



*Society for Growing Australian Plants
Cairns Branch*

NEWSLETTER

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President Stuart Worboys
Vice President Rob Jago
Secretary Helen Lawie
Secretary@sgapcairns.org.au

Treasurer Val Carnie
Webmaster Tony Roberts
Librarian Coralie Stuart
Newsletter Editor Pauline Lawie
lawiepm@gmail.com

Dave and Desley Barrow's Property, on 19th May

We will be very welcome at Dave and Desley's at 85 Upham Road, Mirriwinni. On the Bruce Highway you hit the 60 zone when coming into Mirriwinni. Take the first street on the right just before the service station, then turn left into Upham Road and the property on the left will be indicated by something bright. For those who wish to maximise their experience, it is also possible to drive almost to the gate at the Mirriwinni water intake, with a short walk to the water. As usual bring all you will need for a bright, sunny? midday lunch in the Wet Tropics.

Babinda, apart from its well known hospitality, offers a choice of toilets at the Info Centre and further up Munro Street at Anzac Park.



GARDENS BY THE BAY
Stuart Worboys

It's been roughly 15 years since I was in Singapore. I've visited a couple of times over the years, and found it clean, safe and easy to travel around: TOO safe, TOO clean and TOO easy to traverse. I tend to appreciate a little challenge in my travels - give me a crowded third world train, and some fiery Asian street food, over a carefully curated bus tour any day. But I'd not been overseas since COVID, and a short, comfortable trip was desperately needed.

If Asia is your preferred destination, and time is limited, safe efficient boring Singapore is the place to go. My travel companions (Matt and Sheldon) liked the idea of Singapore, so dates were negotiated, a suitable hotel found, and plane tickets purchased.

This trip had an agenda, something to tick off my "bucket list": Gardens by the Bay.

Friends have been hyping this extensive, green attraction for years. Its head of horticulture, Anton van der Schans, is a Cairns expat some of you may know (I emailed him prior to travel, but sadly our paths couldn't cross).

Home to the world's largest glasshouses, a huge tropical garden, and extensive collections of bizarre and wonderful plants from around the world, I've long been admiring Gardens by the Bay from afar. So, on 25 January we took the 3.5 km walk from our hotel* to the vast landfill area on which the gardens are built, and were duly awe-inspired.



Our exploration took us first to the Cloud Forest glasshouse. We queued for tickets, then joined another queue to pass through the heavy swinging doors... into wonderland. At first I was struck by a wall of vibrant green and a misty cascade falling from high above, then into a void before me. The air was cooler and more humid

than outside – 23-25° C and 80-90% humidity, maintained by constant misting and cold-water pipes running through the floors and walls.

To each side of the entrance, *Phalaenopsis* and *Anthuriums* added colour. I was a little disappointed to see these horticultural cliché, and believed it wouldn't bode well for what was to come, but I was to be pleasantly surprised.

A closer look into the void before us revealed moss and fern covered surfaces, fed by the constant spray from the 35 m high waterfall, not too far different from a real mountain cloud forest. We wandered the broad path around the base of the mountain, and I started to see plants both familiar and foreign. Rhododendrons (sadly not in flower), colourful impatiens, giant aroids, kauris and araucarias.

Branches on the path took us to an orchid filled space near the "mountain's peak", then down again to a magical display of orchids from Machu Picchu.



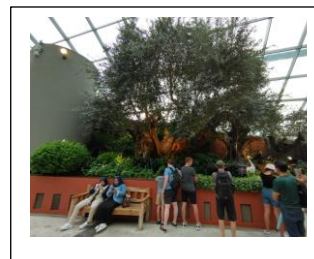
Anton's Australian origins were evident in many places, with tree ferns, Dendrobiums and Araucariaceae abounding. I even discovered a

Northern Brush Mahogany (*Karrabina biagiana* Cunoniaceae) lurking in an obscure corner. The path wound down to the lowest level where a cave-like ecosystem had been set up along a little stream.

Adjoining the Cloud Forest glasshouse is the Flower Dome "where the only season is Spring". This is the largest glasshouse in the world, with 1.26 ha under glass. Cool like the Cloud Forest, it is significantly less humid, and displays succulents and plants from regions with Mediterranean climates. The Australian flora was well represented, as was Californian, South African and temperate South American.



At the heart was a field, big enough to hold a thousand people, planted with seasonal flowers (dahlias when we were there).



For me, perhaps the biggest achievement here was the large number of huge ancient trees that had been brought to the garden. Enormous centuries old olives, baobabs and Australian bottle trees were planted strategically across the dome's gardens, with no acknowledgement of the logistical challenges overcome to transport these mature trees across the world.

