



TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 189

August 2019

Deadline for next issue:
Friday 20 September 2019

SUBMIT AN ARTICLE TO THE NEWSLETTER

Contributions are welcome to the newsletter at any time. The closing date for articles for each issue is approximately the 15th of each month.

Articles may be edited and used in the newsletter and/or on the website news page.

The Network will publish almost any article about plants and plant conservation with a particular focus on the plant life of New Zealand and Oceania.

Please send news items or event information to events@nzpcn.org.nz

Postal address:
c/- 160 Wilton Road
Wilton
Wellington 6012
NEW ZEALAND

PLANT OF THE MONTH, p. 3



Metrosideros albiflora. Photo: Rowan Hindmarsh-Walls.

Taxonomy for Plant Conservation – Ruia mai i Rangiātea

A joint conference of the Australasian Systematic Botany Society
and the New Zealand Plant Conservation Network

24–28 November 2019, Wellington, New Zealand



Conference updates

As of Friday 30 August, early-bird registration and abstract submission both officially closed for the 2019 ASBS-NZPCN Joint Conference <https://systematics.ourplants.org/> Taxonomy for Plant Conservation – Ruia mai i Rangiātea.

We are very excited to report that we have so far received registrations from over 150 individuals representing both the NZPCN and the Australasian Systematic Botany Society (ASBS). About 2/3 of the attendees are from New Zealand and 1/3 from Australia, with a few coming from as far away as Europe and the USA.

Registration is still open!

Our registration numbers are still going up! If you missed the early bird deadline, don't worry, you can still register <https://systematics.ourplants.org/registration/> to attend the conference. Standard registration fees now apply:

- Society members* (NZPCN or ASBS): \$420
- Non-members: \$525
- Students, unwaged or retired: \$260
- Single day: \$260

*New Zealand Department of Conservation (DOC) staff can register using the member's rate, as DOC is a corporate member of the NZPCN.

Wonderful workshops

Why not make the most of your conference experience and upskill in one of our workshops? Workshops are happening on the Sunday prior to the conference. So far, about half of conference registrants have signed up for a workshop. There are still spaces remaining in all workshops, so it's not too late to sign up for a workshop if you haven't already done so--simply add it on the payment page <https://systematics.ourplants.org/registration/payment/>.

- **Workshop 1:** Wikipedia Edit-a-thon on Australasian endangered plant species—full day—\$30
- **Workshops 2 and 3:** Botanising with iNaturalist for beginners and advanced users—half day—\$15 each
- **Workshops 4 and 5:** Plant identification at Otari—half day—\$15 each
- **Workshop 6:** Basics of Illustration—full day—\$50
- **Workshop 7:** Science Communication Skills for Botanists—full day—\$75

Fantastic field trips

Field trips are happening on Wednesday, which is the day before the last day of talks of the conference. So far, about 2/3 of conference registrants have signed up for a field trip. It's not too late to sign up for a field trip if you haven't already done so. You simply add it on the payment page <https://systematics.ourplants.org/registration/payment/>.

- **Field trip 1:** Wild Wainuiomata and Rugged Remutaka Forests—\$55
- **Field trip 2:** Spectacular Coastal Parangarahu Lakes and Lowland Forest of Eastbourne—\$55
- **Field trip 3:** Wellington's Rugged South Coast – Restoration of Nature in Te Kopahou and Oku Reserve—\$55
- **Field trip 4:** Experience the Emerald in our Harbour — Matiu / Somes Island—\$55
- **Field trip 5:** Discover the Collections at Otari-Wilton's Bush and Te Papa—\$45

Student support is available

ASBS and NZPCN are able to offer some financial support to their student members to attend the conference.

- ASBS student-members who are presenting at this year's meeting can get details from the ASBS website, download the application form and submit it to the Secretary at least four weeks prior to the conference.
- NZPCN student-members who are presenting a talk or poster at the conference should apply before early bird registration closes. Complete this form ([NZPCN-student-assistance-form](#)) and submit it to info@nzpcn.org.nz.

