

**Otatara**  
Landcare Group

# PIGEON POST

*Newsletter of the  
Otatara Landcare Group*

**Issue 72 Summer 2024/2025**

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*The full colour version of this publication is available on [www.otataralandcare.org.nz](http://www.otataralandcare.org.nz) under 'publications'.*



### ***And then there were three...***

*The arrival last year in Otatara of a single kaka was exciting enough but then kaka number one flew away, only to return with kaka number two, and then a third arrived. One of the new arrivals is a female and it is possible she is nesting. So, it is possible that three might become more!?*

# AWARD FOR OLG



## Environment Southland Community Awards

Otatara Landcare Group was nominated for, and won, the Environmental Action in the Community category in Environment Southland's 2024 Community Awards.

The citation read: 'The Otatara Landcare Group is a more than 200-strong community group overseeing great environmental work in New River Estuary, Sandy Point and Oreti Beach.'

'Advocating for the preservation and enhancement of forest remnants and other natural values of the Otatara area, the group promotes increased use of native plants, while also improving habitat for local native wildlife.'

'The group also runs activities to improve knowledge of the local environment, hosts working bees, and promotes Otatara's natural areas to locals and visitors'.

Richard Johnson, chairperson of the OLG, said the award recognized the past and present work of hundreds of volunteers giving thousands of hours in caring for Otatara's precious environment and the restoration work at Bushy Point.

The category was sponsored by WM Environmental and included a prize of \$1200, which is making this edition of Pigeon Post possible!



*Above, the certificate and trophy. Below, from left, Geoff Dembo, Douglas Black, Chris Rowe and Richard Johnson, from the committee of the OLG, with Renee Richardson, founder and director of MW Environmental, the category sponsors.*



# RESCUING OWLS



## Meet Gloria Harris, environmental awards finalist

Gloria Harris, who rescues owls and rehabilitates them for release, was a finalist in the Individual Environmental Leadership or Action category of the Environment Southland Community Awards.

Gloria Harris' love of owls began when she spotted an owl sitting on the powerlines at her rural property just outside Invercargill.

Gloria had become friends with the Queens Park aviary keeper at the time, who one day suggested Gloria might look after a fledgling Little Owl which had been brought to the aviaries for care, having been found on the ground.

"I'd love to" said Gloria, and this began nearly 30 years of caring for and rehabilitating mostly fledgling owls that had fallen from nests.

It was very much a journey of discovering what owls eat, which is a mixture of chicken or rabbit meat mixed with feathers and fur, which is close to the usual diet of owls, along with moths in summer. "I'm often up at 1am catching the moths." Huhu beetles are also an owl delicacy!

A freshly dead yellowhammer was offered to an owl that could self-feed, and to Gloria's surprise, it completely disappeared, apart from two wing feathers. The owl was not much bigger than the yellowhammer.

A little owl can eat a mouse in one gulp, she said, and she is thankful for a supply of frozen poison-free mice provided from mouse traps.

Lost baby owls or owls with injuries start their journey to rehabilitation and release in the safety of a cat box, where Gloria can feed them by hand. Once they can self-feed they move into the aviary for further rehabilitation.

To see if an owl is ready to fly before transitioning from the cat cage to the aviary, Gloria takes the owl in to her passageway in her house, closes doors and windows, and puts the owl on a finger. If it can fly along the corridor, it is released into the aviary to hone its flying skills and strengthen muscles. When flying skills are strong, the soft-release door is opened for them to fly free when they choose.

The ready-to-be-released owls will often go back and forwards, not really sure of the open door, but suddenly they are gone! "I give them a little blessing and wish them well," says Gloria.

*Continued on next page*



*Gloria Harris with a rehabilitated Little Owl, soon to be prepared for flight and a new life.*



Injuries to owls are generally due to being hit by cars, causing broken legs or broken wings, or being caught by cats or dogs. The vet that Gloria uses has great skills in splinting little broken legs or wings, which tend to heal well.

Gloria's owl rescue and rehabilitation service comes under the umbrella of the Bush Haven Native Bird Rehabilitation Charitable Trust, which cares for and rehabilitates native birds in Otatara.

For many years Gloria has been a trustee of Bush Haven, having been invited to join by May and Russell Evans, the founders of Bush Haven, who recognized she had a shared interest in native bird rehabilitation.

Gloria was a finalist in the Environment Southland Community Awards, under the Individual Environmental Leadership or Action category. The nomination read: 'Gloria Harris has dedicat-

ed more than 25 years to the rescuing of Little Owl and Morepork in Murihiku Southland.

'Gloria's commitment to the care of these birds has seen her maintain an incredible 100% success rate in the raising of young and their subsequent release back into the wild.

