



# NATIVE PLANTS CAPRICORNIA

NATIVE PLANTS QUEENSLAND – ROCKHAMPTON BRANCH

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## April 2018 Newsletter No. 201

Next Meeting – Friday 27<sup>th</sup> April

### “Weeds and Seeds”

**Senior Biosecurity Officer and veteran of Central Queensland agriculture, John Reeve returns to share the latest on the biosecurity front. Bring along any suspect plants that you would like identified – make sure that they are well sealed – there are some things we don't want to share!**

**Meeting** is at 7:00 pm. We will start with our guest speaker this month, John Reeve. A short break for a cuppa will follow with the plant raffle before the official meeting commences. Turn up hill at the traffic lights on Frenchville Road through the car park. We hope to see you there.

**Show and tell.** Bring along your labelled specimens (if you know them), some cuttings for everyone to identify and any extra native seedlings. Shirley will be running a plant raffle so bring along your spare coins.

Next Outing – Sunday 6<sup>th</sup> May

**Lowland Vine Thicket at Garnant.** Neil Hoy will be leading a trip to Garnant (north-east of Ridgeland and west of Rockhampton). Meet at Northside Plaza at 8:00 am ready to head out of town. 4WD vehicles will be required to access parts of the site, however carpooling can be arranged – either at the Plaza or when we arrive. Please register with Neil Hoy on 0439 943 281 or email [hoyn@optusnet.com.au](mailto:hoyn@optusnet.com.au) and to check if others are joining along the way.

Last Meeting – Friday 23<sup>rd</sup> March

Members with all levels of experience in technology joined in our lively discussion about what we would like in the WWW page that is being designed for us by a wonderful team at CQUniversity. We will update progress at our April meeting.

Last Outing – Sunday 8<sup>th</sup> April

On a warm dry afternoon, Neil Hoy led a reconnoitre of the Plover Street berrnant – a small area of relatively undisturbed vegetation of significant local interest. Unfortunately this patch of bushland has no formal conservation status and is sandwiched between a residential development and the Glenmore Water Treatment Plant. The goodwill of the property owner, susceptibility to flooding of some of the area and a watercourse through another part has so far protected it. Three distinct vegetation types are present – an undisturbed coolibah, brigalow, and belah community are present closest to the river, an area of diverse semi-evergreen vine forest (SEVT) with bottle trees on a small limestone outcrop and open woodland of predominately ghost gum and ironbark with a locally-rare kangaroo grass understory in the remainder.

We were joined by Acting Mayor, Councillor Tony Williams, and Councillor Drew Wickerson who is responsible for the new Sustainability portfolio in Council. The support of the Rockhampton Regional Council is being sought to increase protection for this area. Most of the afternoon was spent exploring the bottle tree scrub and demonstrating to the councillors the diversity of vegetation and the potential benefits of protection. Fortunately there was a track allowing access to what looks like a tangled mass of vegetation particularly at the margins. Once under the canopy, progress was easier.

The area is worthy of conservation primarily for the examples of important vegetation types close to the city and with good access. With interpretative signage, some labelling of plants and suitable paths it could be a useful education tool for primary to tertiary students as well as the interested public. The vegetation also supports a variety of birdlife from small finches to a roosting owl and scrub turkeys. Other fauna such as butterflies, wallabies and small reptiles would also be present. The isolated limestone outcrop is of geological interest with good examples of the weathered forms specific to limestone. Of historical interest are traces of earlier exploitation of the limestone as a resource in itself. There is also an aesthetic value in such a site simply for the passive enjoyment of nature.

To further demonstrate a commitment to the value of the site, some practical volunteer work needs to be done. Some infestations of coral berry could be hand-pulled in the friable soil, big stems of rubber vine need sawing which would considerably reduce the tangle and judicious clearing of lantana closest to the forest edge could encourage regeneration at those margins – bring back the bush.

To the existing list of 130 plant species, a few additions were recorded. These included *Geitonoplesium cymosum*, a small clear sapped vine tentatively identified as *Parsonsia rotundifolia*, observation of a large *Eucalyptus raveretiana* which needs confirmation, *Hoya australis*, *Erythrina verspertillo* and *Secamone elliptica*. No doubt the list could be further expanded. Written by Marion Davies.

