



# Society for Growing Australian Plants Cairns Branch

Newsletter 163

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## In this issue...

EXCURSION REPORT - CATTANA WETLANDS, 21 AUGUST 2016.....	1
CATTANA WETLANDS SPECIES LIST.....	3
BELLENDEN KER - FOUR DAYS ON AUSTRALIA'S WETTEST MOUNTAIN.....	5
DAY 1 - 38 MM IN THE PREVIOUS 24 HOURS .....	6
DAY 2 - 74 MM IN THE PREVIOUS 24 HOURS.....	8
DAY 3 - NO READING.....	9
DAY 4 - 152 MM IN THE PREVIOUS 48 HOURS.....	10
SEPTEMBER EXCURSION - MUNRO MARTIN PARK..	11
WHAT'S HAPPENING.....	12
CAIRNS BRANCH .....	12
TABLELANDS BRANCH..	12
TOWNSVILLE BRANCH.	12



## EXCURSION REPORT - CATTANA WETLANDS, 21 AUGUST 2016

*Stuart Worboys*

Our August excursion was well attended, with with the weather fine, clear and not too hot. Our goal was to enjoy ourselves, but also to survey Council plantings around the lakes. Our initial surveys around the lakes identified several species that don't belong in the wetlands, whether they be Australian natives that aren't found in the Cairns lowlands (*Callitris intratropica*, *Pittosporum mollucanum*) or exotic weeds (*Dillenia suffruticosa*).

A few of us brought bangers to throw on the barbecue - a pleasant way to prepare lunch. But our first barbecue attempt was a failure - no gas! The second one tried was out of gas too, as was the third. Finally, we found the only barbecue at Cattana with any gas, which a lovely family were kind enough to share.

After lunch, Rob lead an off-track walk through the swamp and onto an ancient beach sand dune now covered in a rare tall rainforest community. Clouds of hungry mosquitoes followed us, but in between swatting, we found an enormous diversity of plants not yet recorded on Sharren's list.

Thanks to Sharren Wong for organising this excursion.



*\*Dillenia suffruticosa, an invasive exotic similar to Dillenia alata*



*Pittosporum ferrugineum*



*Feather palm swamp at Cattana Wetlands*



*Pandanus solmslaubachii*



*Bianca and Coralie admiring the lakes at Cattana*

# Cattana

## Wetlands

### Species List

Original list provided by Sharren Wong. Species observed by Rob Jago and Stuart Worboys. Names in **bold text** are new additions to Sharren's list.

#### Ferns and Fern Allies

##### ASPLENIACEAE

*Asplenium nidus*  
Birds nest Fern

##### BLECHNACEAE

*Stenochlaena plaustris*  
Climbing Swamp fern

#### Conifers

##### ARAUCARIACEAE

*Agathis robusta*  
QLD Kauri Pine

##### PODOCARPACEAE

*Podocarpus grayae*  
Brown Pine

#### Basal Flowering Plants

##### ANNONACEAE

*Melodorum leichhardtii*  
*Melodorum uhrii*  
*Polyalthia nitidissima*  
Canary Beech  
*Xylopia maccraei*

##### EUPOMATIACEAE

*Eupomatia barbata*

##### LAURACEAE

*Cryptocarya cunninghamii*  
Coconut Laurel  
*Cryptocarya hypospodia*  
*Cryptocarya laevigata*  
*Cryptocarya murrayi*  
Murray's Laurel  
*Cryptocarya triplinervis* var.  
*riparia*

*Endiandra longipedicellata*

Buff Walnut

*Neolitsea dealbata*

Bollywood

##### MONIMIACEAE

*Wilkiea macrophylla*  
*Wilkiea pubescens*

##### MYRISTICACEAE

*Myristica muelleri*  
Native Nutmeg

#### Monocots

##### ARECACEAE

*Archontophoenix alexandrae*  
Alexandra Palm

*Calamus australis*  
*Calamus caryotoides*  
*Calamus moti*  
*Licuala ramsayi*  
Fan Palm

*Ptychosperma macarthurii*

##### ARACEAE

*Epipremnum pinnatum*

##### ASPARAGACEAE

*Cordyline canniifolia*  
*Cordyline manners-suttoniae*  
Giant Palm Lily  
*Lomandra hystrix*  
Mat-Rush

##### CYPERACEAE

\**Cyperus aromatica*  
*Navua Sedge*  
*Cyperus ohwii*  
*Hypolytrum nemorum*  
*Scirpodendron ghaeri*