'With her reputation for her great care and passion for owls, Gloria is a contact point for people across Murihiku Southland who discover injured owls, or young who have been separated from their mothers.

'Through her years of experience, Gloria has developed immense skill and thorough systems that allow the owls she fosters to be treated as wild animals and maintain their natural instincts.'

*Gloria can be contacted on 0276164496.*

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## Environment Southland grant for Bushy Point

Environment Southland has awarded a grant from its Environmental Enhancement Fund to the Otatara Landcare Group, to help with the ongoing costs of planting and maintaining the Bushy Point restoration project and pest control in Bushy Point and Otatara.

The focus of the Environmental Enhancement Fund is on protecting and improving what already exists rather than creating new areas like new wetlands or riparian buffers.

'Examples of actions supported by the fund include: Pest animal and weed control, fencing work to restore the natural flow of water and native planting and plant maintenance'.

The grant totalled \$20 000, and is much appreciated in these financially tight times, as previous lines of funding have dried up.

Bushy Point is a DOC-owned conservation area and the OLG has a community agreement with DOC for the care and maintenance of the 14ha project. This includes planting programmes and the maintenance of plantings, maintenance

of tracks and access, purchase and maintenance of equipment, weed control, pest control, liaison with surrounding landowners, and other interested individuals and groups, the health and safety of volunteers and legal liability insurance.

The Environment Southland grant is matched to volunteer hours, but thanks to all the work put in by so many, this will not be a problem!

The Environmental Enhancement Fund will not be available next year, so the committee of the OLG will be searching for other sources of funding to support the work of the OLG.



# TREES AND MORE TREES



## Otatara school digs in for the environment

On a sunny day in September, OLG hosted 140 schoolchildren from Otatara School for their Conservation Week event, *writes Chris Rance.*

Plants had been supplied by the Southland Community Nursery and were trailed onto the site by Barry Smith, caretaker of Bushy Point.

As the visit was a relatively short one, Barry had also pre-dug the holes, so planting was as easy as possible, but the plant guards still needed to be put on so it was a full-on hour's activity.

The schoolchildren seemed to really enjoy sloshing around in the wet ground and getting all those wet-tolerant plants into their new home.

The planting was near the pond and interpretation signs so if you are walking from Bryson Road it's about half an hour's walk from the public en-

trance to Bushy Point. Thanks to the school students, Otatara School's Carla Werder, teachers and parents, Barry and Otatara Landcare Group Bushy Point volunteers for a very productive and enjoyable afternoon.



*Above, Clara Charlton and Nijah Larson getting into the planting!*



*Above and right, Otatara School's environmental champions in action.*



# BUSHY POINT PLANTING DAY

## Worst weather, best turnout!

The Otatara Landcare Group volunteers have been planting in the month of September since 2011 when the Living Legends project began (and before that since the year 2000). But never has the weather been worse than this time – seven degrees and rain!

But cancelling an event like this is like turning around a tanker – it has a momentum, there has been so much preparation (preparing the site, putting all the plants and equipment out, advertising etc), that to postpone and reorganise is a thankless task.

So..... we went ahead, albeit thinking it was not BBQ weather, so that was abandoned. We still didn't know if people would turn up – but this is Southland, and don't we love it!!

The two Chris's and Cathy stood in the rain welcoming people and as they turned up, Barry set people straight into planting. The track was much too muddy to get most cars except 4WDs onto site so there was a few minutes walking to where lots of high-viz vests were waiting on the sand dunes and it went from there.

More people arrived until we had 69 people on site. Unfortunately, the many children who attended last year, weren't there (much too cold), but those who braved it actually seemed to be having fun!

In around two hours all one thousand plants

were in the ground tucked up in their combi-guards safe from rabbits and we wandered home satisfied with the days work.

Another important tree was planted on-site—a special totara tree for our Legend All Black Kevin Laidlaw. Kevin died in July this year but until that time from the 2011 Living Legends planting Kevin and his wife Maymie supported our plantings every year until their health declined over recent years. A special totara was planted by their son and son-in-law.

Many thanks go to Barry Smith for the lion's share of the organising and work, his helpers at the Community Nursery who loaded and placed all the plants the previous Friday, OLG committee members for help with preparation and on the day, Central Baptist Church, the Invercargill Christian Centre and Rosedale Chapel for all their volunteers and everyone else who came from Otatara, Invercargill, Bluff and SIT.

It was actually a great day and if you missed it because you thought it wouldn't be on, there will be another opportunity where you can help release previous years plants, hopefully with the BBQ next time.