Book your travel and accommodation now

Wellington is a very popular destination for tourists and conferences alike, particularly at the time of year the conference will be held. Hotels are notorious for filling up fast, particularly in the CBD around Te Papa! If you are coming to the conference, we suggest you book your travel and accommodation now, if you haven't already done so. We have some suggestions on our website <https://systematics.ourplants.org/venue/> that may be useful to you.

Silent auction update

This year's silent auction is shaping up to be an amazing event—see Matt Ward's article in this newsletter. Thanks to all of our donors for their generous donations so far. If you are able to source additional items, we would be very grateful. Proceeds from the silent auction are all going to a great cause, i.e. supporting important plant taxonomy and conservation research projects in both societies.

Come November, make sure you arrive in Wellington prepared for some fun yet competitive bidding wars with your fellow botanists at the silent auction! Some of us have already got our eye on several of the offerings...

How to contact us

If you have any questions or think we can be of assistance, please don't hesitate to contact us at plants2019nz@gmail.com

Rewi Elliot and Heidi Meudt

On behalf of the 2019 Conference Organising Committee [<https://systematics.ourplants.org/organising-committee/>]

Thank you to our sponsors!

We would like to thank our sponsors who are showing their commitment to plant conservation networking by supporting our conference.

If you or your organisation is in a position to show your support please contact us for a sponsorship package today at info@nzpcn.org.nz



PLANT OF THE MONTH – *METROSIDEROS ALBIFLORA*

The plant of the month for August is *Metrosideros albiflora* or Akatea, one of twelve *Metrosideros* species endemic to the New Zealand region. The northern part of New Zealand is the stronghold for the species, and it can be found from Te Pahi in the north to Pukemokemoke and the northern Kaimai range in the south.



Metrosideros albiflora, Omahuta Forest, Northland, 29 October 2018: (left) foliage/flower buds; (centre) juvenile foliage; (right) flowers. Photos: Rowan Hindmarsh-Walls.

Metrosideros albiflora has a strong association with kauri, and is found almost exclusively in kauri forest. The species is a climber rather than a tree, and can climb to at least twenty metres into the canopy at times. It can also sometimes be seen sprawling across the ground rather than up trees. The plant produces flexible woody lianas which can have flaky bark in old specimens. The leaves are larger than those of most other climbing rata species except *Metrosideros fulgens*, and are glossy and thick with pointed tips, and whitish undersides in the younger growth. The flowers are white, as the botanical name suggests, and are borne in clusters near the growing tips of the branches. Like other members of the Myrtaceae family, *Metrosideros albiflora* exhibits a level of flower masting behaviour, where the species flowers more prolifically in some years than others, due probably to temperature differentials across the successive seasons in the preceding year. *Metrosideros* masting years do not often correspond with those of beech and tussock, suggesting that their masting cues are different, or that there is more of a lag in response to masting cues than in the beeches.

Metrosideros albiflora differs from most other climbing rata species, as it has much larger leaves with a distinctly pointed tip. The only similar climber is *Metrosideros fulgens* but this species has orange flowers and less pointed leaves, without the distinctly pale underside. Both these species can be found growing together.

M. albiflora is endemic to New Zealand, with a current conservation status of Threatened-Nationally Vulnerable, as it is threatened by both myrtle rust, and potentially Kauri dieback. The potential loss of Kauri due to Kauri dieback could have a negative impact on available habitat for the species in the future.

The name *Metrosideros* means 'iron-hearted wood', from the greek 'metra' meaning womb, core or heartwood; and 'sideron' meaning iron. The wood of most *Metrosideros* species is very hard, and often dark purple brown in colour. Another species, southern rata (*Metrosideros umbellata*) is suggested to be within the top twenty densest timbers in the world. The species epithet 'albiflora' is latin for white-flowered, misleadingly suggesting that this is a distinguishing feature of the species.

You can view the NZPCN website factsheet for *Metrosideros albiflora* at: http://www.nzpcn.org.nz/flora_details.aspx?ID=116

Book Review

THE FOREST FOR THE TREES – A systematic approach to restoring native plant communities

By Wayne Bennett, Published by Forest Flora NZ. 126 pages, A4 softcover.

