TRILEPIDEA

Newsletter of the New Zealand Plant Conservation Network

No. 191

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Deadline for next issue: Friday 15 November 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

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NEW ZEALAND

PLANT OF THE MONTH, p. 4

Lepidium flexicaule. Photo: Jeremy Rolfe.

Conference updates

Are you getting excited about this year's ASBS-NZPCN Joint Conference in Wellington later this year? It's going to be a big one, with conference numbers now up to 180 (and counting!) representing both the New Zealand Plant Conservation Network (NZPCN) and the Australasian Systematic Botany Society (ASBS).

Here are some updates from the past month of conference planning:

We have received about 80 abstracts to present talks or posters at the conference. For those presenting, useful hints and tips for preparing your talk or poster can be found on our website: https://systematics.ourplants.org/registration/guidelines-for-presenters/

Conference extras including workshops, field trips and dinner are all going ahead as they have reached their minimum numbers. You can still register for conference extras, but please note that **the FINAL REGISTRATION DEADLINE for the conference and all conference extras is this Friday 1 November!** There will not be any extensions possible, so please make sure you register and pay by Friday.

Keynote speakers

Conference attendees will get to hear from our three fantastic speakers:

- Hon Eugenie Sage, Minister for Conservation, Minister for Land Information New Zealand and Associate Minister for the Environment
- Melanie Mark-Shadbolt, Kaihautū Chief Māori Advisor to the Ministry for the Environment, the Director Māori of NZ's Biological Heritage National Science Challenge and CEO of Te Tira Whakamātaki
- Kevin Thiele, founding Director of Taxonomy Australia, an organisation established to advocate and implement in Australia the recommendations of Discovering biodiversity: A decadal plan for taxonomy and biosystematics in Australia and New Zealand 2018–2027

2019 Burbidge Medal Lecture

The Nancy T. Burbidge Medal is the highest award of the Australasian Systematic Botany Society. First presented in 2001, it was established as a way for the Society to honour those who have made a longstanding and significant contribution to Australasian systematic botany. The presentation usually forms part of the Society's annual conference and the Nancy T. Burbidge Memorial Lecture is delivered in response to being awarded the medal.

The 2019 Burbidge Award Winner this year is Dr Barry Conn. Barry is a retired botanist who was previously Senior Principal Research Scientist at the National Herbarium of New

South Wales (NSW) and Associate Professor at The University of Sydney, specialising in the systematics and phylogeny of multiple plant families from Malesia, Australasia and the Pacific. Barry has had a productive career in plant systematics in Australasia, including producing and supporting taxonomic research, collaborating on regional, national (Australian), and global initiatives, teaching and supervising students, contributing to online and printed botanical resources, and developing data standards and platforms for herbarium collections and data. In particular, he has provided sustained support for many years to plant systematics in Papua New Guinea. He is the principal researcher of the PNG trees project, a collaborative project with the Papua New Guinea National Herbarium (LAE) to describe and document the trees of Papua New Guinea.

For his Burbidge Lecture, Barry will discuss the current status of taxonomy and systematics in Papua New Guinea, including the potential future of taxonomic research by within-country botanists; the status of conservation, particularly the challenges of recognising threatened communities and species; and, as a case study, how to document the flora of this region, using the protocols and methodology of the Trees of Papua New Guinea project which was initiated in 2006. His lecture, entitled, "Is Paradise Lost? Or not yet discovered?", will be presented to all conference attendees on the afternoon of Tuesday 26 November and is sure to be a highlight of the conference.

Silent auction

This will be run during the first two days of the conference. It will certainly be interesting, potentially a lot of fun, and will hopefully generate a good amount of money for our research funds. See the article later in this newsletter for more details.

Early career researcher informal social networking

On Wednesday, 27 November, all early career researchers, students, young (and young-at heart!) conference attendees are welcome to come to an informal social networking evening involving sampling some of Wellington's beers and having dinner together. Our plan is the following:

- 18:00—meet at Panhead (1 Tory St) for a pre-dinner drink (or leave from Te Papa together after returning from field trips)
- 18:45—leave Panhead and head to Mac's Brewery (4 Taranaki St) for 19:00 dinner
- 20:15—after dinner drinks at venue TBC.

Attendees are responsible for their own drink and food costs incurred. Please RSVP by Friday 1 November by contacting Todd McLay (Todd.Mclay@csiro.au) to register your interest (or ask questions about the plan). The above itinerary may be adjusted depending on numbers. We will endeavour to include everyone who wants to join in, but we may have to cap the numbers by 'first come, first served'.

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! We have some suggestions on our website https://systematics.ourplants.org/ that may be useful to you.

Associated events

There are quite a few events happening just before, during and after the conference, some science/botany related, some not. Check them out! Make sure you consider these events when planning your travel dates. We have listed several here: https://systematics.ourplants.org/programme/other-events/

These include several public events associated with the conference that we have helped co-plan. The following public events are open to all, not just to conference attendees, but note registration and/or payment may be required. See more details and links for most of the events listed below here: https://www.tepapa.govt.nz/visit/events/public-events-taxonomy-for-plant-conservation-ruia-mai-i-rangiatea-conference

- Sunday 24 November, 9 am – 5 pm: Wikipedia workshop on threatened plants. Free, but you need to register. Where: Hīnātore, Level 4, Te Papa, Wellington.
- Monday 25 November, 6:30 – 7:30 pm: Friends of Te Papa public lecture: Solander, Sparrman, and the Anthropocene – Saving "the Environment" on a Planet made Unstable by Humans. Speaker: Prof Sverker

Sörlin, Professor of Environmental History in the KTH Royal Institute of Technology, Stockholm, and member of the official Swedish Climate Policy Council since 2018. Registration and payment required; conference attendees get discounted tickets. Where: Soundings Theatre, Level 2, Te Papa, Wellington.