Near the centre of Gardens by the Bay is a cluster of tall, umbrella shaped structures called the "Supertree Grove". The supertrees, some 50 m tall, support vertical gardens. You can climb them and they offer a view across the southern part of the Island.

However, we were done, so we returned to our hotel for showers and naps, and returned for the evening show. Each day as the sun sets the Supertree Grove comes alive with an



impressive sound and light show. The branches of the Supertrees flash in time to a medley of songs, and hundreds of people show up to be entertained.

For the botanically minded, Gardens by the Bay is an impressive spectacle that showcases the world's tropical flora. The size of the investment outclasses anything I've seen in Australia, and its popularity with visitors seems to reward that investment in spades. If you're travelling in South East Asia, don't miss it.

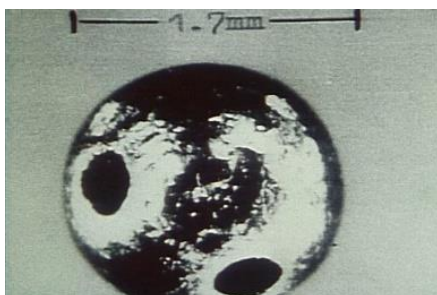
*Being from Cairns, a 3.5 km walk in the steamy tropical heat of Singapore is nothing, a mere trifle. During our January visit, it was actually slightly milder in Singapore than Cairns.

All photographs by Stuart Worboys.

Ed. I sincerely apologise to Stuart who sent this interesting report to me in time for the April newsletter and I failed to include it. I'm still awaiting absolution!

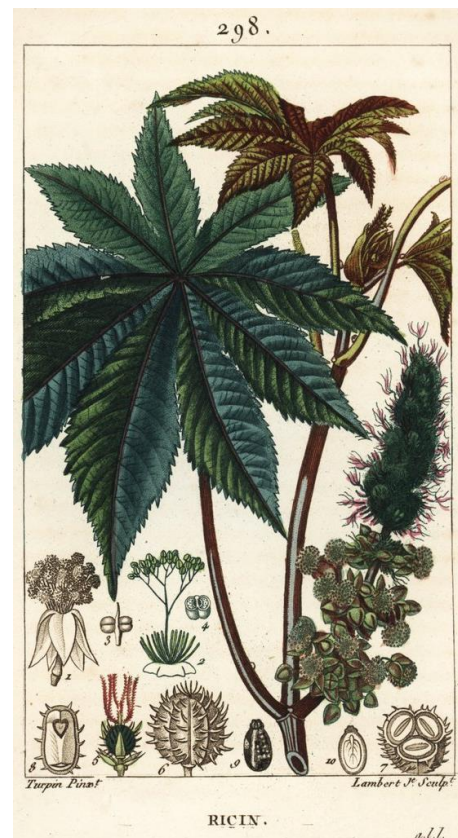
ABRUS

Georgi Markov, a Bulgarian dissident writer, was famously murdered on Waterloo Bridge in London by the [Bulgarian Secret Service](#) and the KGB in 1978. Markov was shot with a tiny pellet holding a microscopic amount of the poison, ricin.



The pellet used to kill Markov. The tiny holes were packed with ricin.

Only 0.2 milligrams of ricin was needed to cause his death in four days. Ricin is a carbohydrate-binding protein that prevents cells from making protein. It is easily extracted from the seeds of the castor oil plant (*Ricinus communis*), a widespread invasive plant that is found around Cairns.



Ricinus communis

Scientific studies show that the lethal dose of ricin by injection and inhalation can be as low as 3-5 $\mu\text{g}/\text{kg}$ of body weight (or 250 μg for an 80kg person) while the oral dose needed is somewhat higher. (A grain of salt weighs about 60 μg .)

Locally we have a native plant, whose seeds produce a similar poison, that is **70** times more toxic than ricin; the humble rosary pea (*Abrus precatorius*).



Abrus precatorius is a vine in the Fabaceae family. It has pinnate leaves, pink, white or purple pea flowers and bright red and black seeds.

The rosary pea has a pantropical distribution and is split into two subspecies. *Abrus precatorius* subsp. *precatorius* is native to Australia, India and Asia while subsp. *africanus* is native to Africa. The latter is an introduction to Australia and is found in Queensland and NSW.

The seeds of the plant contain the poison abrin. There is enough abrin in one seed to kill an adult. Luckily the seeds have a hard coat that can remain intact if a seed is swallowed.



