



*Society for Growing Australian Plants
Cairns Branch*

NEWSLETTER

Newsletter No 236

November, 2023

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Cairns Art Gallery - Sunday, 19 November

Gather at Perrotta's at 11.30 a.m. before our visit to Cairns Art Gallery to view an exhibition of 28 of Ellis Rowan's vast oeuvre, on loan from Queensland Museum's collection. Rowan's works are described as botanical illustrations as, in many instances, she was more concerned with the painting's composition than botanical accuracy. Other exhibits feature Daniel Wallwork and Melanie Hava



*NPQ State Conference 2023
An Appreciation*

Stuart Worboys,
Branch President

Years in the making, over in just a few too-short days, Native Plants Queensland's 2023 conference was a success enjoyed by all.



*Delegates enjoy a beach stop at Port Douglas.
'Photo: Stuart Worboys*

The possibility of the Wet Tropics hosting the conference was discussed at the Warwick Yabba way back in 2018. Cairns Branch member, Sharren Wong, invested many, many hours in researching venues and travel logistics only to have her efforts defeated by the world-wide pandemic. Sharren is now based on the Gold Coast, but sadly could not make it to the event to which she'd dedicated so much energy.

The Seville Mercy Centre proved a great venue for the conference, with a rainforest backdrop and reminders of Cairns early European settlement scattered around. I did find the meals uninspiring, however the company at each meal was excellent. The venue's proximity to the former Gandini home brought back sad but fond memories of visiting Mary and David's extensive native garden. The Centre's gardens are grand and tropical. Many people commented on the large tree in full blossom situated behind the main building complex. This turned out to be a south east Asian species, *Saraca thaipingensis* or *S declinata*.

Helen Lawie presented an excellent summary of the various excursions, a few of which I managed to attend, in the October newsletter (No. 235). The outings were well managed, with the bus drivers being accommodating and fun, and everyone seemed to appreciate the variety of garden, park and rainforest sites that were visited.



Josephine Falls, hidden in rainforest at the foot of Mt Bartle Frere
 Photo: Stuart Worboys

I'd like to take this opportunity to thank all of the Cairns and Tablelands members (and a few non-members) who helped make this happen. The list includes Geoff McLure (Cattana Wetlands) Rob Jago, Don Lawie, Clyde the Crocodile, Adrian Hogg and the members of Johnstone Region Landcare Group, Professor Darren Crayn, Jan McLucas and Bradley Smith, Friends of the Botanic Gardens Cairns, Garry and Nada Sankowsky, and Peter Radke. Of course, none of this would have happened without the work of NPQ State President, Roger Kitchen.



"Clyde" on his favourite sand bank in the Russell River (non- member)
 Photo: Stuart Worboys

Report on Mulgrave Landcare Nursery and HQ

Helen Lawie

Anyone shopping at a commercial nursery lately is bound to find a bunch of showy exotic tropical plants. After all some natives have a reputation for being finicky, slow growing or too subtle. In contrast to this belief is the resplendent Mulgrave Landcare Nursery in Gordonvale, where natives rule the roost. Tables of seedlings abound in lush growth, a cornucopia of native plants with a huge variety of species.



Castanospermum australe germinating
 Photo: Helen Lawie

From rainforest stalwarts, *Castanospermum australe*, to pioneers, *Homalanthus novoguineensis*, to grasses, *Lomandra longifolia*, and vines, *Aristolochia tagala*, all the stratas of a revegetation project are represented. With the sun shining through the crystal water drops of the sprinklers there is an impressive range of greens: purple, red, yellow, and blue green. From the germinating trays to the proud young seedlings, to the sun-hardening tables, the nursery is a showpiece of planning and vibrancy.

Babies in the nursery

Melicope ellaryana
 Photo: Helen Lawie



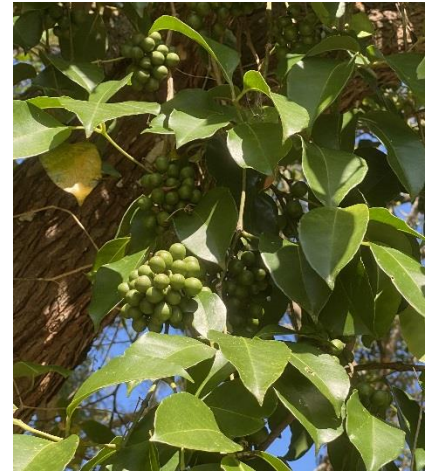
Lisa O'Mara, Coordinator extraordinaire, welcomed us to the relatively new Landcare HQ now situated at the old fire station on Norman St. The lovely old building has space for their volunteers every Tuesday morning, meeting rooms, Landcare library, and co-working space with Farmacist (a technology driven agronomy service providing soil and crop management advice). There are many local networks that cross over at Landcare: Community Garden and also Men's Shed.

