Top End Native Plant Society Newsletter

JUNE 2025

WHAT'S FRUITING THIS MONTH

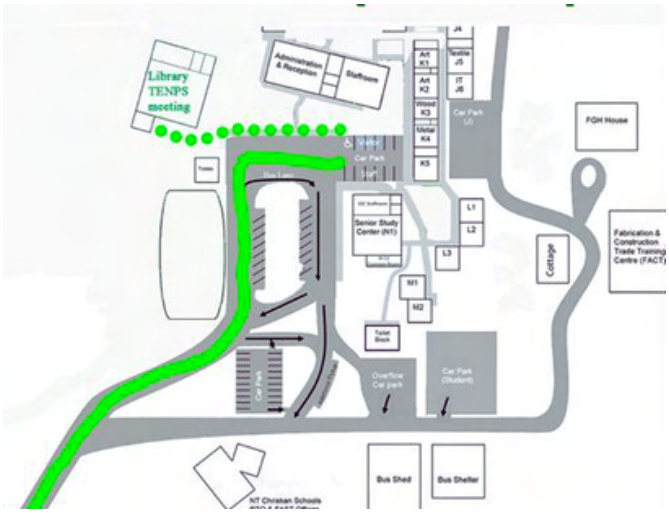
Grevillea dryandri by Richard Boyne

MONTHLY MEETINGS

Top End Native Plant Society (TENPS) general meetings are held at 7:00pm on the third Thursday of the month at Marrara Christian College library on the corner of Amy Johnson Ave and McMillans Rd.
Bring your plants to swap, sell or have identified over a cuppa. The guest speaker presents at 8pm.

This month's talk will be by Jeremy Russell-Smith on monsoon forests.

NEXT MEETING: JUNE 19TH 2025



TENPS (Top End Native Plant Society) Committee Members

President: Russell Dempster (0459440665)
Vice President: Sean Stieber
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Treasurer: Graham Zemunik
Publications and Librarian: Richard Boyne
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In this Newsletter

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May meeting ~Restoration of an old sand mine by the Holtze Landcare Group
Presentation from Jenni Risler

Jenni Risler presented at the May meeting on the Holtze Landcare Conservation Area (HCLA) on behalf of the Holtze Landcare Group (HLG). The conservation area is situated north of Wallaby Holtze Road about 1.8 km from the Palmerston CBD and less than 20 km from Darwin CBD. The table below notes some detail of the history of land use and tenure of the area:

Year	Key stuff
1940s	Surveyed for Ironwood (*Erythrophleum chlorostachys*) timber supplies during World War II
1970s	Forgotten private ownership resulted in Commonwealth Government compulsory acquisition and subsequent reversal with NT self government in 1978 to crown land
1990s	Extractive sand mining with limited removal of waste and minor rehabilitation
2000 - 2010	Illegal dumping of commercial and domestic waste Inappropriate vehicle movements by public and Defence desecrating environmental values These threats have ceased through the ongoing presence and lobbying by Holtze Landcare Group members with Robertson Barracks, NT and local government and the community
2004 - 2006	Holtze Landcare Group and Holtze Landcare Conservation Area established
2006 to present	Research and educational collaborations with TENPS, NT Field Naturalist Club, CDU, CSIRO and NT Government (Schools, Weeds Branch, Mines) Revegetation and weed management actions undertaken
Present	Under threat from urban development – Holtze Development

