

# OTARI-WILTON'S BUSH TRUST

## News and Views June, 2018

Web site: [www.owbt.nz](http://www.owbt.nz) For all walks meet at the Information Centre, Te Marae o Tane unless otherwise stated. Walks with talks first will start at the Leonard Cockayne Centre. Unless otherwise stated walks are free to Trust members and children under 15, otherwise \$5. For information re walks and seminars contact the Treehouse on (04) 499 1400

The second Saturday of each month. 9am	<b>Plant care</b> is on the second Saturday of each month. Contact Wilbur Dovey, 499 1044.
<b>Fridays</b> <b>22 June, 6 July</b> <b>20 July, 27 July</b> <b>7pm</b>	<b>Glow worm walk.</b> See p 3 for details. You'll need good shoes, warm clothing, and a torch. All children must be accompanied by an adult. Meet at the Information Centre. <b>Bookings are essential – search 'Eventfinda' for 'glow worm'.</b> <i>Leader: Dave Burton</i>
<b>Sunday</b> <b>24 June</b> <b>2pm</b>	<b>"The Native Podocarp Grove."</b> In the 1930s the Otari staff planted kauri and a selection of podocarps (Think of conifers) on the ridge where the pylon stands. We will walk up the Red Trail to the pylon, and then down the ridge to find these 70-90 year old trees hidden in the greenery. Return via the Troup Picnic Lawn and admire the kauri in the cultivated area. This should take us a little more than an hour. Good walking shoes or boots advisable. <i>Leader Rodney Lewington</i>
<b>Sunday</b> <b>22 July</b> <b>2pm</b>	<b>"100 years of planting in Otari"</b> Have you ever wondered how Otari got its varied forms and plant collections? This started even before Otari became a native plant museum. We will spend, perhaps, two hours to tell you the history of some of the constructions and plant collections that now form the cultivated area of Otari. You won't need boots or even strong shoes for this casual walk around the cultivated areas. <i>Leaders Clare Stanford and Rodney Lewington</i>
<b>Sunday</b> <b>26 August</b> <b>2pm</b>	<b>"That Plant Deserves a Second Look".</b> This will be an easy 1.5 hour walk and talk in Otari Wilton's Bush. We'll be looking at some features, both good and bad, of a range of plants that might intrigue and surprise you. <i>Leader: Chris Moore</i>

# **Otari-Wilton's Bush Trust**

## **Trust Board Report 2017-2018**



This is the 18th annual report of the Trust and it has been a full year of activities for Otari-Wilton's Bush marked by retaining its Green flag garden status.

The staff are to be congratulated on their efforts.

The Trust has also continued to put a number of building blocks in place to assist in promoting and improving the overall experience at Otari-Wilton's Bush and education in New Zealand Native plants.

The Board activities have included:

- 1) Representing member's interests in the annual plan process to ensure Otari-Wilton's Bush capital funding was confirmed.
- 2) Making submissions to Council on matters impacting Otari-Wilton's Bush specifically toilets which have seen some improvements and change of hours.
- 3) Continuing trapping availability to Wilton residents and funding of some new more pest eradication equipment
- 4) Providing volunteers, refreshments and BBQ for the Open Day
- 5) A new submission to the WCC on the three year plan currently under review.
- 6) Arranging provision of hosts at weekends at the Information Centre.
- 7) The decision to get further involved with plant propagation in the nursery.
- 8) A range of volunteer services during each week to assist with garden maintenance
- 9) Supervision of the revegetation maintenance and planting on a monthly basis
- 10) Planning volunteer guide operations for tourists to Otari-Wilton's Bush
- 11) Making a submission to DOC on their conservation management strategy.
- 12) Delivering the very successful series of seminars on Tuesday evenings in March.
- 13) Assistance with the funding for the Pollination Board game by Jil Hemming
- 14) Maintenance of a web site and Facebook page for the Trust.
- 15) Contribution to the funding for staff to attend the NZPCN conference in Hokitika

### **Planning**

The Board has been discussing a number projects within Otari. Early in 2018 a one-off opportunity for Otari to build a plant conservation laboratory in the current nursery meant plans for the Rimu platform were put on hold. Our submission to WCC outlines priorities for the Rimu platform and upgrade of the Information Centre.