Tetrastigma nitens fruit will turn red then black just in time for cassowary chicks to feast in November. Photo Helen Lawie

Tetrastigma nitens

fruit will turn red then black just in time for cassowary chicks to feast in November.

Photo:
Helen Lawie



One of their collaborations includes the plantings at Figtree Wetlands (refer SGAP Newsletter No 222 July, 2022, for a report on our visit) which is funded through the Queensland Government's Queensland Reef Water Quality Program and delivered by Greening Australia, Mulgrave Landcare and Madjandji Aboriginal Corporation.



A picture tells of a thousand deeds...

Photo: Helen Lawie

To round out the day we visited Green Patch. The big old trees along the creek were laden with flowering *Dendrobium teretifolium*, pencil orchids; they were simply growing everywhere. Coming into flower was *Barringtonia calyptata*, and there were bright new-green leaves on the *Terminalia sericocarpa*. Fat green fruit on the *Tetrastigma nitens* vine were starting to change colour in the hot afternoon sun, without a cassowary in sight to appreciate them. There were exotics here, a huge stand of noisy golden bamboo for example, but SGAPers can have selective vision and beauty is in the eye of the beholder.



Donald Lawie purchased "The Passage of Seasons" from co-author Colwyn Campbell

Photo: Helen Lawie

Stuart brings us up to date

New on LUCID - the Australian Mistletoe Key by Roger Fryer

Mistletoes are a common and diverse feature of the Australian flora. They are epiphytic parasites on native trees, spread by fruit-eating birds. Mistletoes in the family Loranthaceae have large showy flowers with abundant nectar, those in the Viscaceae have small flowers that are easily overlooked.

The Australian Mistletoe Key arose from a need identified by Roger Fryer and Jill Newland. Together, they had photographed the majority of Australian mistletoes, but needed an

up-to-date key. Unfortunately, Jill died before work began, but, supported by the Australian Tropical Herbarium, Roger has developed the key over the past two years.

*Christmas Party
3 December
18 Manilla Close
Mount Sheridan*

This key covers all the Australian aerial mistletoes from the Loranthaceae and Santalaceae families, including the off-shore islands. The parasitic trees and shrubs of these families are not covered. It runs using the familiar Lucid format, and can be accessed here:

<https://keys.lucidcentral.org/keys/v4/australian-mistletoe/>

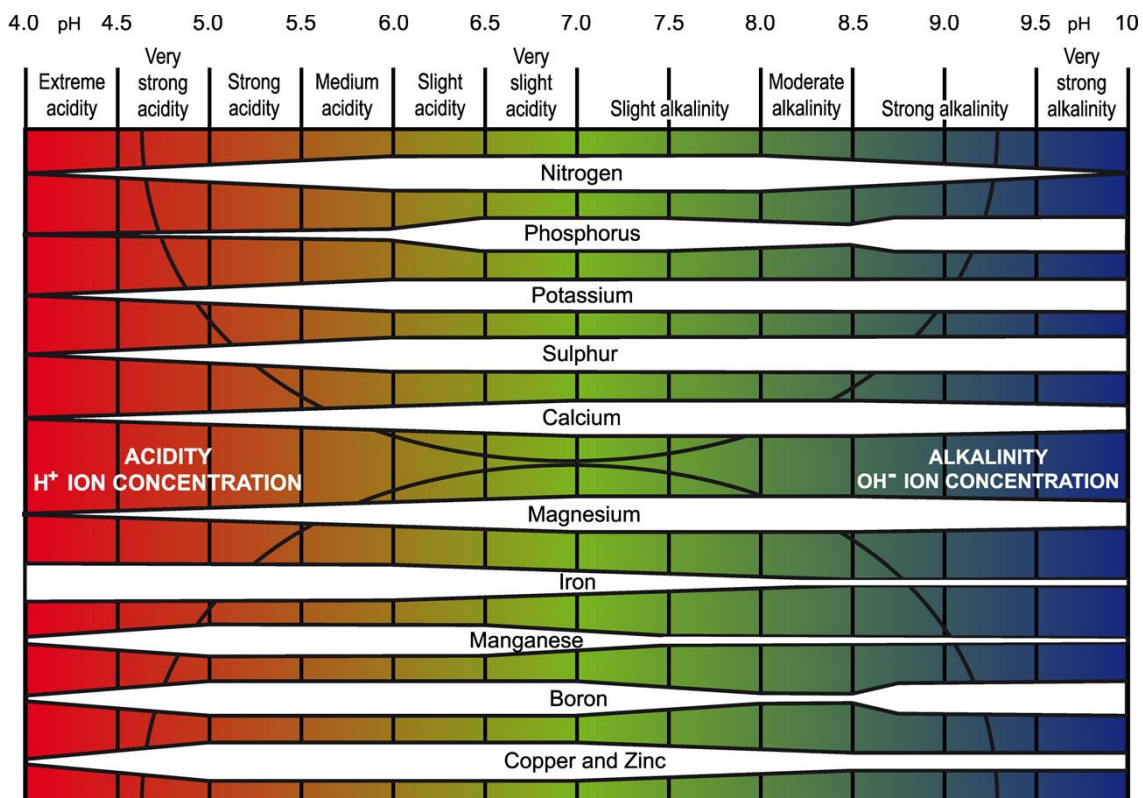
BRING food to share and enjoy IMAGINATIVE items to raffle and win

