



Society for Growing Australian Plants, Cairns Branch

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MARCH 2015 EXCURSION REPORT – REDDEN ISLAND

Don Lawie

Redden Island is formed by Redden Creek to the north, a mangrove swamp to the west, Trinity Bay to the east and the main channel of the Barron River to the south. The beachside community of Machan's Beach adjoins Redden Creek and the Cairns CBD is just a few kilometres south. We have inspected the Island several times over the years and it is always of interest to note any changes. The area is low lying and dynamic, being part of the large Barron delta system with its potential of flood generated change. Indeed, as we walked along the river bank there was evidence of erosion from the strong currents resulting from heavy cyclonic rain during the previous few days.

March is A.G.M. month and we had a larger than usual attendance of members vying to be elected to the Executive! Long term member Liz invited us to meet at her place and we enjoyed the idyllic ambience of a beach-side house built in the way that one can only dream of. Open areas, cool breezes, sweeping ocean views and extensive gardens built around existing trees augmented by appropriate plants native to the area. I was particularly taken by the dark green leaves contrasting with the deep crimson fruit of the endemic small tree *Ochrosia elliptica*. Other large shrubs/small trees included fruiting Brown Gardenia *Atractocarpus fitzalanii*, which grows in the most inhospitable conditions – at our place they thrive on fissures in the granite cliff.

Fruit is almost tennis ball size, reputed to be edible when soft but then so is cooked cockatoo! A *Cerbera* species, fruit a favourite cassowary food, showed apple-green fruit, and the sandy soil supported recent plantings of *Callistemon* species showing promise of a bounty of birds in the future. Lush clumps of the host vine for the Cairns Birdwing butterfly, *Aristolochia*, would make a butterfly caterpillar salivate at the sight, and the sea view is enhanced by the classic beach tree *Casuarina equisetifolia* (or at least it will be when the Council finishes its massive seawall project).

But on to the Island! Just beyond the Redden Creek Bridge was an interesting proof of the area's dynamism, with white sand accumulating around the bases of the mangrove trees adjacent to the creek. I have seen a similar occurrence at Russell Heads beach hind-dunes where the mangroves have died and open forest is developing. Dominant mangrove species in the area was the stilt-rooted *Rhizophora stylosa* which can grow to a large tree. *Rhizophora* trees reproduce themselves by means of "propagules" which hang from the branches



The tiny but intricately beautiful flowers of *Ichnocarpus frutescens* vine.



One of these pandans is not like the other. Spiralling to a different tune.

and launch themselves into the water on a high tide or flood, thence to float till they touch ground where they immediately grow – a bit like the boat people from S.E. Asia in the seventies. Other species noted included *Avicennia marina*, which secretes salt on the leaf underside which can be detected by licking the leaf. By the way, don't try licking any unknown mangrove leaf – some, like "Blind-Your Eyes" (*Excoecaria agallocha*) are very dangerous! *Sonneratia caseolaris*, which flower at night in a beautiful clock-face inflorescence, are worth getting up early to see, and I saw one large specimen of the Cannonball Mangrove *Xylocarpus granatum*, an unexploited timber tree closely related to Red Cedar.

On previous visits we had found large numbers of the Leafless Orchid *Chiloschista phyllorhiza*, but they were elusive today. Pauline was determined to find them and combed the mangrove margins until she eventually found a healthy colony on a Looking Glass mangrove *Heritiera littoralis*, a tree favoured by epiphytes with its cracked bark making inviting niches.



Leafless plants of *Chiloschista phyllorhiza* (Photo by David Jones).

Chiloschista are unusual in that instead of having leaves, the flattened roots contain chlorophyll and take on the leaf's job of photosynthesis as well as their primary root task of anchoring the plant. They look rather like large green spiders hugging the bark. We had Mary with us today and had to find more orchids. Pencils (*Dendrobium teretefolium*) and

Goldens (*Dendrobium discolor*) were fairly numerous. On our last visit we had found only one Shepherd's Crook Orchid (*Geodorum neocaledonicum* (now called *Geodorum densiflorum*)) and so were heartened to find numerous clumps, some still flowering but most bearing fruit on their elongated peduncle preparatory to the fruit's dehiscence, casting the tiny seed to the vagaries of the wind.