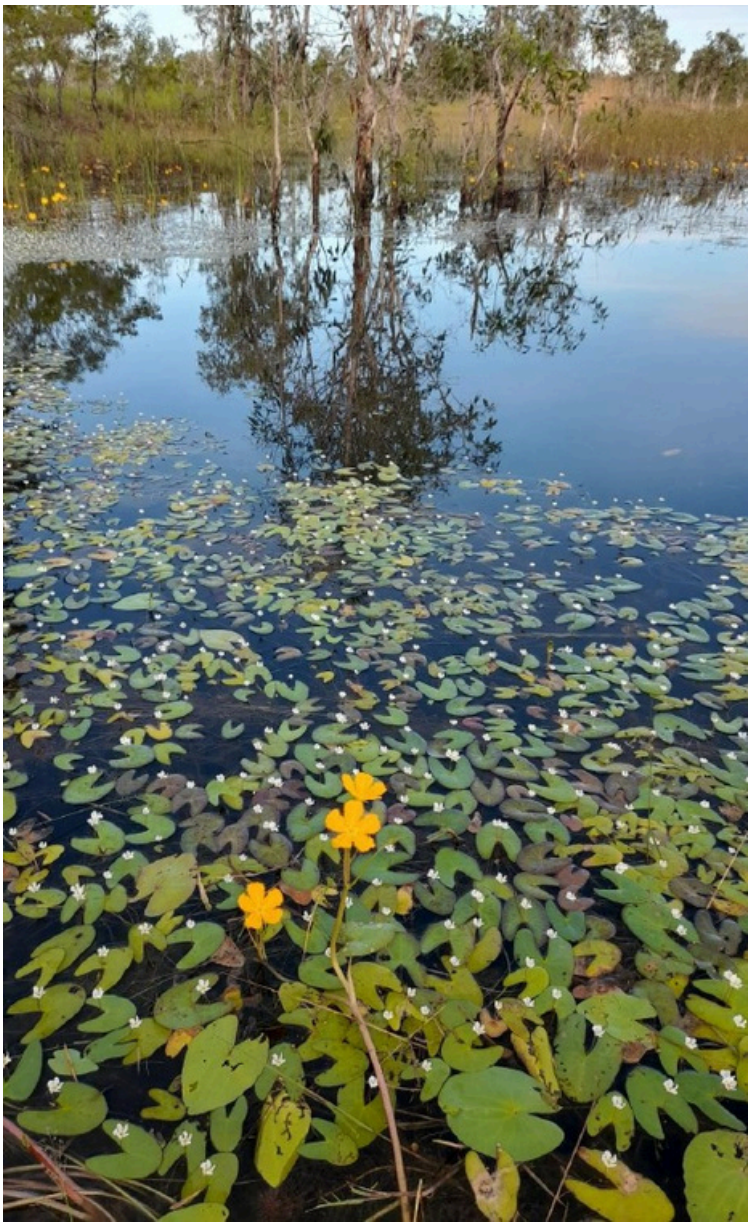
Biodiversity values include a unique combination of five key ecosystems: peripheral savanna woodland, paperbark forest, sand sheet heath, magnetic termite mound wetlands, and ephemeral lagoons. Fauna values include records of 59 bird, 14 reptile, 10 aquatic and 6 mammal species. Some fauna examples are Northern Brown Bandicoot, Howard Springs Toadlet, Floodplain Gungan, Goanna, Frilled-necked Lizard, Buffalo, Pig, Black-footed Tree Rat, Sacred Ibis and Pheasant Coucal.



Left to right: Sacred Ibis, Black-footed Tree Rat and Feral Pig at the HLCA

As far as flora is concerned, there is an amazing diversity with 130 species recorded so far. The savanna woodlands adjacent to the sand sheet heath habitat are an essential component of the HLCA providing the necessary buffer and runoff conditions to support the hydrology of the wetlands. The savanna woodland is dominated by the characteristic Darwin Woolly-butt (*Eucalyptus miniata*), Darwin Stringy-bark (*E. tetradonta*), Glossy-leafed Bloodwood (*Corymbia bleeseri*) and many shrubs and understory species.
The presence of sand sheet heath habitat contributes to the rich biodiversity of the area. Together with the seasonally saturated and inundated sandy hydrosols this habitat supports a rich *Utricularia* flora, with 36 species known to grow in sand sheet heaths in the Top End, 11 being identified from the HLCA.

The ephemeral lagoons fill with water and support a range of aquatic flora including lilies (*Nymphaea* and *Nymphoides*), pipeworts (*Eriocaulon* species), sedges, grasses, *Typhonium* and many more.



Nymphoides spp. at the HLCA

Threats to the conservation area include weeds and urban development. Weed management has been conducted over 20 years, with the successful eradication of ten weed species due to the consistent dedication of the HLG members. For example, the removal of *Mimosa pigra*, took seven years, digging the deep tap roots of even the small trees and walking the plants out.

There are opportunities for community involvement to identify biodiversity values, contribute to land management and restoration actions, and to provide administrative and research support. Partnerships with Charles Darwin University, Kormilda College, CSIRO, the Top End Native Plant Society, the NT Field Naturalist Club and Frog Watch have improved the knowledge base of the HLCA.
Thank you Jenni, for your informative and interesting presentation. It created a desire in those present at the meeting to be involved and to visit the area. Thanks also to Plaxy and Thisbe for your input and your passion and work on the site.

Photographs are from Jenni's presentation, report by Russell Dempster.

MAY FIELD TRIP: WALKER CREEK, LITCHFIELD NATIONAL PARK

We met at our usual spot at Coolalinga and car-pooled down to Walker Creek in Litchfield National Park for our field trip on Saturday May 17. It didn't take long to get there via Berry Springs.