If you have not managed to get along to excursions, this is your chance to catch up and chat about plants or whatever else takes your fancy in airconditioned comfort. Mark and Helen are great hosts.

Sundews

Our next suite of plants has a totally different relationship with our insect friends, and it is far from being symbiotic.

Plants require certain macro and micronutrients to thrive. By volume, 95% of their macronutrient requirements, carbon, oxygen and hydrogen, is obtained from air and water. Nitrogen is the next most required element. Although 78% of the earth's atmosphere is nitrogen gas, plants are unable to access it. The conversion of atmospheric nitrogen into a form that can be used by cells, called nitrogen fixation, can only be carried out by a few species of specialised bacteria called rhizobia.



Influence of soil pH on plant nutrient availability (*Potash Development Association*)

Additionally, the availability of nutrients to plants is affected by many factors but most importantly by soil acidity. As the soil acidity increases, most elements become less available. At a pH of around 4.5, nitrogen becomes totally unavailable.

Many boggy places contain acidic water that not only limits the availability of nitrogen and other elements, but it also inhibits the growth of nitrifying bacteria.



Drosera finlaysoniana (ALA - timrudman)



Drosera prolifera (ALA-S. Worboys)

Sundews have evolved a very novel way to thrive in such inhospitable places and nutrient poor soils; they supplement their nutritional needs by consuming insects.



Drosera spatulata (ALA- spoon/questagame.com)



Drosera peltata (ALA-Cynthia Chan)

Sundews can range in size from only 1cm across to 1.5m tall and come in many forms. They all have something in common, leaves that are covered in gland-tipped hairs that exude attractive nectar, adhesive compounds, and digestive enzymes. Insects that land on the leaves stick fast and die either from exhaustion from trying to escape or through asphyxiation. Once a suitable victim is in contact with a glandular hair, other nearby glandular hairs are stimulated to bend toward, and adhere to the insect. In many species the entire leaf is able to bend around the prey, increasing contact.



Drosera petiolaris (ALA-johnnewman)



Drosera burmanni (ALA- Richard Fuller)

As the enzymes dissolve the insect, the resultant nutrients are absorbed through the leaf surface for use by the plant.

Of Australia's 117 (aprox.) species of *Drosera* (sundew), seven species have been recorded from the Cairns area. There is though, another plant found around Cairns that is often mistaken for a *Drosera*; *Byblis liniflora*.



Drosera banksii (ALA- Zac Horvatin)



Byblis liniflora (ALA- colbourn)

The *Byblis* are not closely related to *Drosera*. They have a different flower structure, and their glandular hairs and leaves are not able to move to assist trapping and digesting their prey.



Australian Rhododendron Society Conference, Burnie Tasmania

Stuart Worboys
All photographs by Stuart

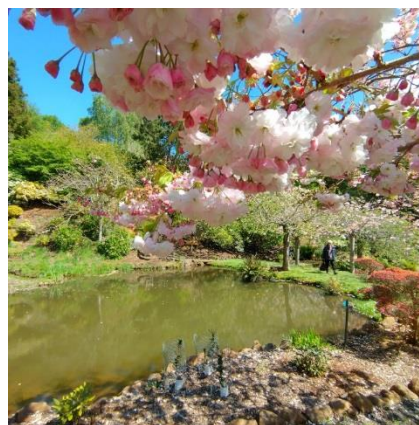
Earlier this month [October] I had the privilege of speaking at the Australian Rhododendron Society Conference, which was held at the Emu Valley Rhododendron Garden, near Burnie in northwest Tasmania.



