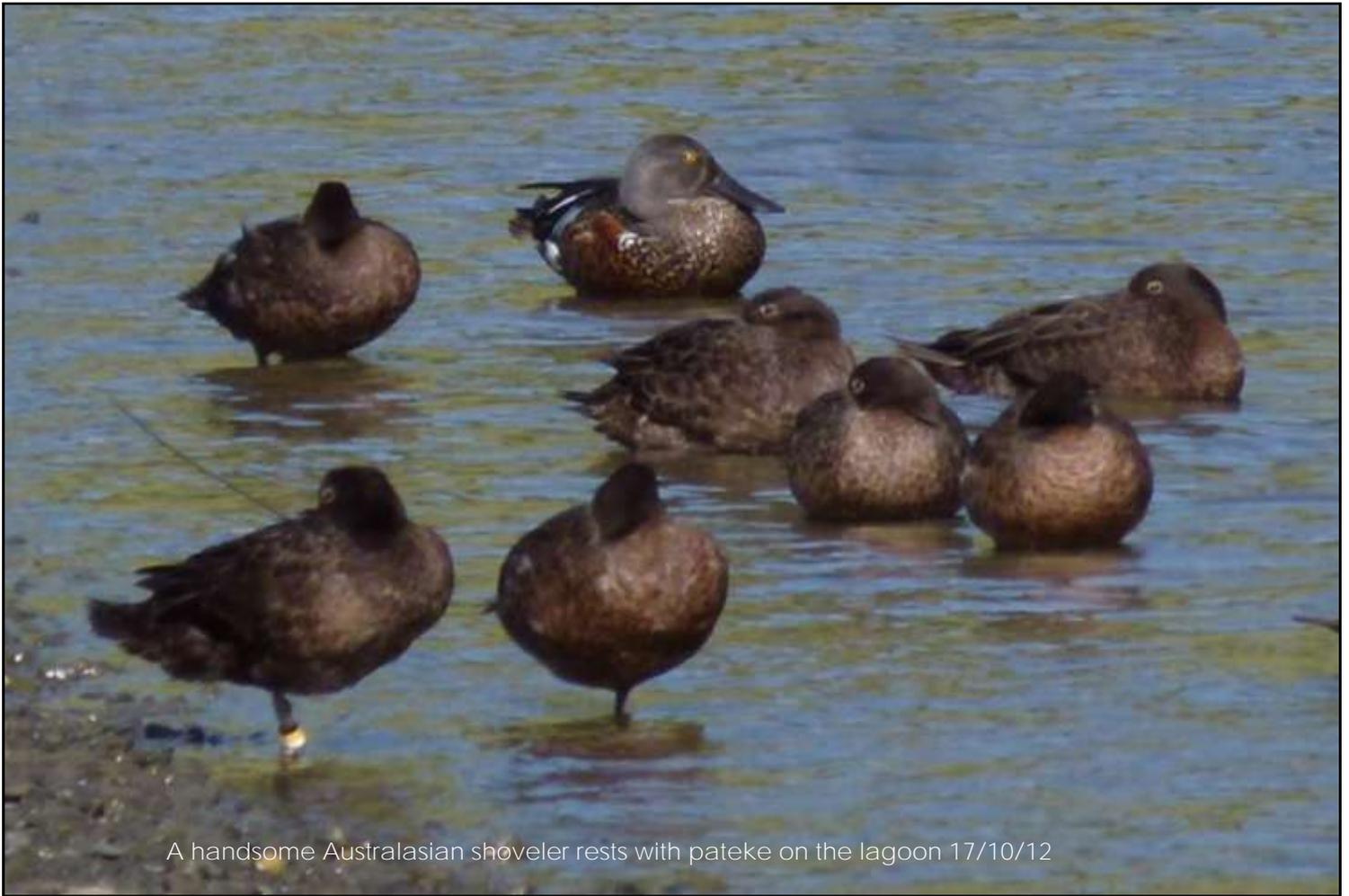
Many fish use the lagoon, coming in and out with the tide. Snapper, kahawai and mullet have been observed as well as schools of smaller bait fish. The saline influence of the lagoon reaches inland up the Mangatawhiri Stream as far as the kahikatea stand, where a perched culvert separates the fresh water from the brackish. Extensive wetlands once stretched over the flats from the Anchor Bay car park back to the lagoon outlet. Some of these wetlands have been restored in recent times through repair of waterways and volunteer-led plantings. Matt Maitland