Tacca leontopodoides, Native Arrowroot, is another plant with an extended flowering stem and we saw many today with almost ripe fruit. Once the seeds are shed the plant dies back and resides underground until the next storm season.



The weirdly be-whiskered inflorescence of *Tacca leontopetaloides*



Attractive but short-lived leaf of *Tacca*.

A picturesque freshwater swamp surrounding a clump of *Melaleuca dealbata* caught the eye on the return journey and that gave rise to a sighting of a few Paperbark Orchids *Dendrobium canaliculatum*, though not in the prolific numbers noted previously.

Many other plants, some rare, were found and identified by Stuart and Rob, in particular a couple of species of grass. A highlight of the day came when Pauline spotted a Frigate Bird soaring above the river – a magnificent creature, capable of staying aloft for many days and reminiscent in outline to a pterodactyl flying dinosaur. We ended the day as usual with smoko and excited chat while enjoying our Hostess's tea and carrot cake. Home after dark....



Comet grass (*Perotis rara*) – a widespread annual grass that is rarely seen in Cairns.

Redden Island Species List

Compiled from SGAP, Australian Tropical Herbarium and “Atlas of Living Australia” records.

Conifers and cycads

CYCADACEAE

Cycas media

Flowering plants – monocots

ARECACEAE

Livistona muelleri

CYPERACEAE

Cyperus bulbosus

Cyperus javanicus

ORCHIDACEAE

Chiloschista phyllorhiza

Dendrobium canaliculatum

Dendrobium discolor

Dendrobium teretifolium

Geodorum densiflorum

PANDANACEAE

Pandanus sp.

POACEAE

Alloteropsis semialata

Digitaria violascens

Eragrostis spartinooides

Perotis rara

Phragmites vallisoria

Sorghum laxiflorum

Whiteochloa airoides

TACCACEAE

Tacca leontopetaloides

Flowering plants - dicots

APOCYNACEAE

Alstonia muelleriana

Gymnanthera oblonga

Ichnocarpus frutescens

Tabernaemontan pandacaqui

ASTERACEAE

Melanthera biflora

BURSERACEAE

Canarium australianum var.
australianum

CAPPARACEAE

Capparis lucida

CELASTRACEAE

Gymnosporia inermis

COLCHICACEAE

Schelhammera multiflora

COMBRETACEAE

Terminalia muelleri

CONVOLVULACEAE

Ipomoea eriocarpa

Ipomoea pes-caprae

EUPHORBIAEAE

Euphorbia mitchelliana

Excoecaria agallocha

FABACEAE

Abrus precatorius

Acacia polystachya

Albizia procera

Caesalpinia bonduc

Crotalaria mitchellii

Cynometra iripa

Derris trifoliata

Indigofera linifolia

Indigofera suffruticosa

Pachyrhizus erosus

Uraria lagopodioides

Vigna marina

LAMIACEAE

Premna serratifolia

LYTHRACEAE

Ammannia auriculata

MALVACEAE

Heritiera littoralis

MELIACEAE

Xylocarpus granatum

Xylocarpus moluccensis

MENISPERMACEAE

Stephania japonica

MYRTACEAE

Lithomyrtus obtuse

Melaleuca dealbata

Melaleuca leucadendra

PHYLLANTHACEAE

Glochidion philippicum

PUTRANJIVACEAE

Drypetes deplanchei

RHAMNACEAE

Alphitonia excels

Colubrina asiatica

RHIZOPHORACEAE

Rhizophora stylosa

Bruguiera parviflora

SAPOTACEAE

Mimusops elengi

SCROPHULARIACEAE

Myoporum montanum

SONNERATIACEAE

Sonneratia casolaris

VERBENACEAE

**Stachytarpheta jamaicensis*

VIOLACEAE

Hybanthus enneaspermus

ANTON VAN DER SCHANS IN SINGAPORE

Some of you may know Anton van der Schans, a landscape architect and former Cairns resident, who is now working in with the Singapore Botanic Gardens. The following article and interview about Anton's role in the massive "Gardens by the Bay" development appeared in the Sunday edition of the Singapore Straits Times on 16 November last year.

