



Society for Growing Australian Plants Cairns Branch

Newsletter 160

June 2016

In this issue...

EXCURSION REPORT.....	2
MAY 2016 CHINAMAN'S CREEK MANGROVES	2
SPECIES LIST, PORTSMITH MANGROVES.....	3
FERN.....	3
CONIFERS.....	3
MONOCOTS.....	4
EUDICOTS.....	4
BEAUTIFUL TREES OF THE TROPICS.....	4
KURANDA QUANDONG (ELAEOCARPUS BANCROFTII)	4
STOP PRESS.....	6
WHO IS DR BANCROFT?.	5
BELL PEAK ADVENTURE..	7
WHAT'S HAPPENING.....	9
CAIRNS BRANCH	9
TABLELANDS BRANCH....	9
TOWNSVILLE BRANCH....	9



EXCURSION REPORT

May 2016 Chinaman's Creek Mangroves

Stuart Worboys

May's SGAP excursion was originally planned for the area around Daintree township. However, the exciting news of an internationally significant botanical discovery just three and a half kilometres from the Cairns Post Office required a change of ideas. The decision to visit the recently discovered *Bruguiera hainesii* population in the mangroves on Chinaman's Creek seemed pretty much unanimous.

A modest crowd gathered at the far end of Spence Street in Portsmith, not far from Cannon Park Racecourse. We were joined by Brian Venables, local birdwatcher and naturalist, who kindly acted as expert guide. You couldn't ask for better weather for visiting mangroves - overcast and windy. The cloud cover kept the temperatures down, and the wind blew away most of the biting insects!

Cairns City Council has recently invested in some substantial bicycle path infrastructure. This shiny new path and robustly engineered bridges provided us with a convenient and easy entrance to our destination. From

the bridge, we were able to watch fiddler crabs, waving their colourful and ungainly pincers in territorial display. We could also catch a rare closeup of the white-flowered apple mangrove, *Sonneratia alba*, usually only seen by fisherfolk from the seaward side of the mangroves. We were privileged to glimpse a white-bellied sea eagle apparently being harassed by both a peregrine falcon and an osprey.

Chinaman's Creek, although considerably cleaner in recent years thanks to Cairns' new waste treatment facility, still seems to be a favourite place for disposal of shopping trolleys and other junk. We followed a grassed levee down the creek toward our target. To the left, we saw the southern-most recorded occurrence of *Bruguiera cylindrica*. Passing beneath some low slung powerlines, Brian pointed out a tall tree amongst the mangroves - this was *Bruguiera hainesii*. On close approach, we were able to see the true size of the tree - quite a massive individual for a mangrove, perhaps 50 cm in diameter, and surrounded by about 50 smaller plants of the same species. Twenty millimetre diameter orange-brown flowers, borne in groups of three confirmed the identification. It was growing right near the top of the tide, in a location that could be assured of freshwater input. Looking into the top of the tree, we could see the usual golden orchids (*Dendrobium discolor*), felt ferns (*Pyrrrosia longifolia*) and a nice group of ant plants (*Myrmecodia beccarii*).

At this point, Brian took his leave, and we pottedered back to our cars. SGAP Cairns doesn't often visit mangrove communities, but this trip reminded us what a diverse and interesting place they are. We escaped with just a few insect bites. However, more importantly, during our short excursion, we had seen 17 species of mangroves - nearly half of the Australian total!



Species List, Portsmith mangroves

Compiled by Stuart Worboys,
Ing Toh, Brian Venables and
Tony Roberts

* indicates exotic species

indicates mangrove species

Ferns

POLYPODIACEAE

Pyrrrosia longifolia (felt fern)

PTERIDACEAE

Adrostichum speciosum
(mangrove fern)



Conifers

CYCADACEAE

Cycas media

Monocots

COLCHICACEAE

**Gloriosa superba* (gloriosa lily)

ORCHIDACEAE

Dendrobium discolor (golden orchid)

POACEAE

**Eleusine indica*

**Megathyrsus maximus* (Guinea grass)

**Urochloa mutica* (para grass)

Eudicots

ACANTHACEAE

#*Acanthus ilicifolius* (holly mangrove)

#*Avicennia marina* (grey mangrove)

AIZOACEAE

Sesuvium portulacastrum

AMARANTHACEAE

**Alternanthera brasiliana*

APOCYNACEAE

Dischidia nummularia (button orchid)

Cynanchum carnosum



Gymnanthera oblonga

ASTERACEAE

**Synedrella nodiflora* (Cinderella weed)

**Sphagneticola trilobata* (Singapore daisy)

COMBRETACEAE

#*Lumnitzera littorea*

#*Lumnitzera racemosa*



EUPHORBIACEAE

#*Excoecaria agallocha* (blind-your-eye mangrove)