*Chris Rance, for Otatara Landcare Group*





## A Summer evening guided walk around Bushy Point

### Wednesday 18th December, 7pm

Meet at 7pm at 5 Bryson Rd, Otatara, for an easy three to four kilometre walk around Bushy Point. We will be on tracks for part of it and off tracks in other parts. Come and see the work that some of the members of the Southland Tramping Club have been doing in assisting the Otatara Landcare Group with their planting days over many years. We will be joined by Otatara landcare Group members on this joint trip. So, come and burn off a few of those calories a week before you put a heap back on with Christmas Dinner!

No need to book, just turn up on the night in appropriate clothing and footwear. The trip is suitable for children and (hopefully) not too wet for push chairs

Contact: Barry Smith on 027 22 88 980

## Sandy Point replanting plan

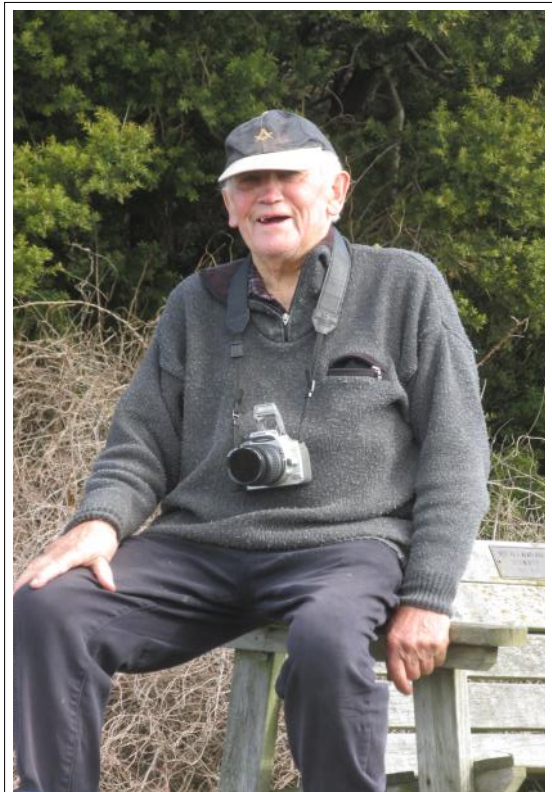
*Pigeon Post approached the Invercargill City Council for an update on the replanting plans following the recent logging operations in Sandy Point. Here is the response:*

The recent removal of ageing trees between the Ōreti River and Sandy Point Road was necessary due to health and safety concerns. Approximately nine hectares of pine trees, along with some poplars and eucalyptus, were taken out.

The marketable logs were sold locally or exported to help offset logging costs, while the remaining slash was processed into wood chips. These wood chips will serve multiple purposes: suppressing weed growth, retaining soil moisture, and moderating soil temperature, all of which will significantly enhance the survival rates of new plantings.

The revegetation plan involves reintroducing native species endemic to the area, planted at one metre spacing. This approach aims for canopy closure within three years, which will help mitigate the risk of invasive weeds and support the success of the new plantings.

This planting plan is driven by the principals listed in the Sandy Point Domain Masterplan. The vision of reconnection this land to represent more of the native and natural settings will provide for a greater visitor experience and the cycleway access can be maintained. The revegetation will occur in three stages, with about three hectares being restored annually.



### **GRAEME CHILDS**

**Graeme, who passed away in November, will be very much missed by his friends on the committee of the Otatara Landcare Group.**

**Graeme was a committee member for many years, was also the 'official photographer' at various events including planting days and willingly helped with various OLG projects.**

**Our condolences to Graeme's wife Beverley and his family.**

# HOW TO PLANT A FOREST



By Chris Rance

Brian and I have been involved with the Otatara Landcare Group since its inception in 1999. The Southland Community Nursery has been going a little while longer - since we bought our 10 acre property on Grant Road in 1993.

A lot has happened since then. When we bought, we didn't want a house in 10 acres of paddock, we wanted more bush, but we settled for the location, the house and started planting!

Over the years we have 'made' more bush, bought more bush adjoining us and protected what forest remains by putting a QEII Covenant on the bush and planting more natives.

To survive the southerly blasts we grow local natives for shelter and seed-producing natives that can tolerate full sun, full wind and full frost.

All this has been made possible with help of growing our own locally sourced plants at the Nursery, with the host of keen volunteers that have been coming to our Friday mornings since 1993.

Volunteers who help out can take home some natives free and many who come have a 'project for their own' and buy plants along with members of the public.

Most nursery projects of this type peter out after a rush of activity in the early years but the Community Nursery is still as popular, if not more so, now than when we started.

While we have been going a long time, and have probably been contributing articles to almost every issue of the Otatara Pigeon Post since the

start of the Landcare Group, we are still a little surprised when people say they have never heard of the Nursery, or 'do we sell plants' or they think the Nursery is run by the Otatara Landcare Group.