Gardens' 'walking encyclopaedia'

David Ee

At Gardens by the Bay it is the iconic giant Supertrees that get all the attention from visitors. Peer a little closer however, and you will find other giants among them. The gardens' own gentle giant is 1.87m-tall Anton van der Schans, its resident "walking encyclopaedia" of plants. As the deputy director of plant introduction and health, Mr van der Schans, 50, looks after the 101 ha attraction's collection of 700,000 plants, and helps it acquire new plants through expeditions abroad.

Just last month, the Gardens won a top award at the *Gardens Without Limits* Conference held in Metz, France, for its Singapore Garden Festival. The mild-mannered Mr van der Schans spends almost every daylight hour, six days a week, lovingly tending to the Gardens' vast collection of flora from every continent except Antarctica.



Anton van der Schans at Singapore's Gardens by the Bay.

He is a quiet man, but one gets the impression that he has more to say about plants than he has time on his hands. Ask him about any plant species within the Gardens and he will happily go on at length about its characteristics, uses and quirks, and regale you with stories of its history.

Mr van der Schans was born in Queensland, Australia. He was working at a landscape architectural firm in Cairns when he was hand-picked for the job by Gardens by the Bay in 2007, and home is now in Toa Payoh. He studied landscape architecture - not botany - at the Queensland University of Technology, but this turned out to be no barrier to his knowledge of plants. He lived and grew up surrounded by the great Australian wilderness, and built up his expertise through his work and personal field expeditions. As Mr van der Schans tells *The Sunday Times*: "Maybe it's something some people are born with. I know a lot of people who don't have formal training in botany, but who are good plants people"

"Reading is important, but seeing the real plant, touching it, only then can you really understand the differences."

Interview

David Ee

Q: How did your love for nature and plants start? What is it about them that fascinates you?

When I was a kid growing up near Brisbane, I got interested in keeping freshwater aquarium fish. I used to go around some of the creeks and catch fish like silver perch. Then I began growing aquatic plants in the aquarium with the fish. My interest in plants soon evolved onto dry land.

My late grandmother was a keen gardener who taught me how to grow easy plants from cuttings. My father also loved to grow vegetables and fruit trees, with the odd flowering plant thrown in. These childhood experiences, of picking our own mulberries - which my aunt made into

delicious pies - and growing silkworms on their leaves, allowed me to understand how useful plants are to us, and the joy of being able to create new life by propagating them.

It still gives me a buzz to find that there are so many new plants to learn about. Often, it requires some detective skills to coax the secrets out of a plant, whether in revealing its identity or finding out how best to grow it.

Q. There are about 700,000 plants at Gardens by the Bay, from more than 2,000 species. Share something fascinating about a particular plant or tree there.

We've got several baobab trees (native to Madagascar) and they've been flowering and fruiting. Eventually, I'd like to harvest some of the fruit and get the staff to sample it. It's got a

greenish-brown velvety skin. The shell is quite hard. If you throw it on the ground it'll crack like an egg shell. Inside, it's got - it doesn't sound very appetising - a sort of chalky layer of flesh surrounding each seed. But when you taste it, it's a bit like lemon sherbet.



Fruit of a Madagascan baobab. (Source: triggerpit.com/2010/10/14/baobab-the-upside-down-tree/)

Q: What are some of the rarest plants that the Gardens has?

We have six specimens of a palm called *Tahina spectabilis* in the Supertree Grove. It was first discovered in 2006 in Madagascar, the only place in the world where it exists in the wild. There are only 80 mature individuals of it there, in one population. Its seeds were collected in its first recorded flowering and fruiting, then distributed. We got our plants through the Royal

Botanic Gardens, Kew, in London.



Tahina spectabilis in its natural habitat in Madagascar. It is monocarpic, meaning it flowers just once then dies. This habit has given it the common name of "Suicide Palm". (Source: www.wikiwand.com)

Then there's another plant that we don't recognise. We bought a pink *Kopsia* flower from a nursery here.

