



Newsletter Number 42 July - September 2010

Seminars / Workshops / Events at the Ecosanctuary

Bookings 482 1755 or info@orokonui.org.nz

All proceeds to our 'Bring Kiwi Back to Otago' fundraising campaign

8th September - Geological history of our region

Chuck Landis, retired professor of geology, will present a passionate illustrated talk on Orokonui's place in the geological history of our region, followed by a walk to study our rocks. Time: 2pm – 4pm. Cost: \$14.90. Members half price.

12th September – Pa Harakeke Planting Workday

It's Conservation Week and we will be adding to this collection of special cultural varieties of flax/harakeke, and other native plants. Some tools and gloves will be provided, or bring your own spade/grubber/loppers/etc. Jobs for children too. Dress warmly for the conditions, with sturdy footwear. Morning tea provided - bring a picnic lunch for afterwards. A Kati Huirapa Runaka - Orokonui Ecosanctuary shared project. Time 10am – 1pm.

12th September – Taoka Tales for children

Tahu Mackenzie will tell magical stories about kaka, robins and other precious fauna and flora followed by a walk in the Ecosanctuary. Time 2-3.30pm. Cost: \$6.90 for adults and children.

15th September - Seed collection techniques

Tom Myers, Botanical Services Officer at the Dunedin Botanical Garden, will talk and demonstrate methods of seed collection. That will be followed by a walk in the Ecosanctuary, providing practical tips for seed gathering. There he will be accompanied by Valerie Fay, planting coordinator at Orokonui, showing what has been done with new plantings in the Ecosanctuary. Time 2pm - 4pm. Cost \$14.90. Members half price

19th September – Pond Perusal for children

Tahu Mackenzie will take children on an exploration of aquatic plants and animals in the Ecosanctuary. Time 11am-12.30pm and 2-3.30pm. Cost: \$6.90 for adults and children.

23rd September - Natives at home

Philip Dunn of Ribbonwood Nurseries will talk about the use of native plants, shrubs and trees in home garden design to enhance the habitat for our native fauna. Philip will be bringing some plants with him, with opportunity to buy them. Time 2-3.30pm. Cost \$5.00

25th September – 10th October - School Holiday Programme

Tahu has organised lots of fun activities for children of all ages. Please see our website for details.

29th September – 13th October – Orokonui Landmark Lecture Series.

Orokonui Ecosanctuary brings the public three illustrious speakers for a series of illustrated lectures exploring the natural world of New Zealand – biogeography, ecosystems, landforms, waterways, conservation and restoration. In this United Nations *International Year of Biodiversity* big-picture topics of biogeographic and natural sciences are highly topical. Please see over the page for details.

OROKONUI ECOSANCTUARY LANDMARK LECTURE SERIES

Inaugural series 2010 - The Meaning of Wild

Orokonui Ecosanctuary brings the public three illustrious speakers for a series of illustrated lectures exploring the natural world of New Zealand – biogeography, ecosystems, landforms, waterways, conservation and restoration. In this United Nations *International Year of Biodiversity* big-picture topics of biogeographic and natural sciences are highly topical.

Wednesday, 29 September 2010, 7.30 pm

University College of Education Auditorium, Union Street East



Evolution, Biodiversity and Predator Fences

New Zealand's native plants, birds and insects are special in so many ways. How has this come about – and why so few mammals? Eminent biogeographer and entomologist **Dr George Gibbs**, of Wellington, is an expert on the origins of New Zealand's unique fauna and flora. He is the author of the award-winning book, *Ghosts of Gondwana*

Wednesday, 6 October 2010, 7.30 pm

Otago University College of Education Auditorium, Union Street East



Our Wild Edge – The Sea

New Zealand has one of the world's largest marine territories and a coastline over 15,000 km long. Yet few of us could name more than a handful of the 17,000-plus species in the waters around New Zealand. Join marine specialist **Sally Carson**, Director of the New Zealand Marine Studies Centre, on a journey into an undersea and intertidal world of murder and mystery, sex and scandal, diversity and division. As human use of the ocean increases, how much wilderness will remain?