Matt Ward - NZPCN Secretary (mattward@gmail.com)

I was delighted when Wayne asked me to review his recently completed new book. Wayne and I both work in the field of ecological restoration and I consider it fantastic that this publication has been produced.

The first impression of this publication is the large easy to read font, and generous spacing of the text layout, and over 200 relevant images, all taken by the author. Immediately you are given the impression that this book is practical and usable. The title is also very well chosen as it reverses the old saying “can’t see the forest for the trees”, usually meaning to lose the big picture by being stuck on the details. This book is the details you need to see the big picture, brilliant!

This publication takes the reader on a journey to understand the steps required to do your best work when engaging in ecological restoration.

In the *Introduction of Forest for the trees*, we learn some background about the author and his reasons for entering the world of ecological restoration. This is immediately followed by an outline of the purpose of this book.

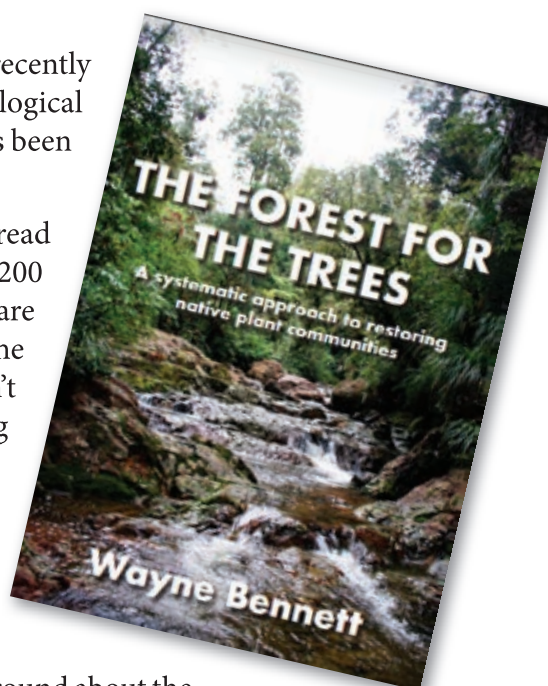
In *Homo- sapiens – The ultimate ecosystem engineer*, we are briefly given the reasons for how we in New Zealand and the world have found ourselves in this contemporary scenario.

A reference ecosystem begins by cleverly comparing the similarities between the off-shore and on-shore island plant communities and the effects within those populations that may occur. This chapter re-enforces the importance of having a local model on which to base your project so that you will make the best possible attempt at creating a healthy realistic plant community over time. The author clearly explains the best methods for establishing the list of plants you should consider for your area.

As the chapter title suggests, in *Weeds – unfair competition*, we are given good examples and reasons for why introduced plants do so well in an environment far from their natural range. A range of options are suggested as to how to deal with weeds when planning a project.

A community of plants, explains to the reader the mechanism and ability by which our flora survives, thrives and disperses, so that the reader/user can understand the importance of which species to use and where. Excellent examples of particular species’ survival and dispersal methods are given, as well as particular methods that may be used to assist the result you desire. The different types of plant habits are explained thoroughly in this chapter. The importance of Eco-sourcing is explained, including the practical application. Propagation method is briefly covered., then finally the importance of the below ground ecology relevant to your site depending on its start point.

The *A plan of attack* chapter is self-explanatory, and carefully and thoroughly details the strategies, activities and tools you should consider for achieving an excellent outcome for a project. Beginning with what you are trying to achieve then assessment of your site, all bases are explained and covered so that the reader has a methodology for success. Preparation, planting and maintenance are explained in detail along with suggesting recording your efforts and progress to see how you do, for reference and success monitoring. This is a very valuable chapter for the ‘doing’ part of a project.



In *Examples of restoration projects*, four examples of restoration projects are given along with helpful tables and pictures. The beauty of this chapter is to show the reader that one method may not suit all sites, using examples of different sites shows limitations and natural advantages that may be encountered on any particular site. Using helpful headings and sub-headings each example site is outlined and detailed so that each site's reality and approach can be explained to the reader clearly and succinctly.