They had bought them from a nursery in Indonesia. We got 10 specimens, the Singapore Botanic Gardens (SBG) got 15. But we don't know what



"Supertree Grove, Gardens by the Bay, Singapore - 20120630-04" by tee_eric. - Licensed under CC BY 2.0 via Wikimedia Commons - commons.wikimedia.org

species it is. Dr David Middleton, who's the keeper of the herbarium at SBG, is one of the authors of a technical paper looking at all the *Kopsia* species. Yet he, too, doesn't know what it is. No one in the world does. Trying to track that plant down in the wild would be one of the detective games of horticulture.

Q: You say that Gardens by the Bay is a horticultural-themed attraction, rather than a strict botanical garden. How would you say the Gardens differs from botanic gardens such as the Singapore Botanic Gardens and the Royal Botanic Gardens in Kew, London?

We're working on it. We're just two years old. We're trying to be a botanic garden and a theme park. It sounds like two completely different things. But we're trying to get the best of both things rolled into one.

It's a botanical-themed park, because we realise there's a large proportion of people who think plants are boring.

If we can present plants in a way that makes people interested and realise how valuable they are to the environment, then that's our objective.

Q: What's one thing in life you've yet to do that you dream of? It could be anything at all, not necessarily related to plants.

(After a long pause) I'd like to see more

plants in their natural habitats, such as in the Seychelles, the east coast of Madagascar - places I haven't been to before.

Q: For someone with such an extensive knowledge of tropical plants, who has been in Singapore for eight years now, your name has curiously never popped up much before in local ecological circles. Is it a deliberate choice of yours to keep a low profile?

Yes. I think I just prefer to go about my work quietly.

Q: If you were a plant, which would you be?

Maybe a geophyte, like bulbs, tubers, corms, rhizomes that grow underground. They keep a low profile and really only make their presence felt when necessary.



WHAT'S ON?

Cairns SGAP

Meetings and excursion on 3rd Sunday of the month.

Excursion Sunday 19 April 2015. Herberton Powerline Access Track. Meet 11:30 at the corner of the Atherton-Herberton Road (also called Broadway St) and Herberton-Petford Road (outside the Mount St Bernard College. Herberton is about 1 ½ hours from Cairns.

From here, we head just a couple of kilometres up the road to where the high voltage powerlines cross the road. Park at the entrance to the gravel track (just before the well-signposted Baal Gammon mine turnoff). From here, it's an easy walk along the access track as far as a quiet little gully. We'll see unusual eucalypts, and attractive and rare wildflowers.

Bring lunch, water, sunhat and comfortable walking shoes.

Tablelands SGAP

Meetings on the 4th Wednesday of the month.

Excursion Sunday 26 April. The excursion is to Petford via Irvinebank and back through Dimbulah. Bert and I were trying to find an old excursion site at Carmillion Creek, Petford but failed. If anyone knows how to get there we are all ears. However, the vegetation along the Petford road is looking good at the present time with several varieties of trees flowering. As this will be a loop, please arrange car sharing from Atherton or wherever is convenient. The road is in reasonable condition so 4x4s are not strictly necessary. A full day is anticipated so meet a bit earlier at Irvinebank, opposite Ludon House, from 9 for 9.30 departure on Sunday 26th.

Any queries, please contact Chris Jaminon on 4091 4565 or email hjaminon@bigpond.com

Townsville SGAP

Meets on the 2nd Wednesday of the month, February to November, in Annandale Community Centre at 8pm, and holds excursions the following Sunday.

See www.sgaptownsville.org.au/ for more information.

Other Events

Tree Planting – Brinsmead to Goomboora Bike Path – Sunday, April 26 – 7.30am to 9.30am

Treeforce will be having their first planting right on Freshwater Creek along the new Brinsmead to Redlynch Bike Path starting at the Goomboora Park end. Bring you sun smart gear, gloves, water & covered shoes. Access via the new Goomboora Park Bridge or Rice's Gully on Redlynch Intake Rd. Phone Lisa on 0435 016 906 for more information.



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