### Upcoming Events for this Year

<b>Friday 27 April 7pm</b>	<b>Native Plants Capricornia April Meeting</b>
<b>Sunday 13 May 9:30am</b>	<b>Gladstone SGAP Outing</b> to Thompson's acreage bush garden and possibly Round Gladstone Trail for botanising and bird watching. Meet at 9:30am at the Haddock Drive Property of Lee and Wayne. BYO Lunch. For more information, contact Paula Wallace on 0407 638 238 or 4978 2488.
<b>Saturday 19 May</b>	<b>Fundamentals Bonsai Class</b> at Tondoon Botanic Gardens Gladstone. For more information, contact their office on 07 4971 4444.
<b>Sunday 3 June 9am to 3pm</b>	<b>EcoFest</b> is a local environmental festival held annually at the Tondoon Botanic Gardens in Gladstone. NPC will be attending again this year and the event will also be our monthly outing for June.  Discover how a simple change in the way you live can help protect our national icon, the Great Barrier Reef, at Ecofest 2018 - CQ's largest free environmental event. The theme for this year's Ecofest is 'Turn a new leaf, love our reef' and the event aims to educate attendees about the negative and positive impacts humans have on our marine life. Encouraging our younger generations to seek ways to mitigate the pollution and degradation of the marine environment takes time, but we need to start somewhere. It's important that our region acts as a positive role model so future generations can enjoy the Southern Great Barrier Reef. Visit Ecofest and learn how your actions, coupled with initiatives introduced by Council, industry and businesses, can help make our marine environment a cleaner and safer one in which to live, work and play.

Guest speakers will include Dr. Emma Jackson, Seagrass Ecologist at CQ University Gladstone and Environmental campaigner, Jon Dee. Find out more on the Gladstone Regional Council website <http://www.gladstone.qld.gov.au/ecofest>. Contact Neil Hoy 0439 943 281 or email [hoynd@optusnet.com.au](mailto:hoynd@optusnet.com.au) to register your interest in attending.

### Strictly Strychnos

On our April excursion to Plover St we saw a number of *Strychnos psilosperma* (Threaded boxwood) trees with their prominent red fruit. A chance remark sent me to do some background research. There are only three species of *Strychnos* (Fam Loganiaceae) in Queensland and two of these are restricted to north Queensland while *S. psilosperma* extends along the east coast as far south as the Clarence River. It occurs mainly in semi-evergreen vine forests, and depauperate / dry rainforests, often on limestone derived soils (as at Plover St). The type location is Mt Archer (although curiously Mt Elliot is also listed by Fitzalan and Dallachy for the 1863 collection date).

Both the Census of Queensland Flora and Flora of Australia (Vol 28) place *Strychnos* within the Family Loganiaceae, but the latter acknowledges that the family is paraphyletic (has more than one evolutionary ancestor). This is why some sources still argue for use of the Family Strychnaceae. The actual distribution of species in the Family Loganiaceae is quite skewed in Queensland with 72% of species occurring within the single genus *Mitrasacme* that does not extend further south than Port Curtis (and even here is poorly represented). The genus *Strychnos* (and indeed the whole Family Loganiaceae) is primarily tropical in distribution with a concentration of species in Africa, South America and Malesia. This suggests it invaded Australia relatively recently from the north. Two of the Australian species are endemic. There are approximately 170 recognised species of *Strychnos* world-wide with almost as many unresolved.

Many of the *Strychnos* species are poisonous as they contain the alkaloid toxin strychnine (and other toxins). Once widely used as a vertebrate poison, strychnine is extracted commercially from the plant *Strychnos nux-vomica*; a large tree in Asia growing to 25 metres. Strychnine has been used as a drug in some (mainly Indian) cultures but most authorities now agree there is 'no therapeutic utility' and of course no scientific basis for its use as a homeopathic remedy. One species, *Strychnos potatorum* has been (is?) used in India to purify water by smearing the plant on the inside of earthenware jars. It has been detected as an adulterant in some illegal drugs. In South America, several species (particularly *Strychnos toxifera*) are used to extract the arrow poison curare. This was investigated extensively by the famous Harvard ethnobotanist Richard Evans Shultz in his amazing exploration of the Amazon in the 1940s. Curare is still a useful drug in physiology experiments. Curiously, in South Africa there are several species of *Strychnos* that have the common name 'monkey orange' or 'Natal orange' that are recorded as edible (presumably for humans as well as monkeys). I am always fascinated by the evolutionary drivers (selective pressures) that produce such disparate outcomes (toxic and edible within the same genus).



*S. psilosperma*. Photo: CSIRO.



*S. toxifera*. Photo: Reinaldo Aguilar.



*S. potatorum*. Photo: Lalithamba.

