

Top End

Native Plant Society

President:

Dave Liddle

Vice President:

Russell Dempster 0459440665

Secretary:

Ingrid Nadjarian

Treasurer:

Robyn Liddle

Publicity:

Lana Twyford

Publications:

Sarah Hirst

Public Officer:

Helen Spiers

Librarian:

Ian Morris

General Committee Members:

Lon Wallis

Will Kemp

Webmaster:

Dave Liddle

PO Box 135

Palmerston NT 0831

Or email us:

topendnativeplantsociety@hotmail.com

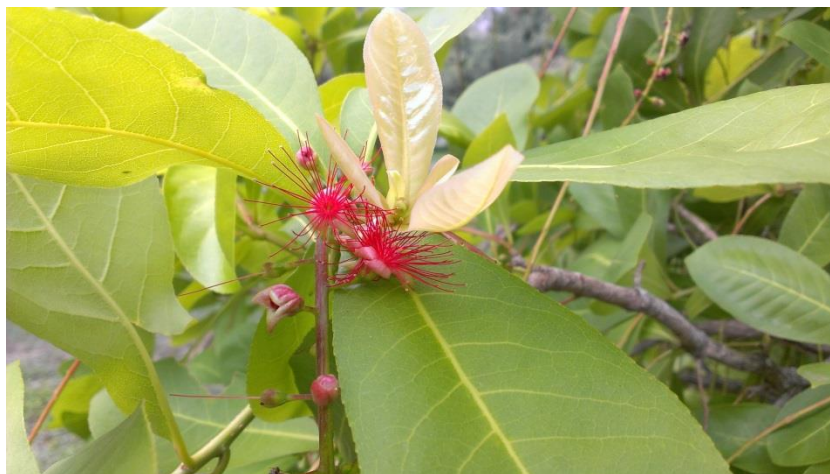
December 2015 Newsletter

General Meeting Times

The next TENPS meeting will be held on *Thursday January 21st 2016*. Meetings are usually held at 7:30 pm on the third Thursday of each month at Marrara Christian College, on the corner of Amy Johnson Avenue and McMillans Road. The meeting is followed by a chance to meet with other members and access the TENPS reference Library over a cuppa. Bring your plants along to swap, sell or have identified. The guest speaker presentation commences around 8pm. All are welcome.

Field trips are usually on the weekend following the meeting. Details of upcoming events are provided in the newsletter, or check the TENPS website.

What's in Flower?



Barringtonia acutangula photographed at Rapid Creek
by Sarah Hirst on December 5, 2015.

Natives mean more!

www.topendnativeplants.org.au

Upcoming TENPS meetings

January 21st: TBA

February 18th: Mike Clark - Plants of the Pilbara (TBC)

TENPS Field Trip

January 16th: Explore this rare corner of long unburnt woodland at Darwin River with Sarah Hirst.

Meet at the corner of Darwin River Rd and Leonino Rd at 8.45am. You will need a hat and sturdy shoes. Facilities are limited at the site, so please BYO chair and water. Members may wish to adjourn to the Litchfield Pub or Berry Springs Tavern for lunch afterward....

February 20th: TBA

March 19th: TBA

NT Field Naturalist Club Events

Meetings are held at 7.45pm on the second Wednesday of each month except January in the Function Room, Level 3, Red Precinct 1 at Charles Darwin University Casuarina Campus.

Field Trips are a great way to explore the best of Darwin area's nature spots in the company of like-minded people. These are usually held on the Sunday following the monthly meeting and often related to the topic of this meeting. Additional outings are held from time to time, and everyone is welcome.

TENPS Committee Meeting

Committee meetings are held every second month and members are most welcome to attend. The next committee meeting will be on Wednesday 3rd **February 2016** at 7.30pm. Venue Drysdale Electorate Office, Palm Plaza Palmerston (next to MVR).

Top End Native Plant Society AGM: 2015 President's Report

Thanks to the Committee and all members for your contributions over the past 12 months. A community group such as TENPS is driven by the members and the character, energy and activities of the Society reflect the efforts of those that contribute.