### **Project Rambo (Rats and Mustelid Blitzing at Otari)**

This project has now been going for a number of years and the experience is making it more successful. Jim Tait is producing regular reports and liaising with GWRC and other nearby groups. Now with the new Government Predator Free 2050 strategy Jim Tait has a wider role helping in the Wellington area.

### **Hosting and Guiding**

The Trust has recruited and trained a number of guides and hosts this year.

We are also getting more requests from NZ based groups and conferences which is good promotion for Otari-Wilton's Bush. We are now promoting this better with the web site and new bookmarks. Our special thanks go to Rodney Lewington, Bev Abbott and Margaret Crimp who are leading these two keen bands of volunteers. Feedback has been great and improvements are always being made.



The monthly walks programme was well attended. This year's March seminars were very well attended. Our special thanks to Trevor Thompson, Ruary McKenzie Dodds, Wendy Nelson, and Tessa Roberts for their participation.

### **Membership**

The current membership is up slightly on last year and we are actively welcoming new members to assist with our many activities. A special welcome to all new members this year.

### **Finances**

A summarised financial results report shows an excess of income over expenditure with some expected expenditure not made due to delays with planning. Expenses were as expected with a further category Publicity being added to cater for website and other promotion expenses incurred. NZPCN was on again this year with a good Otari attendance and other Wellington Gardens staff.

Overall though a very satisfactory result with great help from many volunteers.

### **Newsletter**

Vera Burton continues to do a valuable job on our newsletter and we hope you enjoy the regular information about Otari-Wilton's Bush. There is also a database of newsletters available from our website.

### **Conclusion**

In presenting this report on behalf of the Trust Board I would like to acknowledge and thank fellow trustees, the Otari-Wilton's Bush staff, WCC managers, Trust volunteers and members for their support during this year in all activities of the Trust.

We can look forward to another excellent year for Otari-Wilton's Bush and the arrival of the Plant Conservation Laboratory.

Phil Parnell  
Chair  
Otari Wilton's Bush Trust

## **Glow Worm Walks at Otari**

**Walks on Fridays:** 22 June, 6 July, 20 July, 27 July.

Glow-worms are alive and well and living in Otari – they prefer a moist, vertical bank, dark and sheltered from the wind so that they can hang their sticky-thread nets and light their tails as a lure for midges. You'll need good shoes, warm clothing, and a torch. All children must be accompanied by an adult. Meet at the Information Centre.

**Bookings are essential – search 'Eventfinda' for 'glow worm'.**

Cost: \$6, children under 12 free.

*Leader: Dave Burton*

# Otari Report



Kia ora koutou,

It was lovely to catch up with Trust members at the recent AGM and nice to see to see some new faces on the Trust Board. It is the end of an era with the departure of Margaret Crimp from the Board. I'd like to personally thank Margaret for the time, interest and enthusiasm she has put in to the Trust and Otari, it's always a pleasure to have her pop into the office (which we look forward to her still doing).

We held an event recently at the Information Centre to celebrate funding offered to us from the Karori Lions Club. The Karori Lions Club approached Otari in September 2017 with regard to funding a project which celebrates the Lions Centenary through a Centennial Legacy Project during July 17 – June 2018.

After discussing several projects we had in mind, it was decided that a Plant Conservation Laboratory at Otari suited their requirements for a Centennial Legacy Project. The Plant Conservation Laboratory will provide specialized research equipment which will enable us to effectively germinate and store plant germplasm such as seed, pollen, cuttings and embryos. The lab will also be used for some duplicate storage of seed by the NZ Indigenous Flora Seed bank.