##### FLAGELLARIACEAE

*Flagellaria indica*

##### HEMEROCALLIDACEAE

*Dianella atraxis*  
Northern Flax Lily

##### PANDANACEAE

*Freycinetia excelsa*  
Climbing Pandan  
*Pandanus monticola*

Scrub Bread Fruit

*Pandanus solmslaubachii*

Swamp Pandan

##### POACEAE

\**Chloris barbata*  
*Purpletop Rhodes Grass*  
*Leptaspis banksii*

##### ZINGIBERACEAE

*Alpinea caerulea*  
Blue Ginger  
*Hornstedtia scottiana*  
Native Cardamom

##### TYPHACEAE

*Typha* sp.  
Bulrush

#### Eudicots

##### ANACARDIACEAE

*Blephalocarya involucrigera*  
Rose Butternut  
*Pleiogynium timorense*  
(Burdekin Plum)  
*Rhus taitensis*  
Sumac, Rhus

##### APIACEAE

*Centella asiatica*

##### APOCYNACEAE

*Cerbera floribunda*  
Cassowary Plum  
*Gymanthera oblonga*  
Harpoon Bud  
*Ochrosia elliptica*  
Scarlet Wedge-apple;

##### ARALIACEAE

*Polyscias australiana*  
*Schefflera actinophylla*  
Umbrella Tree

##### ASTERACEAE

\**Praxelis clematidea*  
*Praxelis*  
\**Sphagneticola trilobata*  
Singapore Daisy

##### BIGNONIACEAE

*Deplanchea tetraphylla*

- Golden Bouquet Tree*
- Neosepiceae jucunda**  
*Jucunda Vine*
- CANNABACEAE**  
*Celtis paniculata*
- CELASTRACEAE**  
*Euonymus australiana*  
**Hippocratea barbata**  
*Salacia disepala*  
*Lolly Vine*  
**Siphonodon membranaceus**  
*Ivorywood*
- CLUSIACEAE**  
**Calophyllum sil**  
*Garcinia warrenii*  
*Native Mangosteen*
- COMBRETACEAE**  
*Terminalia microcarpa*  
*Damson*
- CONNARACEAE**  
**Connarus conchocarpus**  
*Shell Vine*  
**Rourea brachyandra**
- CUCURBITACEAE**  
**\*Momordica charantia**  
*Balsam Pear*
- DILLENIACEAE**  
**\*Dillenia suffruticosa**  
*Tetracera nordtiana*  
*Fire Vine*
- ELAEOCARPACEAE**  
**Elaeocarpus bancroftii**  
*Kuranda Quandong*  
*Elaeocarpus angustifolius*  
*Silver Quandong*
- EUPHORBIACEAE**  
**Aleurites moluccanus**  
*Candle Nut Tree*  
**Claoxylon hillii**  
**Codiaeum variegatum**  
*Homalanthus novoguineensis*  
*Bleeding Heart*  
*Macaranga involucrata var*
- mallotoides*  
*Brown Macaranga*  
*Macaranga tanarius*  
*Blush Macaranga*  
*Mallotus phillipensis*  
*Red Kamala*
- FABACEAE**  
*Acacia holosericea*  
*Silver leaved Wattle*  
*Acacia mangium*  
*Sally Wattle,*  
**Archidendron hendersonii**  
*Canastanospermum australe*  
*Black Bean*  
**Falcataria toona**  
**Acacia Cedar**  
*Intsia bijuga*  
*Kwila*  
**\*Macroptilium atropurpureum**  
**Siratro**  
*Millettia pinnata*  
*Pongamia*  
*Mimosa pudica var hispida*  
*Common Sensitive Plant*  
**Mucuna gigantea**  
**Burney Bean**
- ICACINACEAE**  
**Gomphandra australiana**
- LAMIACEAE**  
**\*Hyptis capitata**  
**Knobweed**
- LECYTHIDACEAE**  
*Barringtonia calyptata*  
*Mango/Cassowary Pine*
- LOGANIACEAE**  
**Strychnos minor**
- LORANTHACEAE**  
**Dendrophthoe glabrescens**  
**Misteltoe**
- MALVACEAE**  
*Brachychiton acerifolius*  
*Illawarra Flame Tree*  
*Hibiscus tiliaceus Cottonwood*  
**Sterculia quadrifida**
- Native Peanut**
- MELIACEAE**  
*Dysoxylum gaudichaudianum*  
*Ivory Mahogany*  
**Dysoxylum oppositifolium**  
*Melia azedarach*  
*White Cedar*  
**Vavaea amicornum**
- MENISPERMACEAE**  
**Stephania japonica**
- MORACEAE**  
*Ficus benjamina*  
*Weeping Fig, Banyan*  
*Ficus congesta var congesta*  
*Red Leaf Fig*  
**Ficus pantoniana**  
**Climbing Fig**  
*Ficus racemosa*  
*Cluster Fig*  
**Ficus virens**  
**Banyan Fig**  
**Trophis scandens**  
**Burney Vine**
- MYRTACEAE**  
**Decaspermum humile**  
*Eugenia reinwardtiana*  
*Beach Cherry*  
**Gossia myrsinocarpa**  
**Malanda Ironwood**  
*Lophostemon suaveolens*  
*Swamp Mahogany*  
**Melaleuca leucadendra**  
**Weeping paperbark**  
*Melaleuca quinquenervia*  
*Swamp Tea Tree*  
*Melaleuca viridiflora*  
*Broadleaved Paperbark*  
*Rhodamnia sessiliflora*  
**Syzygium cormiflorum**  
**Bumpy Satinash**  
*Syzygium fibrosum*  
*Small Red Apple*  
**Syzygium forte subsp. forte**  
**Syzygium hedraiophyllum**  
*Syzygium hemilamprum*