Walker Creek is known for its 7 campsites and swimming spots located along the creek. There are day-use swimming areas and a relatively easy walking trail that provides access to the Tabletop Track. The 1.8 km path takes you up past the 7th campsite to a site on the creek where some of us had some lunch and refreshing swim.

Lindsaea ensifolia

Ferns are a feature of Walker Creek, with some large stands of *Dicranopteris linearis* close to the water. The unfurling fronds and patterns in these ferns are beautiful. Other ferns seen included *Lindsaea ensifolia*, *Blechnum orientale,* and in a wet jungle, *Taenitis blechnoides* and *Stenochlaena palustris*.

Dichranopteris linearis

Euphorbia muelleri

Tiny *Euphorbia muelleri* were flowering. It's a prostrate perennial herb, producing foliage annually from a perennial rootstock. *Euphorbia muelleri* is endemic to the NT and found in Eucalypt savanna.

Hibbertia dilatata

In open woodland and more exposed areas, *Hibbertia dilatata* was commonly flowering and looking resplendent. Two species of Cycads were observed, *Cycas maconochiei* and *C. calcicola* (Silver Cycad). Some *C. calcicola* had moss and *Dendrobium affine* orchids growing on them.

Cycas maconochiei with grasshopper

Hibbertia dilatata

Dendrobium affine on *Cycas calcicola*

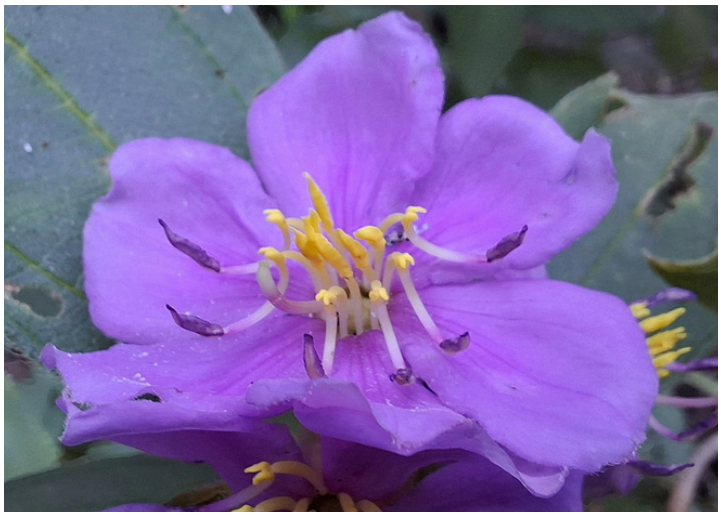
Xyris sp.

Yellow flowering plants seen in flower included *Xyris sp*, *Banksia dentata*, *Goodenia leiosperma*, *Acacia dimidiata* and *A. latescens*.

Banksia dentata

Goodenia leiosperma

Purple and pink flowering plants observed were *Osbeckia australiana* and *Melastoma malabathricum* (both family Melastomataceae), *Hibiscus petherickii*, and *Sowerbaea alliacea*.



Melastoma affine

Osbeckia australiana

Hibiscus petherickii

Terminalia ferdinandiana

Terminalia ferdinandiana (Kakadu Plum) and *T. carpentariae* (Billy Goat Plum) both featured plants with striking new red leaves.

A very pleasant morning was had by all.

Text and photos by Russell Dempster

Terminalia carpentariae

Guest Article: A new grass species for the NT?

In May 2013 Michael and I bought a twenty-acre property at Darwin River. There was little gamba grass, unlike on surrounding properties, thanks to the hard work of the previous owners.

They had slashed a wide firebreak from north to south below the house on what appeared to be sand sheet and so we stopped mowing that area. Soon cathedral termite mounds appeared and within a few years some were over five metres in height. Entomologist Dr Graham Brown invited a team of researchers from the University of Adelaide led by Professor Martin Williams to examine them which resulted in a paper. A wasp expert, Professor James Carpenter from the American Museum of Natural History and his wife Amy, came to catch wasps and recorded quite a high number of species. I recorded several rare or undescribed insects including the first Top End record of Acroceridae, a fly parasitic on spiders (thank you, Graham Brown, for this identification) and the moth *Opodiphthera carnea*, related to but rarer than the Atlas Moth. Indeed, the property was an island of biological diversity compared with the sea of gamba that surrounded us.

Apart from the insects it was the grasses that caught my eye and with good reason. Some species began to spread rapidly, namely *Eriachne schultziana*, *Panicum mindanaense* (which I first spotted when a Partridge Pigeon came onto the verandah to eat the seeds from a plant growing nearby) and the most beautiful little grass *Schizachyrium pseudeulalia*. This species' seeds coated the central fire break, alarming me (I thought it might be a new weed), until the NT Herbarium identified them. With help from the Herbarium, I had recorded 25 grass genera by 2024.

