SGAP Cairns Newsletter

SEPTEMBER 2017
NEWSLETTER 173

Society for Growing Australian Plants, Cairns Branch
www.sgapcairns.qld.gov.au
President: *Tony Roberts*
Vice President: *Pauline Lawie*
Secretary: *Sandy Perkins (secretary@sgapcairns.org.au)*
Treasurer: *Val Carnie*
Newsletter: *Stuart Worboys (worboys1968@yahoo.com.au)*
Webmaster: *Tony Roberts*

Inside this Issue

Excursion report – August exploration of Harvey Creek

Don Lawie

Harvey Creek rises high on the eastern flank of Mount Bellenden Ker, a mile-high granite upthrust which slopes steeply to near sea level. Much of the lowland rainforest has been cleared for cultivation, but a pocket exists just above the Bruce Highway, 55 kilometres south of Cairns. We have visited this forest twice before – in 2004 and 2010, and felt that it was time we rediscovered some of its treasures.

A network of seasonal creeks meanders across a large cow paddock and a number of large trees has been retained to provide shade for the grazing cattle. We crossed a small waterway, noting that

Germinated seed of Idiospermum australiense. The seed is about 8 cm across and can weigh 235 g.

the trees harboured a number of epiphytes including two lots of Tassel Fern, *Phlegmariurus phlegmarioides*, a small colony of *Pomatocalpa macphersonii* orchids, ferns including Ribbon Fern (*Ophioglossum pendulum*) and Birds Nest Fern (*Asplenium nidus*) in profusion. *Hoya pottsii* climbed

a tree along with early blooming October Glory vine *Oxera splendida* casting its pure white flowers along the flowing water. The climbing pandan *Freycinetia scandens* showed its spiky leaves on the upper branches of a large tree *Syzygium hedraiophyllum* which shared the space with an equally large Bumpy Satinash *Syzygium cormiflorum*.

This was all a good foretaste of the plants to come; we were particularly seeking the unusual and primitive flowering plants for which Harvey Creek is noted. We soon came on the first – *Eupomatia laurina* or Bolwarra, not rare since it is well distributed along the eastern coast. But unusual certainly in that *Eupomatia* evolved way back when flowering plants were just developing – about 120 million years ago. In those days petals had not yet been created to lure potential pollinators and so the stamens performed a dual role in presenting pollen and also, in a slightly different guise as staminodes exuding nectar to attract pollinators which in this case are little beetles. The actual process is complicated and a marvel of botanical detective work in the discovery. *Eupomatia* fruit are referred to as a native guava and are edible but not very tasty for mine. The numerous seeds germinate well and it would be a good garden plant.

The delicately scented flowers of Idiospermum

The next unusual plant we came across was the so-called Daintree Penda, *Lindsayomyrtus racemoides*. This tree of the myrtle family does indeed occur in the Daintree area and also, despite what Daintree tourism avers, at Harvey Creek . And nowhere else in the world! It is a small tree and worth cultivating for the colour of its new leaves which shade from lilac to auburn.

We moved into untouched ancient rainforest and soon came across a grove of Grey Palms, *Oraniopsis appendiculata*. This palm has only been found in the higher elevations of the Bartle Frere/Bellenden Ker massif but here we were only marginally above sea level. Grey Palms are an untidy looking plant and are not very big; they are reputed to be slow growing and seed germination is unpredictable.

The star attraction of today's expedition appeared next, first some seedlings of varying heights then a row of three mature Ribbonwood trees, the famous *Idiospermum australiense*. This tree also has a history of 120 million years; it had developed true flowers with thick fleshy petals and is pollinated by beetles and thrips. The fruit is very different from others in that it has a varying number of seed leaves or cotyledons, from 2 to 7 whereas all others have only one (monocots - palms etc) or two (dicots –trees etc) . The fruit is large at about 80 cm diameter and poisonous with an action analogous to that of strychnine. There are no known creatures that can spread the fruit by eating it and it is thought that due to the ancient lineage of *Idiospermum* the original fruit disperser may have been the now long-extinct giant Diprotodont. So, the fruit remains where it falls to produce small groves.

Cairns SGAP has by association two claims to an affinity with *Idiospermum*: the long saga of discovery, loss and re-discovery of this rare plant concluded with a search of Harvey Creek by three eminent CSIRO scientists, who could not find it. They called for Rob Jago and Rob, with the help of his brother Ken and brother in law Joe found "heaps in no time at all". Our other claim? The type specimen in the Queensland State Herbarium is labelled: Harvey Ck 19 July 1998 S.Worboys SJW

346". Yes our botanist Stuart, editor of this newsletter collected the type specimen and has authored several erudite papers on the plant [*Editor's Note: I collected the "neotype", the original type, collected by the German botanist Ludwig Diels in 1902, was destroyed in the fire bombing of Berlin in 1943*].