- Tuesday 26 November, 6:15-7:15 pm: Book launch: Seeds of New Zealand monocotyledons, by Colin J. Webb. The book will be launched by Manaaki Whenua – Landcare Research and the publisher Manuka Press at Te Papa, Wellington during the joint ASBS-NZPCN conference. Canapés will be provided, and a cash bar will be available. Where: Oceania Room, Level 4, Te Papa, Wellington. RSVP by Friday 1 November to Richard@manukapress.co.nz and include in your response whether you will be a conference attendee or not. Those attending the Launch, but not the Conference, will be sent instructions on how to access Te Papa and the Launch nearer the time. Due to the logistics only a very small number of books will be available for cash sale on the night – but copies may be pre-ordered via the publisher's website at: https://www.manukapress.co.nz/Monocots_order_form.html. This order form gives you the opportunity to secure copies at a super special pre-publication price of $75. You can also choose to purchase a "twin pack" that includes a copy of the Monocotyledons and a copy of the previously released Gymnosperms and Dicolyledons (bundle price of $150). The full retail price will be $90 each.
- Thursday 28 November, 6:30 – 7:45 pm: Panel discussion on The politics of collecting plants, from Banks and Solander to today. Panellists: Leon Perrie – Botany Curator, Te Papa; Priscilla Wehi – Conservation biologist, Manaaki Whenua Landcare Research; Hēmi Whaanga – Associate Professor, Te Pua Wānanga ki te Ao (The Faculty of Māori and Indigenous Studies), University of Waikato; Peter de Lange – Associate Professor, School of Environmental and Animal Sciences, Unitec; Tom Roa – Associate professor, Te Pua Wānanga ki te Ao (The Faculty of Māori and Indigenous Studies), University of Waikato. Facilitator: Bronwyn Labrum – Head of New Zealand & Pacific Cultures, Te Papa. Registration and payment required; conference attendees get discounted tickets. Where: Soundings Theatre, Level 2, Te Papa, Wellington.
- Saturday–Sunday 30 November 1 December: Botany for Botanical Illustrators workshop. The workshop will be led by Tanya Scharaschkin, who is a botanist (plant systematist) by training. She was a full-time research and teaching academic until mid-2017, after which she became a self-employed scientist and artist, now based in Tasmania, Australia. Registration and payment required; spaces are limited. Where: Otari School Hall, Otari, Wellington.

Conference programme

We hope to provide the final conference programme as a pdf soon, but in the meantime you can see a simplified draft version here: https://systematics.ourplants.org/wp-content/uploads/2019/10/simplified-programme.pdf

How to contact us

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

Remember to check out the conference website: https://systematics.ourplants.org/

Rewi Elliot and Heidi Meudt 2019 Conference Co-organisers on behalf of the 2019 Conference Organising Committee

Sponsorship

A massive thank you to our sponsors:

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Sponsorship opportunities are still available. Please see our Sponsorship [https://systematics.ourplants.org/supporters/] page or contact the organisers for more details.

PLANT OF THE MONTH – *LEPIDIUM FLEXICAULE*

The plant of the month for October is *Lepidium flexicaule* or Coastal cress, one of nineteen *Lepidium* species native to the New Zealand region. Like most of the native species *L. flexicaule* is a coastal specialist and inhabits the exposed western coastlines of both the North and South islands, from Taranaki south to Greymouth, with one outlier population on the Chatham Islands. The species prefers areas of constant disturbance and high fertility on the coastal fringe, such as seabird colonies and seal haul-outs. It is very salt and wind tolerant and generally lives in the most exposed of coastal situations, in low stature herby 'salt turf' communities. The plant is a perennial rosette forming herb with a woody base and trailing stems. The basal leaves are succulent, narrowly rounded, and pinnately divided into lobes. The tiny white flowers and siliques (pods) are borne on sprawling racemes.

Fig.1 *Lepidium flexicaule*, Point Elizabeth, West Coast, 7 September 2019. (left) foliage, (right) plant. Photos: Rowan Hindmarsh-Walls.

Lepidium flexicaule is most similar to some exotic cresses *L. dydimum* and *L. squamatum,* which may also be found in similar habitats. These two species differ from *L. flexicaule* by having siliques that have warty proturbances and are net-veined. *Lepidium flexicaule* is also similar to another native coastal species, *Lepidium tenuicaule,* but these two species distributions no longer overlap, with the latter only being found in coastal areas of the south eastern South Island.

L. flexicaule is native to New Zealand, with a current threat ranking in this country of Threatened-Nationally Endangered, as it is majorly threatened by both habitat loss and disease. It is found overseas in Tasmania where it is also threatened. Much of the species habitat has been lost due to human induced decimation of most mainland seal and coastal seabird nesting colonies. There is evidence to suggest that the species was once far more widespread than its current distribution. Competition with exotic weeds is also having a major impact. Being a brassica it is affected by the many exotic brassica diseases and pests now present in New Zealand, including aphids, whitefly, the cabbage white butterfly, powdery mildew, and mosaic viruses. The species is now conservation dependent, meaning it requires human intervention to stop it going extinct.

The genus *Lepidium* is the latin name for cress and is probably derived from the Greek 'lepidos' or scale, referring to the shape of the pods. The species epithet 'flexicaule' is Latin for flexible-stemmed, probably referring to the trailing nature of the plant.