Thanks to Graeme Murdoch for permission to source material from 'Tawharanui - Our history' (Auckland Regional Council, 2008)

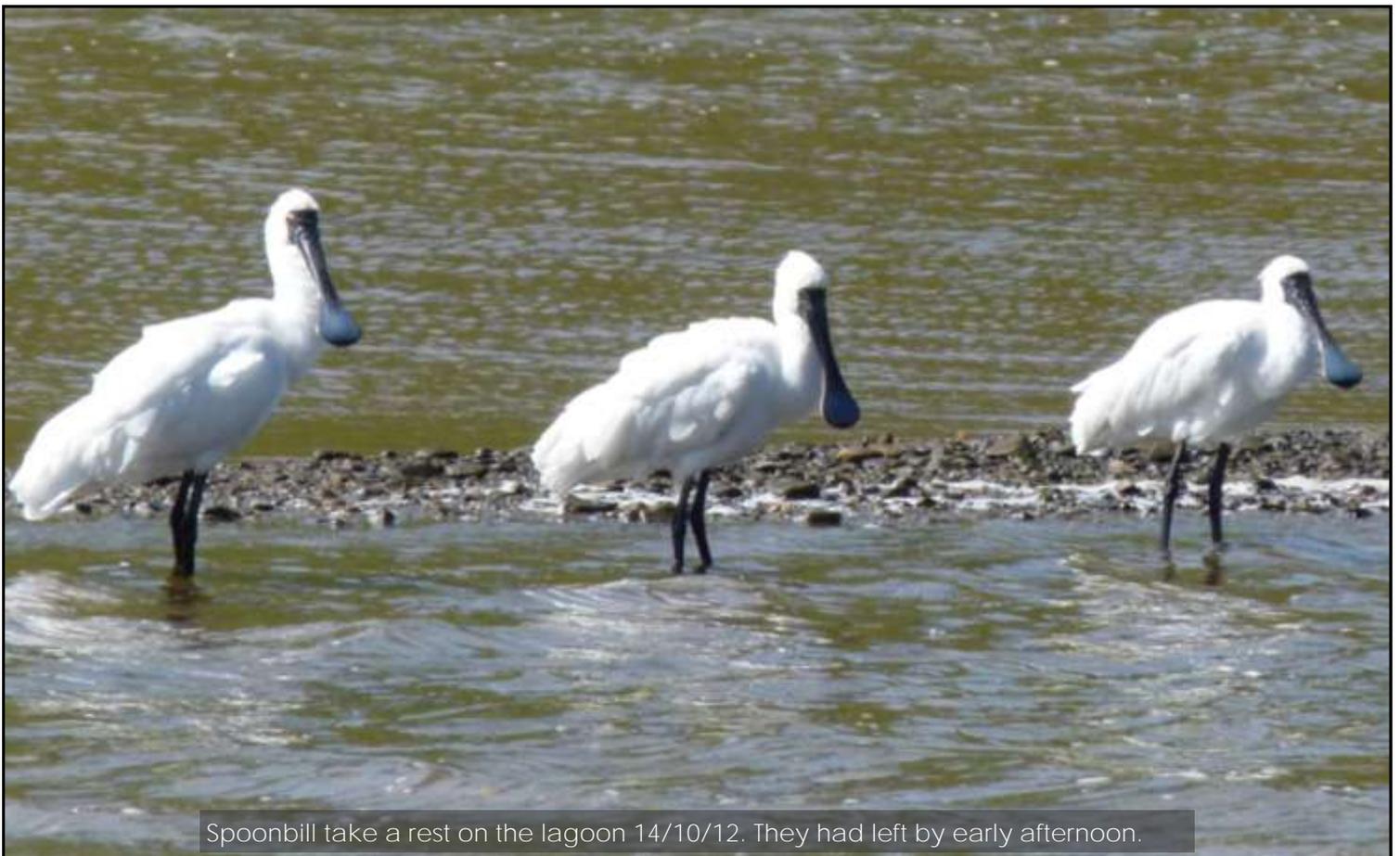


The entrance to the lagoon is governed by natural elements, and although it is usually open, occasionally it closes off until winds, waves and tide open it again. Fish come and go and so do the birds. By November many of the species photographed on the following two pages had moved on. Pied stilts nested earlier in the season. Unfortunately the nest was flooded by a high tide and the stilts moved on. In January pateke start flocking on the lagoon and so do sixty or more paradise shelduck for a brief moulting period. The lagoon is also used for recreation. Children at school camps may be seen happily kayaking, learning to sail, while the birds move to a sand bank on the opposite side. Alison Stanes Editor

Wetland Birds photographed at the lagoon in the vicinity of the proposed bird hide.



A handsome Australasian shoveler rests with pateke on the lagoon 17/10/12



Spoonbill take a rest on the lagoon 14/10/12. They had left by early afternoon.

More birds photographed at the lagoon near the site of the proposed bird hide.



