

ŌTARI-WILTON'S BUSH TRUST

News and Views March, 2024



ŌTARI
WILTON'S BUSH TRUST

Our March Seminar Series and Autumn Sunday Guided Walks programmes are now underway. For details, please see pages 6 to 8. (Seminars are by gold coin entry. Walks are free to Trust members & children under 15, otherwise \$6.)

Volunteer working groups – newcomers welcome:

Kaiwharawhara Restoration Project – 2nd Saturday of each month, 9am to midday, contact Wilbur Dovey, 499 1044.

Forest Weeding – 1st and 3rd Thursday each month, 9am to midday, contact Maggie Bayfield 027 545 4333

Gardens maintenance – every Thursday, 8.30am to midday, contact Jane Humble 021 636 226

Our big news! Ōtari-Wilton's Bush Fund



*At the launch – Maddie McLeod, Nikau Foundation
Tim Park, Ōtari Manager; Carol West, OWBT Chair*

Kia ora koutou to all members.

We're pretty excited this month to tell you about the new Ōtari-Wilton's Bush Fund, an endowment fund for the future of native plant conservation at Ōtari-Wilton's Bush. The fund was launched, in partnership with Wellington's Nikau Foundation, at a Trust Volunteer Celebration on February 22.

Speaking at the launch Trust Chair, Dr Carol West, said the Fund will build a reliable funding stream, in perpetuity,

to support the long-term vision of the Trust. The fund will assist in conservation, education and scientific research. It will help to ensure that Ōtari-Wilton's Bush will continue to play an innovative, forward-thinking role in the conservation of New Zealand's native flora, as it has for almost 100 years.

"As a Trust, we have contributed \$70,000 to kick start the fund," she added. "This comes from generous donations from members, and from income generated by volunteers involved with guided tours, plant sales and many other activities".

For those of you unsure about how this endowment fund works, and how we are working with Nikau Foundation, take a read of Trust Treasurer Tim Mason's carefully thought-out explanation on page 4.



Ōtari-Wilton's Bush Fund brochure

Donations to the Ōtari-Wilton's Bush Fund can be made via internet banking, donating online, or you can leave a bequest in your will. Internet banking: via Westpac – Lambton Quay – 03 0502 0163248 001 (Once you have made your donation please let the Nikau Foundation know by emailing accounts@nikaufoundation.nz with your name and address and note that you want to support the Ōtari-Wilton's Bush Fund.) Online via www.nikaufoundation.nz/donate-now (select Ōtari-Wilton's Bush Fund). Bequests can be made via info@nikaufoundation.nz



Message from the Chair



Kia ora koutou katoa

After two La Niña summers, this El Niño season is beginning to have a noticeable effect on the bush. One of the first signs after Christmas was the king ferns *Ptisana salicina* in the fernery and 38 degrees garden lying flat on the ground like sunbathing birds! Both have revived thanks to judicious applications of water. Let's hope we have some appreciable rain in March.

The big news for this period is the successful launch, on 22 February, of the Ōtari-Wilton's Bush Fund – an endowment fund held and managed by Nikau Foundation – see the story on the front page of this newsletter. The event was also a thank you to all of our active volunteers and generous member donors, without whom we wouldn't have been in the financial position to consider a fund for investment in plant conservation and Ōtari-Wilton's Bush in perpetuity. Grateful thanks to all of you! Volunteers also enjoyed a barbecue, brief talks and a quiz at a thank you event at the Leonard Cockayne Centre in December. Thanks Tim and team!

Speaking of donors – thank you to Gail Andrews who donated the balance of funds from the recently wound up organisation Otari-Wilton Environment and Heritage Society Inc, a sum of over \$1000. We have also received a generous donation of \$500 from the Johnsonville Garden Group after Tim Park gave them a talk about Ōtari-Wilton's Bush.

Consultation on the Council's Long-term Plan (LTP) opens on 12 April and runs for a month. If you support the concept of a significantly upgraded, fit-for-purpose nursery and lab, with visitor facilities encompassed, please consider making a personal submission on the Ōtari Landscape Plan within the LTP. The Trust Board will be making a submission.

The cruise ship season has gone well so far, with patrons going away quite excited about the plants they've seen and things they have learnt about our unique flora. The team is getting used to the inevitable schedule changes, particularly last-minute cancellations. Thank you for your forbearance! By the time you receive this newsletter the March Seminar series and Autumn Sunday Guided Walks will be underway – see details in this newsletter and on our website: <https://www.owbt.nz/visiting/>. We look forward to seeing you at some of these events. Thanks to our guest speakers and expert guides for volunteering their time and expertise.

Don't forget you can keep up to date with Trust news via our website, Facebook and Instagram in the space between newsletters. We now have 665 followers on Instagram and over 1220 followers on Facebook – the numbers keep growing thanks to the varied posts!

This year's AGM will be on 8 May – see the notice of meeting on p.9. According to the rule implemented a few years ago, I will be leaving the Board after the AGM. We are seeking nominations of up to three new Trustees so if you are interested, please chat to one of the Trustees, present or past, to find out what's involved.