You can view the NZPCN website factsheet for *Lepidium flexicaule* at: http://www.nzpcn.org.nz/flora_details.aspx?ID=109

How many species of *Chrysothrix* do we have in New Zealand?

Mel James (lissa17@windowslive.com), Peter J. de Lange (pdelange@unitec.ac.nz) and Dan J. Blanchon (dblanchon@unitec.ac.nz); School of Environmental & Animal Sciences, Unitec Institute of Technology, Private Bag 92025, Victoria Street West, Auckland 1142

Chrysothrix is a genus of leprose lichens whose thallus is made up of bright yellow more or less spheroidal minute granules. In New Zealand *Chrysothrix* are those lichens that provide a splash of yellow to the trunks of trees, tree fern trunks and stipes, rocks and fence posts (Fig. 1–3). At times their coverage of substrates is so intense, particularly in urban areas, that they can give the impression that some overactive vandal with an extreme fondness for fluoro-yellow spray paint has gone wild.

Figure 1 (left). *Chrysothrix xanthina*, Landcare Research Campus grounds, Morrin Ave, Stonefields, Tamaki, Auckland (P.J. de Lange 14326, UNITEC 10496, https://inaturalist.nz/observations/18027323)
Figure 2. *Chrysothrix* sp. c.f. *occidentalis*, Lincoln, Ellesmere Junction Road, opposite Lincoln University (P.J. de Lange 14327 & J.R. Rolfe, UNITEC 10497, https://inaturalist.nz/observations/18275332.
Figure 3. *Chrysothrix* sp., Fraser's Beach, Lake Manapouri, Southland (*P.J. de Lange 14480 & T.J.P. de Lange*, UNITEC 10888, https://inaturalist.nz/observations/23860050). Photos: P.J. de Lange.

Traditionally one species, the cosmopolitan *Chrysothrix candelaris*, has been accepted for New Zealand (Galloway 1985, 2007). However, in their assessment of Australian *Chrysothrix*, Elix & Kantvilas (2007) recorded three species for New Zealand, *C. candelaris*, *C. granulosa* and *C. xanthina*. Their treatment, however, was primarily about Australian species, so the occurrences of these three species in New Zealand was made on the basis of limited collections found as duplicates of New Zealand specimens sent to Australian Herbaria, and a few specimens collected from New Zealand by Jack Elix. Accordingly, the most recent threat assessment of New Zealand lichens (de Lange et al. 2018) was unable to offer much, therein on the assumption that the most common *Chrysothrix* was still *C. candelaris* (as treated by Galloway 1985, 2007). That species was assessed as 'Not Threatened' whilst, *C. granulosa* and *C. xanthina* were treated as 'Data Deficient'.

To resolve the conservation status of these *Chrysothrix* we decided to undertake a study. We soon discovered that, as is common with all 'common' species in world herbaria, collections of this genus here are (or were until our study) under-represented in New Zealand herbaria. This is presumably because of the long-held belief that we had only the one easily recognised species *C. candelaris* so why collect it? Furthermore, collections of *Chrysothrix* were, with the notable exception of the holdings of the Auckland Museum Herbarium, few and often of poor quality. Therefore, in 2018 we put out a request for *Chrysothrix* specimens to augment existing herbarium holdings and assist our study (de Lange & Blanchon 2018).

That request has been answered and we now have excellent coverage of specimens from most parts of New Zealand—a big thank you to all those people but notably Mike Lusk, Alice Shanks, Melissa Hutchison, Allison Knight, Penelope Gillete, Tony Silbery, Leon Perrie and Pat Enright for sending in critical material.

From these collections and those held in key New Zealand herbaria the senior author has undertaken a detailed study using the morphological and chemical spot tests described by Elix & Kantvilas (2007), supplemented by thin-layer paper chromatography and DNA sequence data. Although we are still in the process of finalising those results we thought we would outline some preliminary findings.

The first big surprise is that, to date, we have yet to confirm *Chrysothrix candelaris* is present in New Zealand, instead the most common species here is actually *C. xanthina* (Fig. 1.). *Chrysothrix xanthina* is especially common in the North Island, notably in urban areas but it has also been collected from remote stations including Rekohu (Chatham Island), and further afield on Raoul Island in the Kermadec Islands group. We have found that *Chrysothrix xanthina* is easily identified, this species has a bright yellow acetone extract, a consistent granule size range (20–80 μm), an unstratified thallus and stored specimens often develop a faint greenish tinge.

Of the remaining species reported from New Zealand by Elix & Kantvilas (2007) there are now some ambiguities that need further clarification. To date we can see three units that are separated from *Chrysothrix xanthina* by having orange, red to orange-red acetone extracts and, by and large, a stratified thallus. Within these 'units' we 'think' we can see specimens that match *Chrysothrix granulosa*, and a few that may be *C. candelaris*. However, the majority of specimens match neither of these species and require further research to elucidate which species they are. We have tentative matches with several Australian species, so now we are looking to sending samples across the Tasman for Jack Elix to subject to further chemical testing.

All very exciting when you consider how widespread *Chrysothrix* is here and how, until a few years ago, we all thought we had one species—which we may not have at all.

In the interim we do have some gaps in our New Zealand wide sampling. Notably we lack specimens from the Bay of Plenty, East Cape, Nelson/Marlborough areas, whilst our coverage from Westland, Southland and Central Otago is poor. We have no specimens from Rakiura/Stewart Island.