Southland Community Nursery is a separate Charitable Trust and yes we do sell plants to fund our activities (it's often the only source of funding we have) and yes we do encourage people to come along on Volunteer Friday mornings or to learn how to propagate native plants at our workshops, and yes we will visit your property to give

advice or welcome you here to see what we've got and what we have done.

In fairly recent times we have had a big schools focus, building an Education Centre in 2013 and employing Bronwyn Graham to run

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*Below, Chris and Brian's restoration area and kahikatea forest.*







school programmes for eight years which were available free to schools.

Unfortunately funding this kind of venture is difficult and very time consuming, so at the moment we have taken a back seat on school visits. Maybe we will revisit this at a later date but at the moment we concentrate on running the Nursery and holding workshops mainly for adults.

On that topic one of our workshop tutors, Jo Ogier, has a fantastic exhibition on until February 25 at the Central Southland Art Gallery in Gore. It is a must visit:

<https://www.esgallery.co.nz/joogier>



*The Southland Community Nursery at 185 Grant Road in Otatara.*

What have we learned from the Nursery and our own property?

- Good things do indeed take time!
- Don't expect it to be easy, there is no quick fix, it takes work and commitment.
- Protect what you have before trying to create by planting (that's the quick fix!).
- Locally sourced native plants succeed best in our, often harsh, southern conditions.
- Planting 'nursery' or 'first responder' plants first is much more successful than trying to plant the big trees you ultimately want (the birds will do that for you).
- There is still a big appetite for planting locally sourced native plants.
- Nursery Volunteer Fridays are as much a social as a plant producing activity.
- Connecting to your place and community is very rewarding.
- If you want to attract native birds, then plant native plants or create habitat for them.
- We can all make a difference to the place we live, even if it is for a short time.
- Planting projects get better with time - you can walk away (unlike pest control).

- If you can dream it, you can do it. Have a vision but don't put timescales on it.
- If you do plant, don't try to overstretch yourself – the planting is the easy bit.
- It is amazingly satisfying to create a lovely environment for the creatures that live here, but also for ourselves and future generations.
- See what we get up to at [www.southlandcommunitynursery.org.nz/news-and-events/](http://www.southlandcommunitynursery.org.nz/news-and-events/)

*Chris and Brian Rance*

[www.southlandcommunitynursery.org.nz](http://www.southlandcommunitynursery.org.nz)

## **Life membership for only \$50!**

Becoming a Life Member of the Otatara Landcare Group costs only \$50, and will help OLG continue its important work for this community and our wonderful environment. This is exceptional value!

Details about joining as a Life Member are on page 19.



## Good news and concerning news, by Kathy Morrison

Before my story of the day, I would like to give a massive thumbs-up to the people of Otatara who have taken care to protect our beloved kereru from window strike this year. We have had only nine injured birds needing help since the usual influx in July and only two of those were from window strike in Otatara. Sadly, we do know that some others have struck windows and died before getting here because the advent of double-glazed windows means that the birds break rather than the windows.

It's good to hear of people looking at the different ways of taking care to mess up the reflection the kereru see and fly into; by not cleaning windows, and using transfers, hanging dangly things and researching and finding innovative options.

GOOD ON YOU! GOOD ON YOU TO THOSE PEOPLE WHO HAVE CARED ENOUGH TO TAKE PRECAUTIONS! On behalf of the beautiful kereru able to fly freely this year, get to look after their chicks, and thrive.

And now for a Note of Caution – Please Do Not Pick Up Seabirds or Waterfowl!

A Buller's albatross recently arrived in the arms of a lovely couple. They'd found it on the beach near the Christie's Track entrance and sought to

*Right, the Buller's albatross on the beach near the Christie's Track entrance before being taken to Bush Haven.*

save it from dogs and vehicles by delivering it to us, bypassing phoning DOC who they assured me would have said to leave it on the beach or lift it up to a good spot in the sandhills.

Their intentions were kind and thoughtful, but things are changing out at sea due to ocean warming and an avian influenza, Highly Pathogenic Avian Influenza (HPAI) which is likely to come our way anytime soon via migrating birds.

Bush Haven is not licensed to handle any seabirds or waterfowl which are most likely to carry this flu and have no facilities for them either, so technically we shouldn't be dealing with any of these birds but under the pressure of a large gap of care in this area we have at times helped.

The albatross died quite quickly after arrival, and then began the phone calls to find out whether MPI or DOC wanted to test it for HPAI, or could advise what we should do with the huge, beautiful creature's body. Not a particularly help-

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## Taking precautions continued



ful experience as neither wanted to do blood tests and were therefore unable to reassure us that we didn't have a case on our hands.