An outstanding feature of this year has been commencement of TENGO, Top End Native Garden Openings. With the demise of the Open Garden Scheme at a national level and the discontinuation of the scheme in the Northern Territory, TENPS has stepped in to run a scheme focused on promoting native gardens. The inaugural event at Colliwobble Farm in Virginia was a resounding success with around 500 adults through the gate during the one day event. Wildcare provided refreshments and there was a variety of stalls and activities on the day, including a plant stall run by TENPS.

A second open garden was in Jingili at the Alford residence where the Rapid Creek Landcare Group provided refreshments. Around 200 adults came through the front gate and were treated to a delightful native garden with a strong history of plants that have and have not worked in this urban situation. A plant cemetery comprising names and images of species that have dropped out of the garden over the last 6 years caught the imagination of many visitors. The cemetery was a wonderful tool for demonstrating one of the delights of growing a native garden in the Top End, namely that gardens tend to be somewhat experimental. We have seen an explosion in the variety of native species in suburban gardens over the last few decades and much is unknown. Species new to cultivation are appearing all the time and there is always something new to learn. The Society is well placed to run TENGO again next year as we have an oversupply of gardens on the books.

This is a good omen for open gardens to continue and for ongoing opportunities for members, along with the public, to learn what has or has not worked in Darwin gardens. At the risk of singling out individuals for recognition, I wish to acknowledge the huge effort from Sarah Hirst and Louise Finch who worked with me on a sub-committee to drive TENGO.

In the President's report last year I emphasised the diverse and high level of expertise we have among members, along with the contribution members make to events including talks at monthly meetings or conducting field trips. Again this year I am delighted to acknowledge the skills and experience of members and their preparedness to share their knowledge, whether formally via a slide show or talk at a monthly meeting, or informally in one on one discussion. Of course my thanks extend not only to Society members, but all who have come along to TENPS this year and delivered a talk or contributed to a field trip.

Topics covered at monthly meetings have ranged from cultivation to being out bush. Jon Schatz talked about Gove Peninsular in the eastern Top End and Ian Morris about bush foods of the coastal north. We then jumped across the ditch to visit New Zealand with Russell Dempster, before returning to look at favourite photographs of some Committee members. Louise Finch took us camel trekking in the Simpson before we returned to the practicalities of using native trees in the City of Darwin, thanks to Jamie Lewis from the Council. Mitchel Rudge, the recipient of the Top End Native Plant Scholarship through Charles Darwin University, gave us an insight into what he has been doing to improve understanding of the carbon cycle in Australian Tropical savannas, a topic on international significance given the way the planet is warming. Efforts to look after our special place in the planet was the subject from John Westaway who talked about the role of North Australian Quarantine Strategy (NAQS) and emerging weeds. Again, looking after our special plants, Ben Wirf

from George Brown Darwin Botanic Gardens talked about seed banking from Kakadu National Park and propagation. Tonight we top off this great line up of talks with Ian Morris back to tell us to "Go West" to enjoy a natural history adventure between Darwin and Broome.

Field trips have also been diverse from the eagles view at Rozak House near Lake Bennett to the thick of the forest vegetation near Lee Point and Birdsong Gully. We visited Government House, had a walking tour of "Significant Trees" around Darwin and were involved in a very informative propagation workshop with Ben Wirf at George Brown Darwin Botanic Gardens. Field activities have also provided an opportunity to collaborate with the NT Field Naturalists Club looking at butterflies and plants at Bamboo Creek. In May we worked with Greening Australia to present a couple of field events on the Howard Sand Plains, with around 50 people attending one field trip. Other community involvement has included participating in the Goyder Day Commemoration and the Riyala open day.