If you are visiting these areas and feel so inclined, we would be delighted to receive specimens. *Chrysothrix* are usually easily collected, they often live on bark or dead fern stipes, which can be easily sampled with minimal harm to the phorophyte. It is important to keep specimens dry, so if collecting them, place them in paper envelopes (not plastic bags), making sure to label these with the location, elevation, and if you can latitude and longitude, and don't forget to say who collected the specimen. We have also found it useful if you take photographs of your specimens and post these on iNaturalist NZ (https://inaturalist.nz/) cross-referencing your collection with the observation details (see https://inaturalist.nz/observations/19044436 and the figures in this article for examples of how this could be done).

Please post specimens to:

Dr Peter J. de Lange
School of Environmental & Animal Sciences,
Unitec Institute of Technology,
Private Bag 92025,
Victoria Street West,
Auckland 1142

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NZPCN favourite native plant vote 2019

Alex Fergus

Does your heartbeat hasten when you look up at a kahikatea canopy? Do you find yourself weeding your *Myositidium* more defensively than your *Mertensia*? Do you secretly feel victorious when a baby's onesie is emblazoned in kōwhai instead of kororā? You love the native plants of Aotearoa! And we want to know about it. NZPCN's favourite native plant vote was dreamed up with the goal of finding out why New Zealanders love their native plants and to help raise a greater awareness and appreciation of New Zealand native plants. Online voting began on our website on 25 October and will run for one month. The winner of New Zealand's most prestigious plant-love award will be announced at the joint ASBS-NZPCN conference dinner on 26 November.

To drum up support for the 2019 vote we have called upon some of our favourite New Zealand Natural History celebrities, and first up is Nicola Toki, the Department of Conservation's Threatened Species Ambassador. Nic has generously taken the time to answer a few questions we had about her favourite New Zealand plant.

What's your favourite native plant at the moment?

While I do love *Clematis paniculata,* my favourite is probably *Leptinella filiformis* (slender button daisy).

When did you first encounter this plant?

I first encountered it in 2016 at the Pukaha/Mt Bruce wildlife centre. At the end of the day (I was there for a bioblitz), Tony handed me a wet paper towel with a few limp strands of what looked like a weed to me. As he passed it to me he said "This is a little green takahē" which I thought was a rather odd thing to say, until he told me the story of how it had gone extinct, and then was rediscovered on a Hanmer Springs hotel lawn, and then been lost again. He said because I live in North Canterbury, it was time for it to go home. It had been planted in the traffic islands in the car park at Mt Bruce.

Nic Toki (third from left), admiring a herbarium specimen of *Leptinella filiformis* at the Allan Herbarium, while Herbarium staff Kate Boardman, Kerry Ford and Aaron Wilton looks on to ensure that Nic doesn't run off with it. (It is her favourite plant after all.)

Have you seen it in the wild?

I have not seen it in the wild (except for at my house!) but I did ask for the specimen file at the Allan Herbarium at Lincoln, which was really cool to see.

Do you know if this plant is threatened?

I know this plant is in the Nationally Critical category on the NZTCS.

Why do you love it/what makes it special to you?

I love that this plant belongs in my district and that the story of it is so neat. It made me fall in love with it, otherwise I would have struggled to have a connection to it. I've now given several talks to my local community and I always reference this plant as an example of why the biodiversity in our region is special and worth protecting – and I've even started passing bits of it to the neighbours to plant in their gardens, so we can increase the local population (at least in people's backyards).

A big thank you to Nic, if anyone has anyone questions relating to NZPCN's favourite native plant vote then get in touch with Alex (fergusa@landcareresearch.co.nz).

Leptinella filiformis in cultivation. Photo: Jeremy Rolfe.

The enigma of *Coprosma solandri* finally laid to rest

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Coprosma solandri HOLOTYPE (WELT SP063854). © Museum of New Zealand Te Papa Tongarewa CC BY-NC-ND 4.0. Te Papa

Coprosma solandri (Fig.1.) was described by Wellington based Botanist Thomas Kirk as a New Zealand endemic shrub based on specimens that had been sent by the Natural History Museum, London, as part of a consignment of Banks and Solander plant specimens requested by the New Zealand Government in 1895 (Kirk 1897). Kirk requested these as he was writing the first New Zealand based flora for the country, and he needed to see the specimens that Joseph Banks and Daniel Solander had collected on the first of Captain Cook's voyages to New Zealand (1769-1770).

From the New Zealand species then understood, Kirk recognised the novelty of *Coprosma solandri* though he was at a loss to explain its relationships to other New Zealand *Coprosma*. In his paper Kirk (1897) suggested that there was a relationship between his new species and the superficially similar *Coprosma colensoi* and *C. linariifolia* and this view point more or less uncritically has been followed ever since (de Lange et al. 2019). Notably the *Coprosma solandri* type material Kirk described came without collection details—so he guessed it was collected from somewhere in the 'East Cape Region' of the North Island, presumably because that was where Banks & Solander had made the most plant collections on their fleeting visit (Brownsey 2012). Since Kirk described *Coprosma solandri* the sole specimen has sat unaccompanied by additional specimens of it in the herbarium vault at what is now the Herbarium of Te Papa Tongarewa Museum of New Zealand (WELT).

Now 122 years later we have finally worked out what Kirk's mystery plant really is. *Coprosma solandri* is not a New Zealand endemic plant after all. It is, in fact, the same as *C. ernodeoides* (Fig. 2.) a species that is endemic to the Hawaiian Islands (Wagner et al. 1990). On available evidence it seems most likely that Kirk's specimen came from collections made by Archibald Menzies, the first European to successfully climb Mauna Loa on Hawai'i (The Big Island) in 1793 (Barnard 1991). Joseph Banks probably acquired the specimen when he purchased Menzies Hawaiian plant specimens. It would seem that some of these, including the enigmatic specimens destined to become *C. solandri* were mixed up with New Zealand collections following

Figure 2. *Coprosma ernodeoides*, Hawai'I, Hawaiian Islands. Photo: Catherine Beard.