Regardless, please do contact them if you have any concerns about a sick seabird or waterfowl. This situation is going to become extremely serious.

We now need to implement a sturdy protocol for our own sake, and to protect our chooks and dogs and of course the birds in our care.

Bush Haven cannot take sick or injured seabirds or waterfowl from this stage on due to the huge risks of HPAI which is hard to diagnose in some cases without blood tests.

People should not pick up any of these birds off beaches and around other waterways, certainly not without the protection of gloves at least. And there is no real care facility to take them to anyway. We are all also going to have to be very careful of our dogs on beaches with bird carcasses or droppings.

It is early days and as yet there has been no known case of HPAI in New Zealand, which is

not to say we can take risks. If in doubt phone the MPI hotline as this is a biosecurity issue.

We learnt a timely lesson when our natural instincts of care jumped into play and we took the massive bird, to rehydrate if that was the problem, to feed if starving, to save from cars and dogs, and/or to provide rest for a day or two from weather conditions. In that natural response we put our chooks, our injured kereru, our dogs and ourselves at risk without thinking. The albatross, which had no visible injuries, looked majestic and healthy, but died suddenly which gave us pause for thought and made us phone around for information.

Nothing that we were told reassured us that the bird, now buried in our garden, didn't have avian flu, so we are perhaps going out on a bit of a limb but saying we personally are not up for the risk these birds now pose.

So please stick to the native birds for which we are licensed and able to rehabilitate.

*Kathy Morrison*



## Another option for deterring bird strikes

**Another bird-detering product has been found! This reflective holographic bird-scaring tape can be found in garden centres.**

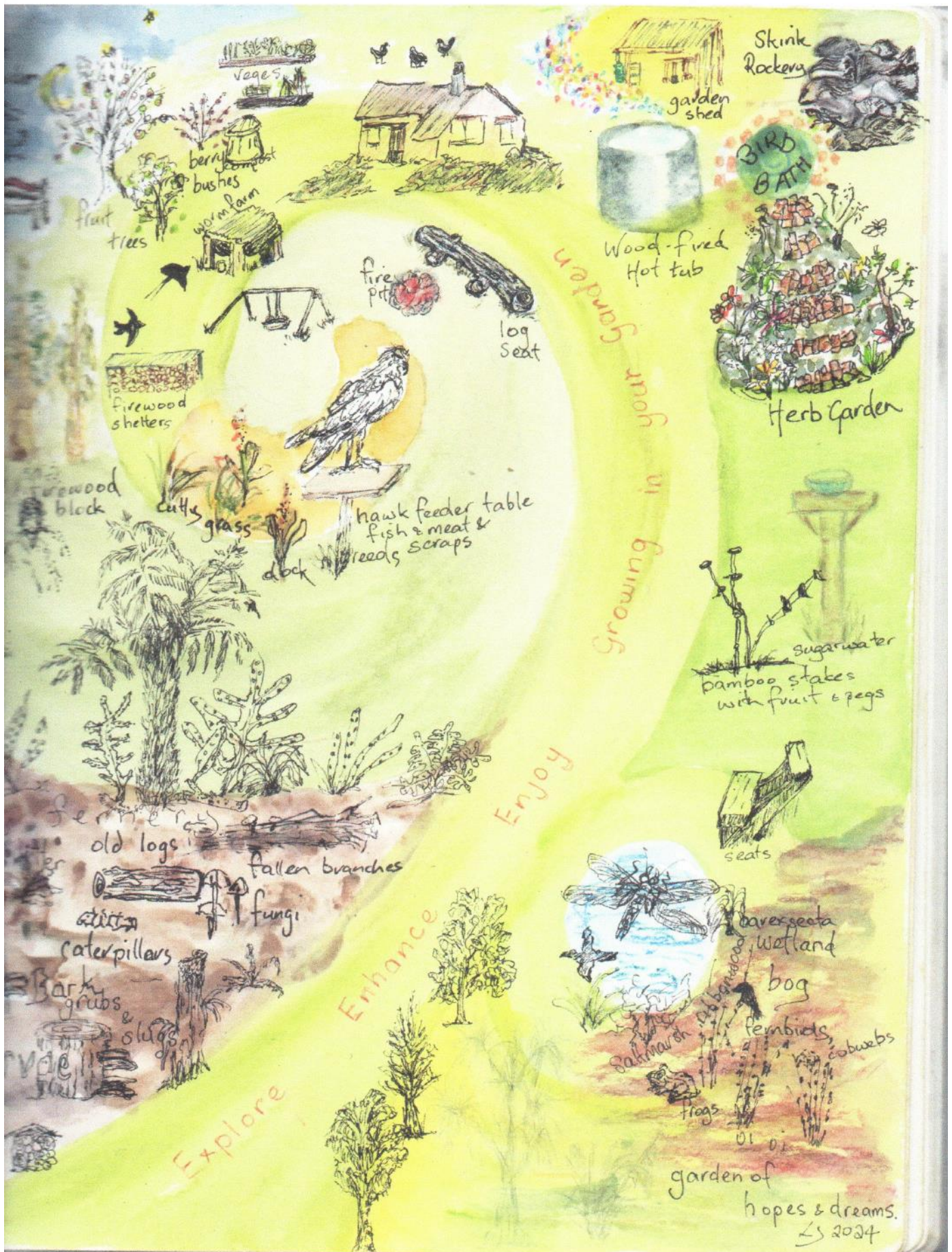
We fixed lengths of the tape outside windows, where they flutter around in the breeze, letting off little pulses of multi-coloured light.