Abrus Seed Necklace (Gabriela Ruellan)

However, if the seedcoat is removed or disturbed all bets are off. They have been used in percussion instruments, as beads for necklaces and rosaries, as weights, medicinally and as poison.

I keep a rather large jar of *Abrus* seeds, just in case.

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COOKTOWN BOTANIC GARDENS

Stuart has been in touch with Nikko Menzel, the Gardens curator, regarding our visit. Nikko has confirmed that members will be permitted to camp near the cricket nets as we have done previously. The rough plan is:

Arrive Friday, 12 July

Work Saturday, 13, July

Field trip Sunday, 14 July

Those intending to be in this work party are asked to confirm with secretary@sgapcairns.org.au by Monday, 10 July.

THIS YEAR'S PROGRAM

June	Green Hill private property
July	Cooktown
August	Speewah private property
September	Kewarra Beach
October	Hartley Creek track
November	Peter Radke talk and garden
December	Christmas lunch

NOTES ON A SMALL SECTION OF RIPARIAN VEGETATION BETWEEN HARDY ROAD AND SCOTIA PLACE PARK AT MOUNT SHERIDAN

Our recent outing of the Cairns Branch of the Queensland Native Plants Society on Sunday 21st April, 2024, to Kate and Colwyn's place at Scotia Close, Mount Sheridan enabled our small group to have a brief look at the riparian vegetation growing along a small section of the left bank of a small creek that forms part of the Skeleton Creek catchment between Hardy Road and Scotia Place Park.

The vegetation in this area is mapped as non-remnant on the Regional Ecosystem Mapping, probably due to the highly degraded and weed infested nature of the ground and shrub layers. The pre-clearing mapping by the Queensland Herbarium maps this area as having been RE 7.3.10a, a regional ecosystem with an endangered status described as mesophyll

vine forest. Moderately to poorly drained alluvial plains of moderate fertility. Lowlands of the wet and very wet zones. This area was most likely cleared for agricultural purposes around 140 years ago.

This clearing most likely involved the removal of all of the original native vegetation from this area except perhaps for the steep banks of the creek. Regrowth prior to urbanisation would have been subjected to frequent fires. The larger trees present are specimens of *Eucalyptus pellita* (Daintree Stringybark), *Corymbia torelliana* (Cadaghi), *Alstonia scholaris* (Milky Pine) and *Terminalia sericocarpa* (Damson) along with large old specimens of the introduced *Mangifera indica* (Mango). All of the other rainforest tree species present are immature and in an active phase of growth.

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

FERNS & ALLIES

Lygodiaceae

Lygodium reticulatum

Polypodiaceae

Drynaria rigidula

Basket Fern

FLOWERING PLANTS-BASAL GROUP

Annonaceae

Melodorum leichhardtii
Monoon patinatum

Acid Drop Vine
Wyvuri Beech

Lauraceae

Cryptocarya hypospoda
Cryptocarya triplinervis var. riparia
Cryptocarya vulgaris
Endiandra hypotephra
Endiandra longipedicellata
Neolitsea dealbata

Northern Laurel
Brown Laurel
Northern Laurel
Rose Walnut
Buff Walnut
Grey Bollywood

Myristicaceae

Myristica globosa subsp muelleri

Nutmeg

FLOWERING PLANTS-MONOCOTYLEDONS

Araceae

Alocasia macrorrhizos
Dieffenbachia seguine
Philodendron hederaceum
Philodendron lacerum
Syngonium podophyllum
Archontophoenix alexandrae
Caryota urens
Cocos nucifera
Ptychosperma elegans
Ptychosperma macarthurii (South-east Asian form)

Elephant Ear
Dumb Cane
Heart-leaf Philodendron

Goosefoot
Alexandra Palm
Solitary Fishtail Palm
Coconut
Solitaire Palm
Macarthur Palm

Costaceae

Costus sp.