Banks's death in 1820 and the subsequent acquisition of his herbarium into what is now the Natural History Museum of London.

The paper's publication now removes from the New Zealand Flora a puzzling plant, variously treated as an endemic, a hybrid, placed within species it only ever vaguely resembled or left ignored as the unwanted ugly duckling of New Zealand *Coprosma*. We now know that *Coprosma solandri* never had anything to do with New Zealand, it was our 'endemic that never was'. The species name is now treated as a heterotypic synonym of *Coprosma ernodeoides*.

Acknowledgements

Thanks to Catherine Beard for use of her image of *Coprosma ernodeoides* taken during a holiday to the Hawaiian Islands in 2018.

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Obituary

Maurice White 1923 – 2019

Hinewai Reserve, now 1250 hectares of regenerating native forest in the south-east corner of Banks Peninsula, began in 1987 with the purchase of 109 hectares by the Maurice White Native Forest Trust.

Maurice White, a Peninsula-born Christchurch businessman, had set up a fund in 1977 "to purchase land for conservation". I met him in 1986. In the mid 1980s I was a mid-life field botanist nearing the end of a botanical survey of Banks Peninsula. I was introduced to Maurice at a Forest and Bird meeting. It was a fortuitous encounter. After three and a half years of systematic vegetation sampling, I realised that the subjugated natural ecosystems of Banks Peninsula were, despite appearances, far from subdued. Less than one percent of the original old-growth forest remained, and much of the native fauna was gone. Since the nadir of forest cover at the start of the 20th century, however, native forest had reclaimed more than fifteen percent

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of its territory, against all odds. To maintain pasture on this marginal and difficult hill country, farmers regarded both exotic gorse and native kānuka as enemies, intent on swallowing up their hard-won open grassland.

I longed to look after a patch of this deforested peninsula so that impediments to natural regeneration could be diminished or removed, and so that native forest could re-establish more quickly under both exotic (gorse and broom) and native (kānuka and mixed hardwoods) nurse canopies. Alas, buying land was beyond my financial resources. Meeting Maurice, though, was a game-changer. We joined forces, and Hinewai was born.

Since the beginning we operated under a management philosophy of "minimum interference" and natural regeneration. We "managed" gorse as an effective temporary nurse canopy. We opened our track network freely to the interested public. Maurice's legacy is now in effect a mini-National

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Park on the doorstep of Akaroa, and in Christchurch's back yard. A striking example of natural forest regeneration, it is very relevant now as New Zealand and the World grapple with climate change.

Maurice White was born on his parents' small dairy farm at Wainui, across the harbour from Akaroa, on 23 August 1923. The 1930s Depression forced the family off the farm and they moved to Woodend, North Canterbury. Maurice attended Rangiora High School for his secondary schooling, cycling the four and a half miles from Woodend, there and back, every day. After leaving school, he took courses in accounting and business by correspondence, before being called up for military service in 1942.

Still under 21 he served the next two years in New Zealand, then in Italy in the closing months of the "2nd World War." When the war ended in Europe he was sent to Japan as part of the Army of Occupation. He recalled vividly passing through →

Hiroshima only four months after the Americans had destroyed that city with the World's first atomic bomb.

Back home in New Zealand Maurice worked in various office jobs in Christchurch. He married Nita in 1951. Their three daughters all still live in the city. All his great-grandchildren, however, live in Australia.

After five years in an accountant's office, Maurice became Manager of a service station in Richmond, Christchurch, a business he later bought. It prospered under Maurice's ownership. But he shrewdly realised that there was more money to be made from spare parts than from selling petrol, and he opened two more branches in Papanui and Sydenham. He also inverted his profits successfully in the share market. It was a wonderful development when he directed both his financial resources, and his financial acumen, to conservation.