We have a very skilled and energetic bunch of Trustees and I'd like to thank them all for their hard work and dedication to Ōtari-Wilton's Bush and native plant conservation. I have been very grateful for their support. Thanks also to the whole team of staff at Ōtari – you have been great to work alongside and have a 6-star garden of international significance to be proud of.

Ngā mihi nunui kia koutou katoa!

Carol West
Chair

Ōtari Update



Kia ora koutou

The dry weather has put a lot of stress on plants in the forest and gardens with many plants drooping – none quite as spectacularly as the Para/ King Fern in the Fernery. I was very pleased to be able to support the launch of the Ōtari-Wilton's Bush Fund, which has been established by the Trust with the Nikau Foundation. It is a very strategic initiative that I believe will deliver more scientific research, education and conservation work on our amazing native flora. I am very excited at the potential that this fund brings!



We are excited about the new entrance signage which is in the process of being installed at our main entrances at the moment. This has been a long time coming so it is fantastic to see it being realised. The gardens are quite busy with a steady stream of tour groups and schools enjoying learning about native plants.

Some minor track improvements have been completed on the upper Blue, Yellow and Jock's Track. We are also planning for an upgrade of the markers in the forest this winter, but the unexpected collapse of the bridge near the northern carpark may delay this. Work on the entrance to the Visitor Centre deck is expected to start soon so please respect any detours and keep to the tracks and paths. We have had the trees in the gardens and along the Circular Walk assessed for safety by arborists who have identified some actions we can take but nothing urgent.



Perhaps the most interesting process of drafting the WCC Long Term Plan that I have been part of (and I have seen a few!) has been completed with a draft soon out for community consultation. Please take the time to engage with the process and make your opinions heard. There is a significant investment in water (more than \$4 billion) as well as a new rubbish (and green waste!) collection system proposed which will likely help us reduce cost, carbon emissions, garden waste dumping (the main source of weed infestations in reserves) and the prevalence of rats (they love compost) across the city. Also, funding is proposed for the redevelopment of the Ōtari nursery and resolution of the sewage overflows near the northern carpark.

The lawns are very dry so please respect the no-smoking rules and fire bans. Our friends in animal control have been doing regular patrols and report generally good behaviour by dog owners, while there are a few persistent people who insist on not following the rules who have been getting tickets. Please remind people with dogs off leads that they risk a \$300 fine, do not confront people, but tell them what to do - be their ally. If you are comfortable taking a photo of the owner and/or dog, please send it to info@wcc.govt.nz or log it on the WCC Fixit app.

The team and I are increasingly frustrated at people not respecting the closure of the mulch pile at the northern carpark. We make this available to the public for free and it is annoying when closures are not respected. Unfortunately, we are currently considering alternative locations that do not have public access. Please remind people that when the rope is up across the pile it is closed - no exceptions. On a positive note, the Trust's annual March Seminar Series and Autumn Guided Walks are underway. They include a wonderful mix of expert presenters and guides. Check the programme in this newsletter and mark your diary. Finally, it is fantastic to see lots of familiar faces volunteering at Ōtari as well as lots of new ones! My daughter Tessa is starting to volunteer as a weekend host and she is quite excited about it.

Mā te wā
Tim Park

Kaiwhakahaere Ōtari | Manager Ōtari Native Botanic Garden and Wilton's Bush Reserve
Ngā Māra o Poneke | Wellington Gardens

Papa Tākaro Hākinakina | Parks, Sport and Recreation, Mi Heke Ki Poneke | Wellington City Council
[0212479739](tel:0212479739) Tim.Park@wcc.govt.nz Wellington.govt.nz

The Purpose of the Fund

Most members will be aware that in February, after several years of planning, the Trust launched an endowment fund to be known as the Ōtari-Wilton's Bush Fund, to be managed by Nikau Foundation.

The purposes of the Fund align with those of the Trust, broadly to protect and enhance the natural landscape of Ōtari and Wilton's Bush, to foster an appreciation of native flora in particular and of conservation in NZ in general, and to support education and research in this area. The difference between the Trust and the Fund is that the Fund takes a long-term view and will be managed at arm's length by Nikau in perpetuity with safe and secure management of money which will then be used to support the work of the Trust. Members of the Trust and visitors have always been very generous, with subscriptions, donations of money and donations of time, and members should be reassured that we are not asking for yet more of these donations.

However, we have had indications that some supporters both from within and outside the Trust would like to make potentially substantial donations and bequests, the Trust itself from time to time has surplus income largely from guided tours, and the Fund provides a safe home with a long-term perspective.