Caspian tern 29/10/12



White faced heron 22/2/12



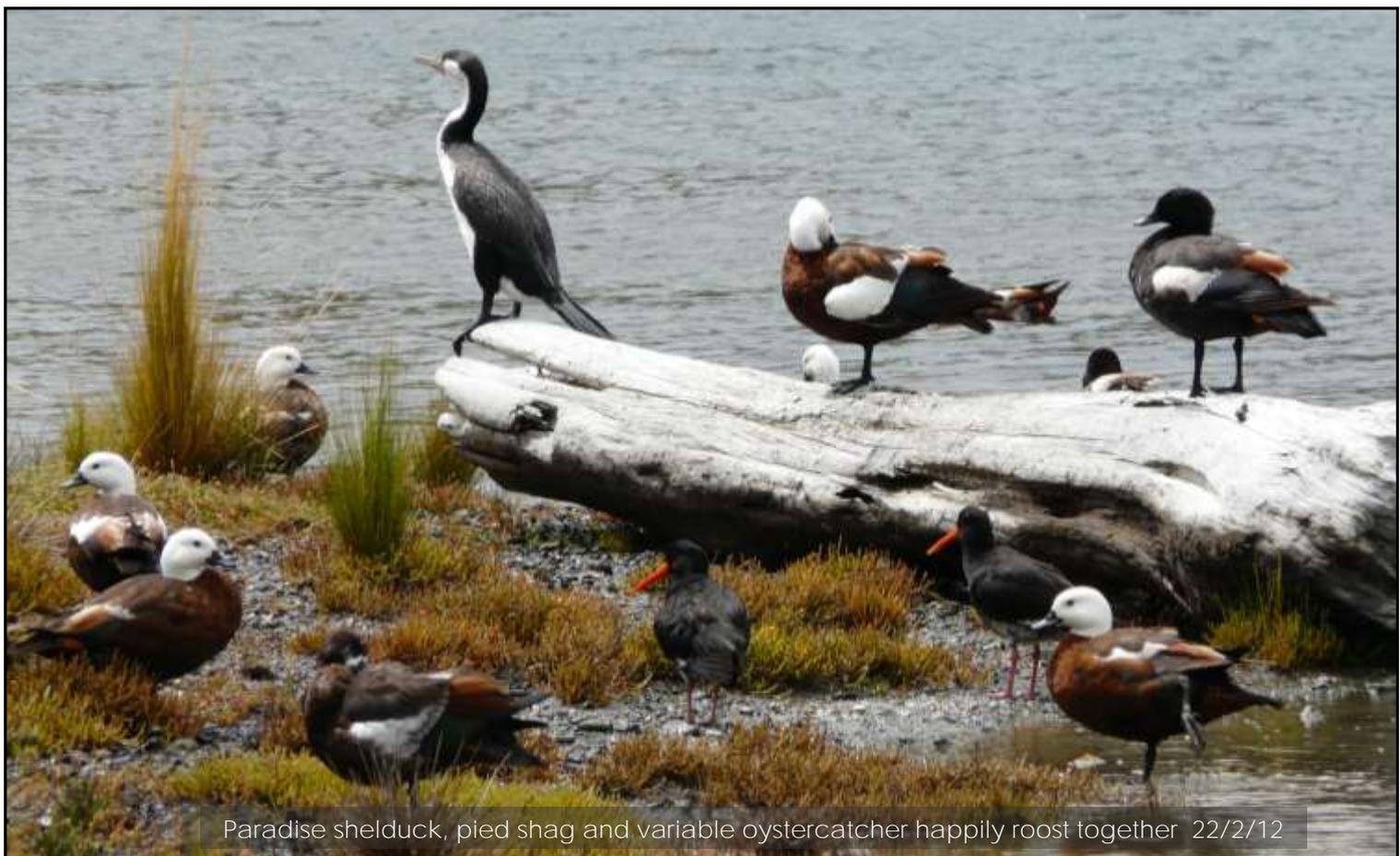
Kingfisher 19/10/12



Banded rail 29/10/12



Little shag 22/2/12



Paradise shelduck, pied shag and variable oystercatcher happily roost together 22/2/12

New Committee Member

My New Zealand ancestry is that of the Albertlanders, who lived and worked around the Kaipara region. My Grandfather leased a 1000 acre block on the Okahukura Peninsula. Its only access was by water. It was a land of cattle and pigs. That's where we spent our Christmas holidays. For 4 weeks every year we kids were allowed to run feral. It's also where I developed a love, respect and knowledge of our wild places and creatures.

I was born and raised in West Auckland. Yes I'm a proud "Westie". I thought everybody had parties like that. It was after one of those parties that that a bunch of us set out in the wee small hours on a mystery fishing trip. After a long and dusty drive along a very windy gravel road, dawn found us on a sweep of gravel beach complete with a couple of wrecked ships and various other pieces of rusting ironwork sticking up here and there. This was my first experience of Tawharanui.

My next recollections are some years later and quite vague. It can't have been very long after the ARC had purchased it. They'd just fenced the place. It was the first time I had seen an 8 wire fence. Most of my farming relatives settled for 5. There were also more Paradise Ducks between Jones' Bay and Anchor Bay than I had ever seen.