Maurice was closely involved with Hinewai, and

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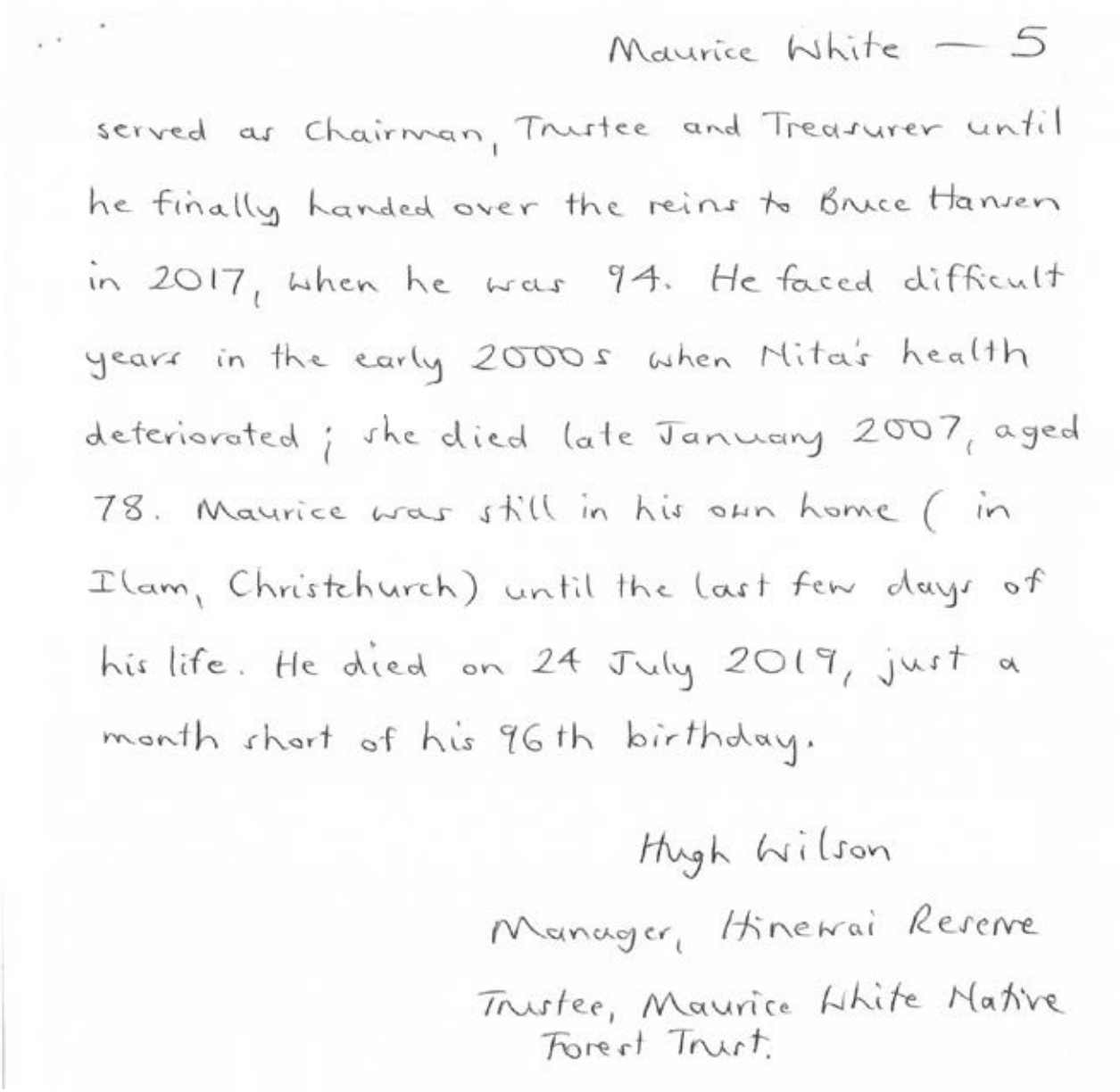


Maurice White — 5

served as Chairman, Trustee and Treasurer until he finally handed over the reins to Bruce Hansen in 2017, when he was 94. He faced difficult years in the early 2000s when Nita's health deteriorated; she died late January 2007, aged 78. Maurice was still in his own home (in Ilam, Christchurch) until the last few days of his life. He died on 24 July 2019, just a month short of his 96th birthday.

Hugh Wilson
Manager, Hinewai Reserve
Trustee, Maurice White Native Forest Trust.

Hugh Wilson, Hinewai Reserve, RD3, Akaroa

Call for applications for the Lucy Cranwell Student Grant for Botanical Research for 2020

Applications are invited for the Lucy Cranwell Grant of $2,500.00 from the Auckland Botanical Society to assist a student studying for the degree of PhD, MSc, BSc (Hons) or B. Appl. Sci. in any tertiary institution in New Zealand whose thesis project deals with some aspect of New Zealand's flora and vegetation. Priority will be given to projects relevant to the northern half of the North Island. The research project to be supported will be chosen on the basis of appropriateness to the objects of the Society, namely to encourage the study of botany, and to stimulate public interest in the plant life of New Zealand and its preservation, conservation and cultivation. The grant will be administered by the student's supervisor as a contribution to expenses associated with the project. Closing date for applications: 5pm Friday 06 December 2019. A copy of the Application Form and the Rules of the award may be downloaded from the Auckland Botanical Society website under: Lucy Cranwell Fund https://sites.google.com/site/aucklandbotanicalsociety/

Contact for enquiries: ABS Secretary Email: aucklandbotanicalsociety@gmail.com

2019 ASBS-NZPCN Conference Charity Auction: Last update on what we have so far, any more items will be gladly accepted!

Matt Ward, NZPCN Secretary – mattdavidward@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 Rangiātea" 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].

M. Ward – *Corybas dienemus*

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!

We have almost sixty items up for grabs, so the conclusion of each auction will be staggered. This will involve groups of auctions concluding at various times in intervals of 15 minutes during Tuesday 26th afternoon/early evening. Staggered auction conclusions should hopefully prevent too much confusion as each auction winner claims their item(s). The time the auction will close will be clearly shown at the top of each items bid sheet. If there is still active bidding at the time of close this will of course be allowed to continue. Any items lacking a bid will be live auctioned after dinner on Tuesday evening, only dinner attendees will be able to bid. Payment for items at this stage will be either cash or bank transfer.

To make the auction a success, we rely on worthy donations from individuals, businesses, institutions and agencies. Even though we already have great items you may still wish to 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.

P. Warren – *Horopito*

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

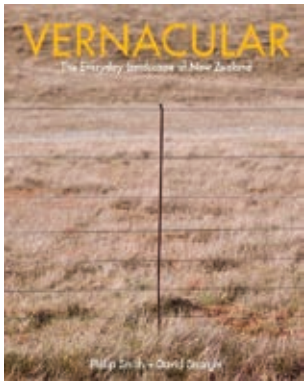
wrapped; *Ginkgo biloba*: pen and ink with water colour wash - A4, with matt board: 280cm x 350cm Unframed, but with matt board and shrink wrapped;

- **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), has done a couple of her fantastic paintings, one of which is shown here.