From a practical point of view, fund management by Nikau is governed by Nikau's rules. Essentially no distributions will be made until the value of the Fund reaches \$75,000. Nikau use professional fund managers, amalgamate all their funds and distribute Ōtari's share from the surplus on an annual basis after taking a small amount for fund management and retentions to cover inflation and income smoothing between years. Ōtari's share is offered annually to Ōtari Wilton's Bush Trust, and can be reinvested or withdrawn partly or fully in any year. The trustees of Ōtari-Wilton's Bush Trust at the time decide what is the best use of the distribution. At the present time the trustees have decided to reinvest distributions until the fund reaches \$100,000. We have started the Fund with \$70,000 so we are well on the way, and it would be great to see us reach our initial goal of \$100,000 soon.

Trustees will determine how the Fund disbursement is spent, and the vision of the current trustees is that the emphasis for use of any distributions should be on ideas, innovation, education and research. We feel that the responsibility for bricks and mortar lies with Wellington City Council and while we want to work with them and support them, their role is different from ours. Reaching for the sky, we have discussed a vision of say \$20 million, enough to produce sufficient income to have, let's say, an Ōtari professorship or two at Victoria University with a close relationship for both education and research, and scholarships for post-graduate students. Another idea is to offer every pupil of every school in the greater Wellington area a free guided trip to Ōtari, one year at a time so all pupils eventually come at least once, plus build a close relationship with our neighbours at Ōtari School, etc, etc. Whether we can get there or not remains to be seen, but let's give it a go! Your interest, involvement and support, both financially and otherwise, is important and is always appreciated. Please feel free to contact any of the trustees if you would like to discuss any aspect of the Fund further.

Tim Mason
Treasurer, ŌWB.
February 2024



Tim Mason, Jane Humble, Penny Mason, Elizabeth and Krispin Kay



Jessica Beyeler (Nikau Foundation), Robbie Schneider, Kevin O'Connor



Em Lewis (Nikau Foundation), Maggie Bayfield, Adrienne Bushell

Trust Board 2023 - 2024



Chair: Carol West	carolwest@xtra.co.nz	Ph: 387 3396
Secretary: Maggie Bayfield	bayfield@xtra.co.nz	Ph: 027 545433 4333
Treasurer: Tim Mason	timmason429@gmail.com	Ph: 479 0544
Justin Nacey	justinnacey@gmail.com	Ph: 021 211 3019
Kevin O'Connor	oconnorkevin170@gmail.com	Ph: 027 270 9787
Kathy Ombler	kathy@ombler.co.nz	Ph: 027 275 5152
Susan Timmins	Stimmins@xtra.co.nz	Ph: 027 516 2979
Annie Yeates	annieontour74@hotmail.com	Ph: 027 440 0129

The trustees welcome individual communications from members on any matters relating to Ōtari-Wilton's Bush Reserve or the Trust, particularly from those who would like to assist and participate in our activities.

Newsletter: Vera Burton. Phone 938 8207. veeanddave93@gmail.com

Bob Fantl

The recent movie, *One Life*, gives us cause to remember not only how one British man saved so many young lives during the onset of WW2, but later, inadvertently, led to the protection of the magnificent old forest of Wilton's Bush.

Czech-born Bob Fantl was just 15 when he escaped to Britain at the beginning of World War 2. He was saved by Sir Nicholas Winton, the British humanitarian who organised the rescue of 669 children, most of them Jewish, from Czechoslovakia in an operation later known as the Czech Kindertransport. This was the subject of the movie, *One Life*.

In 1940, Fantl moved to New Zealand, where he had organised to meet his mother and sister. Living in Wellington, he became a well known 'modernist' architect.

He was also an avid environmentalist, in an era when environmentalism was in its infancy. He was part of the Manapouri Campaign, waged to prevent raising the lake levels for the Manapouri Power Project. In Wellington, he later fought against the motorway destruction of the Bolton St Settlers Cemetery and, closer to home, led the campaign that saved Ōtari-Wilton's Bush from destruction in the 1970s, when a major road was proposed to link Karori with the northern suburbs that would cut a swathe through the bush.

Fantl led the movement that stopped this destruction, his achievement is remembered with a plaque that rests by Moko, our 800 (plus) year old rimu that survived the road proposal! Thanks Bob.



Autumn Guided Walks

Bring out your walking shoes! Our annual Guided Walks programme is all but complete, and includes its usual mix of interesting and enlightened content, plus some new ideas. Here's what we have planned, along with booking details. Mark the dates in your diary, and watch our website for updates. Remember these tours, guided by some leading experts in their fields, are free to members.



Understanding the ecology of Ōtari

Annemieke Hendricks, Ecologist

Learn how the plants and animals of Ōtari-Wilton's Bush interact and thrive alongside each other.

10th March

The wonderful world of Wellington weeds

Illona Keenan, weed specialist

Hear about the challenges of managing more than 150 weed species found in the city, followed by a walk to uncover some of these invasive species and the problems they cause.

17th March

An introduction to the cutting-edge research taking place at the Lions Ōtari Plant Conservation Laboratory

Karin van der Walt, Ōtari-Wilton's Bush Conservation Scientist

Visit New Zealand's only native plant laboratory and learn about the research happening here to save our rare species - from towering kauri to tiny native orchids and their mycorrhizal fungi.