The decision to purchase new equipment housed in a dedicated facility meets our increasing desire to meet our conservation objectives in both our Wellington Gardens Management Plan and WCC Biodiversity Action Plan. A Portacom building was selected to store the equipment in one facility. The Portacom provides space for incubators, freezers, media and chemicals and enables us to create a sterile environment.

As an example of the work the lab will enable us to build upon is the positive outcomes we (Otari and Te Papa) have had with *Metrosideros bartlettii* (Bartlett's rata). The information collected during the 2018/2019 flowering period for *M. bartlettii* will be expanded using the laboratory through the following:

- Assessment of pollen viability from parent plants through germination and staining. A new microscope with camera will enable us to effectively record viable pollen;
- Determine pollen viability over time and under various storage conditions. Understanding pollen viability will enable us to collect and store pollen which can be used to pollinate individual trees. This also provides us with opportunities in the future to harvest pollen from wild populations and/or pollinate individuals in the wild;
- Assessing seed viability from the flowers we hand pollinated here;
- Storage of seed in -20°C freezers and in liquid nitrogen (-196°C);

Along with increasing the capacity of our staff to respond to plant conservation challenges, the laboratory will provide a resource for partner conservation organisations, private ecologists, research institutions and tertiary students conducting plant conservation related work. Endorsement support letters for the project were received from Victoria University Botany Department, Te Papa Museum and Plant and Food Research.

Kind regards,

Rewi Elliot, Manager - Otari-Wilton's Bush

[rewi.elliott@wcc.govt.nz](mailto:rewi.elliott@wcc.govt.nz)

## Trust Board 2016 - 2017



### The Board of Trustees for the current year is:

Chairman Phil Parnell	93 Amritsar St, Khandallah. Phone: 479 2239	<a href="mailto:landy@xtra.co.nz">landy@xtra.co.nz</a>	
Secretary: Wilbur Dovey	40 Warwick St., Wilton. Phone: 499 1044	<a href="mailto:cweag.dovey@xtra.co.nz">cweag.dovey@xtra.co.nz</a>	
Treasurer. Jocelyn Hoskin	14 Warwick St, Wilton. Phone: 475 8696	<a href="mailto:jhoskin62@gmail.com">jhoskin62@gmail.com</a>	
Bev Abbott	40 Pembroke Road, Northland	<a href="mailto:bevabbott@xtra.co.nz">bevabbott@xtra.co.nz</a>	Phone: 475 8468
Peter Buxton	106 Weld St, Wadestown.	<a href="mailto:pebuxton@xtra.co.nz">pebuxton@xtra.co.nz</a>	Phone: 472 3456
Jane Humble	16 IZARD Road, Khandallah	<a href="mailto:jhumble16@gmail.com">jhumble16@gmail.com</a>	Phone: 971 6970
Sumitra Sarkar	23B Thatcher Crescent.	<a href="mailto:tandssarkar@xtra.co.nz">tandssarkar@xtra.co.nz</a>	Phone: 479 1173
Ian Stockwell	2 Paisley Terrace, Karori .	<a href="mailto:stockwellian@hotmail.com">stockwellian@hotmail.com</a>	Phone: 476 3630
Carol West	9 Mamari Street Rongotai	<a href="mailto:carolwest@xtra.co.nz">carolwest@xtra.co.nz</a>	Phone: 3873396

The trustees welcome individual communications from members on any matters relating to Otari-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](mailto:veeanddave93@gmail.com)

## Otari awards

The recipients were:

### Julie Foley

Julie became an Otari host in 2002 and has only recently retired after 16 years of loyal service. Julie could always be relied upon to turn up for her duty and was very helpful answering question and advising visitors. Julie is a very worthy recipient of an Otari award.

### Laurel and Geoff Couling

Laurel Couling & Geoff Couling have been stalwarts and popular members of the volunteer Plant Care group since its very early days in 2001. Laurel and Geoff work very much as a team but when one is not available for whatever reason, the other will still turn up.