FABACEAE

Acacia mangium

Acacia oraria

**Centrosema pubescens*



#*Cynometra iripa* (winklepod mangrove)

Derris trifoliata

**Leucaena leucocephala*

**Macroptilium atropurpureum* (siratro)

**Mimosa pudica* (sensitive weed)

LAMIACEAE

Clerodendrum inerme

MALVACEAE

#*Heritiera littoralis* (looking glass mangrove)

Hibiscus tiliaceus (cottonwood)



Thespesia populnea

MELIACEAE

Melia azedarach (white cedar)

#*Xylocarpus granatum*

MYRTACEAE

Corymbia tessellaris (Moreton Bay ash)

Corymbia torrelliana (cadaghi gum)

Melaleuca leucadendra

PASSIFLORACEAE

**Passiflora foetida* (stinking passionfruit)

POLYGONACEAE

**Antigonon leptopus* (coral vine)

PRIMULACEAE

Aegiceras corniculatum (river mangrove)

RHIZOPHORACEAE

#*Bruguiera cylindrica*

#*Bruguiera gymnorrhiza* (large-leaved orange mangrove)



#*Bruguiera hainesii*



#*Bruguiera parviflora*

#*Ceriops australis*

#*Ceriops tagal*

#*Rhizophora ?mucronata*

RUBIACEAE

Myrmecodia beccarii

BEAUTIFUL TREES OF THE TROPICS

**Richardia brasiliensis* (white eye)

SAPINDACEAE

Allophylus cobbe
Jagera pseudorhus

SAPOTACEAE

Mimusops elengi

SONNERATIACEAE

#*Sonneratia alba* (white flowered
apple mangrove)

VITACEAE

Ampelocissus acetosa

Kuranda Quandong (*Elaeocarpus bancroftii*)

Featured at the top of each newsletter is the Cairns SGAP floral emblem, drawn by former member and high school art teacher, Carol Leggett. The artwork elegantly represents a flowering twig from the imposing rainforest tree, *Elaeocarpus bancroftii*, or Kuranda Quandong (aka Johnstone River Almond, Ebony Heart, Grey Nut, Nutwood, or Nut Tree). *E. bancroftii* is one of 23 *Elaeocarpus* species in the Wet Tropics bioregion. It is a tall graceful rainforest tree, reaching heights in excess of 30 m, with a dense shady canopy and glossy foliage. In open situations, it is equally attractive, but slow growing and somewhat shorter.

Stop Press...

A scientific paper published on 20 May (five days after our excursion) reports "*Bruguiera hainesii*, a critically endangered mangrove species, is a hybrid between *B. cylindrica* and *B. gymnorrhiza* (Rhizophoraceae)." A summary of the paper can be read by typing this web-address into your browser:

doi.org/10.1007/s10592-016-0849-y

Published in the peer-reviewed scientific journal, *Conservation Genetics*, the work by Junya Ono of Chiba University in Japan (and others), found that *B. cylindrica* was the likely female parent, and *B. gymnorrhiza* the male parent. Further, the hybridization had occurred independently in multiple locations.

The authors conclude "As the IUCN Red List of Threatened Species currently excludes hybrids (except for apomictic plant hybrids), the conservation status of *B. hainesii* should be reconsidered."



Flowers (above) and kernels (below) of Kuranda Quandong (R.L. Jago)

E. bancroftii was described in 1886 by Ferdinand von Mueller from "among the timber samples procured by Dr Bancroft, jun. with such praiseworthy zeal for the Indian and Colonial Exhibition, soon to be held in London." Mueller noted the kernels of the fruit, which "have an agreeable flavour, and are eaten by the settlers" and that "the wood of the tree is hard and durable... resembling... the American *lignum-vitae* [*Guaiacum officinale*]".

The Rainforest Key reports "Seeds were extracted and eaten by Aborigines and special 'Nut-stones' were sometimes left beneath the trees and used to crack the very hard endocarp". The seeds are also very popular with rainforest rats - trees are often detectable by the scattering of gnawed seeds around their base.



It is certainly a grand and attractive tree to have as our mascot.

WHO IS DR BANCROFT?

The previous discussion of *Elaeocarpus bancroftii* raises the question, who is this enthusiastically praised Dr Bancroft? The pioneering contributions of Dr Thomas Lane Bancroft to medical and natural sciences in Queensland are little discussed today, even though a century ago this shy, modest rural doctor was making significant and lasting contributions to Queensland science.