In part these field trips reflect or have spawned efforts to look after vegetation and the bush. We put in a response to the Environmental Protection Authority Environmental Quality Report addressing the Howard Sand Plains. The interest of TENPS members over many years has been important in bringing management of the highly diverse communities of carnivorous plants of the sand plains into the public arena. On the urban scene we have pursued improved maintenance of one of Darwin's significant trees. We have also done our bit to make plants available through sales at open gardens, the Tropical Garden Spectacular and Riyala, which of course has an added benefit of returning funds to the Society. We have our annual plant sale at Coolalinga in a couple of weeks.

Jumping from the local to the national scene, the Society has become a member of the Australian Native Plant Society of Australia this year.

As I mentioned at the start, all these activities only occur because of the willingness of members to contribute and I was very pleased to see Sarah Hirst recognised at the Chief Ministers' Volunteer Awards via a certificate of appreciation for her contributions to the TENPS newsletter. I wish to take this opportunity to reiterate appreciation to all those who make things happen in our Society and look forward to many more events in 2016.

Report by TENPS President - Dave Liddle.



Euphorbia plumerioides named for its similarity to frangipani, photographed by Ian Morris near Mitchell Falls in the Kimberley.

The Kimberley: Island of Plants - Ian Morris.

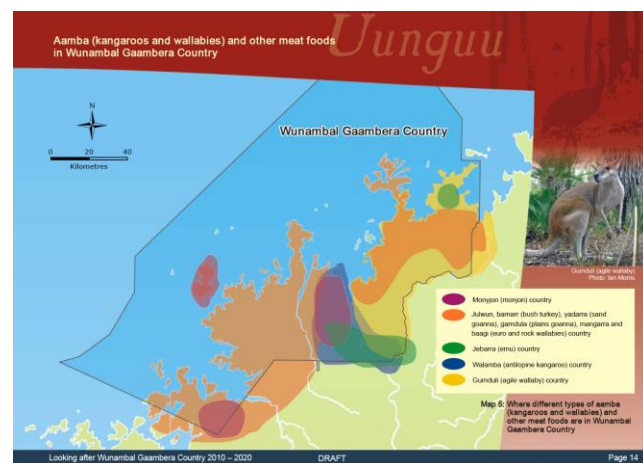
Ian gave us a taste of this fascinating part of Northern Australia based on his many visits to mainly the western, coastal portion.

He pointed out many similarities between the sandstone country of Arnhem Land and the plateaux and ranges of the Kimberley and similarities in climate as well as flora embracing the Top End, Cape York and PNG.

He noted fewer Indigenous people 'on country' today in the region unlike the NT and explained this in part as a result of WW2 attitudes of the Australian government which had viewed depopulated areas as more secure. He mentioned

a Presbyterian mission at Mowanjum near Derby and a Catholic mission at Kalumbaru north west of Wyndham as 'collection points' – clans were mixed and culture eroded.

In recent years the WA government and Traditional Owners are setting up eco-tourism projects and jointly managing new National Parks such as Uunguu NP on the Mitchell Plateau (*below*).



Ian advised the 20 min helicopter ride around the Mitchell Falls area was very worthwhile. *Grevillea refracta*, *Drosera* sp. Anjo peninsula, *Eucalyptus confertiflora*, *E. brachyandra*, *E. miniata* and *Euphorbia plumerioides* (left) are all present. The laterite-capped Mitchell Plateau is home to *Livistona eastoni* while *L. victoriae* grows much further east at El Questro.