*Blush Satinash*  
*Syzygium luehmannii*  
*Cherry Satinash*  
*Syzygium mulgraveanum*  
***Syzygium suborbiculare***  
*Syzygium tiermeyanum*  
*River Cherry*  
***Tristaniopsis exiliiflora***  
***Watergum***  
*Xanthostemon chrysanthus*  
*Golden Penda*

#### OLEACEAE

*Chionanthus ramiflorus*  
*Native Olive*

#### PHYLLANTHACEAE

*Cleistanthus apodus*  
*Weeping Cleistanthus*  
*Glochidion philippicum*  
*Daintree cheesewood*

#### PITTOSPORACEAE

*Pittosporum ferrugineum*  
*Pittosporum moluccanum*  
*Pittosporum rubiginosum*  
*Hairy Pittosporum*

#### POLYGALACEAE

***\*Polygala paniculata***

#### POLYGONACEAE

*Persicaria attenuata*  
*Velvet Knot Weed*

#### PRIMULACEAE

***\*Ardisia elliptica***  
***Shoebuttan Ardisia***  
***Myrsine subsessilis subsp.***  
***cryptostemon***

#### PROTEACEAE

*Darlingia darlingiana*  
*Brown Silk Oak*  
*Grevillea baileyana*  
*Baileys Silky Oak*  
***Helicia australasica***  
*Stenocarpus sinuatus*  
*Wheel of Fire*

#### RHAMNACEAE

*Alphitonia excelsa*  
*Red Ash*  
*Alphitonia oblata* *Hairy Sasparilla*  
*Alphitonia petrei*  
*Pink Ash, Sarsparilla*  
***Ventilago ecorollata***

#### RHIZOPHORACEAE

*Carallia brachiata*  
*Corky Bark*

#### RUBIACEAE

*Atractocarpus fitzlanii* var *fitzlanii*  
*Brown Gardenia*  
***Rubiaceae Gen. (AQ520454) sp.***  
***Shute Harbour (D.A. Halford***  
***Q811)***  
*Nauclea orientalis*  
*Leichhardt Tree*  
***Psychotria coelospermum***  
***Timonius timon***  
***Tim Tim***

#### RUTACEAE

***Flindersia iffiana***  
***Cairns Hickory***  
***Glycosmis trifoliata***  
***Pink Lime***  
*Melicope elleryana*  
*Pink Euodia*

#### SALICACEAE

***Casearia sp. Mission Beach***  
***(B.P. Hyland 773)***  
*Scolopia braunii*  
*Flintwood*

#### SAPINDACEAE

*Arytera divaricata*  
*Rose tamarind*  
*Cupaniopsis anacardioides*  
*Tuckeroo*  
***Cupaniopsis foveolatus***  
*Diploglottis bernieana*  
*Bernie's Tamarind*  
***Diploglottis diphylostegia***  
***Northern Tamarind***  
***Ganophyllum falcatum***  
***Daintree Hickory***  
*Harpullia ramiflora*