24th March 60 minutes

*Karin van der Walt
Conservation Scientist*



A walk through the heritage of Ōtari-Wilton's Bush

Kathy Ombler, Ōtari-Wilton's Bush Trustee.

From forest to farm to internationally acclaimed botanic garden: learn about the legacies of the visionary gardeners, botanists, farmers and volunteers of Ōtari-Wilton Bush. See their work, first-hand.

7th April, up to 2 hour.

Leonard Cockayne's granddaughter by his grave

Everything you wanted to know about tawa but were too shy to ask

Dr Carol West, Ecologist

Learn about the biology of this important forest tree and understand why it's the dominant canopy species in many North Island forests.

14th April

The birds of Ōtari

Hugh Robertson.

This is always a popular, easy walk, to learn about the wonderful birdlife to be found in Ōtari-Wilton's Bush with DOC's Principal Science Advisor and renowned ornithologist.

21st April



Hugh Robertson, (and not a local kiwi)

Discover how the plants of Otari-Wilton's Bush defend themselves

Lara Shepherd, Evolutionary Biologist Te Papa

Discover some crafty self-defence techniques that the plants of Ōtari-Wilton's Bush employ to ensure their survival.

28th April

An introduction to the restoration projects in the Kaiwharawhara catchment

Nate Rigler, Project Lead – Kia Mouriora te Kaiwharawhara Sanctuary to Sea

An update on restoration projects in the Kaiwharawhara valley, including Zealandia and Ōtari-Wilton's Bush. With a water-based focus, the session will end with a short walk down to the stream

5th May

Introduction to the fungi kingdom

Geoff Ridley, Mycologist

Fungi are different from plants, they have their own biological kingdom. Join this basic introduction to the enormous fungi kingdom and learn where to find them.

12th May, up to 2 hours

More about the fungi kingdom

Geoff Ridley, Mycologist

For those who know the basics, this tour will delve into deeper detail about our fungi kingdom.

19th May

An introduction for beginners to Wellington's common native plants

Leon Perrie, Curator of Botany, Te Papa

Learn about the diversity of our local and common native plants, and gain appreciation of the ecology and requirements of the plant life around us.

26th May



NOTE:

All tours start at 2pm, at the Otari Visitor Centre, Tāne Whakapiripiri.

All are for about 90 minutes (unless otherwise stated) and involve easy walking (sensible walking shoes are recommended). Tours are free to Trust members, otherwise cost \$6 (including \$1 booking fee) Please, whether you are a member or not, make your booking via Eventfinda (eventfinda.co.nz). Tours are limited to 20, family groups are welcome.

Ōtari March Seminar Series

For more than a decade now, the Trust has been presenting an annual programme of seminars, inviting experts in their fields to present research findings and specialist knowledge about the wonderful natural world supported in Ōtari-Wilton's Bush.

The programme for March, 2024, looks set to be a fascinating collection of views and knowledge. Here's what's on the list:



Tuesday March 5: "Genetic restoration of maire tawake in a changing natural environment: learning for this taonga species and thoughts on Aotearoa's drive to restore habitat"

Colan Balkwill, Te Herenga Waka - Victoria University of Wellington

Aotearoa New Zealand is on a zealous drive to restore its natural habitats, and ensuring its species can adapt to changing stresses in future needs to be part of this. In this talk, Colan Balkwill will discuss his PhD work focussed on ensuring the complete genetic diversity, and by proxy adaptability, of a taonga wetland tree species is captured in restoration projects. He will also reflect on how these findings relate to the conservation and restoration of the plant species in Aotearoa as a whole.

Tuesday March 12: "Is it art or is it science? The difference between Botanical Illustration and Botanical Art and why this continues to be relevant in the age of technology."

Jane Humble, botanical artist, co-ordinator Ōtari-Wilton's Bush Trust propagation nursery

This talk will include a brief history of botanical illustration, with particular reference to the flora of New Zealand, along with brief histories of New Zealand botanical artists, some well-known and others not so well known.

Tuesday March 19: "100 Year moth project – update and overview"

Julia Kasper, Te Papa Lead Curator, Entomology / William Brockelsby, entomologist and 100 Year Moth Project co-ordinator

The Entomological Society of NZ Wellington branch is partnering with Ōtari-Wilton's Bush to generate a species list for moth and butterfly fauna found throughout the reserve. Our efforts will be compared to historical lists generated 100 years ago by eminent entomologist, George Vernon Hudson, with the ultimate aim of using moths and butterflies to tell the story of land use change and restoration in the wider Wellington region.

Tuesday March 26: "Weedy ferns in Aotearoa New Zealand"

Leon Perrie, Curator of Botany, Te Papa

We will begin with an introduction to ferns and how their biology compares with other land plants. We'll then hear an overview of the ferns in New Zealand, and discuss the characteristics that are useful for distinguishing different species of ferns. With that as background, we'll turn to looking at the weedy ferns in New Zealand – 64 exotic species have been recorded as present in the wild, of which 27 are fully naturalised. The 13 that are most problematic will be detailed – their distinguishing characters and distributions. As Te Papa Curator of Botany, Leon's research focuses on the taxonomy and relationships of New Zealand's ferns and lycophytes. He was the lead science curator for Te Papa's principal natural history exhibition: *Te Taiao Nature*.