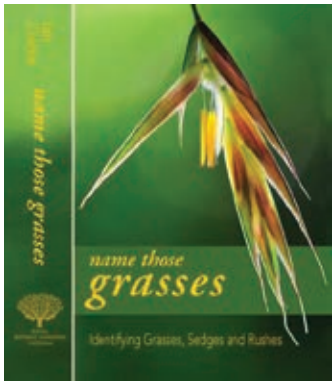
J. Gosden – *Earina mucronata*

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.*
- **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*

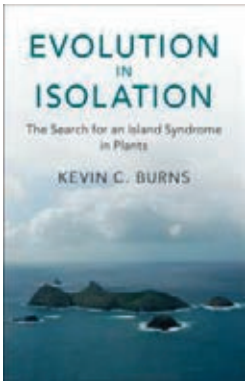


Philip Smith - Vernacular



Ian Clarke - Name those grasses

Wayne Bennett – The Forest for the Trees



K.C. Burns – Evolution in Isolation

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.

- **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*
- **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.

Fine muslin scarf – Kate Brown

Biotopia Design – Bangle, Earings and Necklace

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.
- **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 Natur e 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 Mallett (*E. astringens*). This scarf is truly one of a kind.
- **Biotopia Design** (Aus), 2 items: a handmade bangle, Banksia print, made from copper: and a matching set of handmade earrings and necklace, Banksia print, made from copper and sterling silver.

Merchandise

- **Tumbleweed** (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.

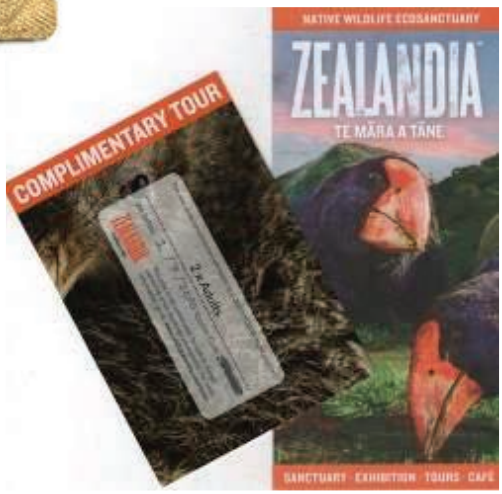
Vilo bamboo watch – Ivan Lin

- **Trikn Tours** (NZ), Brett Lindsay kindly donated a unique $200 voucher for an hour-long Motorcycle Trike tour to be arranged at the convenience of the winner.

- **Ivan Lin** (NZ), Vilo - Mens Wooden Watch; A bamboo men's watch. An original quartz movement timepiece, carefully crafted from bamboo for the eco discerning, includes genuine tan leather strap and an original bamboo case.

Experiences

- **ZEALANDIA Native Wildlife Sanctuary** (NZ), Thanks to Kate Miller for two items; 1 x Complimentary Family Pass Admission Voucher; and 1 x Complimentary Night Tour for 2 Adults Voucher



ZEALANDIA – Complimentary Tour Voucher

Trikn Tour - $200 Voucher

University of Canterbury summer course: Practical Field Botany

Practical Field Botany (BIOL305) is an intensive, short, summer course designed to meet the need for training in the collection, preparation, and identification of botanical specimens.

Venue: University of Canterbury - Cass Mountain Research Area, Canterbury

Dates: 21 – 29 January 2020

This course will be of interest to amateur botanists, members of the workforce (e.g. Crown Research Institutes, Department of Conservation, Local and Regional Councils, Botanic Gardens, horticulturists and teachers) and biology students who need to acquire or upgrade taxonomic skills and are interested in field ecology, conservation, biodiversity and biosystematics. The course is targeted at participants with various entry levels: from students with a limited plant knowledge to experienced career professionals.

Goals of the course

To enable participants to

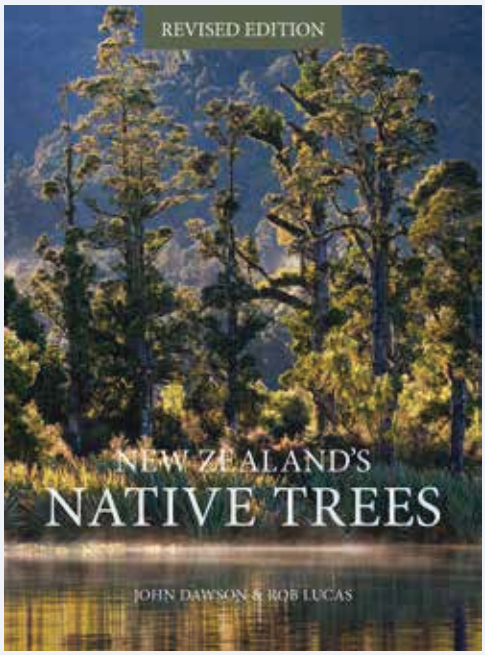
- become familiar with the plants of the central Canterbury mountains,
- identify and name plants correctly and accurately using online and hard-copy identification keys,
- take and edit scientific-quality plant photos,
- maximise usefulness and minimise environmental impact when collecting specimens,
- prepare high quality voucher specimens of plants,
- use scientific names to access detailed information about New Zealand plants,
- understand the patterns of variation within populations,
- appreciate unique and unusual aspects of the New Zealand flora.

Enrolment from 1 October 2019

More information

Contact Matt Walters (matt.walters@canterbury.ac.nz; 03 369 5211) or Pieter Pelser (pieter.pelser@canterbury.ac.nz; 03 369 5228).