Try it out. It is a very inexpensive and seemingly effective addition to other means of protecting our precious native birds, kereru in particular, from flying into windows.

# OUR GARDEN



By Linda



# DON'T LET UP ON THE PESTS



By Dallas Bradley

The days are getting warmer, and more importantly, the birds are nesting, a time when their eggs and chicks are particularly vulnerable to rats and possums, who by the way, are also in breeding mode.

What better time to reinvigorate or begin your pest control efforts. Make sure you have fresh, not mouldy, bait in your bait stations and traps are set with fresh bait as well.

While you may already have pest numbers down to low numbers, persistence is absolutely necessary to keep it that way.

And persistence pays off – bird numbers are good, tuis and kere-ru galore, plenty of bellbirds, grey warblers and fantails, quite a few kakariki in certain areas and the occasional kaka or three!

You don't have to have bush to have rodents and possums. They love leylandii hedges and garden shrubbery as much as the bush, anything that provides a bit of cover really.

In the case of rats that can also be a shed, a woodheap, the ceiling of your house or even a car. If you are new to Otatara, and judging by the number of properties changing hands, there

must be a few of you, you may not be familiar with Otatara Pestbusters.

Otatara Pestbusters consists of about 300 householders undertaking pest control on their own properties and vol-

unteers who control rats and possums in all the ICC Reserves in Otatara. Membership is free – all

you need to do is buy some traps, trap boxes, bait or bait stations from Pestbusters and hey presto, you are a member – you will have purchased your supplies at bargain basement prices too.

You also receive a pretty little decal to add to your letterbox or fence should you wish.

Contact me on 021784962, 213 0234 or [amberg2@gmail.com](mailto:amberg2@gmail.com) if you want to join the Otatara Pestbusting community, or top up your supplies. Additionally too, we loan out possum traps.

Predator Free NZ might be a big ask but we should be able to give Predator Free Otatara a good nudge – think nationally, act locally!

*Left, the piwakawaka or fantail, abundant in Otatara, thanks to many years of pest control by residents.*



*The kakariki, or red crowned parakeet, rare on mainland New Zealand but there is an established population in Otatara. Pest control will protect these beautiful but endangered birds.*



# SPRING REFLECTION



By Cathy Macfie

One of the (few) perks of growing old is the latitude age gives you to have regular work breaks. I was indulging myself in this way during a session in the veggie patch. I sat quietly on my wooden bench and let my eyes rest on the greengage tree, laden with white blossom.

A tui, oblivious to my presence, was focused on feeding. But then a pair of kereru barged in, landing discourteously close. The tui's body language signalled its offence but, outsized and outnumbered, it wasn't worth a fight and the tui departed.

I watched the kereru. Nothing delicate about their behaviour. They were ripping flowers off their stems and guzzling. Every now and then, one bird on an unstable branch overbalanced and there was a frantic flapping to right itself. Eventually they launched themselves off into the

bush and there was a lull. In the silence I could hear a bee. It too was reaping pollen from the blossom harvest.

Then I looked down. The grass beneath the greengage tree was littered with white petals, for all the world looking like confetti after a wedding.

So often our busy, noisy lives shut out awareness of what is going on around us. I shall treasure those few minutes when I recognised other lives; another world in a fruit tree.

*Below, Cathy's grandson Arthur illustrated her story, and the drawing includes a retreating tui, two kereru and lots of bees!*



# A MESSAGE FROM DOC



## Damage to Tōtara at Bushy Point

Kia ora koutou,

The Department of Conservation and the Otatara Landcare Group are disappointed to find damage in Ōtātara's Bushy Point.

Multiple large, deep holes have been dug out of tōtara forest to make what appears to be bike jumps, as well as tōtara trees hacked at and chopped down.