Please Note: All seminars will start at 7.30 pm in the Ōtari Visitor Centre, Tāne Whakapiripiri, Wilton Road. Gold coin donation. No bookings are required but these seminars can be popular. Be prompt to be sure of getting a seat!

Plant sales are here

The first plants sales from our new, very own Trust nursery have attracted huge interest.

Sales are now being held monthly (on the second Saturday of the month, starting at 10am) at Tāne Whakapiripiri, the visitor centre. Jane and other nursery folk will be in attendance to guide and advise. Some plants will be available other weekends, just check with our weekend hosts.

Kudos must be given to plant propagation leader Jane Humble along with Lynley Trower, who have spent hours and hours of volunteer time, developing the nursery and propagating selected plants to nurture for sale.



In turn they have been supported well by Ōtari's garden staff, Megan Ireland, Dave Bidgood and Tom Belworthy. We also welcome the new volunteers who have put their hand up to help out.

The plants on offer have been deliberately selected as suitable for domestic gardens, for Wellington conditions in particular. The new propagation project fits well with the Trust's aims to promote awareness of our native flora, and at the same time supports the wonderful work happening at Ōtari with any funds raised. It's also nice to know some of Ōtari's special native species are now finding homes a little further afield.

Plant propagation leader, Jane Humble, in the new Trust nursery preparing plants for sale.

NB: The next sale is Saturday, 9th of March

Here's the current list of available plants. You can discuss specific requests with Jane on sales day.

Acaena juvenca

Brachyglottis greyi

Brachyglottis laxifolia

Carex comans

Carex flagellifera

Chionoichloa conspicua subsp. Conspicua

Geranium microphyllum

Geranium traversii

Jovellana sinclairii

Leptinella calcarean

Leptinella potentillina

Leptinella squalida susp. squalida

Lobelia angulata

Melicytus orarius

Myosotis eximia

Myosotis pottsiana

Plantago triandra

Veronica diosmifolia

Notice of 24th Annual General Meeting

Notice is hereby given to Trust members that the twenty-fourth Annual General Meeting of Ōtari-Wilton's Bush Trust will be held in Tāne Whakapiripiri/Ōtari Visitor Centre, 150 Wilton Road, at 7.00 p.m. on **Wednesday 8 May 2024**. Agenda details will be sent out closer to the date.



Pā Harakeke – a cultural resource



Ōtari’s new Pā Harakeke is more than a simple collection of flaxes - it has been deliberately designed as a dedicated cultural resource for weavers.

Pā Harakeke, which officially opened last December, contains varieties of flaxes selected from around the country that are part of the Manaaki Whenua National Flax Collection. These were originally chosen by traditional weaver and researcher, Rene Orchiston, for their special leaf and fibre properties. They include specific varieties suited for making kete, whāriki, piupiu

and cloaks.

Ōtari’s Pā Harakeke was designed and planted in 2019, with collaboration from the Ōtari Raranga Weavers.

For Ōtari-Wilton’s Bush manager, Tim Park, bringing people and plants together is the essence of a botanical garden. Speaking at the opening he said: ‘These plants are able to be used, these are resources that can strengthen our cultural connections. We are really fortunate to have this collection, and to have the dedicated Linda Lee and Frank Topia, from Ōtari Raranga Weavers, to guide us.

‘We’ve decolonised the signs,’ he added, explaining that reo names had been given for each of the flaxes planted in the pā.

Weavers from around the Wellington region, staff, trustees, volunteers and interested locals all came together for the opening. They sang tautoko waiata and took part in a hauhake (harvest), with Linda Lee explaining the harvesting protocols. Some of this harvest was put to immediate good use at a raranga wananga (weaving lesson) hosted by Ōtari Raranga Weavers.



And for future reference, Pā Harakeke is now available as a resource for weavers from around the region. However only ‘Approved Collectors’, who have obtained an official permit to show that they understand the protocols involved, are entitled to harvest from here.



Ōtari Raranga Weaving workshops

Right: Grace Tualaulelei

Below right: Tutor Frank at the raranga wanganga

Below left: Lili Yochay, Linda Lee, Grace Tualaulelei



Courses for 2024 have begun. The next class will be on March 16 (11am to 2pm at the Leonard Cockayne Centre). Wednesday 20 March will be the first evening class (6pm - 9pm at Tāne Whakapiripiri). There will be more through the year. All classes are suited to beginners and intermediate, and we accept koha. Book through Eventfinda.