Special Offer 20% Discount For NZPCN Members



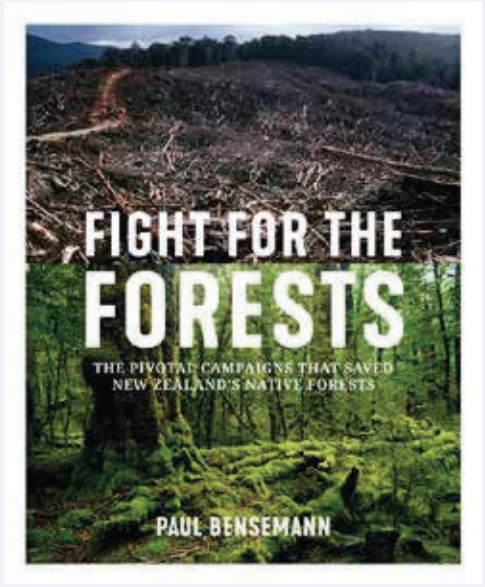
New Zealand's Native Trees

John Dawson & Rob Lucas

A complete revision of the best-selling, award-winning landmark book on New Zealand's native trees.

Special price $104.00

Normally $130.00
John Dawson & Rob Lucas
310 x 229 mm, 688 pp
Hardback with dustjacket, colour throughout
Published: October 2019



Fight for the Forests

Paul Bensemann

The remarkable and inspiring story of how New Zealand's native forests were saved between 1960 and 2000.

Special price $55.99

Retail $69.99
Paul Bensemann
265 x 215 mm, 300 pp
Hardback with dustjacket, colour throughout
Published: November 2018

To receive 20% discount and free delivery in NZ, order online at pottonandburton.co.nz and use the coupon code **NZPCN19** at the shopping cart. Offer ends 20 December 2019.

UPCOMING EVENTS

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

Auckland Botanical Society

Meeting: Wednesday 6 November at 7.30pm – Speaker Jack Warden. **Topic:** The Vascular Flora of Rakitu Island (Arid Island), Great Barrier Island, Updated 2017–2019.	**Venue:** Unitec, School of Natural Sciences, 139 Carrington Road, Mount Albert, Auckland-Gate 4, Building 115, Room 2005
Field Trip: Saturday 16 November to Piggott Wetland, Tuakau. **Meet:** 10.00am at 243 Parkers Lane, Buckland.	**Leaders:** Shelley Heiss Dunlop and Jan Butcher, ph. 027 241 3701.

Rotorua Botanical Society

Field Trip: Sunday 3 November to Toatoa Scenic Reserve, Motu Road. **Meet:** 9.00am at the Opotiki I-site/DOC Office. **Grade:** Medium.	**Leader:** Mike Butcher, email mikebutchernz@xtra.co.nz, ph.07 315 7160 or 027 455 5610.
Field Trip: Sunday 1 December to Oruanui/Marotiri podocarp forest remnants, north Taupo (comined with Waikato Botanical Society). **Meet:** 10.00am at the junction of SH 5 and Oruanui Road. **Grade:** Easy.	**Leader:** Mark Smale, email smalem@landcarereserach.co.nz, ph. 027 855 2240.

Wellington Botanical Society

Field Trip: Saturday 2 November to Waipango Stream, Mangaroa, Whitemans Valley. **Meet:** Catch the 8.35am Hutt line train from Wellington to Wallaceville Station. Meet at the Wallaceville Station at 9.30am to carpool to the site. **Bring:** Sturdy footwear, warm clothes and a raincoat.	**Leader:** Owen Spearpoint, ph. 027 285 8083 or 04 562 8780.
Meeting: Monday 18 November – Speaker Dean Baigent-Mercer. **Topic:** The collision of conservation, colonisation and the collapse of Northland's native forests.	**Venue:** Lecture Theatre M101, ground floor Murphy Building, west side of Kelburn Parade.
Workshop: Sunday 24 November – Botanise the bush at Otari. **Meet:** 9.00am on the deck outside the Otari Information Centre, 160 Wilton Road, Wilton.	**Co-leaders:** Megan Ireland and Tom Mayo, ph. 022 689 7826.

Nelson Botanical Society

Field Trip: Sunday 17 November to Anchorage, Abel Tasman National Park. By water taxi from Kaiteriteri. Please contact Don by 10 November for boat booking and transport arrangements.	**Contact:** Don Pittham, email pitthamd@xtra.co.nz, ph. 03 545 1985.

Canterbury Botanical Society

Meeting: Monday 4 November at 7.30pm – Speaker Paul Maurice. **Topic:** The flora of the Silk Road, in the Tien Shan mountains of Central Asia. This meeting will be preceded by a brief Special General Meeting.	**Venue:** Upper Riccarton Library community meeting room, 71 Main South Road, Riccarton.

Canterbury Botanical Society cont.

Field Trip: Saturday 9 November to Motukanuka Scientific Reserve, Eyrewell, a newly gazetted Kanuka remnant. **Meet:** 9.30am at the Belfast Tavern (Peg Tavern), 899 Main North Road, Belfast, for car pooling. **Grade:** Moderate. **Bring:** Lunch. drink, warm clothes, hat, raincoat, sturdy footwear and petrol money. **Cost:** $10.00 for fuel reimbursement.	**Leader:** Melissa Hutchison, email melissa@tenax.co.nz, ph. 021 041 5797. P lease contact Melissa in advance if you intend to participate.

Botanical Society of Otago

Field Trip: Saturday 2 November to Andersons Lagoon. **Meet:** 8.30am at the Botany Department carpark.	**Contact:** John Steel, email john.steel@otago.ac.nz.
Meeting: Wednesday 13 November at 5.20pm – Speaker Jo Carpenter. **Topic:** Assessing the ecological consequences of extinction: are flightless birds important seed dispersers in New Zealand?	**Venue:** Room 215, 2nd Floor, Zoology Benham Building, 346 Great King Street.