Finally, a couple of comments indicative of some of the confusion about this genus. The genus is represented by a wide range of forms from trees to shrubs to lianas (some woody) and even epiphytes. While most books list *Strychnos psilosperma* as a medium sized tree to 18 metres, the Flora of Australia lists it as a small tree to 6 metres. It was originally identified as *S. axillaris* but this is a climbing species with tendrils (in India and not found in Australia). The Flora of Australia key has two entry points to the species:

1a Vine or weakly climbing shrub.....

2b Scrambling or semi-climbing; tendrils absent

1b Tree or shrub, never climbing (tendrils absent).....

4b Small tree to 6m

These lower heights and habit (4b) are probably more consistent with our experience in central Queensland. Contributed by Bob Newby.

### Amazing plants from around the world

Since the 21<sup>st</sup> March was the International Day of Forests, we thought we would share with you some amazing trees from across the globe!



Dragonblood trees, Yemen. The dragonblood tree earned its fearsome name due to its crimson red sap, which is used as a dye and was used as a violin varnish, a chemical ingredient, and a folk remedy for various ailments.

This Rhododendron tree in Canada is at least 125 years old! It is technically not a tree – most are considered shrubs.

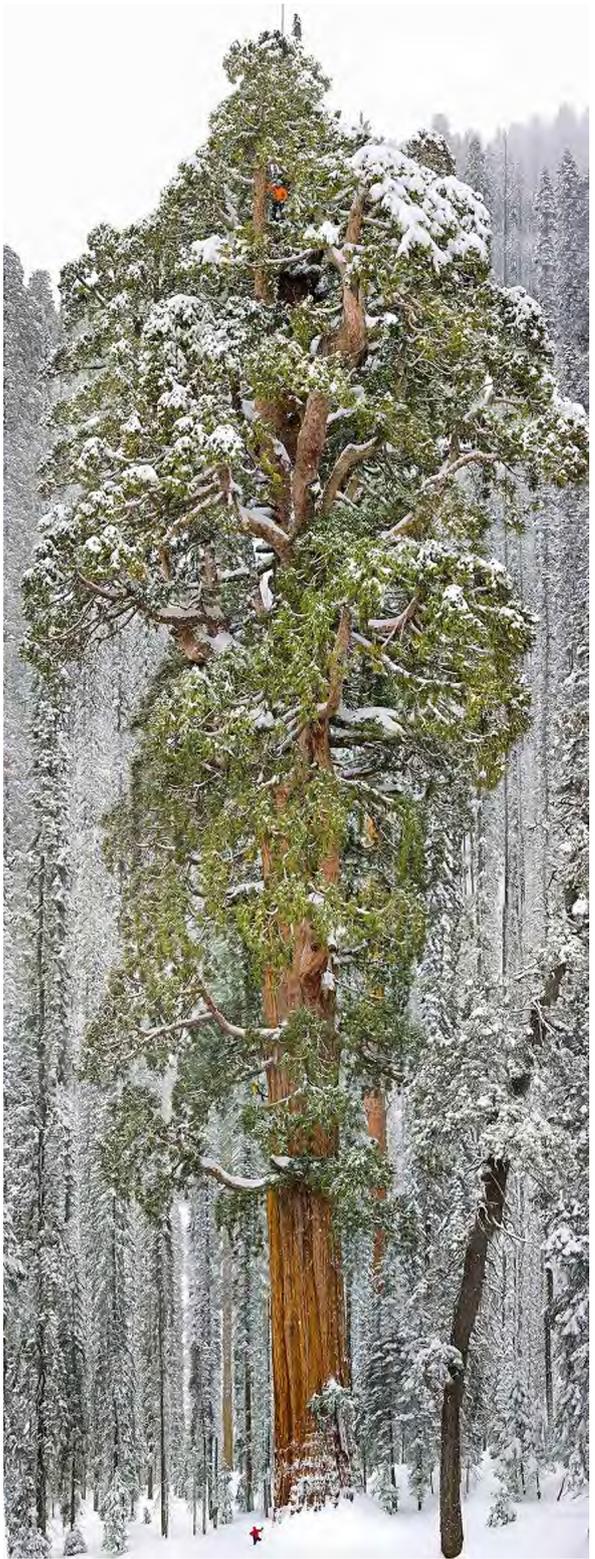


This Wisteria tree from Japan is 144 years old. At 1,990 square meters (about half an acre), this huge wisteria is the largest of its kind in Japan.

These trees on Slope Point, the southern tip of New Zealand, grow at an angle because they're constantly buffeted by extreme Antarctic winds.