*Capeyork Tulipwood*  
***Lepiderema sericolignis***  
*Mischocarpus exangulatus*  
***Synima cordierorum***

#### SAPOTACEAE

***Palaquium galactoxylon***  
***Cairns Pencil Cedar***  
***Planchonella chartacea***  
***Pouteria xerocarpa***

#### URTICACEAE

***Pouzolzia zeylanica***

#### VERBENACEAE

***\*Lantana camara***  
***Lantana***

#### VITACEAE

***Cayratia maritima***  
*Cissus vinosa*  
*Leea novoguineensis*  
*Bandicoot Berry*

# BELLENDE KER - FOUR DAYS ON AUSTRALIA'S WETTEST MOUNTAIN

*Stuart Worboys*

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This expedition was made possible by grants from the Australian Rhododendron Society and the Ian Potter Foundation.

The predicted increase in temperatures caused by climate change means we can all expect warmer average temperatures (which will make January in Cairns even more unbearable). With warmer averages comes

more very hot days, and many fewer cool nights. For the wildlife of the Wet Tropics region, it's the increased number of extremely hot days that will have the greatest effects. We have seen that bats and small birds die in large numbers because of their inability to cope with the high temperatures. Anecdotally, the population of the white morph of the lemuroid possum seems to have crashed following extreme temperatures in the past few years. And with increased frequency of extreme temperature events, there is little time for animal populations to recover in between. But what will be the effect on plants?

What can plants do to cope with climate change? Like animals, they have three options - adapt, move or die. Many plant species are already "pre-adapted" - they have innate characters that enable them to cope with the higher extremes that will come with climate change: longer droughts and more frequent fires. They will potentially pass these characters on to their offspring - they will adapt. Others, particularly those with wind-blown or animal dispersed seeds, might establish populations in more southerly locales, or at higher altitudes. But some, including some of the Wet Tropics' most iconic species, are in trouble.

Recently, researchers from the Australian Tropical Herbarium modelled the fate of endemic Wet Tropics mountain top flora species under future climates. They calculated the range of temperature and rainfall these species currently exist in - their climate niche - and predicted where in the landscape those

climate niches would be in 20, 40 and 60 years from now. It was expected that these niches would occur at increasingly higher elevations as the world warms. Theoretically, this is a problem for plants that currently survive only on islands in the sky - the cool, wet mountaintops of the Wet Tropics World Heritage Area. Indeed, the modelling predicted that warmer average temperatures will literally push many of these plants off the top of the mountains, and into extinction.



*Rhododendron lochiaie* - Australia's only native *Rhododendron*

With a generous research grant from the Ian Potter Foundation and the Australian Rhododendron Society, the Australian Tropical Herbarium has been able to follow up this modelling. We have developed a survey program targeting about 30 endemic mountaintop flora species that aims to improve our knowledge of their distribution and ecology. The goals are simple, but the logistical challenges are considerable - it requires feet on the ground in the least explored and most rugged parts of the Wet Tropics World Heritage Area. Research sites include Mt Bartle Frere, Thornton Peak and the rarely visited eastern face of the Carbine Tableland. One peak of

particular interest is Mt Bellenden Ker, the State's second highest mountain, for nearly a century and a half the subject of much scientific exploration and curiosity.

## **Day 1 - 38 mm in the previous 24 hours**

*The best laid schemes o' Mice an' Men,  
Gang aft agley,*

The problem with field work is you can't plan for the weather. When multiple people and organisations are involved, you have to set a date months in advance and stick to it, and the weather be damned. So, when planning for mountain top research program, we set our dates for the driest month of the dry season, made our sacrifices to the weather gods, and pushed forward hoping for the best.

The television and radio signals that entertain and inform the residents of far north Queensland are transmitted from Mt Bellenden Ker. Signal processing equipment is housed in a three storey high shed (the "Bellenden Ker Top Station"), engineered to withstand the strongest cyclone and sealed against the constant humidity outside. The 100 m high transmission tower, its tip reaching higher than the peak of nearby Mt Bartle Frere, is serviced from the Bottom Station, near sea level, by a tiny cable car. A foot track between the stations is maintained in case of emergencies, but it is steep, muddy and guarded by hordes of leeches.

Sitting next to the Top Station, in a patch of neatly mowed lawn, is a weather station. The readings from the rain gauge here are truly extraordinary in this wide brown land. Bellenden Ker Top Station holds the record as Australia's wettest place, receiving an average of eight metres of rain annually, peaking at 12461.0 mm in 2000. During a cyclone in 1979, 1140 mm of rain fell in a 24 hour period.