One genus I didn't send in was that of the many species of *Eragrostis* ('lovegrasses') as I had been told they could be difficult to identify (Lazarides 1997). However, in about 2020 (records died with my computer a few months ago) I came across a species of this genus on the northern corner of our drive that looked very different from the rest, and so I sent a specimen to the Herbarium for identification. To my surprise it was returned as unidentified beyond the genus level (*Eragrostis sp.*). A few years later I tried again with the same result – other plants were identified but again not that one. Then in April/May 2024 I tried yet again and received a message from Louis Elliott at the NT Herbarium. He wanted more material.

Lou tentatively identified it as *Eragrostis unioloides*, a new species for the NT. This is an annual grass to 30 cm (up to 70 cm elsewhere) with distinctive cream to purple, somewhat ovate spikelets, usually only twice as long (4–7 mm) as wide (2.5–4 mm). He, Kym Brennan and Aiden Webb came to our place to collect samples and take photographs.

This attractive annual grass is known overseas by the common name of Chinese lovegrass and is native to China, India, SE Asia and Papua New Guinea (CABI 2024). It was previously considered to native to Queensland (Sharp and Simon 2002) but is now considered a naturalised introduction there. This is the first and only confirmed record of this species in the Northern Territory; given its position on and around our drive it seems likely to be an introduction here as well.

My thanks to the NT Herbarium staff, and particularly Louis Elliott.

Denise Lawungkurr Goodfellow, PhD

References

CABI (2024) *Eragrostis unioloides* (Chinese lovegrass) | CABI Compendium, <https://www.cabidigitallibrary.org/doi/full/10.1079/cabicompendium.120121>

Lazarides (1997). A revision of *Eragrostis* (Eragrostideae, Eleusininae, Poaceae) in Australia. Australian Systematic Botany, 10, 77-187.

Queensland Government (2025). Taxon Record 10884 – *Eragrostis unioloides*. <https://wildnet.science-data.qld.gov.au/taxon-detail?taxon_id=10884>.

Sharp and Simon (2002) Ausgrass2, Grasses of Australia, <https://ausgrass2.myspecies.info/>

From the Archives ~ collated by Lon Wallis

30 Years Ago – June 1995

GUEST SPEAKER AND FIELD TRIP REPORT: **Monsoon Rainforests in the Darwin Area by Dave Liddle**

Firstly a big thanks to Dave Liddle who responded to a last minute plea to come and talk, as our scheduled speaker was unable to attend.

Dave talked about the vegetation changes around Darwin since the 1940's. Bill Panton's paper "Changes in Post World War II Distribution and Status of Monsoon Rainforests in the Darwin Area" provided background, along with recent maps of remanent vegetation and land use of Darwin. The aerial photo's taken during the war have provided a good reference point for charting the decline and increase in the vegetation around Darwin.

Since this time approximately 60% of monsoon vegetation has been lost with the largest decreases in the Millner/Rapid creek (100 ha), Leanyer complex (63 ha) and East Point (60ha). Only Holmes Jungle has increased in size by a mere 2 ha. The main factors which are considered to have led to this decline are increasing urbanisation which accounts for approximately 40% of the loss. Urbanisation has mainly affected the rainforests occurring on dry substrate, which are typified by locations such as East Point, Mindil Beach, etc. The other factors leading to the decline of the monsoon forests include cyclone damage, weed invasion and fire activity. In all of the fifteen patches identifiable in 1945, ten have retreated their boundaries, four have disappeared and one has increased in size.