The rainbow eucalyptus, which grows throughout the South Pacific, is both useful and beautiful. It is prized for both the colourful patches left by its shedding bark and for its pulpwood, which is used to make paper.



This sequoia tree, located in Sequoia National Park in California, stands 73 metres tall and has a ground circumference of 28 metres. It is the third largest giant sequoia in the world (second if you count its branches in addition to its trunk).



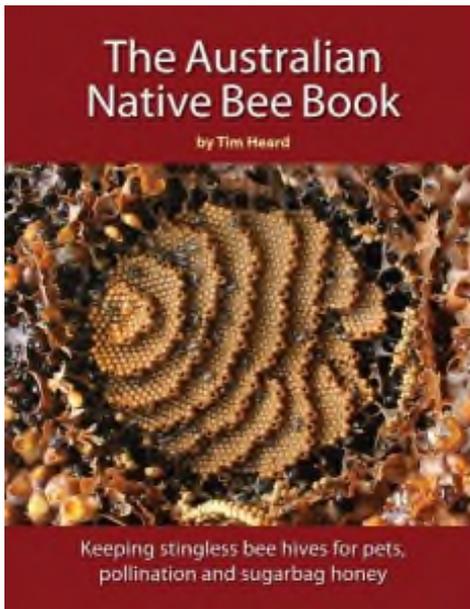
These baobabs in Madagascar are excellent at storing water in their thick trunks to use during droughts.

### New website for Capricorn Coast Landcare!

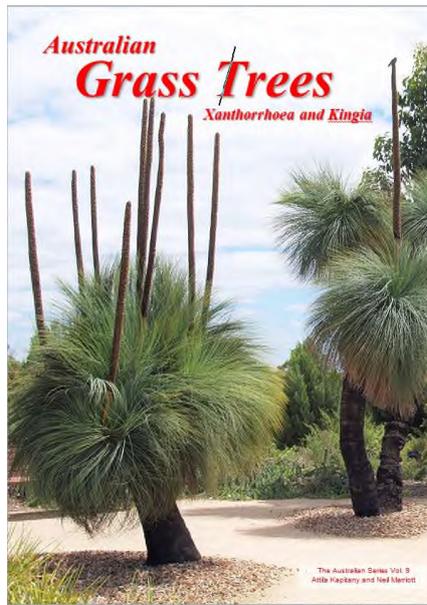
Capricorn Coast Landcare Group have launched a new website this week. Check it out here at <https://www.capcoastlandcare.org/>. The team are looking for feedback on the new site and encourage you to contact Sabrina Burke, Envirolink Coordinator on 07 4939 1002 or at [envirolink@cqnet.com.au](mailto:envirolink@cqnet.com.au). The Landcare Facebook page <https://www.facebook.com/capricorncoastlandcare/> has all their latest event and project information.

## Books for Sale!

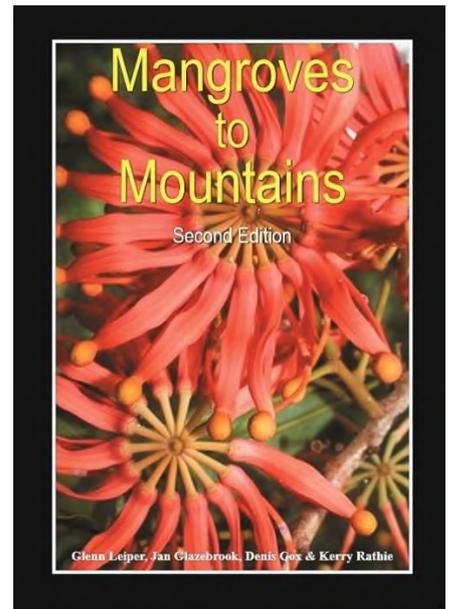
NPC Rockhampton has a number of books for sale that you may be interested in purchasing: Catch up with us at the next meeting or contact Neil Hoy on 0439 943 281 or email [hoyn@optusnet.com.au](mailto:hoyn@optusnet.com.au).