With these eye-widening statistics in mind, we planned our expedition to coincide with the driest time of year. Our expedition crew comprised Dan Macleod, a member of the Australian Rhododendron Society, David Meagher, a scientific editor and moss expert, and Darren Crayn and myself from the Australian Tropical Herbarium.



Loading the cable car

Our arrival at the foot of Mt Bellenden Ker didn't look promising. The peak of Queensland's second highest mountain was not there. Just an endless, featureless roof of grey-white contrasting against the dark dark green of the mountain's everwet forests.

We were greeted by the Broadcast

Australia site management crew - a laidback and happy group who keep the facility running and ensure that no-one in far north Queensland misses Home and Away. Since its construction in 1971, the managers and onsite crew of the Bellenden Ker transmission facility have allowed researchers to use the Top Station as a base. They're accustomed to, and generally amused by, the odd obsessions of scientists.

The ride to the top of the mountain took about 25 minutes. A clear day would have offered astounding views of the Mulgrave River Valley and coastal ranges, but on this day even the tree tops below us were lost in the cloud. At the top, we unloaded our gear while Ian (Broadcast Australia) checked the instruments - 38 mm in the rain gauge and 12 °C. We were grateful to find the interior of the facility equipped with a kitchen, bunkroom, clothes dryer, and best of all, a hot shower.

Our first target was an established research plot, just a few metres to the south of the facility. Previous botanists had identified and tagged about 200 trees comprising 24 species, quite a modest species count for the Wet Tropics, but including six mountain flora species that were the target of our study. We ran a transect through the plot, counting seedlings (a measure of whether plants are regenerating at a site), whilst David compiled a moss species list.

That night, Darren put the kitchen to the test, cooking up a big pot of pasta with creamy sauce. The kitchen, and the food, passed with flying colours, and was followed up by jumbo sized Cadbury Dairy Milk chocolate bars. Outside the

wind hummed in the transmission tower's guy cables, and rain pattered on the iron, but inside all was convivial, warm, dry and leech free.



Lost in the mist - the transmission tower at the Top Station

## Day 2 - 74 mm in the previous 24 hours

Tuesday dawned overcast, windy and drizzly - no surprises there. Our ambitious plans for remote camping were abandoned, but opportunities for exploration and data gathering remained closer to home. In the morning we followed the path of the cable car downhill. Recent pruning along the cable car alignment allowed for easy specimen collection, including one rare mountain flora find - a tiny mistletoe called *Korthalsella grayi*. On the rocks along the way we spotted another delicate mountain flora species and one of our survey targets - *Peperomia hunteriana*.

In the afternoon, we set out north along the Broadcast Australia access track.

This follows the main ridge northward for a couple of kilometres before dropping down along an eastward-trending spur.

The forest along the main ridge is dominated by two iconic species from the mountain, *Leptospermum wooroonooran* (mountain tea-tree) and *Dracophyllum sayeri*. Although found elsewhere, it is on Bellenden Ker they reach their greatest development.

*Leptospermum wooroonooran*, a relative of the familiar tea-tree, reaches 8 m with sprawling trunks sometimes a metre across. Its broad, dense, dome-shaped crowns dominate the canopy on exposed ridgelines. Its fine leaves hiss in the constant wind and the rough bark of its

branches is draped with bryophytes and tiny *Bulbophyllum* orchids. More than just baroque decorations, the dangling masses