Clearing the slate: The weeds encountered, is a reference chapter for each commonly met weed species and the possible methods used to control them. This chapter also highlights within each species the importance/priority of control regarding what the damage each particular species may be, or is, doing on site.

Native species: It a jungle out there, is a chapter of informed and interesting practical information about many of the species to be considered when undertaking a restoration project. Using the Titles of Colonisers; Canopy Trees; Understorey; Climbers and Epiphytes; Wetland plants; and Ground herbs, 65 species of plant are detailed, all of which were the species used for the four projects highlighted in the *Examples of restoration projects* chapter.

Wayne's *Conclusion* is concise and direct, a summary we should all consider. This is followed by suggestions of further reading (observing mother nature) and a couple of appendices with yet more valuable information, an excellent finish to an important tool.

Wayne continually re-enforces the need to observe the natural spaces like yours (in aspect and substrate) which are nearby so that in your effort to create a successful project you understand the components of your recipe to get the best result. Each chapter gives good sound reason to the methodology and techniques one might use if you are to restore an ecosystem and not just plant a simple plot of *Pittosporum sp.* or such like. This approach is that used by an ecologist who will charge a small fortune, therefore making this publication a must for any serious landowner, ecological restoration contractor, restoration group or council staffer wishing to give a member of the public restoration advice. From someone who knows the need for accurate, considered and measured efforts in the restoration of our degraded land this is a publication of value and importance.

Well done Wayne! Kia kaha te hakituri.

To purchase, contact Wayne directly as he is publishing this book.

Book available for \$ 45.00 (incl GST & postage), invoice also available.

Contact details wayne@forestflora.co.nz

2019 ASBS-NZPCN Conference Charity Auction: Update on what we have so far, as items are still required!

Matt Ward, NZPCN Secretary – mattward@gmail.com

As I am sure you are aware we are having another charity auction at the 2019 New Zealand Plant Conservation Network (NZPCN) and Australasian Systematic Botany Society (ASBS) “Taxonomy for Plant Conservation – Ruia mai i Rangiatea” joint conference running this November in Wellington, New Zealand. The charity auction is a fundraiser that the NZPCN has carried out successfully at our conferences since 2013. The funds raised from the auction will be split 50/50 between our two societies and used to bolster the allocated research funds of each society. The NZPCN will split its share of the funds raised between the ‘David Given Scholarship’ and the ‘John Sawyer Plant Conservation Fund’ [http://www.nzpcn.org.nz/page.aspx?nzpcn_awards]. The ASBS will use the funds raised to bolster its Scientific Research Awards, which currently include the ‘Hansjörg Eichler Scientific Research Fund’ and the ‘Marlies Eichler Postdoctoral Fellowship’ [<http://www.asbs.org.au/asbs/research-funds/index.html>].

The auction will be silent, allowing some level of mystery as to whom you may be bidding against when you wish to win a must-have item. Each conference attendee will be given a number in their conference pack for use when bidding. Bidding will simply involve adding your number and the dollar value you wish to bid on a sheet next to the item, which will be on display at the conference. It’s a fun and exciting way to support your societies! Depending on the number of items up for grabs, the conclusion of each auction may occur in a staggered fashion to prevent any conclusion confusion. More running details will be established closer to the date.

To make the auction a success, we rely on worthy donations from individuals, businesses, institutions and agencies. This is where you can help! If you can donate an item, or have a suggestion for a donation, please let me know. Items which garner substantial interest include artwork, experience vouchers, books, outdoor gear, handmade uniqueness, etc. I have listed the items we have garnered so far below. This link will take you to the Conference website with more information about each item than

I have covered here. <https://systematics.ourplants.org/programme/silent-auction/auction-items/> As you can see there have been some amazing acts of generosity already. There are a few more promises, these will be acknowledged once confirmed. If you think you can add to our awesome compilation of items feel free to contact me on the e-mail address above.