The idea of conservation had been with me as long as I can remember, but being a good "Westie" such thoughts were close to sacrilege. If you couldn't hook it, shoot it, smoke it, or bed it, it had no value. I took to wandering and working around the globe instead. For the next 20 odd years my life fit quite neatly into a backpack. Having decided that Leigh was not a bad place to call home, I bought a house and started working at the Marine Laboratory. Then along came Maggie. Things changed a bit and the trips to Tawharanui became more frequent.

Our next big move was to Dunedin. We bought and ran an accommodation business on the Otago Peninsula. It was full of more wild creatures and places. It was a wonderful adventure. We did OK and I think our biggest achievement was that after 10 years of working side by side, we are still good friends. Five years ago we sold up and moved to Snells Beach.

We discovered TOSSI and joined the team of Pateke monitors and the nursery. We are really enjoying it all. And no doubt there is more to come.
Ray Blackburn



Freesias and Oioi

"Freesias and oioi?" I can hear you saying - what do they have in common? They were two target plants of a recent Botanic Gardens collecting trip at Tawharanui. When I worked for the ARC I recall seeing the Freesias naturalising in the dunes, their small bulbils are spreading happily away from their original site (presumably an old bach?). Now I am working at the Auckland Botanic Gardens I am in a position to ensure they are collected from the wild into cultivation so that they are preserved and protected.