The OLG are the caretakers for the wider restoration area at Bushy Point and volunteer their time to restoring this beautiful part of Ōtātara. It is a shame to see part of this protected area damaged.

Here in Ōtātara we have Aotearoa's best example of the rare sand dune tōtara forest, its uniqueness makes it well worth protecting. It is important to respect these areas, as they are



home to some of Aotearoa's rarest birds, such as the Kākāriki (Parakeet) and the Mātātā

We understand these acts of damage may have been done in the spirit of fun, and without the realisation that it is an offence under the Conservation Act 1978.

We would like to ask for your help in sharing this information, and we will do the same with the wider community.

Any activity in DOC Reserves need permission – please contact Dani Logan, Department of Conservation Invercargill, on 0800 275 362 to discuss any activities and their permission.

Ngā mihi,  
*Department of Conservation and the Otatara Landcare Group*



*Above, an example of the holes that have been dug in the protected tōtara forest at Bushy Point, and left, the stump of a tōtara chopped down.*

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# GOING SOLAR POWERED

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By Barry Smith

Renewable energy has fascinated me for many years and in early May 2006 we installed solar water heating. The average electricity consumption for a household totally dependent on electricity for heating hot water is about 4,500 kW hrs a year (4,500 units).

One of the good things about the house we moved into in Otatara was that it had a wetback on the fireplace, this provided good water heating during the winter and with the summer being augmented with solar we found that water heating energy from grid electricity, wetback and solar fairly evenly split the energy to about 1500 kW hrs each.

The all-up cost for this project, including compliance and upgrading our switchboard cost about \$7,500. Keeping a close eye of savings I believe that on about 1st January 2024 the solar water system paid for itself with a calculated rate of return of about 6.9% tax free.

Another dream we had was to install PV (photovoltaic) cells and produce electricity. The process for them to become economic has taken nearly 65 years. Initial PV cells produced in the late 1950s and early 1960s cost about USD20/watt output (around \$500-\$600/W inflation adjusted). By the time the late 1960s and early 1970s arrived the cost had managed to drop to USD10/W (about \$160-\$170 a watt, inflation adjusted) and they remained at that price for many years.

There was a massive change about 2008 when the Chinese started building factories for manufacturing PV cells without much thought of the economic consequences. By around 2012 the Chinese were producing some 60 GW hours of panels per year, worldwide demand at the time however was only around 40GW hrs and with the Chinese local and national governments propping up unprofitable companies, something had to give and the price dropped well below the USD1/W and has continued to drop even further. This

means you can pick up 400W panels for under \$250 as opposed to the 1960 price of around \$200,000.

For us, having a son-in-law who is a qualified solar electrician has proved very useful when looking at electrical projects. In December 2023 (in Invercargill) he found a good deal on 415W solar panels. The deal was too good to bypass and we decided to create our own solar array of 12 panels, 415W each, a 4.98 kW system. (This is currently 0.001245% of New Zealand's capacity!)

Many people mount the systems on the roof of their houses and we certainly have a roof with the right slope. Being in Invercargill we are 46.5°S, meaning that panels set at that angle would produce the best year-round output results for a grid tied system, and our roof was at 45°, great! However it is in need of replacement, not so great.

As we have a long, narrow one acre section there was plenty of room out back to mount the panels out of sight and on their own stand-alone frame, the timber for which set the project back about \$1100. As we did all the donkey work ourselves over a 10 day period (plenty of breaks for a cuppa and to do the crossword) including making up the framework, mounting the panels, putting the cabling in place and adding a watering system to facilitate cleaning, it meant it only took a couple of hours for the electrician to hook it all the electrical stuff together and set it going.

If you were thinking about a system yourselves, you will need an indication of cost. My guess that for a 5kW system you should budget around \$10,000-\$15,000 depending on how the system is installed and if you get someone else to do all the work.

Significant savings can be made by doing some of the work yourself. For us I reckon it was about 40-50 hours which if we had to pay someone to do it would have been \$3000-\$4000 for time and

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travel. If you want a smaller system, then that is OK too, costs will be reduced but compliance and inspection costs are the same no matter the size of your project.

In late August with the local supplier going out of the brand of panels we had installed (don't mix your brand and panel sizes, keep them all the same) we purchased three additional panels which effectively increased our array output to 6.225 kW. Whilst this is a 25% increase the inverter will still only poke out 5kW so there are times on bright sunny days where we effectively have spare output not being able to be used.

However, at times of low light and earlier in the morning and later in the evenings we get the full benefit. I have done a rough calculation in that the 25% extra capacity we installed will equate to about a 22% annual increase in power output.