Lions Ōtari Plant Conservation Lab update

Karin van der Walt

Orchid Conservation Project

We are now in the third, and final, year of our orchid conservation project, funded through Lotteries Environment and Heritage. During this project we focussed on five threatened species and identified more common surrogates to optimize our methods (**Table 1**). Our objectives were to 1) assess populations, 2) collect and germinate seed, 3) identify and grow the mycorrhizal fungi, 4) conserve both fungi and seed through cryopreservation and 5) where possible, establish living collections and/or restore populations. It seems like the project team comprised of Carlos Lehnebach, Jennifer Alderton-Moss and I got a bit carried away and have so far worked on both *Drymoanthus*, 9 *Pterostylis*, 3 *Gastrodia*, 7 *Corybas* and then a *Caladenia* for added interest! We are delighted to have all our target and surrogate species successfully germinated with trials currently underway to restore *Gastrodia cooperae* and *Drymoanthus flavus*. We also published a paper in the New Zealand Journal of Botany entitled: 'Asymbiotic germination, seedling establishment and fungal uptake of *Pterostylis montana* and *P. paludosa*, two orchid species endemic to New Zealand'. Our next steps for the orchid conservation project are to establish our seedlings under nursery conditions and make sure both seed and fungi can survive cryopreservation. At the same time, we are exploring various funding options to continue the work.

Table 1: The five target species, their conservation status and more common surrogate species included in the Orchid Conservation Project

Target Species	Conservation Status	Surrogate Species
<i>Corybas dienemus</i>	Nationally Critical	<i>C. hatchii</i>
<i>Drymoanthus flavus</i>	At risk - Declining	<i>D. adversus</i>
<i>Gastrodia cooperae</i>	Nationally Critical	<i>G. sesamoides</i>
<i>Pterostylis irwinii</i>	Nationally Endangered	<i>P. banksii</i>
<i>P. micromega</i>	Nationally Critical	<i>P. banksii</i>

Spider Orchids (*Corybas*)

Conserving *Corybas* (spider orchids but called helmet orchids in Australia) is very challenging. Not only are the capsules tiny and the seed seemingly dormant, but they also take a very long time to germinate! Perhaps that is the reason why there are still no published studies on the successful seed germination of any *Corybas* species in the world. We may just be able to change that! Using a grant from the Australian Orchid Foundation, over a two year period we will be looking into the propagation and cryopreservation of nine *Corybas* species (*C. carsei*, *C. cheesemanii*, *C. cryptanthus*, *C. dienemus*, *C. hatchii*, *C. hypogaeus*, *C. iridescens*, *C. macranthus* and *C. oblongus*). So far, we have managed to germinate *C. carsei*, *C. cheesemanii*, *C. dienemus* (Fig. 1) and *C. hatchii* with *C. oblongus* looking promising!