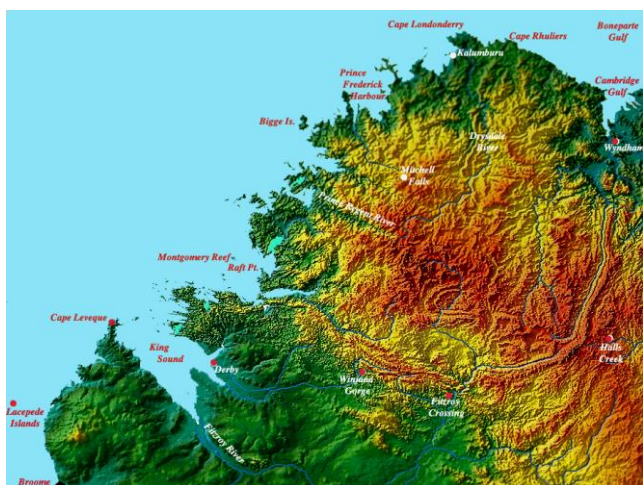
Many people consider Broome to be the main centre of the Kimberley. Ian maintains geographically that can't be so because it has the Great Sandy Desert as its hinterland. It is well south of the massive plateaux and archipelagos that constitute the Kimberley. Derby at the head of King Sound at the mouth of the mighty Fitzroy is a better candidate.

Some of the first 'botanising' in the region was undertaken by Alan Cunningham. He was a member of Philip Parker King's 1820 expedition. Lots of plants and animals have been named *cunninghamii* as a result. The first European settlement set up at Camden Harbour in 1864 lasted only a year. Humpback whales continue to use its waters for calving.



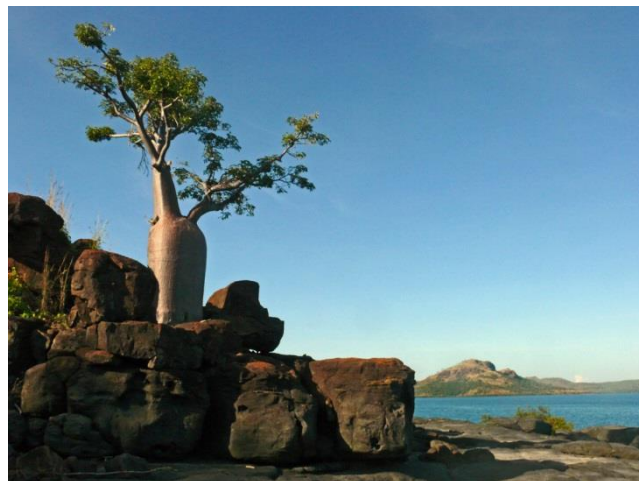
Grevillea cunninghamii named after botanist Alan Cunningham.

The Kimberley was not always part of the Australian landmass. The Kimberley block was fringed by Devonian-age coral reefs. Today these ancient reefs are visible in deep limestone gorges. The Kimberley 're-joined' the continent 350 million years ago (*see below*). A fault-line between Halls Creek and Darwin marks the boundary and the much folded and faulted sediments that constitute the King Leopold Range are also evidence of this collision.



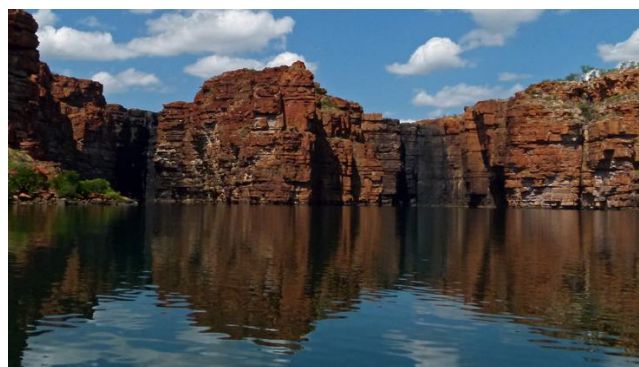
The last sea-level rise dated to 5,000 - 4,000BP caused salt-water intrusion into low-lying coastal areas and created the characteristic Kimberley coast of archipelagos and indented cliff-lined harbours often with huge tidal ranges. The Horizontal Falls in the King Leopold Range experience 13m tides.

Ian suggested the Llewini Current might have transported plant material out of the Pacific Basin and through the Indonesian peninsula to populate the Kimberley. But whilst there are *Lagerstroemia* sp. in the Kimberley they are not present in the Top End but they reappear on Cape York and PNG.