In considering the costs to install there are two things. For us the cost of ground-mounted was about \$1300 in the timber framing and supports. If you are mounting on the roof of your house, you won't have this cost, but you will have scaffolding, required for the safety of those working on your roof.

In putting a system in you need to realise that the dynamics of electricity production and usage don't align 100%. On a nice sunny day in summer we produced 36-40 kW hrs of energy; we used about 12-14 kW hrs and still had to buy some after the sun went down. Most of the days

production was exported. On a really cloudy grey day in April we produced 2.8 kW hrs and probably used everything we produced.

Timing dishwasher, washing machine and other appliances to take advantage of daytime power is a good idea. Also remember that at night when there is no production you will have to suck some power back off the grid to keep your household running. For our system we initially calculated the rate of return on our investment to be around \$950/annum which we thought was quite good.

Now, with 10 months of output under our belt we are getting a much better picture of what is going on. From 1st January till 31st October our savings have been almost \$1200 and we are now budgeting on a figure closer to \$1500 in electricity savings.

To make the economics even better we changed our supplier to Meridian Energy as they were offering a five year contract of selling us electricity at \$0.319/kW hr, buying our excess electricity at \$0.1955 /kW hr, a fixed daily rate of \$0.69 and to cap it off, a \$300 credit. Meaning we are currently looking at a saving this year of about \$1600 (plus \$300 credit) and next year (considering our old supplier was upping the daily rate a further \$0.345 a day) we could be looking at around \$1700 in savings. (About \$150 a month).

This past 10 months has probably been the worst of any for the last few years for sunshine hours, so a La Nina weather pattern this year may well increase our solar output and savings even further. This coupled with expected price rises in electricity over the next two years means we are well placed to keep our costs down and increase those savings.

*Barry's full article and data on production, power used, imported and exported can be found on [otataralandcare.org.nz](http://otataralandcare.org.nz) under "news".*

*Left, the array in the back garden.*





## Te Kupeka o Waimātaimai: Stead Street pump station is now operational

One of the final construction milestones at the new Stead Street pump station was completed on 27 November with the installation and blessing of the mahi toi (cultural artwork) adorning the building's façade.

Waihōpai Rūnaka gifted the name Te Kupeka o Waimātaimai at an official opening for the pump station redevelopment held in mid-August. Waimātaimai refers to the mix of coastal sea and freshwater forming the brackish waters of an estuary.

The Waihōpai Rūnaka Cultural Narratives Committee guided the cultural input and design development for this project. Local artist James York worked with designer Keri Whitiri and the wider project team to develop the kupeka, which was fabricated by Christchurch's Art Fetiche and installed by JK's Engineering.

The open weave design symbolises the importance of environmental care and conservation for future generations. The voids allow water and smaller creatures to pass through, while larger fish can be gathered by the net.

The directional flow of the design represents the interchange of waitī and waitā—fresh and salt waters—emphasising the mana whenua kaupapa and the concept of Ki uta, ki tai. At its heart lies

the mana derived from intergenerational protection and care, ensuring the health and wellbeing of taoka species.

The artwork integrates seamlessly with related projects on Stead Street and Airport Avenue. It is part of Te Ara Tūpuna (Waihōpai to Ōreti) and Te Ara Taurapa, which features mana whenua interpretation panels along the Waihōpai Invercargill-to-Motupōhue Bluff multi-use trail.

These panels map the ancestral pathways (Ara Tawhito) that crisscross the region. Corten Steel was chosen for its durability and self-protective properties, making it ideal for local conditions.

The former pump station will be decommissioned in autumn 2025, with plans for demolition, drain infilling, and grout-filling of old outlet pipes under Stead Street. Fulton Hogan's regional team will manage this work. Planning for tuna monitoring, required under the resource consent for the new facility with two fish-friendly pumps, is nearing completion.

We plan to host a community open day at Te Kupeka o Waimātaimai in the new year, offering an opportunity for people to see the pumps up close and learn more about the pump station's operation.

For further information visit Environment Southland's website <https://www.es.govt.nz/steadstreet>



*Left, artist James York and designer Keri Whitiri in front of Te Kupeka o Waimātaimai. Standing 4-5 metres high, the three pieces of Corten Steel and stainless steel wrap the pump station, drawing inspiration from the open weaving style of kupeka, a long fishing net.*

# Otatara Landcare Group Membership



If you are not already a member and would like to help support the work of the Otatara Landcare Group, just fill in the form below and come and join us. We appreciate all our members both for their contributions of time and financial support. We can't do it without you.

## Membership Form

Please complete form for membership or if you require a receipt for any donation and email to [otataralg@gmail.com](mailto:otataralg@gmail.com).

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I give permission for my contact details to be retained exclusively for the purposes of communication in relation to the activities of Otatara Landcare Group.

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