M. Clarkson – *Pandanus spiralis*



T. Scharaschkin – *Eupomatia laurina*

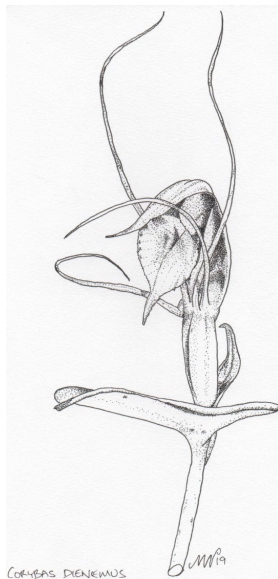
Art

- **Marion Clarkson** (Aus), 2 items - Original framed artwork: *Coypha utan*, c. 33 x 22 cm (46 x 34 cm framed); *Pandanus spiralis*, c. 33 x 22 cm (46 x 34 cm framed)
- **Tanya Scharaschkin** (Aus), 2 items: *Eupomatia laurina*: pen and ink, A4, with matt board: 280cm x 350cm, Unframed, but with matt board and shrink wrapped; *Ginkgo biloba*: pen and ink with water colour wash - A4, with matt board: 280cm x 350cm Unframed, but with matt board and shrink wrapped;

- **Paula Warren (NZ)**, Has very kindly donated 5 pieces of original art – *Nertera*: Ink and watercolour 150mm x 135mm, Unframed; *Pratia*: Ink and watercolour 205mm x 150mm, Unframed; *Horopito*: Ink and watercolour 250mm x 200mm, Framed; *Blechnum procerum*: Ink and watercolour 120mm x 170mm, Framed; *Aleuosmia macrophylla*: Ink and watercolour 120mm x 170mm, Framed.
- **Matt Ward (NZ)** – Original line drawing of an orchid – *Corybas dienemus* (a species only shared with Australia’s off-shore island Mcquarie Island) A4 - Unframed
- **Jane Gosden (NZ)**, is in the process of doing a couple of her fantastic paintings, which will remain a secret until closer to the conference.



P. Warren – *Nertera*



CORYBAS DIENEMUS
M. Ward – *Corybas dienemus*



P. Warren – *Horopito*

Books

- **Te Papa Press (NZ)** has kindly donated three fantastic NZ-themed hard back books: *New Zealand Photography Collected* – Athol McCredie; *New Zealand Art at Te Papa* - Edited by Mark Stocker; *Scenic Playground: The Story Behind New Zealand's Mountain Tourism* - Peter Alsop, Dave Bamford and Lee Davidson
- **Julian Fitter (NZ)**, renowned author, has kindly donated three fantastic (signed by the author) publications: *Bateman Field Guide to Wild New Zealand*; *Auckland's Best Bush, Coast & City Walks*; *A Field Guide to the Birds of New Zealand*.

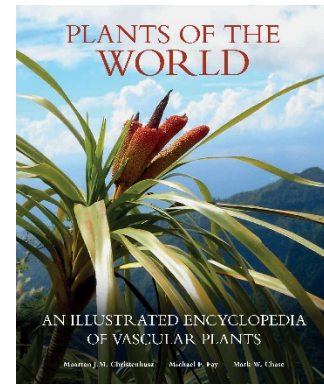


Julian Fitter publications.



Te Papa publications.

- **Lydia White** (UK), Kew Publishing (c/o J. Clarkson in Aus) have kindly donated a (signed by all authors) copy of *Plants of the World*, by Maarten J. M. Christenhusz, Michael F. Fay & Mark W. Chase
- **John Clarkson** (Aus), is wrangling books from the other side of the ditch very successfully so far, the titles he has secured so far include: *Painting by Numbers* (2 copies); *Australian Vegetation*, edited by David A. Keith; *Discovering Australian Flora—An Australian National Botanic Gardens Experience*, by Fanny Karouta-Manasse; *Plants of Central Queensland—Identification and Uses of Native and Introduced Species*, by Eric Anderson; *History of Systematic Botany in Australasia—Proceedings of a Symposium Held at the University of Melbourne, 25–27 May 1988*, edited by Philip S. Short; *The mistletoes of subtropical Queensland, New South Wales and Victoria*, by John T. Moss and Ross Kendall; *Plants of the Victorian High Country—A Field Guide for Walkers*, by John Murphy and Bill Dowling.