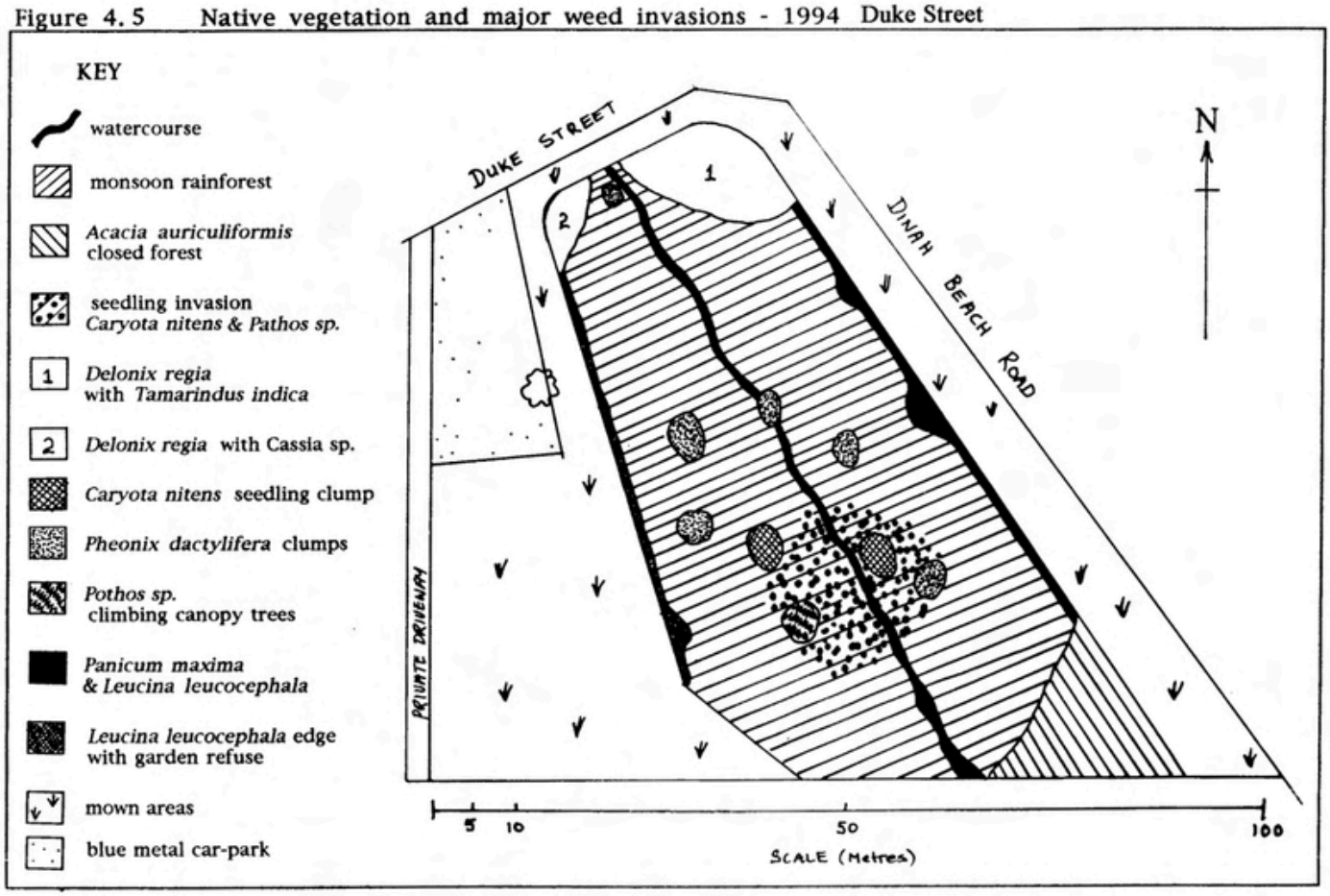
Bill concluded in his paper that urbanisation is a decreasing threat for the larger patches, most of which are located in parks and reserves. However, smaller patches are less protected, and all areas are increasingly threatened by wildfire and weed invasion. Both of which act to reduce rainforest regeneration, leading to boundary contraction.

Of particular interest lately has been the Duke Street rainforest which is of special interest as it is only one of two wet rainforests in the Darwin area (Holmes Jungle being the other). This particular patch has declined from 5 ha in 1945 to 1 ha today. This rainforest has permanent water which has contributed to the occurrence of species such as *Syzygium armstrongii* and *Melicope elleryana* which prefer wet conditions. A complete plant list of this patch is included.

The National Threatened Species Network, Darwin City Council, and other groups are currently looking at how the area can be managed and are setting up a "friends' group" to provide the people power.

Our evening concluded with slides around Darwin from the early 1960's - with some places still recognisable and others???