In September, Botanic Gardens staff visited Tawharanui to 'rescue' the Freesias, and also look at the forms of oioi (*Apodasmia similis*) at the Park. Oioi has been unofficial 'plant of the year' here at BG as it's the star of many of our stormwater treatment devices. The gardens are working to ensure stormwater from our site does not adversely affect the water quality of the Manukau Harbour, the Puhinui Stream and our lakes on site. To do this we have constructed swales, planted riparian plants, used green roofs, permeable paving, rain gardens and more to demonstrate how plants can clean water and slow the flow of stormwater in times of heavy rainfall into natural waterways. This has all been packaged up as the "sustainable water trail" to showcase sustainable water treatment solutions using plants. Our aim is to demonstrate to the public that you can use native plants for effective urban stormwater treatment. In our swale (a depression, like a ditch, but planted densely to slow water flow and clean it up as water filtrates through plant roots), we have oioi that grows very tall and droops over, blocking water flow. It was the search for both shorter oioi, and not droopy, which brought us to Tawharanui. For a botanist it's new to me to look for too long at the variation within a species at a site. Not, it seems, to horticulturalists, who see much more subtle variation in plant form or colour than me! Parts of five clumps of oioi were carefully collected and on arrival back in Maurewa were planted in the trial garden beds. If they prove to display some horticultural merit, we'll replace some of our tall, droopy oioi with the new form. Rebecca Stanley



Kerry Gillbanks (L) & Yvonne Baker (R) collect Freesias for cultivation at the Auckland Botanic Gardens.

Update on the robins at Tawharanui from Tim Lovegrove

Background

This summer the robin population at Tawharanui is going into its 6th breeding season. This year there are 17 pairs, our highest pair count so far. On 16 March 2007, 21 robins (15 males and 6 females), were transferred from Tiritiri Matangi Island to the Ecology Bush at Tawharanui. Since only 6 females were caught in the Tiritiri batch, and to help balance the sex ratio, 4 additional females were captured near Puhoi and released at Tawharanui on 26 July and 10 August 2007. Tiritiri, the main source of robins for the transfer, had a population of 35-40 pairs at the time, and was productive enough to allow up to 30 robins to be removed at about two yearly intervals. The small Puhoi population was derived from birds which had dispersed inland from Wenderholm, where 21 robins from Tiritiri were released in 1999. Between 1999 and 2010, about 300 young robins were produced in the Wenderholm-Puhoi area, and many of them dispersed inland into mostly unmanaged scrublands and pine forest. The four females transferred to Tawharanui were caught in one of these areas.

Until recently, robins were absent from the mainland in the Auckland region, and they survived naturally only on Little Barrier. Elsewhere in the North Island, robins are quite widespread in native and exotic forests on the Volcanic Plateau and they are common on Kapiti Island. Since they occur on the mainland, robins were seen as suitable early candidates for release at Tawharanui after pest mammals were removed. The robin is also a very useful indicator species for the open sanctuary because they are tame and easy to monitor. While the population is still small it is possible to find and monitor almost every nest and to colour band most of the young. This allows us to gain quite accurate measures of the population's survival and productivity. It also provides another means of detecting possible incursions of mammalian predators, that might have escaped detection by other means.

Survival, population size and breeding success in the years since release

Figures showing the size of the Tawharanui robin population and recruitment of young in the years since release are summarized in Table 1. The population increased gradually from 23 to 37 birds between 2007 and 2012. Although large numbers of young have fledged, only a small proportion has been recruited into the breeding population each year (see Tables 1 & 2). Survival of the founding birds just after release at Tawharanui was high, and at the start of the 2007-08 breeding season, 23/25 of the founding birds were still present. These included 9 pairs and 5 single males. In the 2007-08 season 9 pairs fledged 34 young.