Their contribution has been of great value to the Trust's re-vegetation programme and it is fitting that they should be recognised with an Otari Award.



## Margaret Crimp

Becomes the first Life Member of **Otari-Wilton's Bush Trust**.

At the AGM last week Margaret Crimp was made a Life Member of our Trust for her outstanding work since the Trust was formed in 2001.

Margaret has been the secretary to the Board since it was formed and was a founding Trustee.

I would like to thank Margaret on behalf of all our members for the enormous difference she has made to **Otari-Wilton's Bush** over the last 18 years with her work as a trustee, host, tour guide, plant maintenance Thursday group member, March seminar organiser and many other roles. She is the smiling friendly face to members, and to the Public and to the many scientific individuals whom she has dealt with over a long period of time. She had an ideal background for the role as a trained botanist previously at Victoria University and, best of all, lived virtually opposite Otari Native Botanic Garden itself.



When made a life member Margaret herself said

"I love Otari and have always enjoyed being on the Board. I find that being a trustee, host, weeding volunteer, or a guide I have met such interesting people - different backgrounds but all with a common interest in, and love of the native flora and what is happening in our native botanic garden. Many thanks for making me a life member. It has been a privilege to be able to be part of the Otari family."

I trust that as members you too will take the opportunity to thank Margaret next time you see her around at Otari-Wilton's Bush or around Wellington itself.

From all of us I wish Margaret and Roger all the best for the future.

*Phil Parnell*

## New Plant Conservation Laboratory at Otari-Wilton's Bush

On Friday 25th May a formal celebration was held for the opening of the **Lions Plant Conservation Laboratory at Otari-Wilton's Bush**.

This is a major advancement in plant conservation for Wellington and New Zealand.

It will focus initially on seed preservation and storage using the latest techniques available. It will be utilised in conjunction with our partners Plant and Food Science Massey, Victoria University and Te Papa Botany for a wide range of research to aid conservation of New Zealand Native plants.(including the fight against Myrtle Rust).

Trevor Anders from Lions Karori, David Sole Manager Wellington Gardens and Rewi Elliot Manager Otari have been working on this project since late last year when this Lions Centennial Legacy Project was first mooted. Lions clubs in Wellington area, Otari-Wilton's Bush Trust and Ron and Edna Greenwood trust also assisted in funding the lab and equipment required. We are most grateful to all who contributed on behalf of you our members.

See accompanying photos and Information Centre at Otari-Wilton's Bush for more details.

## The Opening of the Plant Conservation Laboratory



Top left: Rewi Elliot, Ranjith Pathirana & Dr Jayanthi Nadarajan Both from Plant & Food Research Massey, Carol West (OWBT)

Top right: David Sole, Trevor Anders (Karori Lions), Justin Lester

*Photos: Phil Parnell and Carlos Lehnebach*

## Development of 55 - 85 Curtis Street

Trust members will recall the lengthy process involved several years ago when the Creswick Valley Resident's Association (CVRA), and a number of other parties, appealed to the Environment Court the approval given by the Wellington City Council, for Prime Property Group Ltd to develop the land it owned at 55 – 85 Curtis Street, Northland. The Environment Court approved the development of the site but with some 58 conditions attached. Recently there has been some clearance done on the site.

**Background** (sourced from the Creswick Valley Resident's Association website)

The site at 55-85 Curtis Street, in the Creswick Valley, is a triangular area bounded by Old Karori Road, Whitehead Road and Curtis Street. The area was originally part of the adjoining Council landfill that has become Ian Galloway Park. It was separated from the Park by the construction of Whitehead Road in the late 1980s. The Curtis Street site was sold by the Council into private

ownership in 1999, and at that time was zoned Outer Residential and Open Space B under the then District Plan.