Ian mused on the origins of the iconic Boab (*above*). Its nearest relative is one species found only in Africa – not Madagascar which is geographically closer and has nine species. Did the nuts float here or was Boab plant material introduced by people? All very mysterious; and why do Boabs seem to come no further east than the VRD region?

Many of Ian's aerial shots and some taken from boats demonstrated the vast scale of the coastline and its landscapes. The Fitzroy River near Derby Ian described as having the 'biggest' discharge in WA. The massive King George Falls on the Prince Regent River are reached 8km up-river from the ocean. The cliff-face and waterfall at King George Falls in the rainy season dwarfed Ian's Zodiac (*below*).



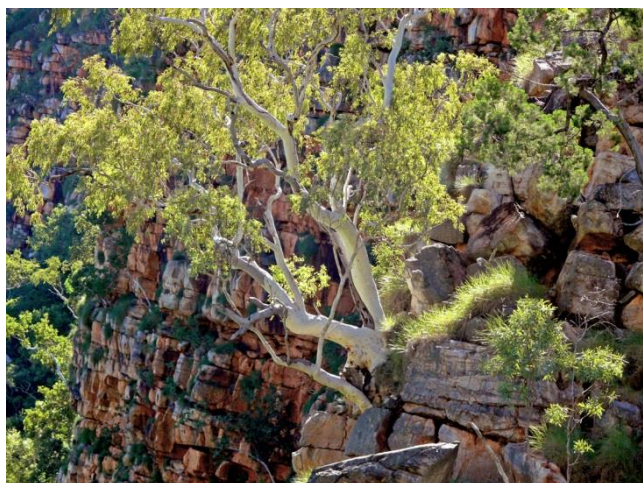
King George Falls in the dry season

Distinct wet and dry seasons and porous sandstone ranges produce massive run-off and spectacular waterfalls in the rainy season and seepage lines and springs at the base of cliffs that sustain monsoon forests during the dry. On the seaward side of these forests mangrove species such as *Camptostemon schultzi* (below) fringe the cliff base.



Saltwater crocodiles (*Crocodylus porosus*) are present but a shortage of suitable nesting sites means they are not as abundant as in Top End wetlands and mangroves. Caution still needs to be exercised.

The exposed, rocky cliff-tops are home to 'spinifex' with figs and eucalypts growing in the joint-lines (below). In The Prince Regent Nature Reserve is home to basalt intrusions under the sandstone capping. The intrusions are weathering to create soils more fertile than sandstone alone could produce. These areas support vegetation related to species familiar to Top Enders but often showing effects of better nutrition.



Ian pointed out the importance of *Ficus platypoda* (above) as a dry season food source for bowerbirds, channel-billed cuckoos, wallabies and possums in the dry. He mentioned the seeds of *Hakea arborescens* (below) as a food source for the Golden-backed Tree Rat.



Thanks Ian for sharing your wonderful photography with us during this virtual tour of the Kimberley.

Article by Louise Finch,
Photos supplied by Ian Morris.

November Field Trip: Monsoon Gully.

The October field trip was to Monsoon Gully, a creek line that forms part of a conservation area in Johnston within the Mitchell Creek Catchment. The gully lies to the west of a WW2 military camp. Our access was from near MacKillop Catholic College off Farrar Boulevard.

We spent an enjoyable few hours exploring the natural and cultural history of the area.

A highlight of the natural history was a banyan tree firmly anchored on a rock outcrop (*below*) at



the head of the gully.

Rocks were also a theme amidst the cultural artefact that most caught my attention. A series of low rock walls and shallow excavations that formed part of the meagre embattlements near the top of a slope. Given the density of trees in the valley below and thus absence of a clear line of sight, the prospect of crouching or lying behind these low walls defending the military camp would have been less than appealing; but certainly interesting to ponder what conditions might have been like around 75 years ago.