Another survivor of the age of dinosaurs grew nearby – one of the two rainforest cycads, *Bowenia spectabilis* is an understory plant with cones that grow at ground level. We had not yet had our fill of rare plants - Rob led us to a patch of creekside trees and vines which included a 15 metre high *Storkiella australiensis* which – you guessed it – grows only at Harvey Creek and the Daintree. (At least, in Australia; it is also found in New Caledonia which leads to an interesting geological hypothesis). Not primitive but rare, *Storkiella* has attractive leaves, flowers and fruit but grows too large for a suburban garden. A last rare plant revealed itself –*Piper mestonii* - a native pepper vine that has only ever been found in the foothills of Mount Bellenden Ker. *P. mestonii*, named for Archie Meston , one of the first white men to ascend Mt Bellenden Ker, differs from other peppers in that the inflorescence and fruit are upright and measure up to 15 cm in height.

We sloshed through some minor creeks and made our way back to the cars and had smoko around the Jago ute which on the way in had been surrounded by the resident herd of cattle demanding a feed of molasses – the ute looked just like the local farm ute. Then just as we were dispersing eagle-eyed Patsy spotted in the distance a giant solitary Milky Pine tree (*Alstonia scholaris*) covered in white flowers. We concluded that they were probably Pencil Orchid (*Dendrobium teretifolium*) which are flowering locally or perhaps some *Dendrobium jonesii* orchids which are about to burst their buds. Too far to tell even with binoculars but a target for our next Harvey Creek adventure into Gondwana.

I wish to express our thanks to the landholder for allowing us to visit this locked-gate property. It is not open to the public and we are very grateful indeed for the opportunity to visit such botanical treasures.

Harvey Creek Species List

Compiled by Rob Jago, Tony Roberts and Patsy Penny

Ferns and allies

ASPLENIACEAE
Asplenium laserpitiifolium
Asplenium nidus

BLECHNACEAE
Blechnum cartilagineum
Blechnum orientale

CYATHEACEAE
Cyathea cooperi

DENNSTAEDTIACEAE
Microlepia speluncae

DRYOPTERIDACEAE
Lastreopsis

LOMARIOPSIDACEAE
Nephrolepis biserrata

LYCOPODIACEAE
Phlegmariurus phlegmaria

LYGODIACEAE
Lygodium reticulatum

OPHIOGLOSSACEAE
Ophioglossum pendulum (Photo 5)

POLYPODIACEAE
Drynaria rigidula
Platycerium hillii

PTERIDACEAE
Antrophyum callifolium

SELAGINELLACEAE
Selaginella longipinna

THELYPTERIDACEAE
Macrothelypteris torresiana
Christella dentata

WOODSIACEAE
Diplazium dilatatum

Conifers and cycads

PODOCARPACEAE
Podocarpus dispermus (broad-leaved brown pine)

ZAMIACEAE
Bowenia spectabilis

Basal flowering plants

ANNONACEAE
Cananga odorata
Meiogyne hirsuta

EUPOMATIACEAE
Eupomatia laurina

CALYCANTHACEAE
Idiospermum australiense (ribbonwood)

LAURACEAE
Cryptocarya grandis (white laurel)
Cryptocarya murrayi
Endiandra anthropophagorum
Endiandra compressa (greenheart)
Endiandra cowleyana
Endiandra palmerstonii (Queensland walnut)
Endiandra sankeyana
Neolitsea dealbata

PIPERACEAE
Piper mestonii

WINTERACEAE
Bubbia semecarpoides

Monocots

ARACEAE
- *Epipremnum pinnatum*
- *Pothos longipes*
- *Rhaphidophora hayi*

ARECACEAE
- *Calamus australis*
- *Calamus moti*
- *Linospadix minor (Photo 6)*
- *Oraniopsis appendiculata* (Photo 2)

ASPARAGACEAE
- *Cordyline murchisoniae*
- *Eustrephus latifolius* (wombat berry)

FLAGELLARIACEAE
- *Flagellaria indica*

HEMEROCALLIDACEAE
- *Geitonoplesium cymosum*

PANDANACEAE
- *Benstonea monticola (Photo 1)*
- *Freycinetia scandens*

POACEAE
- *Centotheca lappacea*
- *Mullerochloa moreheadiana*

ZINGIBERACEAE
- *Alpinia modesta*
- *Hornstedtia scottiana*

Eudicots

APOCYNACEAE
- *Alstonia scholaris* (milky pine)
- *Tabernamontana pandacqui*

ARALIACEAE
- *Polyscias australiana*
- *Schefflera actinophylla* (umbrella tree)
- *Schefflera elliptica*