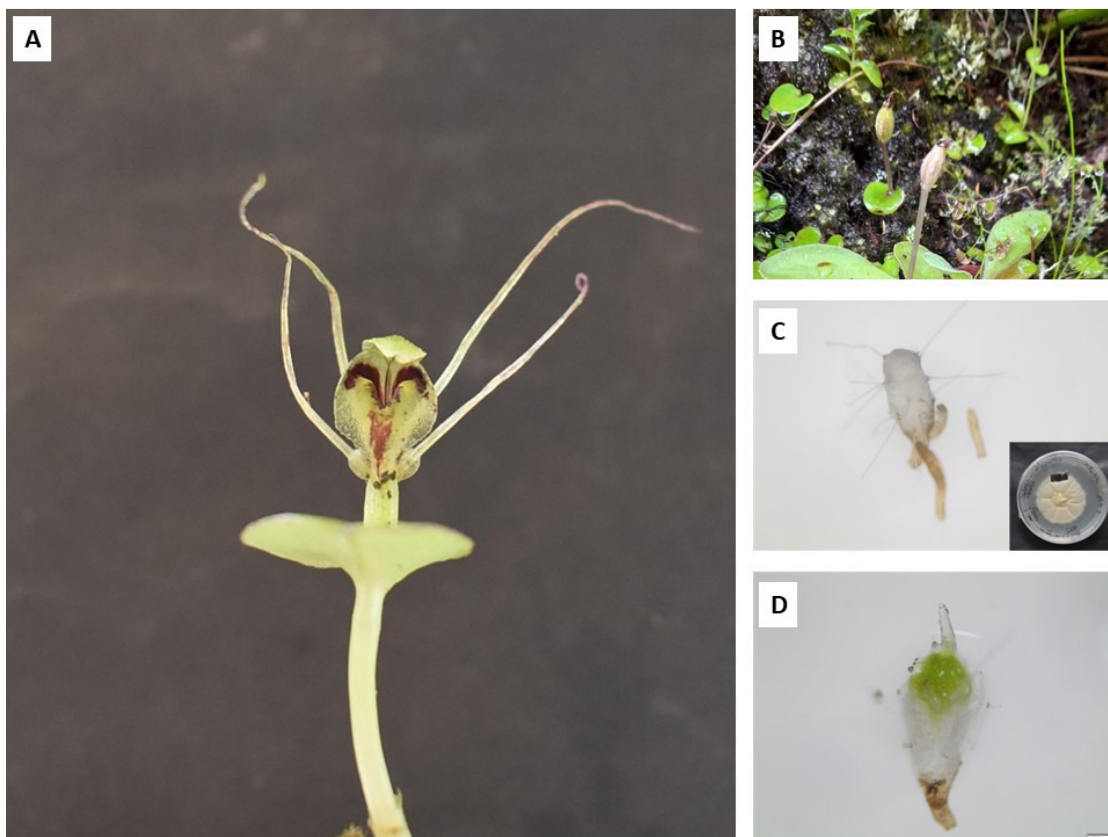


Figure 1: *Corybas dienemus* in flower (A) with capsules maturing in mid-December (B). Seed of *C. dienemus* was germinated (C) using two orchid mycorrhizal species but only one supported seedling development (D).

Onion Orchids (*Microtis*)

This summer the Deane Endowment Trust has once again generously supported another summer scholarship which enabled us to focus on onion orchids (*Microtis*). Ben Carson spent his summer getting familiar with *Microtis oligantha* and *M. unifolia* and wrote a fantastic blog on his findings which you can read online by searching for 'Te Papa + blog + onion orchids' or following [this link](#). Ben has been such a great asset for us that he will be continuing his work through a short-term contract before heading off to Canada in June. Thanks for your excellent mahi Ben!

Conservation and Restoration of Araucariaceae

In June last year we secured a grant from the Royal Society for the conservation and restoration of Araucariaceae in the Pacific Region. The project concept was seeded by the results from all those kauri cones and seed processed with the help of so many Trust members since the first lockdown in 2020 (Fig. 2). This project will bring together an international research team from New Zealand (Ōtari lab, Plant and Food Research and Victoria University of Wellington), Australia (PlantBank), Fiji (Pacific Community's Centre for Pacific Crops and Trees), UK (Kew Millennium Seed Bank) and Spain (University of Valencia). The research team will investigate the best ways to collect, grow and store seed from various *Agathis* species and *Wollemia nobilis* (Wollemi pine). The first kauri cones have started to fall during the last week of February and arborists are on their way to help us collect from various trees at Ōtari. As soon as we have sufficient seed, I will be visiting the tissue culture lab at Plant and Food Research in Palmerston North where we will be looking at the lipid behaviour in the kauri embryos using differential scanning calorimetry. In June all the researchers will spend a week at PlantBank in Australia where we will perform various experiments using the Australian species *A. microstachya*, *A. macrophylla* and *Wollemia nobilis*.



Figure 2: *Agathis australis* (kauri) collected in March 2021 ready for measuring and processing.



The trap that went to the beach

While we know and love that the birds move all around the Kaiwharawhara catchment, we do expect our predator traps to stay in one place. Not so, it seems.

In early February, Jim Tait from RAMBO was contacted by Briony Ellis, from Predator Free Khandallah. Had we lost a trap, she asked? One of their group was engaged with reclamation work at the mouth of the Kaiwharawhara Stream, when he found a trap washed up on the beach.

The trap was a Victor, fixed inside a wooden trapping box and labelled with a 'KS' tag. The finder thought the 'K' might refer to Khandallah, so took the trap to that group. However, Briony knew it wasn't one of theirs so contacted Jim – wondering if the K stood for Kaiwharawhara and if it was one of ours. Jim thought it highly unlikely.

To reach the harbour from Ōtari the trap would have had to be washed through Ōtari-Wilton's Bush, under the road and on through Trelissick Park, through the Kaiwharawhara commercial area, under the motorway and out into the harbour before washing up further along on the beach.

Well, you've probably guessed – it was indeed an Ōtari trap, originally located just upstream of the Troup Lawn. It was one of three that were swept up in the big flood of trees and silt that poured into the Kaiwharawhara from the devastating Wilton Park slip, in the winter of 2022.

The other traps were found but until now this one had been thought lost for good. Now it's restored and back on predator control duty!