The gully supported a stand of Swamp Mahogany, *Lophostemon lactifluus*, which provided welcome shade in the heat of the build-up. Recent rains had scoured much of the litter from the broad floor of the gully. We pondered the evidence from an incised central gully and the algae encrusted surface suggests there has not been much recent erosion, yet the scouring of litter across the valley floor may reflect increased run-off from the adjoining urban landscape with the arrival of early storms. It will be interesting to see what happens in the monsoon gully as the surrounding urbanisation continues.



In the areas we walked, the bush is remarkably free of the big grassy weeds like Mission Grass and Gamba Grass that have a significant effect on fire regime. There are a series of tracks, interpretative signage and a great bit of natural and cultural history to explore, so if you have not visited the site it is worth spending an hour or two there.

Thanks to Sue McKinnon for guiding us on the day.

Article and photos by Dave Liddle.

THANK YOU!

TENPS would like to send a huge thank you to Travis Messner for his generous donation of plants for the November Plant Sale. Thanks Travis!

Howard Sand Plains Environmental Quality Report tabled in Parliament

Last week the report was tabled in the Legislative Assembly. The advice from the NT Environmental Protection Authority (EPA) comprised two parts, an Environmental Quality Report and Recommendations, both of which make interesting reading. To read the full report and recommendations visit:

<http://www.ntepa.nt.gov.au/about-nt-epa/publications/minister-advice>

The Howard sand plains, east of Darwin, are home to a globally significant community of carnivorous plants with 26 species being found within the Site of Conservation Significance (SOC). The sand plains are also home to several threatened species including *Typhonium taylori* a small flowering herb found only on the Howard sand plains that was listed as an endangered

species by the federal Environment Department in 2007, and the vulnerable Howard toadlet *Uperoleia daviesae*.

In its report, the NT EPA says Top End sand mining projects have been destroying environmentally significant flood plains for decades and should have been referred for assessment under federal laws.

The region has been mined for more than 30 years and demand for its fine, white sand has skyrocketed in the past decade. The sand plains are the Top End construction industry's major source of sand to make concrete, asphalt and bedding for electrical and sewage trenches. NT EPA chairman Dr Bill Freeland said no environmental assessments had been carried out in relation to mining of the sand plains.

The NT EPA final report recommends a protected area to prevent the extinction of threatened species in the region and recommends an amendment of environmental laws in the NT for better assessment of impacts of many projects within a single area. The report also recommends making it an offence not to refer projects to the NT EPA when a significant impact on the environment is likely.

The Minister has 6 months to provide a response to the report so it is a good time to let your views be heard.

Article adapted from ABC news story http://www.abc.net.au/news/2015-12-04/sand-mining-projects-should-have-been-referred-under-federal-law/7003632?WT.ac=statenews_nt



Wrightia pubescens photographed by Sarah Hirst at the Water gardens in Jingili on December 5, 2015.

**A New Book
for Professional Landscapers and Gardeners:
"The Australian Native Garden"**



**THE AUSTRALIAN
NATIVE GARDEN**

• A PRACTICAL GUIDE •

ANGUS STEWART & A.B. BISHOP



This book will inspire and guide landscapers and gardeners in the quest for a garden that captures the spirit of the Australian landscape. Australian plant expert Angus Stewart and friend, horticulturist and co-author AB Bishop have put together a book that will show reader how to combine indigenous plants from your local area with new native plant cultivars to create a garden that will attract wildlife, provide bush foods as well as give you a garden that will blend in with natural environments that may adjoin your property.

The authors will also take you on a journey around Australia looking for inspiration in wild areas and wonderful native gardens. There are practical chapters on pests and diseases, propagation, bush foods, garden design and new planting methods. The book also has an extensive list of new native plant releases from the last few years.

**Land clearing in the
upper Rapid Creek catchment.**

You may be aware of this issue through the media and campaigning by the Rapid Creek Landcare Group for prosecution of those involved in the clearing, and more recently for submissions on the proposed rezoning of the site. Visit the Rapid Creek Landcare Group website for more information.

http://www.rapidcreek.org.au/Rapid_Creek_Landcare_Group/Berrimah_North.html

DCA submissions close on December 18th

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