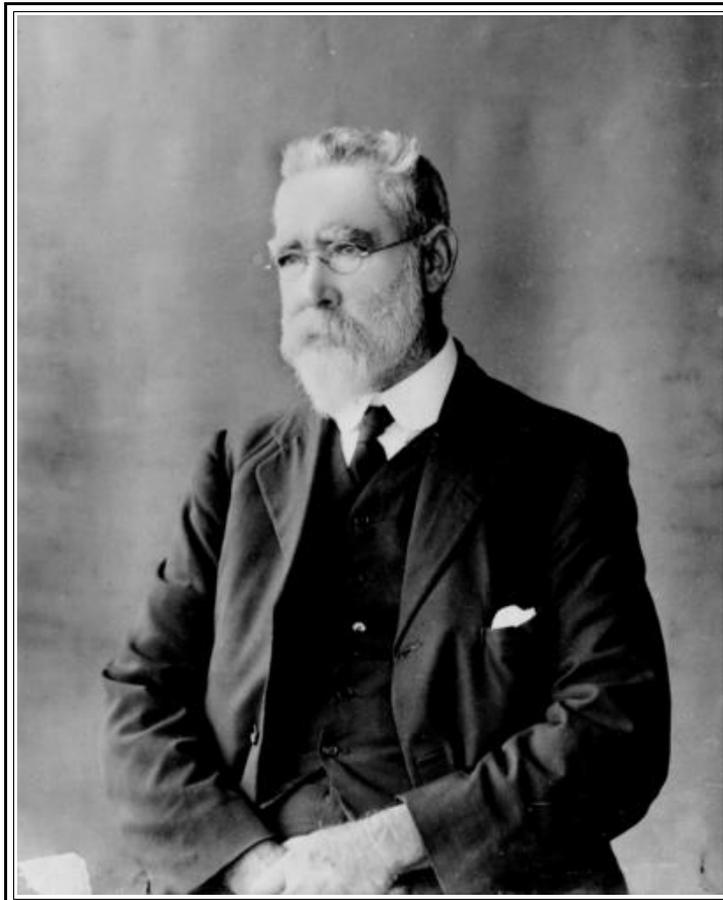
Bancroft was born in 1860 at Lenton in Nottinghamshire. His family emigrated to Brisbane in 1864, however he returned to Britain to undertake medical studies. He graduated in 1883 with a Bachelor of Medicine, Master of Surgery, and bronze medal in botany. Before returning to Australia, he spent a year in the Manchester Infirmary, where he became an expert photographer.

He moved quite often, but always seems to have taken an active interest in the natural history of his surrounds.

- 1885-1886 Worked in the Geraldton (now Innisfail) Hospital.
- 1887-1888 Christchurch Hospital, New Zealand.
- 1889-1894 Worked in his father's and cousin's practice in Ann St,

Brisbane.

- 1894-1904 Deception Bay. Married Cecilia Jones in 1895.
- 1904-1906 Various State Health Department positions in Brisbane
- ?1908 State Medical Officer, Stannary Hills. His collections here contributed much to the Queensland Herbarium. F.M. Bailey wrote to Bancroft "I am really very



much obliged for the specimens you sent. They are most interesting and much better to work up than the majority of what I receive from correspondents, of several I had no representatives in the Herbarium."

- 1910-?1930 State Medical Officer, Eidsvold

- 1930-1932 State Medical Officer, Palm Island.
- 1932 Retires to Wallaville on the Burnett River.
- 1933 Dies 10 November. Buried at Toowong Cemetery, Brisbane.

Throughout his life, Bancroft undertook many investigations ranging from blood parasites of birds to Aboriginal food-plants and hybridization of cotton. From 1884 to 1932 he collected plants for the Queensland Herbarium and animals for the Queensland Museum, and freely provided material for fellow scientists.

Dr Bancroft's contributions to botany are manifold. In north Queensland, we see his name in several species of the Stannary Hills and Innisfail areas, and he is recorded as the collector of the types for many more. Some of his significant or interesting collections include:

Acacia shirleyi - Bancroft made the type collection of lancewood from Mt Rose, near Eidsvold.

Indigofera bancroftii - a north Queensland endemic herb, named for Dr Bancroft

Stenocarpus angustifolius - Dr Bancroft collected the type whilst medical officer at Stannary Hills.

Stephania bancroftii - type collected by Dr Bancroft from Stannary Hills.

BELL PEAK

ADVENTURE

Some photos from the Australian Tropical Herbarium's recent research expedition to Bell Peak. The goal of the research is to improve our knowledge of high-elevation endemic species in the Wet Tropics. One early result is the first specimen-based record of *Bulbophyllum lilianae* on the peak.

Unfortunately, a loose rock crushed my left hand on day two of the expedition, and I had to be airlifted out. My colleagues continued the work and achieved the expedition's aims.



Bulbophyllum lilianae, first specimen-based record for Bell Peak



Black and White Taxis radio antenna on apex of Bell Peak.