Figure 4.5 Native vegetation and major weed invasions - 1994 Duke Street



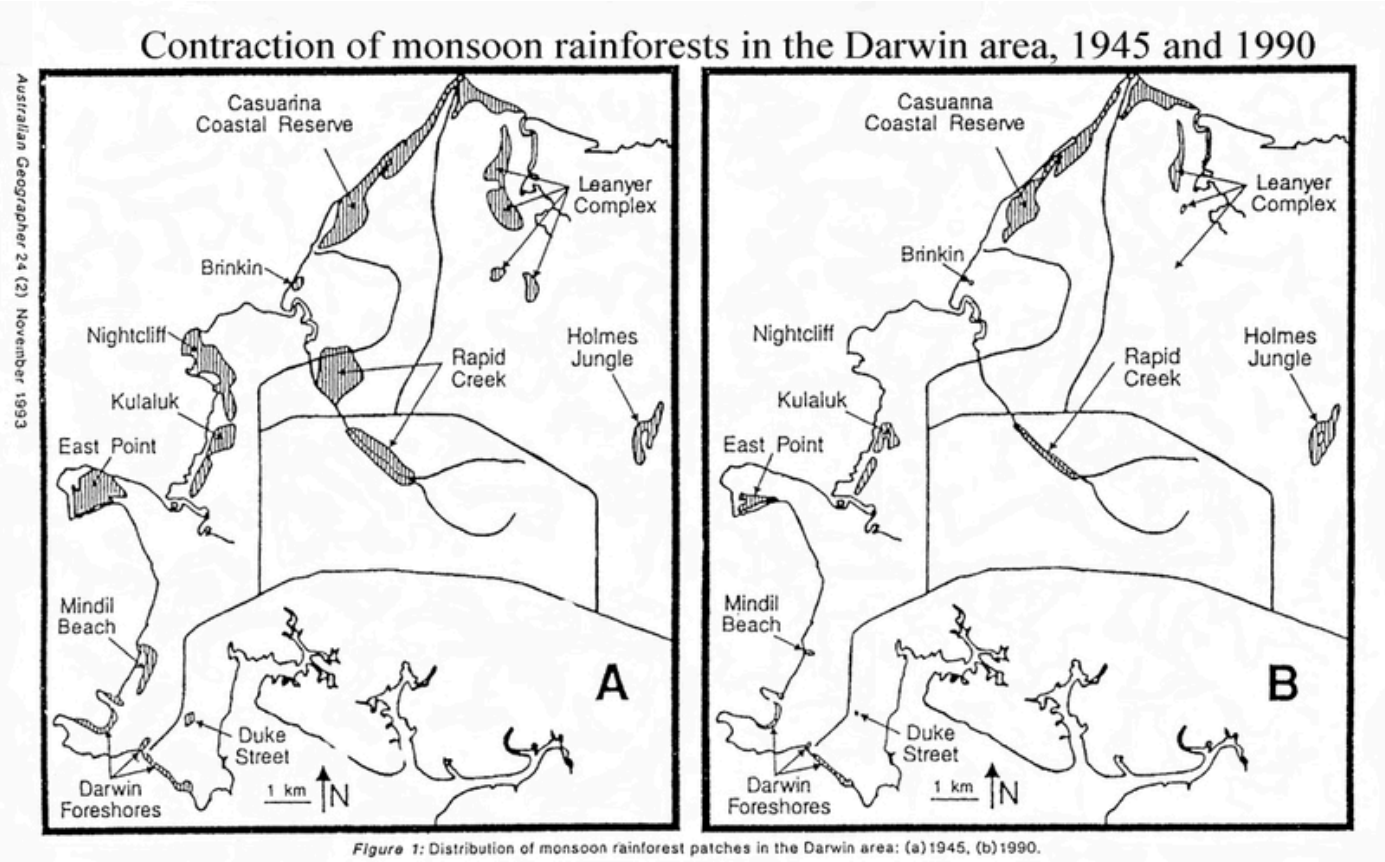


Figure 1: Distribution of monsoon rainforest patches in the Darwin area: (a) 1945, (b) 1990.

20 years ago – June 2005
~ What's in Flower this month ? ~

Grevillea aurea or golden grevillea grows in limited areas in the NT including Kakadu National Park, on sandstone ridges or escarpments.

Photo by Keith Townsend

This grevillea is a tall, open shrub, 1 to 4 metres in height. Leaves are 3 to 15 cm long, green, oblong-dentate with 4 to 12 toothed lobes per side. The holly-like leaves are prickly.

Flowers appear periodically, but plants in cultivation may have some flowers for most of the year. Flowers vary from cream, yellow-green to a bright yellow-orange. Bees and other nectar lovers will often be seen visiting the flowers. A woody fruit forms that contain two seeds

Because of its open habit, a plant in full flower is very attractive and deserves a place in any garden in tropical and sub-tropical areas. It prefers well-drained soils in full sun but is frost tender and not suited to cold climates. Plants are quite quick growing but sometimes have only a short lifespan of 2-3 years.

Propagation may be carried out from seed, and germination is improved if the seed is carefully "nicked" with a sharp knife to expose the embryo. Cuttings are also successful, and the species has been successfully grafted using Grevillea robusta as rootstock. It is a plant suitable for gardens and rockeries.