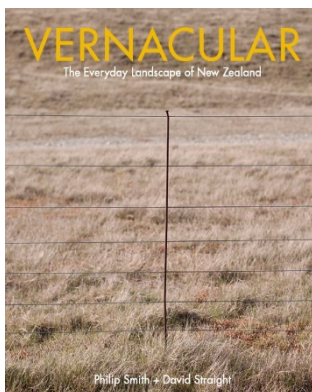


Plants of the World – signed by all authors

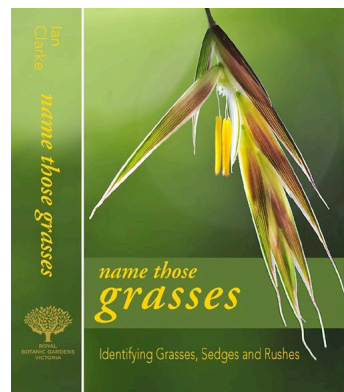


Books wrangled by John Clarkson.

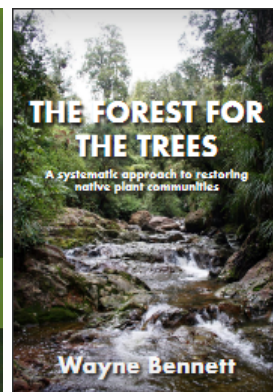
- **Ian Clarke** (Aus), has kindly signed and donated 2 copies of his epic 600 page, *name those grasses - Identifying Grasses, Sedges and Rushes*.
- **Philip Smith** O2- Landscapes (NZ), kindly donated a copy of his beautiful hardback architectural landscape features book, *Vernacular – The Everyday Landscape of New Zealand*.
- **Wayne Bennett** (NZ), kindly donated his yet to be released ecological restoration handbook (see review in this newsletter), the excellent, *The Forest for the Trees – A systematic approach to restoring native plant communities*.
- **Kevin Burns** (NZ), has donated a signed copy of *Evolution in Isolation - The Search for an Island Syndrome in Plants*



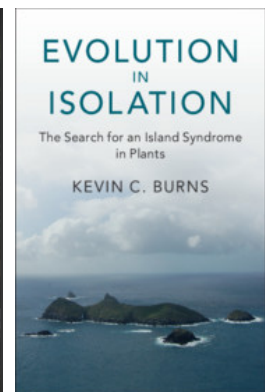
Philip Smith - Vernacular



Ian Clarke - Name those grasses



Wayne Bennett – The Forest for the Trees



K.C. Burns – Evolution in Isolation

- **Manaaki Whenua – Landcare Research** (NZ), has donated two Book sets and 3 titles: 2 book set - *Flora of New Zealand Lichens* by David Galloway (including first edition, 1985 and Revised Second Edition, 2007) ; 3 book set *Flora of New Zealand Desmids*, volumes 1–3 by H Croasdale & E A Flint (1986, 1988, 1994); *Flora of New Zealand: Volume 3, Adventive Cyperaceous, Petalous &*

Spathaceous Monocotyledons by A J Healy & E Edgar (1980); *Flora of New Zealand: Volume 4, Naturalised Pteridophytes, Gymnosperms, Dicotyledons* by C J Webb, W R Sykes, & P J Garnock-Jones (1988); *Flora of New Zealand: Volume 5, Gramineae* by E Edgar and H E Connor (2010).

- **New Zealand Plant Conservation Network (NZ)**, *Florae Insularum Novae Zelandiae Precursor* - A facsimile of Allan Cunningham's 17 articles published between 1837 and 1840 assembled into a single volume. This is an important but often overlooked contribution to New Zealand botanical discovery.