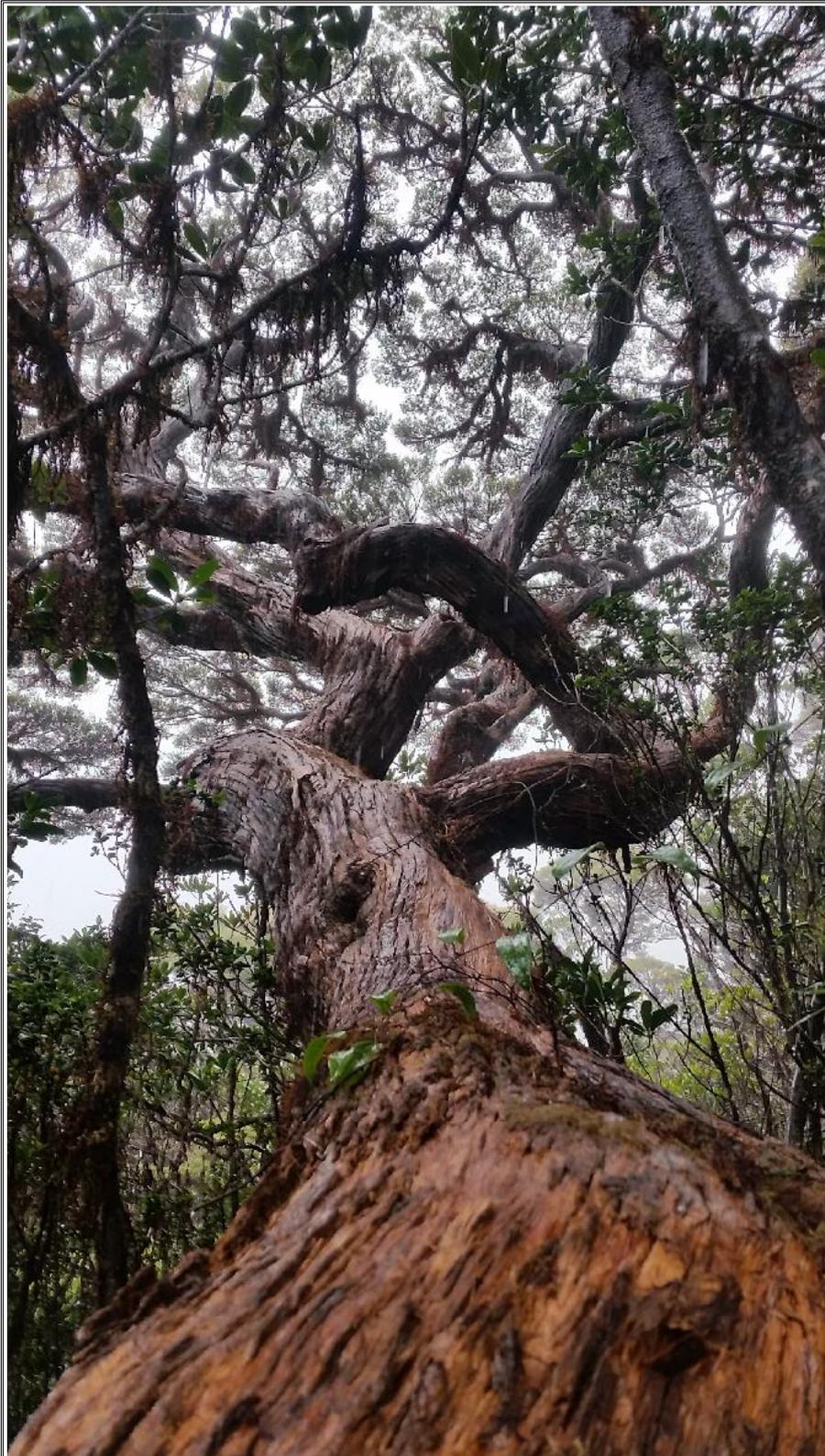
of liverworts and mosses in the canopy of these trees rake the

would read next to nothing.

*Dracophyllum sayeri*, another of our target mountain flora species, is a member of a genus widespread in New Zealand, southeastern Australia and the southwestern Pacific. However, its only known Queensland locality is the Wet Tropics. It's a peculiar beast, a dicot masquerading as a monocot, its long, narrowly triangular, twisted, strap-like leaves with parallel venation looking like so many little bromeliads attached to a great wooden candelabra. Its flowers are honey-scented, and borne in tight pale pink bunches tipped by sharply pointed leaves.

Several other target mountain flora species, including a

native cinnamon (*Cinnamomum propinquum*), an unnamed pepper berry (*Tasmannia* sp. Bellenden



*Leptospermum wooroonooran* - the iconic tree of the Wet Tropics' high granite mountains

moisture from passing low cloud, contributing significantly to the precipitation in these forests, even on days when the rain gauges



David Meagher and Darren Crayn on looking for a path on Bellenden Ker's northern ridge

Ker), and the mountain mallet wood (*Uromyrtus metrosideros*), were quite common, and kept us busy taking records of their distribution. Once we turned east and started the steep downhill slide towards the coast, most of

these dropped out, to be replaced by more common and widespread plants. By the time we reached 1380 m elevation, the targets had disappeared altogether, and it was time to return.