Information from: *http://farrer.riv.csu.edu.au/ASGAP/g-aur.html* and Brock J Native Plants of Northern Australia

Eucalyptus miniata Cunn. ex Schauer
Darwin woolybutt

According to Aboriginal lore when the woollybutt flowers it brings the cold weather. Given we have been switching off the fans at night some flowers would not be at all surprising. Native bees often nest in branches which have been hollowed out by termites, providing `sugarbag´- a traditional source of honey. The hollowed stems have also been a source of didgeridoos

Photo from:
http://savanna.ntu.edu.au/information/ar/the_big_three_euc.html

This tree is characterised by having bark persistent on the lower trunk. It is shortly fibrous ("peppermint") or stringy, red-brown or greybrown, grey or grey-brown or red-brown, shedding in short ribbons or shedding in small polygonal flakes. Leaves vary from elliptic, straight, dull grey green to narrow lanceolate or lanceolate or broad lanceolate. Lateral veins are prominent. Flowers are orange, or orange-red followed by ovoid fruit.

These trees are in flower in Marrara woodland across from the Northlakes golf course. It is on Commonwealth land behind a barbed wire fence so I was unable to get a closer shot. The "flame" of orange flowers is impressive against the green leaves.

In fact miniatus is the Latin word for "flame".

10 years ago – June 2015
Bladderwort Diversity in Arnhem Land
by Zig Madycki.

The Arnhem Land Plateau covers around 32,000 square kilometres and is a layer of sandstone approximately 1 kilometre deep laid down 1.4 billion years BP (Before Present). Mostly the soil is shallow and sandy overlaying sandstone with commonly sparse to nil tree canopy. During the wet season this provides numerous surface seepage areas with direct sunlight, a habitat preferred by many *Utricularia*.

Although these areas individually are relatively small they are often rich in carnivorous plant species. One such specific area visited lies on the south west edge of the plateau with a count of 8 *Utricularia* plus 3 *Drosera* species. Extending no more than 100 by 50 metres it's bordered by a perennial spring fed creek. However this area, other than the creek itself, dries out completely early in the dry season.

Utricularia is the largest genus of carnivorous plants, currently including over 220 accepted species with more than 80 species considered as yet unresolved. They're distributed widely around the warmer parts of the world with the Top End recognised as one of the "hotspots" for these plants due to the high diversity of species found within small areas and endemism.

Utricularia arnhemica borders the creek, in areas away from tree canopy. Further back from the creek were more *U. arnhemica* growing in seepage areas amongst short swampy grasses and sedges *(above)*.

The plants grow to around 30cm tall holding several flowers along the stem. The traps are up to 10mm, some of the largest amongst *Utricularia* species. As with most *Utricularia* in the area it would be an annual due to the extremely dry conditions for a significant part of the year. However, in situations along more permanent water courses the growing season extends well into the dry season. This species is known only from the Arnhem Land Plateau region of the Northern Territory with a disjunct population in the Northern Kimberley Region of Western Australia. It would be easy to surmise that other yet to be discovered populations exist in between these two locations.

A short distance upstream was *U. subulata (below)*. These were growing standing in water in small rocky pools alongside the creek. They would have been regularly inundated during rain events. They were under light tree canopy although not fully shaded.

The plants are quite short with a single yellow flower at the top of the stem. Their small size makes them difficult to find when not in flower, not unusual amongst plants of the genus. Main area of distribution is from Cape York Peninsula across to the north western side of the Northern Territory and the Tiwi Islands. They have also been found in central coastal New South Wales south of Sydney within Royal National Park and Morton National Park. These southern populations are recorded as being a "whitish" colour rather than yellow. Elsewhere, they are
considered virtually pantropical as they occur in the warmer parts of all continents (other than Antarctica).

Back from the creek the ground slowly rises with numerous patches of exposed rock. Soil is very thin and saturated due to the impervious nature of the sheet rock which lies just below the surface. In the absence of large trees which would provide canopy, a number of species of Utricularia have taken advantage of the wet conditions and the full sun. *Utricularia odorata (below)* grows taller in these ideal conditions.

The plant grows up to 40cm tall and carries a number of flowers per stem. The flowers are yellow in colour and are quite prominent amongst the low surrounding vegetation. Distribution is across the northern Top End of the Northern Territory and into the Victoria River District. There is an isolated record from the northern Kimberley Region of Western Australia.

U. limosa (below) grew sparsely near the U. odorata. It's a small plant with the flower colour varying from a very pale (almost white) blue to a slightly deeper shade of blue.

Nearby was what seems like a variation of *U. limosa*. The colour was all white, and although it's habit and the niche it occupied was the same, the flowers were more slender shaped *(below)*.

The plant can grow up to 15cm tall and has mauve to white coloured flowers. Distribution ranges from South East Queensland to the top of Cape York Peninsula and across the Top End of the Northern Territory to the central and northern Kimberley Region of Western Australia. It is also found in South East Asia and New Guinea.