Allan Cunningham –
Florae Insularum Novae Zelandiae Precursor

Hand-made Unique Items

- **Peter Jobson** (Aus) Handmade knitted scarf: *Green—a scarf in bamboo/merino blend*, c. how long is a piece of yarn?
- **Roy Slack** (NZ) an Otari-Wilton’s Bush Trust member - *Display board of NZ timbers*, 650 x 450 x 20 mm, with a laminated sheet detailing each timber square.



McDonald textile – Poncho & Snood

- **Wellington Gardens** (NZ) - McDonald Textiles, merino wool and possum fur poncho and snood.
- **Paula Warren** (NZ), 2 Items – Hand-woven *Flax nest perched on driftwood*; *Nature Journaling kit*, which includes handmade bag, Journal, 2 pencils and a Ink pen, also a pamphlet with instructions, background and suggestions about Nature Journaling.
- **Kate Brown** (Aus), c/o Juliet Wege - A stunning, bespoke scarf featuring Silver Gimlet (*Eucalyptus campaspe*), the scarf has been made from swiss nun’s cloth (a fine wool muslin), which has been steamed with the eucalypt to cleverly capture the extraordinary colour and patterns, and then hand-stitched with silk thread dyed using the bark of Brown Mallet (*E. astringens*). This scarf is truly one of a kind.



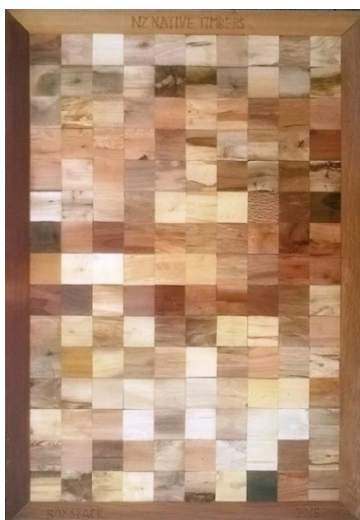
P. Jobson – Knitted Scarf



Nest on driftwood – Paula Warren



Nature journaling kit – Paula Warren



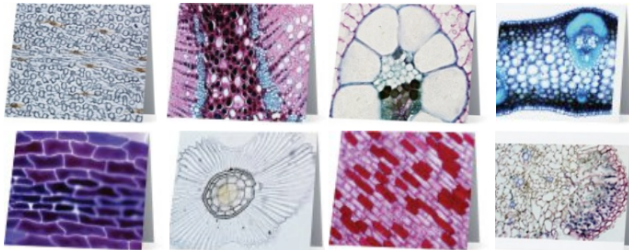
NZ Timbers Display – Roy Slack



Fine muslin scarf – Kate Brown

Merchandise

- **Tumbleweed Tees (NZ)**, has kindly donated four very useful and artistic items: Rimu tree tote bag, NZ botanicals notebook (blank), marine notebook (lined), wattlebird wreath tea towel.
- **Tanya Scharaschkin (Aus)**, 4 items: Set of 8 cards- plant anatomy; Set of 10 cards- botanical art; Set of 8 gift tags-botanical art; Scarf with red gum leaf design.
- **Paula Warren (NZ)**, 2 sets of 5 unique *Leaf and sprig study* - Ink and watercolour cards (blank inside), c. 175mm x 105mm.



Botanical Cards – Tanya Scharaschkin



Tumbleweed tees - Prize pack



Botanical Cards – Paula Warren

UPCOMING EVENTS

If you have events or news that you would like publicised via this newsletter please email the Network (events@nzpcn.org.nz).

Botanic Gardens Australia New Zealand (BGANZ)

9th Congress: Te Papa (Wellington). 20–23 October 2019

Plants from the past – Plants for the future.

<https://www.confer.nz/bganz2019/>

This conference will explore the role of Botanic Gardens in science communication & story-telling, plant conservation, managing collections and displaying plants. Join us—or submit an abstract to contribute your ideas. Botanic Gardens Australia and New Zealand (BGANZ) is the peak body representing all botanic gardens in Australia and New Zealand. BGANZ promotes the interests and activities of all Australian and New Zealand botanic gardens through its 140 member gardens, enhancing the state of botanic gardens internationally. The 9th BGANZ Congress will be attended by over 20 Directors, General Managers and Presidents of botanic gardens from Australia and New Zealand. More than 50 botanic gardens are expected to attend.