Meanwhile, David Meagher was quietly bringing up the rear, fossicking for mosses and liverworts in likely-looking habitats along the way.

### **Day 3 - no reading**

The maintenance crew had no reason to access the mountain on Wednesday, so we have no official rainfall record. But the rain gauges were still gathering the constant drizzle.

The day started early with porridge and strong grainy coffee (someone forgot the plunger). The goal was to push as far north as possible along the north-south ridge. This ridge extends roughly five kilometres northwards from the transmission facility before dropping down into the Behana Creek valley.

The northern peaks on Bellenden Ker's main ridge were visited by several early explorers, where a number of plant specimens were collected that have not been since. Right from the beginning of European settlement, the mountain exerted a strong attraction to European scientists. Accounts of their explorations are often dramatic, and full of violence against, or ignorant dismissal of, Indigenous people.

Bellenden Ker was long thought to be the region's highest mountain, and (not unreasonably) likely to contain a diverse and unusual flora. Victoria's colonial botanist, Ferdinand von Mueller, visited northern Australia in 1855. When he saw the rugged outline of Mt. Bellenden Ker he speculated that a species of *Rhododendron* would be found

thereon.



*Dracophyllum sayeri*

The first recorded ascent was by Robert Johnstone, Cardwell's police chief, in 1874. He was followed by W.A. Sayer and Alexander Davidson in 1884<sup>1</sup>. Sayer's discovery of *Rhododendron* on the mountain confirmed Mueller's suspicions. His account of its discovery is interesting:

"The top of the range is razor-backed, and on travelling along the range beyond the spur by which we ascended, I could not see the sides, they being, if anything, hanging over. We tumbled rocks over, but could not hear them fall. It was here that I observed the *Rhododendron Lochae* growing, and asked the Kanaka to get it; but he remarked, " S'pose I fall, I no see daylight any more; I go bung altogether;" so I had to get it myself."

#### Other botanical explorers

<sup>1</sup> Sayer's account in *The Victorian Naturalist* makes for a great read: [www.biodiversitylibrary.org/item/94972#page/47/mode/1up](http://www.biodiversitylibrary.org/item/94972#page/47/mode/1up)

followed: Meston and Bailey in 1889, Ludwig Diels in 1900, Karel Domin in 1909, Lilian Gibbs in 1914 and Eric Mjöberg in 1915<sup>2</sup>. They invariably followed a route from the north or east. However, once the cable car was constructed, exploration of the mountain largely concentrated around the Top Station. By pushing along the northern ridge, we hoped to find flora species not collected on Bellenden Ker for a century.

The walk to the highest point on the mountain, the Centre Peak, takes the established access track. Just north of where the track turns east, the mountain reaches its highest point in an anticlimactic little rock sticking out of the dirt in the middle of the dripping forest. Not far from here, David left us to pursue his slow, careful searches along the track back to the Top Station. The track north of this point had been cut a couple of months ago by a group from the Australian Tropical Herbarium, which made travelling somewhat easier. Despite this, loose rocks, steep muddy slopes and low branches made for slow walking. Leeches were mercifully few, perhaps it was just too cold. An unexpected travel hazard was the trimmed tree ferns. Each cut stem produces a big ball of dripping slime, which leaves a revolting residue when it slaps against your face.

The ridge took us through stands of mountain tea tree draped with a rich red liverwort, *Pleurozia*. On

2 Their names are commemorated in plants still to be found on the mountain: *Garcinia mestonii*, *Samadera baileyana*, *Hypsophila dielsiana*, *Bulbophyllum lilianae* and *Garcinia gibbsiae*.

deeper soils the canopy was dominated by stout *Eleoacarpus ferruginiflorus* (northern quandong) and *Myrsine oreophila* up to 12 metres tall. At a low knoll, we finally discovered our priority target species, *Rhododendron lochiae*, this one with a small bunch of gently curving scarlet bell flowers. After stopping to admire and make a small collection, we pushed on. By the time we stopped for lunch, we were just over a kilometre from the Centre Peak. The one kilometre walk had taken us four hours.

The return walk seemed easier and quicker than the outward journey, and we arrived back at the Top Station to find David photographing the day's collections in the comfort of his dry underwear.



Dan Macleod at the highest point (?) on Mt Bellenden Ker

## Day 4 - 152 mm in the previous 48 hours

Thursday's surveys took us west, down a steep, rarely traversed ridge. At first, the thick bush looked impenetrable, but we kept on, and found the way not so bad. We were surprised to find flagging tape marking the ridge - at least two different colours indicating we were far from the first to pass this way.