In 2011 the Council re-zoned the land to “Business 2” use, a status that permits large scale industrial activity. At the time, the owner intended to construct a Mitre 10 Mega Store. Local residents were not notified of the change in zoning, so the Creswick Valley Residents’ Association mounted a legal challenge to this decision and won the case. The High Court clarified that the Council acted illegally by not consulting affected residents.

In 2012 the Council proposed a new business area zoning for the site that would create a new commercial centre between Northland and Karori ("District Plan Change 77"). It also granted consent for earthworks which would raise the valley floor by up to 8m almost to the height of Curtis Street for an unspecified future purpose. CVRA and a number of other parties appealed these decisions to the Environment Court. As a result of the case, the Court tightened the controls in place to reduce the environmental effects on the community.



### **Environment Court Decision**

The Environment Court released its final decision on the Curtis Street appeals on 7 December 2015. The Court directed the Council to tighten conditions in the District Plan Change 77, particularly in relation to site access and subdivision, and restored a concept plan which requires coordinated planning for any development to ensure that it is in keeping with the surrounding residential area and environment. The use of a Residential Design Guide to ensure compatibility of future development with local surroundings is also a welcome improvement for residents.

The earthworks consent proposed for the site now involves almost a quarter less fill volume than originally proposed. The consent holder is restricted to 6 haul trucks per hour which equates to 12 truck movements (arrivals and departures) at the intersection of Old Karori Rd and Curtis Street. Truck movements to and from the site are restricted to the hours between 9.30am and 2.30pm Monday to Saturday in order to minimise the effect on the road network and the immediately adjoining properties (including the Kindercare childcare centre at 31 Curtis Street). No truck movements of imported or exported excavated material are permitted on Sunday or public holidays. Please see the Creswick Valley Resident’s Association website [www.cvra.org.nz](http://www.cvra.org.nz) for full details of the 58 conditions attached to the approval - click on the tab ‘Curtis Street Rezoning’.

### **Recent Developments**

On 21 March 2018 Prime Property Group Ltd advised parties who had submitted on the project, that it would be commencing the ‘vegetation clearance, excavation and bulk filling of imported material to our property’ on 3 April 2018 and anticipated completing the works by 31 January 2019. The main contractor engaged to complete the earthworks is Tenga Pickering Company Ltd. Earthworks machinery will be operating on and around the site. The person to contact, with any queries about onsite activities, is the Contracts Manager, Barbara van Jaarsval mobile 021 234 – 3752. For any further information contact should be made with the Prime Property Group Ltd Project Manager, Cedric Carter mobile 021 865 -383.