Wednesday, 13 October 2010, 7.30 pm

Otago University St David Street Lecture Theatre



The Meaning of Wild

Celebrated photographer **Craig Potton**, of Nelson, will take you on a personal odyssey through diverse wonderlands from Antarctica to Asia and into his favourite remote corners of New Zealand – a blend of the spiritual, political, artistic and scientific. See the wild landscapes, habitats and species that have inspired one of New Zealand's most influential wilderness and nature advocates.

Cost: A banknote donation in support of Orokonui's "Bring the kiwi back to Otago" campaign.

What's happening on the ground at Orokonui?

Pest control

Conservation Manager Elton Smith reports that 1350 bait stations were loaded for a poison operation that started on the 9th of August. Each station will be checked weekly and baits replenished as need dictates. We hope this will result in the removal of any residual rats as well as a hefty knock down of the persistent mouse population.

Weed control

Excellent progress was made felling small eucalyptus saplings along the fence line of Marie's Block with the help of the Malcam trust. John White, a long term volunteer, continues to cut back gorse, broom and Himalayan honeysuckle around the Trust Land. Matt Thompson from Forest and Bird visited to help with planning two days of felling exotic wildling trees over the next two months.

Wildlife news

Frogs

We have DoC approval to go ahead with preparing a proposal for translocation of native frogs. Phil Bishop is writing a summary of the proposal for the commencement of consultation.

Tuatara

Ngati Koata, the iwi with kaitiakitanga (guardianship) of tuatara, is developing a new protocol for translocations before approval of our proposal for release of tuatara.

Kaka

An adult male was recently found dead on the slopes of Mihiwaka. It was probably killed by a stoat, which emphasises how important pest control will be on Mihiwaka as more of our birds take up residence there when Orokonui reaches its carrying capacity.

Much planning has been undertaken to capture our nine free kaka to attach new GPS units to them so we can better track their movements and whereabouts. Kaka have now been reported from as far away as Broad Bay.

Tui

Twenty-two tui were observed on the trust land in one recent morning. Compare this with the single bird that was occasionally seen at the bottom of the valley before the fence was built!

Toutouwai/robin

At least six translocated robins have made their way back to their place of origin in the Silverpeaks. This was expected, and follows the pattern observed in other robin translocations. Of those that took up residency at Orokonui, two pairs have now been confirmed singing vigorously in Marie's Block - a hopeful sign of breeding to come.

We have distributed for comment a proposal to translocate another 25 juvenile robins from exotic plantation that will soon be felled in the Silverpeaks. Juvenile birds are much more likely to remain at Orokonui than are mature ones, such as those that have already departed.

Tieke/saddleback

Three pairs and three of last year's fledglings have been seen recently, and one unidentified individual has been recently heard on the Trust Land. Song thrushes are now incorporating aspects of the saddleback call into their repertoire!

Haast tokoeka

A representative of Te Rūnanga o Makaawhio, the iwi within whose rohe the last few Haast tokoeka survive, met with Orokonui recently to assess ONHT's suitability as kaitiaki (guardians). We are working on a four way MOU (ONHT, DOC, Kati Huirapa and Makaawhio) that we hope will be agreed on in time for a translocation in October to meet with DOC's timeline for transfer. Six to eight breeding pairs will be released with young being returned to Haast when they grow large enough to defend themselves from stoats. Safe sites for breeding, such as Orokonui, are critical for the survival of this species.

We have commenced a “Bring Kiwi back to Otago” fundraising campaign to support this project. Proceeds from our seminars, workshops and lectures in September and October will contribute to this campaign.

Buff weka

After a lengthy wait, we eventually received a critical appraisal of our translocation proposal for buff weka from Te Roopu Weka. As a result we have decided to postpone further action until Te Roopu Weka and the weka recovery group have visited Orokonui to gain a better understanding of the function of the ecosanctuary and its ecological characteristics, especially its suitability as habitat for weka.

Fernbirds

During just one recent early morning walk around the Trust Land, Elton observed seven fernbirds in four locations. What fantastic success for a self-introduced species that is very rarely encountered around Dunedin!