*Dr Fanie Venter and Prof. Darren Crayn (Australian Tropical Herbarium) on the eastern face of Bell Peak, overlooking the Coral Sea. The shrub in the foreground is *Rhododendron lochiaie*.*



The only way to transport equipment and camping gear.



Fitzroy Island at dawn.



Cessna wreckage on the south face of Bell Peak.



Is there a finer view in the Wet Tropics?



Mulgrave River valley from Bell Peak North.

WHAT'S HAPPENING

Cairns Branch

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

19 June 2016 – SGAP Excursion to Baal Gammon/Herberton Range. Meet 10am at corner of the Herberton-Petford Road in Herberton (see map). SGAP Tablelands will be joining us!

July 2016 – SGAP Excursion to Emerald Creek Falls

Tablelands Branch

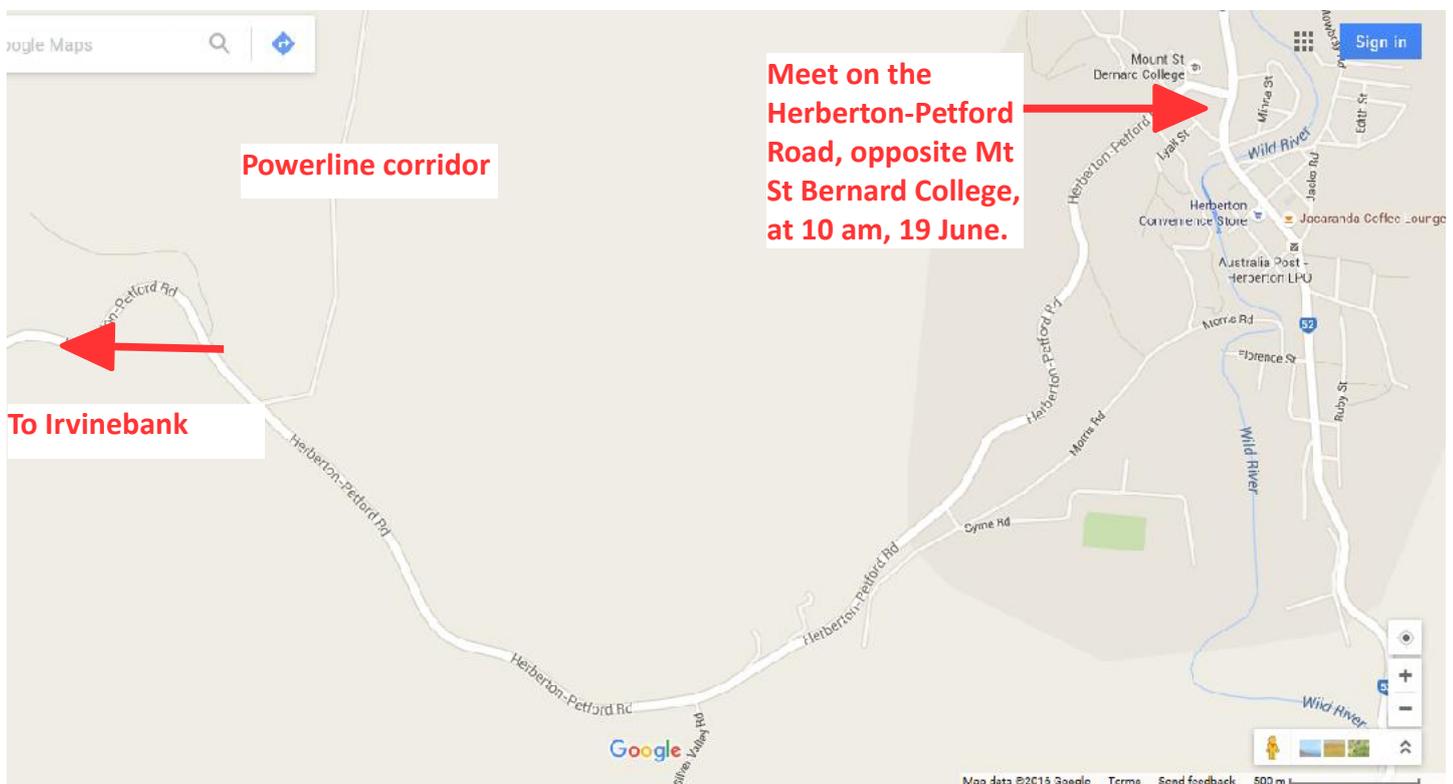
Meetings on the 4th Wednesday of the month. Excursion the following Sunday. Any queries, please contact Chris Jaminon on 4091 4565 or email evans.millgate@bigpond.com

5 June - SGAP Excursion to Baal Gammon/Herberton Range. Meet 10am at corner of the Herberton-Petford Road in Herberton (see map).

Townsville Branch

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.



SGAP CAIRNS BRANCH 2016 COMMITTEE

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