The 2008-09 season began with 21 birds, including 18/25 founders and 3/34 locally-bred birds from the previous season. The population included 8 pairs and 5 single males. In the 2008-09 season 8 pairs fledged 33 young.

The 2009-10 season began with 24 birds, including 13/25 founders, 2/34 locally-bred birds from 2007-08 and 9/33 locally-bred birds from 2008-09. The population included 11 pairs and 2 single males. In the 2009-10 season 11 pairs fledged 58 young.

The 2010-11 season began with 32 birds, including 12/25 founders, 8/33 locally-bred birds from 2008-09 and 12/58 locally-bred birds from 2009-10. In the 2010-11 season 12 breeding pairs fledged 48 young.

The 2011-12 season began with 31 birds, including 8/25 founders, 6/33 locally-bred birds from 2008-09, 9/58 locally-bred birds from 2009-10, and 8/48 locally-bred birds from 2010-11. In the 2011-12 season 12 pairs fledged 63 young.

The 2012-13 season started with at least 37 birds, comprising 7 founders, 4/33 locally-bred birds from 2008-09, 7/58 locally-bred birds from 2009-10, 6/48 locally bred-birds from 2010-11, 12/63 locally-bred birds from 2011-12. By late November, when this newsletter went to press, 41 chicks had already been banded and many of the pairs were busy with 2nd brood nests.

Table 1.

Tawharanui robin population size and recruitment of young into breeding population in the years since release

Year	Founders	07-08 young n=34	08-09 young n=33	09-10 young n=58	10-11 young n=48	11-12 young n=63	Unk age	Total birds found*
07-08	23							23
08-09	18	3						21
09-10	13	2	9					24
10-11	12	0	8	12				32
11-12	8	0	6	9	8			31
12-13	7	0	4	7	6	12	1	37

The robins have bred very successfully in all years since release, nest success has ranged from 82-96%, per pair productivity has ranged from 3.77 young/pair to 5.27 young/pair, and 236 young have fledged in total (see Table 2). A total of 10 nests failed during incubation, mostly through infertile clutches being laid, while 6 nests are known to have failed during the nestling period. Failures of these nests were due to flooding, nest collapse or suspected morepork predation. There have been no known nest losses to mammalian predators.

Table 2. Summary of robin breeding at Tawharanui 2007-2012

Year	No. pairs	No. nests	Failed during incub.	Failed during nestling period	% nest success	Min no. young fledged	No. fledged per pair
2007-08	9	21	1	1	90.5	34	3.77
2008-09	8	20	2	0	90.0	33	4.13
2009-10	11	29	0	1	96.6	58	5.27
2010-11	12	29	3	2	82.8	48	4.0
2011-12	12	35	4	2	82.9	63	5.25
2012-13	17						

Discussion

So far the robins seem to be doing quite well at Tawharanui. Survival of established territorial birds has been high and productivity has been very high with at least 236 young produced in total during the 5 breeding seasons to date. Average survival is very similar to Tiritiri Matangi and Wenderholm, where the average life span is about 4.5 years, (some robins are known to live more than 12 years). The territories held by the breeding pairs have been quite stable, for example the 7 surviving founding birds are still living in the same places where they originally settled.

The figures showing numbers of young recruited into the breeding population each year (Table 1) suggest that high numbers of young could be dispersing inland from the open sanctuary. For example last season at least 63 young were produced, but only 12 (19%) of these remain inside the open sanctuary. The remaining birds are assumed to have either died or dispersed elsewhere. It is possible that some have dispersed much further inland as they did at Wenderholm, where some young birds moved up to 10-15 km inland before settling on a territory. On 4 October with the help of TOSSI volunteers, we began a regular series of surveys in Hubbard's Bush to check for dispersing robins. None was found on that survey, but we plan to repeat these surveys at about 6-weekly intervals during the season.