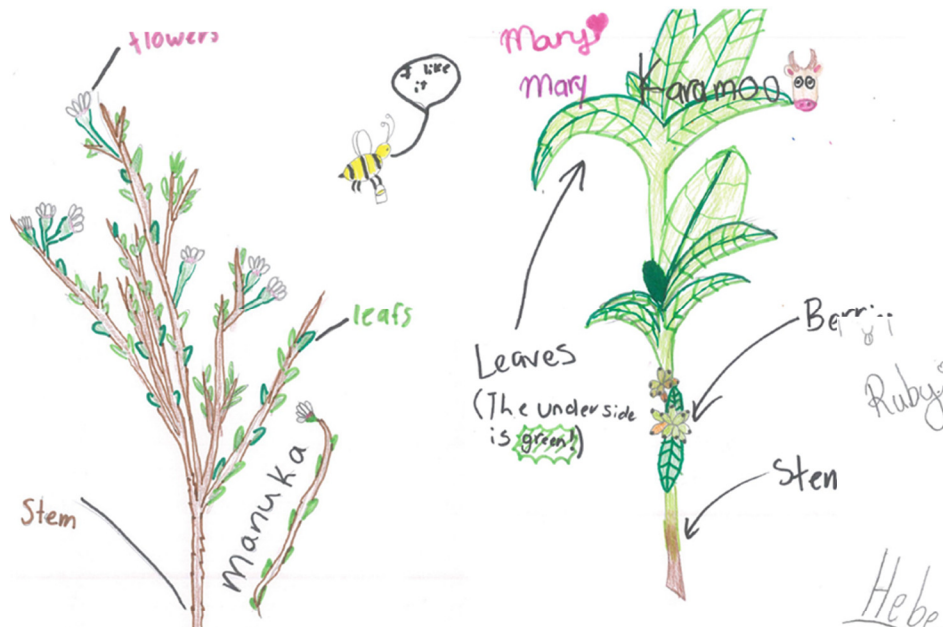
Ian Stockwell

### **Reminder from the Treasurer**

Subscriptions for the next financial year fall due in March. If you pay early you won’t be plagued by reminders.

**Or pay by internet banking: If you want to pay this way, please contact Jocelyn Hoskin, [jhoskin62@gmail.com](mailto:jhoskin62@gmail.com) Phone: 475 8696 for instructions on how to proceed.**





## Otagi at Hampton Hill School Bioblitz.

In May, Otagi was invited to be part of the Hampton Hill Enviro School Bioblitz. I have worked with the students at the school before identifying flora with them around their school grounds. This time there were various other organisations involved in the all day event, teaching kids about the natural world with a focus on sustainability.

Te Papa, Victoria University, Tawa Conservation groups, Greater Wellington Regional Council, Zealandia, Open Lab and Wellington Water were all involved in what turned out to be a great day.

My role at the bioblitz was plant identification. We looked at many native shrubs growing outside the classrooms. The children described out loud the shapes, colours and sizes of leaves they found and hunted for flowers and fruits which proved quite tricky this time of year. They realised very quickly how much variation is found in the plant world, even just around the school.

We then returned to the classroom where we looked at Audrey Eagle's Complete Trees and Shrubs of New Zealand. The kids then chose a plant they liked and attempted their own botanical illustration. I was really impressed with the detail and artistry that came through in their work. A lot of fun was had by all that day..... "I hope...."

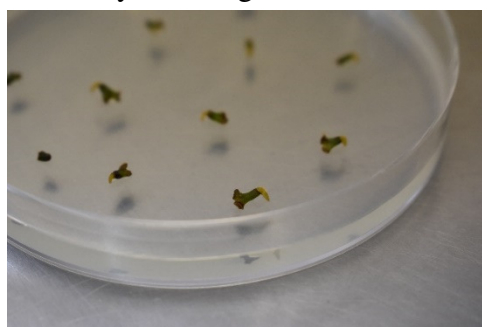
*Finn Michalak  
Curator Otagi Native Botanic Garden*



## Plant Conservation Initiatives at Otari

This summer produced an interesting flowering/fruiting season for many of the species we are working on. *Syzygium maire* (swamp maire) threw us a curve ball with fruit maturing from middle December in the Wellington and Rotorua area, by March the Taranaki population also matured its fruit. This came as a big surprise as the Taranaki population which is located at 600 meters above sea level, produced mature fruit last year at the end of May. Fortunately an early recce trip enabled us to collect approximately 6000 fruits and together with the Wellington region collections earlier in the season, gave us close to 13 000 fruit to study.

Although we have not yet managed to get *S. maire* to survive storage in liquid nitrogen at  $-196^{\circ}\text{C}$ , we have made massive ground in understanding the desiccation tolerance of the species. Since *S. maire* is proving to be a very challenging species to conserve, we are learning a lot of new cryopreservation techniques which includes encapsulation, PVS2 vitrification, droplet vitrification, vacuum infiltration vitrification and various combinations of these methods. Unfortunately our seeds are now at the end of the storable time which is approximately 6-8 weeks in a high humidity fridge, but next season we will conduct bioassays to determine which step of the cryopreservation process is resulting in the most stress for the embryos. Being able to do this in our new Lions Otari