Walking Tracks

Two new side tracks are now open. The Pokaka Loop is a 15 minute loop track featuring old fruiting rimu and pokaka trees. Kaka often frequent this area to find invertebrates and sap in the trees. The Miro Tree track is a 25 metre walk to a beautiful old Miro tree which provides bright red berries that are an important food source for birds.



The Valley Track is nearly finished with one more helicopter drop of gravel, like the last one pictured here, the surfacing will be complete. This has been a huge undertaking of the Rotary Club of Dunedin, other volunteers and our track ranger, Craig Leach.

The Otago Regional Council has funded an alternative return from the Rimu track which will allow for a shorter, one hour circuit preferred by coach and cruise groups.

Tours and Attractions

We have been very busy with the holiday programme, chocolate carnival activities and science festival activities and lectures. It is very evident that special activities attract people here – especially in school holidays when it's good weather. Unguided walks have been popular, but there have been few guided tours. Most visitors at this time of year have come from the area between Timaru and Invercargill. **Annual Passes** for unguided entry are proving popular. Prices for members \$18.90 adult, \$9.90 child and \$43.90 family.

To raise public awareness of the Ecosanctuary and of big-picture topics of biogeographic and natural sciences interest we're planning an annual **Orokonui Landmark Lecture Series**. This year's inaugural series is sponsored by Jean Fleming and has attracted excellent speakers appropriate to 2010 as the international year of biodiversity. The lecture series will be open to the public, well advertised and presented at a sizeable city venue – the College of Education auditorium in Union Street and Otago University's St David Street lecture theatre. A banknote donation will be requested from attending each lecture to raise funds for Orokonui's “Bring Kiwi back to Otago” campaign.

Spring is an appropriate time of year for these lectures, with weather warming, days lengthening and summer recreation in prospect – hopefully walks at Orokonui. We will try not to clash with other public events of scientific and nature conservation interest. These lectures are designed to complement the more specialised talks and workshops held at Orokonui's Centre of Learning.

Education Programme

LEOTC (Learning Experiences outside the Classroom) recently visited Orokonui to evaluate our education programme, run by the exuberant Tahu Mackenzie. It will be no surprise to you that they were mightily impressed!

Tahu did a great job organising activities for the Science Festival and Cadbury Chocolate carnival. She has been writing up new activities and making new resources for upcoming school visits, as well as working with the Science Communication Department and NBNZ to create an Education Programme promotional DVD.

Tahu's upcoming activities include working with Lauren McPhee, an intern from the College of Education Intern, and with zoology students from the University on resource development, carrying out an outreach programme at schools, creating a new senior secondary programme focusing on pest control, updating the website with resources and photos/displays from school visits and the holiday programme, developing interpretation panels focusing on current research projects at Orokonui, finalising aquarium/terrarium design, finalising the overnight stay programme proposal, and creating a forest theatre for our bird puppets.

The Education Programme is one of the most important means of attracting people to Orokonui, and probably the most successful way we have for getting across the conservation message.

Our Visitor Centre is proving a very versatile venue providing effective teaching space for lectures and workshops ranging from the permaculture course 'Farmageddon' to Kelvin Lloyd's recent presentation on remote Fiordland which attracted 70 people.



Dr Allison Knight's lichen workshop



Moira Crossman's stone carving from nature workshop

The Sanctuary Café with stunning views is open daily for coffee and lunches and can cater for group functions.

The Visitor Centre Shop has a great range of gifts for the conservation conscious. Products are NZ made, made of natural materials and are relevant to the Ecosanctuary's flora and fauna.

The Board

The Annual General Meeting was held on 28th July. After formal proceedings, trustee Dr Kelvin Lloyd gave a lively and entertaining illustrated talk about his adventures on Rakiura/Stewart Island.

Three trustees were elected: Neville Peat, who offered himself for re-election after the required stand-down following three years on the board; Alyth Grant, one of our most active volunteers who has wide knowledge of the workings of the Ecosanctuary; and Graeme Leith, a member of one of our most ardent supporting groups, Rotary, and an active participant in volunteer activities at Orokonui. We welcome the new trustees and look forward to their participation in the activities of the board.