At Wenderholm, as a result of very high dispersal of young out of the 60 ha protected area and very few staying, too few have been recruited to maintain the population. As a result, numbers have declined to the point where this year only a few single males remain. Wenderholm is linked by forest corridors to significant bush patches along the Waiwera River and in the hills west of Puhoi, where the dispersing robins have established in the past. The nearest of these birds have established just 2 km from Wenderholm. Although it is easy for robins to move through the forest linkages, no young from any of the inland sites are known to have dispersed back to Wenderholm.

Although it is possible that we may see the same process happen at Tawharanui, Ecology Bush and Takatu Point Bush are already functioning as two small meta-populations with birds moving between them. Our colour banding shows that young robins are definitely moving in both directions. Possum Gully, which already has one pair, the South Coast and Hubbard's Bush (given sufficient pest control in Hubbard's), could all potentially support many more robins, and natural and planted linkages between them should allow robins to move freely between them all. The movement patterns we are already seeing at Tawharanui, where the dispersal is not just in one direction, hold promise for a successful long term outcome.



Robin feeding chick at the nest

Table 3. Tawharanui robin population at start of the 2012-13 season

7/25 surviving 2007 founding birds from Tiritiri and Puhoi shown in yellow

There are no birds remaining from 2007-08 season, when 34 young fledged

4/33 remaining young from 2008-09 shown in red (banded –RM on R leg) (M =metal band)

7/58 remaining young from 2009-10 shown in orange (OM- on L leg)

6/48 remaining young from 2010-11 shown in white (WM- on L leg)

12/63 remaining young from 2011-12 shown in green (GM- on L leg)

Pair #	Colour bands – Male	Female	Location
P	OM-PP,	OM-WY	Top of true right fork of Possum Gully
1a	WM-OR,	WM-PN	Ecology Bush, W end of Mystery walk (N is black)
1b	YB-MG,	WM-YP	Ecology Bush, gully SE from top kissing gate
1d	OM-BP,	OP-RM	Ecology Bush slopes opposite pump shed
1e	GM-GP,	unbanded F	Ecology Bush Mystery walk c 100m west of Pair 1a
2	(Y)W-YM,	PM-RP	Ecology Bush, 1 st clearing E of bridge
2a	BG-GM,	GM-GO	Ecology Bush, between bridge and 1 st clearing
3b	Unid M, *	WM-WR	Ecology Bush, half way up main gully * unknown age
3c	OM-RW,	GM-RR	Ecology Bush, near head of main gully
4a	PW-RM,	OW-RM	Ecology Bush at robin release site
5a	GM-RO,	GM-PY	Ecology Bush, gully W of North Punchbowl
5b	OM-RP,	WM-YB	Ecology Bush, E Mystery Walk gully
5c	Unbanded M,	GM-WB	Ecology Bush, E Mystery Walk kowhai grove
6	Unbanded M,	GW-YM	Takatu Bush, Pen 7 area Elephant Pt Track
8	BB-WM,	PN-RM	Takatu Bush, N slopes 200m E of top gate (N is black)
8a	MB-YB,	unbanded F	Takatu Bush, gully S of Ngaio Bay Track
9	MY-BW,	OM-PO	Takatu Bush, puriri gully near Takatu Point
Singles			
	GM-YO, female		Gully head between N and S Punchbowls
	GG-WM, male		Takatu Bush, N of trig
	GM-GG, male		Takatu Bush, W end Elephant Point Track

This season 2012/13 we are banding birds with blue over metal on the left leg.
 Tim Lovegrove, Regional Advisor fauna, Biodiversity Unit Auckland Council



A robin chick being banded this banding.



Another chick checks out the notes taken.