BALANOPHORACEAE
- *Balanophora fungosa (Photo 4)*

CLUSIACEAE
- *Garcinia warrenii*

CONNARACEAE
- *Connarus conchocarpus*

DILLENIACEAE
- *Tetracera nordtiana*

EBENACEAE
- *Diospyros pluviatilis (Diospyros sp. Millaa Millaa)*

ELAEOCARPACEAE
- *Elaeocarpus angustifolius*

ESCALLONIACEAE
- *Polyosma hirsuta*

EUPHORBIACEAE
- *Codiaeum variegatum var. moluccanum*
- *Macaranga tanarius*

FABACEAE
- *Castanospermum australe*
- *Entada phaseoloides*
- *Storkiella australiensis*

GENTIANACEAE
- *Fagraea cambagei*

ICACINACEAE
- *Apodytes brachystylis*

LAMIACEAE
- *Clerodendrum tracyanum*
- *Gmelina fasciculiflora*
- *Oxera splendida* (October glory)

LECYTHIDACEAE
- *Barringtonia calyptrata*

LORANTHACEAE
- *Amylotheca dictyophleba*

MELIACEAE
- *Aglaia meridionalis*
- *Dysoxylum arborescens* (Mossman mahogany)
- *Dysoxylum gaudichaudianum* (ivory mahogany)
- *Dysoxylum papuanum*

MENISPERMACEAE
- *Carronia pedicellata*

MORACEAE
- *Ficus congesta*
- *Ficus copiosa*
- *Ficus pantoniana*
- *Ficus variegata*

MYRISTICACEAE
- *Myristica globosa*

MYRTACEAE
- *Backhousia bancroftii* (Johnstone River hardwood)
- *Lindsayomyrtus racemoides* (Daintree penda)
- *Rhodamnia sessiliflora*
- *Syzygium cormiflorum*
- *Syzygium graveolens* (cassowary satinash)
- *Syzygium tierneyanum*
- *Syzygium hedraiophyllum*
- *Xanthostemon chrysanthus*

NYCTAGINACEAE
- *Pisonia umbellifera*

OLEACEAE
- *Linociera sleumeri*

PHYLLANTHACEAE
- *Glochidion sumatranum*

PIPERACEAE
- *Piper hederaceum*

PROTEACEAE
- *Cardwellia sublimis* (northern silky oak)
- *Carnarvonia araliifolia*
- *Darlingia darlingiana*

RHAMNACEAE
- *Schistocarpaea johnsonii*
- *Ventilago ecorollata*

RHIZOPHORACEAE
- *Carallia brachiata*

RUBIACEAE
- *Antirhea tenuiflora*
- *Atractocarpus fitzalanii subsp. fitzalanii*
- *Atractocarpus hirtus*
- *Lasianthus chlorocarpus*

RUTACEAE
- *Acronychia acronychioides*
- *Melicope xanthoxyloides*

SAPINDACEAE
- *Cupaniopsis flagelliformis*
- *Guioa lasioneura*
- *Harpullia frutescens (Photo 3)*
- *Rhysotoechia robertsonii*

SAPOTACEAE
- *Niemeyera prunifera*
- *Palaquium galactoxylum*

THYMELAEACEAE
- *Phaleria clerodendron*

VITACEAE
- *Cissus penninervis*
- *Tetrastigma nitens* (shining grape)

Photo 1. Benstonea monticola

Photo 2. Oraniopsis appendiculata

Photo 3. Harpullia frutescens

Photo 4. Looking like a fungus, Balanophora fungosa is actually a parasitic flowering plant.

Photo 5. Ophioglossum pendulum

Photo 6. Linospadix minor

What's happening in SGAP north Queensland...

Tablelands Branch

Meetings on the 4th Wednesday of the month. Excursion the following Sunday. Any queries, please contact Chris Jaminon on 4091 4565 or email hjaminon@bigpond.com

Townsville Branch

This month's outing will be to the Burra Range for a weekend stay - **Saturday 16th and Sunday 17th September**. Camping is available in White Mountains National Park, therwise cabins and meals are available at Pentland Caravan Park, phone 4788 1148 Saturday we will meet at the Sawpit Gully turnoff at 1pm. If in doubt please ask John Elliott 0474 459 269 or jw-elliott@aapt.net.au

Cairns Branch

Meetings and excursions on the 3rd Sunday of the month.

Sunday 17 September 2017. Trees of the Cairns Esplanade. Meet at 12 noon at the War Memorial, opposite the RSL - see map below. We hope to be joine by Cairns Regional Council's arborist, Pieter Taylor.