The minutes of the AGM are available on our website: www.oroikonui.org.nz.

Life Membership for stalwart Stewart Harvey

Mr Stewart Harvey, a leading figure in the founding of the Orokonui Ecosanctuary, has been awarded honorary life membership of the Otago Natural History Trust. The award, endorsed by the trust's 8th annual general meeting, recognises Stewart's key role in the financing and establishment of the Ecosanctuary. Stewart's ability to rally corporate support, including spearheading memoranda of understanding with the University of Otago and Otago Museum, has been simply outstanding. Mr Harvey, has been treasurer of the Trust since 2003, when the Orokonui project was conceived. Besides being a founding trustee he is a director of the trust's business board, Orokonui Ecosanctuary Ltd.

Species Feature - Orokonui Lichens

Allison Knight

Alyth Grant has done a marvelous job of organising workshops to showcase the Ecosanctuary's smaller life forms in celebration of this International Year of Biodiversity. Lichens were among the 'tiny taonga' she raised from 'hidden in full view' to 'displayed in full view', even on TV! Orokonui is exceptionally rich in lichens and over 60 different species of lichens have been identified from a preliminary look for a workshop run jointly with the Botanical Society of Otago. There are sure to be at least twice that many, most likely even more.

But what is a lichen? Not strictly a plant, it's actually a miniature ecosystem, a fungus in intimate symbiosis with a green alga or a cyanobacterium, or both. Or, as Trevor Goward put it so vividly, "Lichens are fungi that have discovered agriculture". The fungus provides shelter and alga and cyanobacterium food. This makes it easier to understand why the lichen always gets its name from the unique 'farmer' fungus, which shares its green algal or cyanobacterial 'crop' with many other fungi. The cyanobacteria are the 'legumes' of the lichen world, because they can fix nitrogen from the air as well as convert the sun's energy into carbohydrates.

How are lichens identified? First they are divided into three main groups based on shape; **Foliose**, **Fruticose** and **Crustose**, and examples of each follow. Colours range from many shades of green, grey, black, red, orange, yellow, and white. At the workshop we were lucky to see the full range of colours because only when it is moist enough does the fungus become transparent and let the algal colour show through. Dry lichens tend to be a dull grey. Sizes range from many centimeters across to microscopic. Workshop participants were lucky to get a close-up look, thanks to microscopes kindly loaned by the Botany Department, Otago University.

One of the most conspicuous and common of the large, leafy (**Foliose**) lichens at Orokonui is *Pseudocyphellaria rufovirescens*, hanging from the trunks of old-growth trees along the rimu walk and in other shady, moist places. It has a bright green upper surface and a very white lower surface. The red-brown disc-shaped fruiting bodies (apothecia) along the margins of the loosely hanging mature lobes are a good indication that it is a lichen. Nearly all lichen fungi are cup fungi (Ascomycete). On disturbed ground by the track dark grey *Peltigera* species contain cyanobacteria, which can fix nitrogen as well as photosynthesize.

Little twiggy (**fruticose**) lichens abound in well-lit areas. Bright orange *Teloschistes*, pale yellow *Usnea* and grey *Ramalina* species perch on twigs. Great swards of the common and variable *Cladia aggregata*, grow under the kanuka. Many different species of the genus *Cladonia*, which includes the pixie-cup lichens, can be spied in open areas.

The flat, embedded **crustose** lichens often look like paint-splashes on rocks and bark. Powdery yellow *Chrysothrix candelaris* stands out like fluoro paint on kanuka bark, while the white *Phlyctis* species prefer smooth barked trees lining shadier tracks. The most exciting find was an unknown green crust, tag-named *Megalania* "Orokonui". This couldn't be identified in New Zealand and photos have been sent overseas for further investigation. Watch this space for further development!