Park Activities

A big thank you goes to the amazing gangs of volunteers who turn up at the Woolshed at 9.15 am on the first Sunday of every month for our Sunday in the Park event. The last four months committee members David Stone, Steve Harrison, Patte Williams and Ngaire Wallen have hosted many volunteers who have planted trees, weeded the dunes and cleared tracks. Hearty barbecue lunches followed in the Woolshed, thanks to Steve and Elizabeth Harrison and helpers.

The fun and camaraderie is evident by the noise during lunchtime. Informative presentations follow, generally by research students working in the park. However recently TOSSI committee members have stepped in with sharing information. Penny Palmer our chairperson's wife spoke on propagating seeds, James Ross on Trap lines and myself on NZ dotterels. From novice beginner volunteers with TOSSI, we have gained knowledge and expertise over the years, that is well worth sharing.

Numbers prove that Sunday in the Park is a popular event and volunteers are responding well to the monthly emails sent out by Patte Williams. If you want to help, be at the Woolshed at 9.15 am. on the first Sunday of the month with sturdy shoes, a raincoat if necessary, and a bottle of drink to take out to the worksite. Sunday February 3 will be the next Sunday in the Park.

The Warkworth Walks Walking Group's annual visit was lead by Patte and Roger Williams. They walked the Mangatawhiri Track and Ocean Beach walk and Ecology Bush, and left the park invigorated.

Sixty young Law students, lead by myself and Ray Blackburn, took up the challenge and removed unwanted plants without complaint despite a fine drizzle that set in and saturated everyone. All the lupins beyond the Pest Proof Fence have been removed and a large area of thistles in the planting behind the information hut were slaughtered.

Seasons Greetings. Alison Stanes

New bird display at the Sanctuary Information Hut



Roger Williams, husband of committee member Patte, took up the challenge and created a cabinet for TOSSI's native bird collection in the Sanctuary Hut. TOSSI funded the project. Ray Blackburn our new committee member seen in the photo, painted the forest backdrop. Together they created a wonderful display for visitors to view the native birds close up. Visit the Sanctuary Hut to see this new display.

Bird News

Kakariki and Kiwi Lots of kakariki, including unbanded birds, and a young kiwi on the south coast that was being mobbed by two saddlebacks! The little kiwi managed to find a quiet refuge fairly quickly and the saddlebacks left it alone. Kevin Parker

Pateke A great breeding season with broods of up to seven fluffy ducklings seen accompanying adults. Five in Anchor Bay drain, a brood of two and then another of four in Ecology Stream, five in Hubbard's pond, four in a pond west of the camping ground, seven at the fish ladder in Camp wetland, totalling 27 sighted. Alison Stanes

NZ dotterel The season has been slow possibly because of the cold snap. Two chicks have fledged and three two week old chicks are on Jones Bay. These chicks hatched in dense kikuyu on the side of the lagoon. Only a few hours old, they scrambled two metres over the tangle of kikuyu, across 75 metres of lawn on to Jones Bay where they are now seen feeding among the beach stones. There have been 6 nests compared with 14 nests this time last year, and 16 eggs compared with 34 eggs last year. As the weather warms we expect more nests. I am grateful for the help of Cheri Crosby a newly-trained NZ dotterel monitor, especially in the absence of Sharon Kast, who has been counting the yellow-eyed penguin in the sub-Antarctic Islands. Click on <http://yellow-eyedpenguin.org.nz/category/auckland-island-expedition-alison.ballance/> to follow her trip. Alison Stanes

A big thank you to sponsors who make the Tawharanui Open Sanctuary project possible.

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	Ray Blackburn	09 425 4995
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Correspondence Chairperson
or Membership Secretary
P.O Box 112
Matakana 0948, New Zealand

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

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Name(s): _____

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Please tick how you would like to help:

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Fluffy new arrivals at Tawharanui this season



Pateke ducklings in Ecology Stream



Variable oystercatcher chicks hatching at Jones Bay



NZ dotterel chick at Anchor Bay



Fantail in Anchor Bay plantings



Paradise shelduck ducklings on the lagoon



The same four paradise shelduck ducklings preening in early morning sunshine