*Dracophyllum* was common, frequently with flowers or clusters



Rainforest garden growing on an enormous bracket fungus., Mt Bellenden Ker.

of dark pink fruits. A rose silky oak, *Placospermum coriaceum* grew right next to our path, defying the textbooks that state it's only found up to 1200 m.

Further down this ridge we came across a large patch of dieback-affected trees. Previous studies in the uplands of the Wet Tropics have frequently found *Phytophthora cinnamomi* in soils of patches like this, but the association was not consistent, and recovery of the forest may be possible. Soil samples were collected and sent for analysis - we await results. Nearby, a distinctive smooth dark trunk revealed the presence of *Agathis*

*atropurpurea* (black kauri), recorded only a few times before on Bellenden Ker.

We were out of time, and had achieved all that we could given the conditions. On our return to the Top Station, we called up the Bottom Station, and they were amenable to run a recovery mission. After a rushed pack and clean, we headed through the mists and down the mountain.

But we weren't empty handed. I had in my notebooks precise locality and elevation records of 211 mountain flora plants in 17

species. Amongst our scientific collections we had the first flowering herbarium specimen of *Rhododendron lochiae* to be collected on Mt Bellenden Ker in 130 years. But the true glory must go to David Meagher. As of 7 September, he reports 29 liverwort and 12 moss species newly recorded for the mountain. Included in this total are four species new to science, five new to Australia, and four Australian species never before recorded in the tropics.

Our next expedition takes us to the Main Coast Range, a 1200-1300 m high ridge that extends north from Mossman Gorge. Like

Bellenden Ker's north-south ridge, it is difficult, rugged, everwet and poorly explored, but unlike Bellenden Ker it is part of a much larger plateau, the Carbine Tableland. We hope to find a diversity of mountain flora far in excess of what we found on Mt Bellenden Ker.

## SEPTEMBER EXCURSION - MUNRO MARTIN PARK

The recently redeveloped Munro Martin Park is the site of our September Excursion. The re-opening was conducted by the Governor, Paul de Jersey on 19th August. The Council's website tells us the redeveloped Munro Martin Park will be a place to gather and relax for families, visitors and the general public. It has:

- 63 trees, nearly 7000 shrubs and ground covers, and 275 vines;
- vine-covered arbours and pergolas featuring exotic and native species
- a history trail
- an open air entertainment space, covered stage and amphitheatre

Meet 12 noon on Sunday 18 September at the entrance on Florence Street. **Please call or text Coralie Stuart on 0419 685 919 to confirm your attendance.**

# WHAT'S HAPPENING

## *Cairns Branch*

Meetings and excursions on the 3<sup>rd</sup> Sunday of the month.

**18 September 2016** – Munro Martin Park, Cairns City. Remember to contact Coralie to confirm attendance. - see page 10 for details.

**7-9 October 2016** - Yabba Capricorn - see [www.sgapqld.org.au/whats-on/biennial-yabba](http://www.sgapqld.org.au/whats-on/biennial-yabba) for more details. **Please note that Qld Region are offering to help with the expenses of attendees from this branch**

**16 October 2016** – Jumrun Nature Walk, Kuranda (to be confirmed).

**20 November 2016** - Christmas breakup at Tony and Trudi's place in Brinsmead. BYO bbq.

## *Tablelands Branch*

Meetings on the 4<sup>th</sup> Wednesday of the month. Excursion the following Sunday. Any queries, please contact Chris Jaminon on 4091 4565 or email [hjaminon@bigpond.com](mailto:hjaminon@bigpond.com)

## *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/](http://www.sgaptownsville.org.au/) for more information.

**17-18 September 2016** - Burra Range - For more information, contact John Elliott directly by email:

[jw-elliott@aapt.net.au](mailto:jw-elliott@aapt.net.au)

### SGAP CAIRNS BRANCH 2016 COMMITTEE

President: Tony Roberts ([t.roberts@ Cairns.qld.gov.au](mailto:t.roberts@ Cairns.qld.gov.au))

Vice President: Pauline Lawie

Secretary: Coralie Stuart

Treasurer: Val Carnie

Newsletter: Stuart Worboys ([worboys1968@yahoo.com.au](mailto:worboys1968@yahoo.com.au))

Webmaster: Tony Roberts