FOLIOSE *Peltigera*



FRUTICOSE *Cladia aggregata*



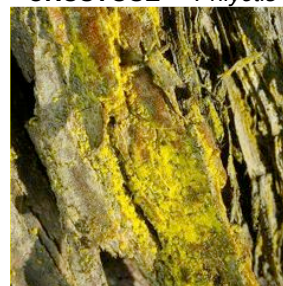
CRUSTOSE *Phlyctis*



Pseudocyphellaria rufovirescens



Teloschistes & Ramalina



Chrysothrix candelaris

Fundraising

We have commenced a '**Bring Kiwi Back to Otago**' fundraising campaign to support our kiwi translocation proposal. We plan to raise \$10,000 by October when it is planned to release 6-8 breeding pairs into Orokonui. Please help with this campaign which is critical to the survival of this rare species

If you'd like to support the Ecosanctuary in addition to your membership consider donations through **payroll giving, automatic payment** and **bequests**. If you'd like further information about any of these options please give the office a call.

Thanks to Mr and Mrs Beatson for a complete collection of Forest and Bird magazines which we have put in our library and to Professor Anthony Molteno for his generous donation of excellent microscopes for our Education Programme. Thanks also to the Rotary Club of Dunedin who donated a portable defibrillator valued at least \$5000.

Staff

Tania Turei, who lives in Waitati, has been appointed to replace Priya Logan in reception/administration. Tania is well qualified for the job, being confident with a variety of software, and being familiar with customer service having run her own shop.

With confirmed ORC and probable Rotary funding we will be able to employ Tracks Ranger Craig Leach for four days a week for another six months. Craig has been flat out establishing the new return track from the Rimu Track viewing platform and the bypass around the aviary.

Volunteers

We have an amazing team of volunteers who contribute more than \$200,000 annually to the Ecosanctuary through their generous labours. Tony Stewart is one of these.

Tony started volunteering at the Ecosanctuary in early 2007 with a track clearing group who helped establish the grid of pest monitoring tracks across the valley. He has since worked on walking track development, pest monitoring, fence monitoring, culvert clearing and gorse clearing. Tony has also diligently mapped all tracks and features of the Ecosanctuary using his GIS skills creating a useful asset. He works at least 8 hours a week for us.

Tony says "I find it relaxing working in the bush and enjoy working with the other people at Orokonui. Even though I hate getting cold and wet the physical exercise is preferable to working out at the gym and I enjoy the satisfaction of contributing to the progress that is being made at the Ecosanctuary"



We warmly welcome the following new members:

Individual

Thomas Gardner
Keith Johnstone
Alistair McMurran
Daniel Lim
Sheila Williams
Helen Harrex
Steffi Rethwisch
W A Walker
Lynn Taylor
Kilda Northcott
Steph McLaughlin
Meredith McColl
Alexander Fergus

Family

Aldo Vaquera & Samantha Farnsworth
Stan & Margaret Hughes
Gunver Fridell & Kerry Killorn

Mark Johnson
D & J Warrington
David Cooper & Family
Steve Murphy & Family
ID & LM Malcolm
Sylvia Sander & Family
Yvonne Atkin & Deon Nieuwoudt
Roger Barrowclough & Family
Simon & Kate McMahon
David & Annie Howell
Stephen Chalcroft
Ian & Roseann Hand
Edwin Nye & Jeanette Leigh
Michael & Mary Browne
Bronagh Quinn
Brian & Pamela Treanor
Coc family
Greig & Rachel Shirley
Keith & Carol Tricker
Ed Bickerstaff

Lynne Collier & Andrew Nicholson
Helen Sharpe
Sally & Keith Kendall
Moody Family
Fiona Balch
Tony Stewart
Kathy Clarke
Don & Carol Bain
Doug & May Bond
Simone Petrich & Hansjoerg Waibel
Andrew Bosworth
Mike & Chris Marshall
Warren Forster
L & D Hill
Vanessa Garguilo-Thorne
Lynley & Myles Workman
Hyram & Adrienne Ballard

Membership Cards

Your membership card is available for collection at the Visitor Centre next time you visit.

Thank you to our sponsors



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