*Opening of the Australian Rhododendron Conference
by The Honourable Jeremy Rockliff, Premier of Tasmania*

The EVRG is a beautifully laid-out garden, situated on steep sheltered basalt slopes above the Emu River, about 10 km out of town. Run almost entirely by volunteers, the 11 ha of landscaped gardens feature over 24,000 rhododendrons laid out according to their geographical origins. The gardens include the conference venue and cafe, four lakes, waterfalls, gazebos, dry stone walls and well-paved paths. The entire site is fenced to keep out nibbling wallabies and deer.

The conference coincided with peak spring flowering time. There are over a thousand species of *Rhododendron*, occurring from Greenland to the Appalachians, from Nepal to the mountains of New Guinea. Across its vast range there is an amazing diversity of form and colour, and a large proportion of known species are on display in the garden.



In the Japanese section, white, pink and crimson azaleas (which are all classified within the genus *Rhododendron*) line the paths to the delicately painted teahouse.



Nearby the petals from the flowering cherries gathered in floating windblown drifts on a small lake (home to Roger the Platypus) whilst a small forest of maples were bursting into new leaf.



*Box of vireya
rhododendron flowers
showing their diversity of
colour and size*

The invitation to speak arose from my involvement in the Tropical Mountain Science Project, a project to bring into cultivation climate-threatened species of the Wet Tropics mountains. For those who are not familiar with that story, refer to my article in The Conversation:

<https://theconversation.com/australias-native-rhododendrons-hide-in-the-high-mountain-forests-105218>.

Australia's native rhododendrons, *Rhododendron viriosum* and *Rhododendron lochiaie* were just two of the 30 or so species collected and cultivated over this seven year project.

Two other speakers filled in the gaps in the story: Andrew Rouse, President of the Australian Rhododendron Society's Victorian branch, related the history of the Society's initiation of the project; and Dr Sue Gardiner, geneticist with the New Zealand Institute for Plant and Food Research, laid out the final genetic proof of two, not one, Australian rhododendrons.

Due to ongoing clearing and climate change, many *Rhododendron* species worldwide are at risk of extinction. The focus of the conference was conservation, and speakers from New Zealand's Pukeiti Garden, Emu Valley, and the Dandenong Ranges Botanic Gardens told of their role in conserving a tiny sampling of these threatened species, and of their frustration at the barriers to obtaining new material placed by international politics and quarantine.

The conference's keynote speaker was a charming and well travelled Irishman, unsurprisingly named Seamus O'Brien. He is head gardener of Kilmacurragh House and Gardens, a branch of Dublin's national botanic garden. He's a modern day plant hunter, having travelled and collected in Chile, India, Taiwan, and China. The focus of his talk was on the great nineteenth century plant hunters such as Joseph Dalton Hooker and Frank Kingdom-Ward.

Kilmacurragh, being a satellite garden of the great centre at Kew, acquired many of these plants, including the Joseph Hooker's rhododendron collection. Seamus took great pride in his connection to so much botanical history, and was an egregious name-dropper (the Irish President really is quite fat, Thomas Pakenham, author of "Remarkable Trees of the World" is currently on a driving holiday in Sicily, at the age of 90). His book, *In the Footsteps of Joseph Dalton Hooker: A Sikkim*

Adventure, is still available, and he is currently writing the story of Frank Kingdom-Ward.

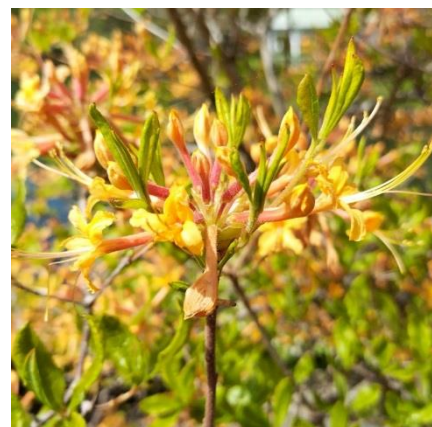
The conference finished with garden visits. These days I don't get to spend much time in the temperate zone during spring, so it was a great pleasure to visit gardens featuring fields of poppies, peonies, bluebells and yet more rhododendrons. It was also a novelty to wear thermal underwear and a beanie!



American Section Gazebo - Lakeside gazebo in Emu Valley's American section of the Emu Valley Garden



Vireya rhododendron at a private garden



Deciduous rhododendrons flowering before coming into new leaf