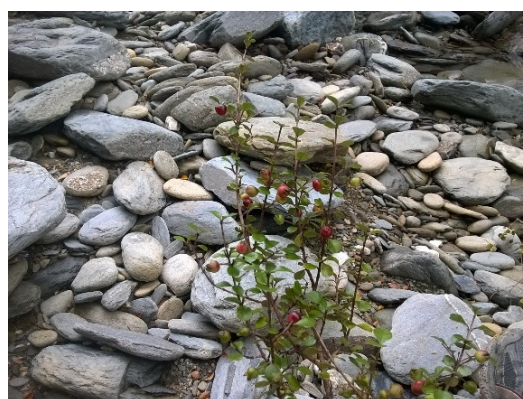


Plant Conservation laboratory is going to make an enormous difference.

**Photo Plate 1: *Syzygium maire* (swamp maire) embryos germinating in one of the cryopreservation controls (left) and embryos in recovery solution after cryopreservation (right).**

A grant from the Global Seed Bank Project administered by Kew Millennium Seed Bank enabled us to conduct two collection trips in north western Nelson. Good collections were made including *Lophomyrtus obcordata* and *L. bullata*. There is great concern about the possible impact of Myrtle Rust on these species as similar fleshy fruited species in Australia is facing extinction within seven years. Although some of the seed were sent for banking at the New Zealand Indigenous Floral Seed Bank, the majority of the seeds were allocated to banking at Plant and Food Research in Palmerston North and Otari. This enables us to conduct much needed research into the storage behaviour of these species as it is possible that they might not survive conventional seed banking (drying to 15% Relative Humidity and freezing at  $-20^{\circ}\text{C}$ ). We have already determined the initial moisture content of the fresh fruit, which is around 40%, established viability through in vitro germination trials and stored the first batch using conventional seed banking methods. A subsample from the dried seed are currently being tested for viability and this will give us an indication if they survive the initial drying. The next steps include determining desiccation tolerance, monitoring viability over time and probably storing some of the collections in liquid nitrogen.

Karin van der Walt



**Photo Plate 2: *Lophomyrtus obcordata* with ripe fruit.**

*Dracophyllum strictum*

*Dracophyllum strictum* is a shrub or small tree to 3m. It is found in the North Island from Thames and East Cape south, mostly around the central volcanic plateau, also Mayor Island.

At Otari it can be seen in the alpine and Brockie rock gardens. For a *Dracophyllum* it has quite large flowers, and a long flowering season.





# OTARI-WILTON'S BUSH TRUST

(Supporting Otari-Wilton's Bush Reserve)

## Membership Application Form

We are delighted to welcome new supporters and there are a number of ways you can help us to preserve this internationally significant native botanic garden and bush reserve for future generations. Our membership year is from 1 April to 31 March.

New members joining after 1 January will have the membership accredited to the following year. Please fill out the form below.

YOUR DETAILS		MEMBERSHIP	\$
Name(s):		Student/Unwaged \$5	\$
Address:		Individual \$10	\$
PHONE Number(s):		Double/Family \$15	\$
Email Address:		Corporate \$30	\$
Billing name & address: (if different from above)		Total Payment:	\$

<input type="checkbox"/> Cheque enclosed (Please make out to Otari Wilton's Bush Trust)	<input type="checkbox"/> Paid electronically (please mark DONATION & your NAME in reference. Westpac account # 030518 0205713 000)
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\*The Trust is registered as a Charitable organisation and donations over \$5.00 qualify for a tax rebate to individual taxpayers. (annual limits apply). Unfortunately we are unable to process payments by Credit Card.

☐ I would like a receipt for my donation.

### • VOLUNTEER

We have over 100 volunteers who are active regularly at Otari. It's up to you how much time you commit – and you can choose how you would like to get involved from a range of activities, from hosting and guiding tours to working in the Otari nursery, pest control and forest restoration.

Please contact Secretary Wilbur Dovey [cweag.dovey@xtra.co.nz](mailto:cweag.dovey@xtra.co.nz)