Dioscoreaceae

Dioscorea alata

Winged Yam; Greater Yam

Dracaenaceae

Dracaena fragrans
* Sansevieria trifasciata

Happy Plant
Mother-in-laws Tongue

Flagellariaceae

Flagellaria indica

Supplejack

Poaceae

* Megathyrsus maximus var. maximus
Oplismenus mollis

Guinea Grass

Smilacaceae

Smilax calophylla

Sarsaparilla Vine

FLOWERING PLANTS-EUDICOTS

Acanthaceae

- * Dipteracanthus prostratus

Bell Weed

Anacardiaceae

- Euroschinus falcatus var. falcatus
- * Mangifera indica

Blush Cudgerie or Pink Poplar
Mango

Apocynaceae

- Alstonia scholaris
- Ichnocarpus frutescens

Milky Pine; Jalnggan

Araliaceae

- Heptapleurum actinophyllum

Umbrella Tree

Asteraceae

- * Synedrella nodiflora

Cinderella Weed

Burseraceae

- Canarium australianum var. australianum

Scrub Turpentine; Mangobark

Clusiaceae

- Calophyllum sil

Blush Touriga

Combretaceae

- Terminalia sericocarpa

Damson

Convolvulaceae

- Erycibe coccinea
- Lepistemon urceolatus

Dilleniaceae

- Tetracera nordtiana

Fire Vine

Euphorbiaceae

- Aleurites rockinghamensis
- Claoxylon hillii
- Homalanthus novoguineensis
- Macaranga tanarius
- Mallotus philippensis
- Mallotus polyadenos

Candlenut
Hill's Brittlewood
Native Bleeding Heart
Blush Macaranga
Red Kamala
Kamala

Fabaceae

- Castanospermum australe
- Pongamia pinnata var. minor

Black Bean; Junggurra

Lamiaceae

- Clerodendrum longiflorum var. glabrum
- Faradaya splendida
- Premna serratifolia

Witches Tongues
October Glory
Coastal Premna

Lecythidaceae

- Barringtonia calyprata

Cassowary Pine

Meliaceae

- Dysoxylum rufum
- Melia azedarach

Rusty Mahogany
White Cedar

Menispermaceae

- Hypserpa laurina
- Tinospora smilacina

Laurel Leaf Hypserpa
Snake Vine

Mimosaceae

- Acacia celsa
- Acacia mangium
- * Leucaena leucocephala subsp. leucocephala

Black Wattle
Sally Wattle
Leucaena

Moraceae

- * Artocarpus heterophyllus
- Ficus albipila
- Ficus benjamina
- Ficus opposita
- Ficus racemosa var. racemosa
- Ficus virens var. virens
- Maclura cochinchinensis

Jackfruit
Slippery Blue Fig
Weeping Fig
Sandpaper Fig
Red Cluster Fig
White Fig
Cock Spur Vine

Myrsinaceae

- * Ardisia elliptica

Shoe-button Ardisia

Myrtaceae

Acmenosperma claviflorum
Corymbia torelliana
Decaspermum humile
Eucalyptus pellita
Melaleuca leucadendra
Rhodomyrtus macrocarpa
Syzygium cormiflorum

Trumpet Satinash
Cadaghi
Brown Myrtle; Silky Myrtle
Daintree Stringybark
Tea Tree
Finger Cherry
Bumpy Satinash

Oleaceae

Chionanthus ramiflora

Native Olive

Phyllanthaceae

Breynia cernua
Glochidion philippicum
Phyllanthus cuscutiflorus

Fart Tree
Buttonwood
Pink Phyllanthus

Pittosporaceae

Pittosporum tinifolium

Rusty Pittosporum

Polygalaceae

Xanthophyllum octandrum

MacIntyre's Boxwood

Rhizophoraceae

Carallia brachiata

Corky Bark

Rubiaceae

Atractocarpus fitzalanii subsp fitzalanii
Cyclophyllum multiflorum
Nauclea orientalis

Brown Gardenia
Leichhardt Tree

Rutaceae

* Bergera koenigii
Melicope rubra

Curry-leaf Tree
Evodiella

Salicaceae

Scolopia braunii

Flintwood

Sapindaceae

Cupaniopsis anacardioides
Cupaniopsis foveolata
Diploglottis diphylostegia
Ganophyllum falcatum
Guioa acutifolia
Harpullia pendula
Harpullia ramiflora
Mischocarpus exangulatus
Mischocarpus lachnocarpus
Toechima daemelianum

Tuckeroo
White Tamarind
Wild Tamarind
Daintree Hickory
Glossy Tamarind
Tulipwood
Cape York Tulipwood
Rex Tokoonja
Woolly Tamarind
Cape Tamarind

Sapotaceae

Planchonella chartacea
Planchonella obovata

Dugulla
Yellow Boxwood

Sparrmanniaceae

* Triumfetta rhomboidea

Chinese Burr

Vitaceae

Leea novoguineensis
Tetrastigma nitens
Tetrastigma thorsborneorum

Bandicoot Berry
Shining Grape
Thorsborne's Grape

R L JAGO

Ed. I have taken the liberty of condensing Rob's format. Anyone who would like a copy in its original glory just has to ask.