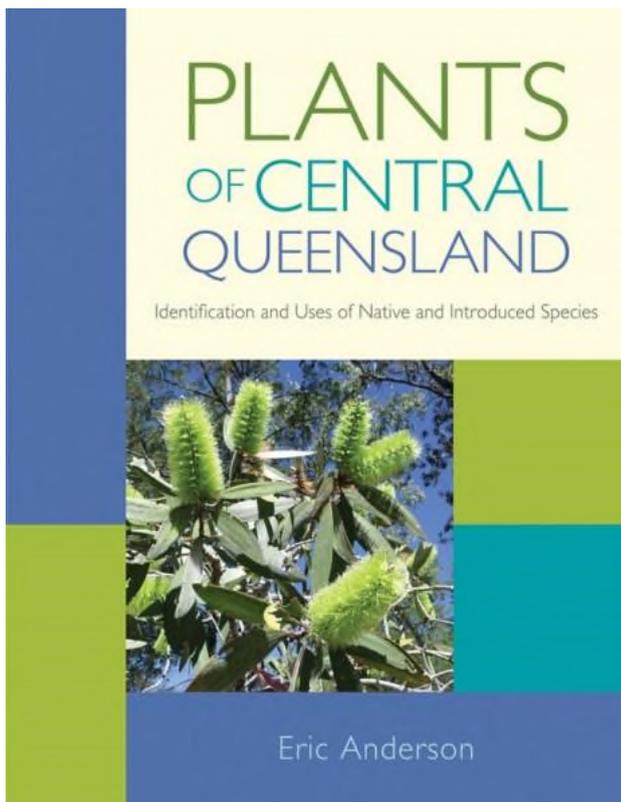
*The Australian Native Bee Book* by Tim Heard.



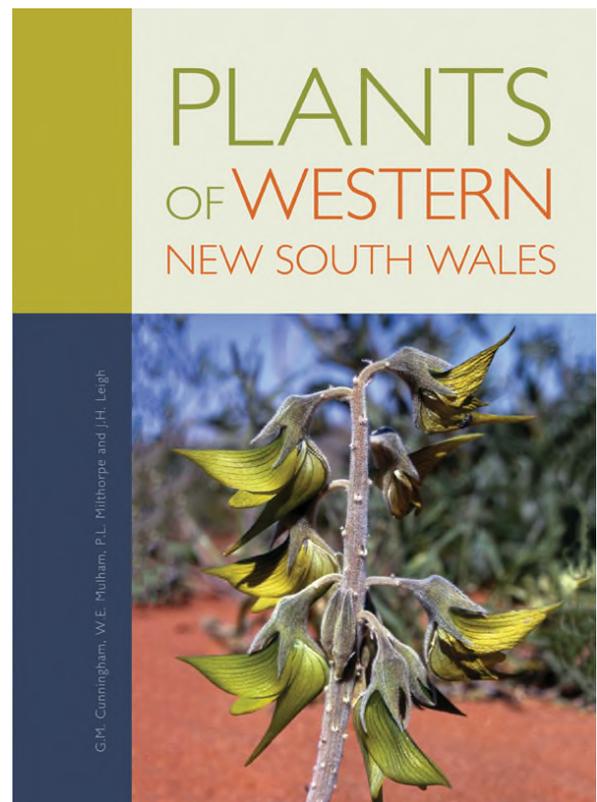
*Australian Grass Trees* by Attila Kapitany and Neil Marriott.



*Mangroves to Mountains* (second edition) by Glenn Leiper, Jan Glazebrook, Denis Cox and Kerry Rathie.



*Plants of Central Queensland* by Eric Anderson.



*Plants of Western New South Wales* by GM Cunningham, WE Mulham, PL Milthorpe and JH Leigh for **\$170 delivered**.

**Native Stingless Bee Workshop.** Gladstone SGAP members attended a presentation about Native Stingless Bee hives given by Samantha Redshaw on 21<sup>st</sup> April 2018. One of the hives had a lid which could be opened to observe the brood inside and bees doing their hive duties.

**Police Creek revegetation.** Members also visited Police Creek, where a large amount of revegetation and tree planting has been undertaken over the years. Below is a photo of tree planted by volunteers to enhance the bank of Police Creek many years ago.



Photograph taken at the Native Stingless Bee Presentation.



Trees planted by volunteers at Police Creek many years ago have now matured and line the banks.



Citizen scientists on a trip around Boyne Valley.



A Moorhen nest at Lake Awoonga was spotted amongst the snowflake lilies (*Nymphoides indica*).

**Catchment Crawl.** On 26 March 2018, several Gladstone SGAP members attended the citizen scientist trip around the Gladstone Region. A group of 10 citizen scientists took the bus to various locations across the Boyne Valley. Macroinvertebrate (water bug) sampling and water quality monitoring was undertaken at a number of locations. Microscopes were used to assist in identifying the bugs along with a printed reference guide and iPad (as a magnifying glass). Check out the moorhen nest spotted amongst the snowflake lilies at Lake Awoonga (above). The team finished at Bray Park, Boyne Island (see photo above).



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