More information: <https://www.confer.nz/bganz2019/>

Auckland Botanical Society

Meeting: Wednesday 4 September at 7.30pm. **Speakers:** Pieter B. Pelser and Julie Barcelona. **Topic:** Understanding the biology of Philippine *Rafflesia*: the life and times of a tropical parasite..

Field Trip: Saturday 21 September to Totara Park, Manurewa.
Meet: Main carpark at the end of Wairere Road. Gather at 10.00am by the entrance sign into the playground/picnic area.

Leader: Mike Wilcox,
email: mike.wilcox@xtra.co.nz.

Meeting: Wednesday 2 October at 7.30pm. **Speaker:** Ewen Cameron. **Topic:** Costa Rica.

Waikato Botanical Society

Meeting: Monday 16 September at 6.00pm. **Speaker:** Dr Colin Meurk. **Topic:** Ecology and Biogeography are Critical to Place-Making and Wellbeing—your neighbourhood and garden will make a difference.

Venue: The Links, Fellowship Room, corner of Te Aroha Road and River Road, Hamilton East.

Rotorua Botanical Society

Field Trip: Saturday 7 September to Aongatete Forest, Kaimai-Mamaku Forest Park. **Meet:** 8.00am at the Convention Centre carpark, Fenton Street, Rotorua or 9.30am at the carpark at the top of Wright Road, which is on SH2 between Taurangi and Katikati. **Grade:** Moderate.

Leader: Ann Graeme, email: basilann53@gmail.com,
ph. 07 576 5593.

Wellington Botanical Society

Field Trip: Saturday 7 September to Rangituhi/Colonial Knob Scenic Reserve. **Meet:** 9.00am at the Spicer Botanical Park carpark, 610 Broken Hill Road.

Leader: Jon Terry,
ph. 021 168 1176.

Meeting: Monday 16 September. **Speakers:** Bec Ramsay and Shona McCahon. **Topic:** Wellington Outer Green Belt Management Plan Review.

Venue: Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade.

Nelson Botanical Society

Field Trip: Sunday 15 September to Otuwhero Nell's Bush. **Meet:** 9.00am at Cathedral steps.

Leader: Beryce Vincenzi, email: bercyce_vincenzi@xtra.co.nz, ph. 03 545 1985. Please contact Beryce in advance if you intend to participate.

Meeting: Monday 16 September at 7.30pm – Speaker Dr Allison Knight. **Topic:** Lichens in Urban Ecosystems.

Venue: Jaycees Room, Founders Park.

Canterbury Botanical Society

Meeting: Monday 2 September at 7.30pm – Speaker Melanie Lapointe. **Topic:** Spring flowers that grow in the understorey of Canada's sugar maple forests.

Venue: Upper Riccarton Library community meeting room, 71 Main South Road.

Field Trip: Saturday 7 September to mid-Rakaia recent river terrace vegetation. **Meet:** 8.45am at the Yaldhurst Hotel carpark (on the south side of the Old West Coast Road 100 metres past the Pound Road roundabout) or 9.30am at the Hororata Café.

Contact: Alice Shanks, email alice@caverock.net.nz, ph. 027 366 1246.

Grade: Easy/Medium. **Bring:** Lunch, drink, warm jacket, sun hat and wear boots. **Cost:** \$20.00 for fuel reimbursement.

Botanical Society of Otago

Meeting: Wednesday 18 September at 6.00pm – Geoff Baylis Lecture with Speaker Hamish Campbell. **Topic:** Geological constraints on the age and antiquity of land in New Caledonia and the Chatham Islands.

Venue: Castle 1, University of Otago (Drinks and nibbles starting from 5.15pm in the concourse).

Field Trip: Saturday 21 September to Akatore. **Meet:** 9.00am at the Botany Department carpark, 464 Great King Street. Check website closer to the date to confirm time.

Contact: Robyn Bridges, email: robyn.j.bridges@gmail.com, ph. 03 472 7330 or 021 235 8997.