Volunteering through the generations

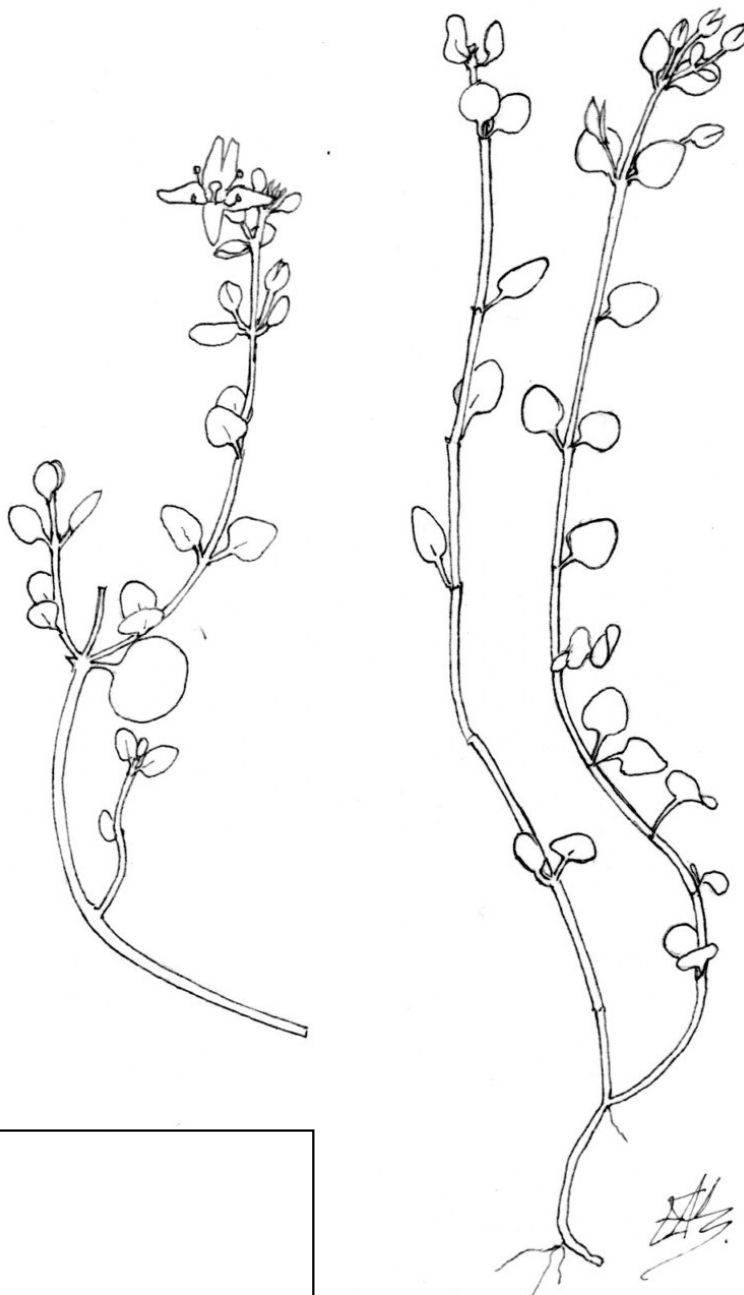
It's been great to see more young faces popping up among our bevy of volunteers. Tessa Park is the latest to join our Weekend Hosts, as she builds towards achieving a Duke of Edinburgh Award. And if you recognise the name Park, yes it runs in the family - Tessa is the daughter of Ōtari Manager, Tim Park. Seen here with stalwart volunteer host, Ruth-Mary James, Tessa follows in the footsteps of students, Zyla and Lainey, who started volunteering last year as part of their Duke of Edinburgh Award and still continue their involvement.

The scale of work achieved by the Trust's one hundred or so volunteers was made truly apparent at a thank you lunch hosted by Ōtari staff late last year. Here's a quick round up from the recounts from each group. The new forest weeding team has been attacking bamboo, ivy and tradescantia and is encouraged by how many weeds a bunch of people working together can move in a short time. The gardens maintenance group is loving the opportunity to work with Ōtari garden staff on the special plant collections – and would welcome more hands to help make lighter work! RAMBO trappers continue to catch rats, but few stoats, hedgehogs and possums and annual monitoring shows that Ōtari has one of the lowest animal pest rates in the region. The Trust's nursery propagation project has moved forward to the point that regular, monthly plant sales are

now scheduled. The Kaiwharawhara Revegetation Group has been weeding new plantings on the big slip, and started working with Kia Mouriora te Kaiwharawhara Sanctuary to Sea. A bevy of new volunteer tour guides has come on board for the busy summer season, which achieves the Trust's aims of building awareness (and raises funds for plant conservation work). In fact, one of the tour companies has been so enamoured with the knowledge and support of our guides they recently sent a major contribution towards a thank you function for them. This was held on February 22, in conjunction with the launch of the Ōtari-Wilton's Bush Fund.



Tessa Park and Ruth-Mary James, volunteer weekend hosts



Mentha cunninghamii

hīoi, New Zealand mint

This plant is found throughout the North, South, Stewart and Chatham Islands. It grows in grassland and open places, occasionally wetlands.

It is not common, and its Threat status is At Risk, Declining.

It is a groundcover, attractive once established, with a mint scent when crushed.

At Ōtari it can be seen growing in the Alpine Rock Garden, next to the tarn.

Drawing: Eleanor Burton

Membership Application/Donation form.

Please note there is also one on the website which can be completed and submitted electronically or downloaded and printed and sent by post or email.



MEMBERSHIP / DONATION FORM

YOUR DETAILS

NAME/S

ADDRESS

PHONE NUMBERS

EMAIL ADDRESS

BILLING NAME & ADDRESS (if different from Above)

NEW MEMBER OR RENEW

INDIVIDUAL \$20

DOUBLE/FAMILY \$30

CORPORATE \$30

NEW MEMBER

\$

\$

\$

\$

\$

P

DONATE

\$20

\$50

\$100

Other

\$

COMMENTS