There were also two small populations of *U. kamienskii (below)*. They were growing on sheet sand in shallow water amongst short but dense vegetation.

This plant stands out with the triple lobed lower lip of the flowers. It grows to about 15cm tall and has a number of flowers along the inflorescence. The distribution is restricted to the West Arnhem Region of the Northern Territory, extending across to the Darwin area.

The wet season in this area lasts from October to April with an average rainfall of about 1600 mm. January, February and March are generally the height of the wet season and account for 82% of the yearly total rain, although in some years either of December or April might also be one of the highest rainfall months. Later in the season when rainfall eases or stops, water levels drop quite rapidly. From year to year the ending of the rainy season can vary considerably, and plants respond accordingly.

I revisited the area again in April which in this particular year was not very wet. The creek was still running quite well but surface seepage water had disappeared. Along the creek was dominated by *U. bifida* which was also seeding prolifically (below).

U. bifida grows to 15cm tall with bright yellow flowers which tend to be more conspicuous in the late wet season. Distribution is from North Queensland up to Cape York, across the Top End of the Northern Territory and the Kimberley Region of Western Australia with some specimens collected from South Eastern Queensland. A record exists from the Morobe District of Papua New Guinea, and a preserved specimen in National Herbarium of Victoria was collected near Sydney during the 19th century.

U. arnhemica (above) also remained along the creek but there were no plants of this species remaining visible in the dried out seepage areas. An additional *Utricularia* along the creek was *U. fulva (below)*, but a paler form than what I am accustomed to.

This species grows as a 10 - 15cm tall stem usually with several flowers, generally yellow with red spots. They are often mistaken as orchids, as there are a number of small terrestrial orchids growing in similar habitat in the region. This species is restricted to the Top End of the Northern Territory, including Croker Island, where it is very common, often densely covering extensive areas of suitable habitat.

The dried out seepage areas were now dominated by *U. chrysantha* (below), the pure yellow form. No other *Utricularia* species were seen where there had been a number of species earlier in the wet season.

The inflorescence grows to 60cm tall with yellow or yellow/orange flowers. Sometimes the back of the flowers are a reddish orange. A very common and widespread species across the north of Australia with one record in south western Papua New Guinea, adjacent to Cape York Peninsula, Queensland. An isolated record also exists from the Mackay area of Central Queensland.

The 3 *Drosera* species found in the same area were *D. dilitato-petiolaris*, the most common one, then *D.* indica, and *D. burmani.*

References:

AVH 2014 *Australia's Virtual Herbarium*, Council of Heads of Australasian Herbaria, *http://avh.chah.org. au*, (*accessed September 2014*).

Taylor, P. (1989). *The Genus Utricularia: A Taxonomic Monograph*. Kew Bulletin Series XIV. (Her Majesty's Stationery Office, London)
The Plant List (2013). Version 1.1. Published on the Internet; *http://www.theplantlist.org/* (*accessed September 2014*).

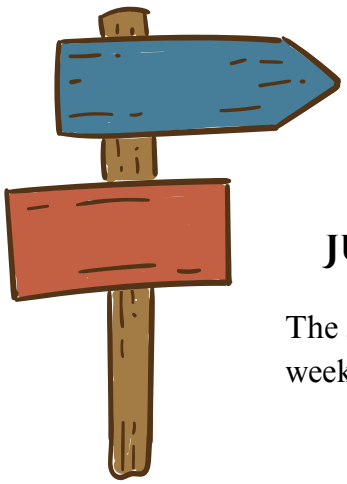
Western Australian Herbarium (1998–2014). FloraBase—the Western Australian Flora. Department of Parks and Wildlife. *https://florabase.dpaw.wa.gov.au/*, (*accessed September 2014*)

JUNE MEETING:

Our guest speaker for our meeting on June 19 is Jeremy Russell-Smith.

Jeremy has 40 years of experience researching savanna fire ecology, carbon market, ecosystem services, and associated livelihood opportunities for land managers and Indigenous (Aboriginal) communities in northern Australia and neighbouring countries. Over the past 20+ years he has been involved with ongoing development of Australian Government-regulated savanna burning greenhouse gas emissions abatement, and associated carbon sequestration, methods in northern Australia. He gained a PhD in 1986 from the Australian National University, Canberra, studying *Allosyncarpia ternata* through examining archaeological dig sites for ancient pollen content.

He will tell a story about monsoon forests of the Top End. Where have they come from?



JUNE FIELD TRIP

The June field trip was held on the 7th, so there won't be one on the weekend after the meeting. The next trip will be in July.

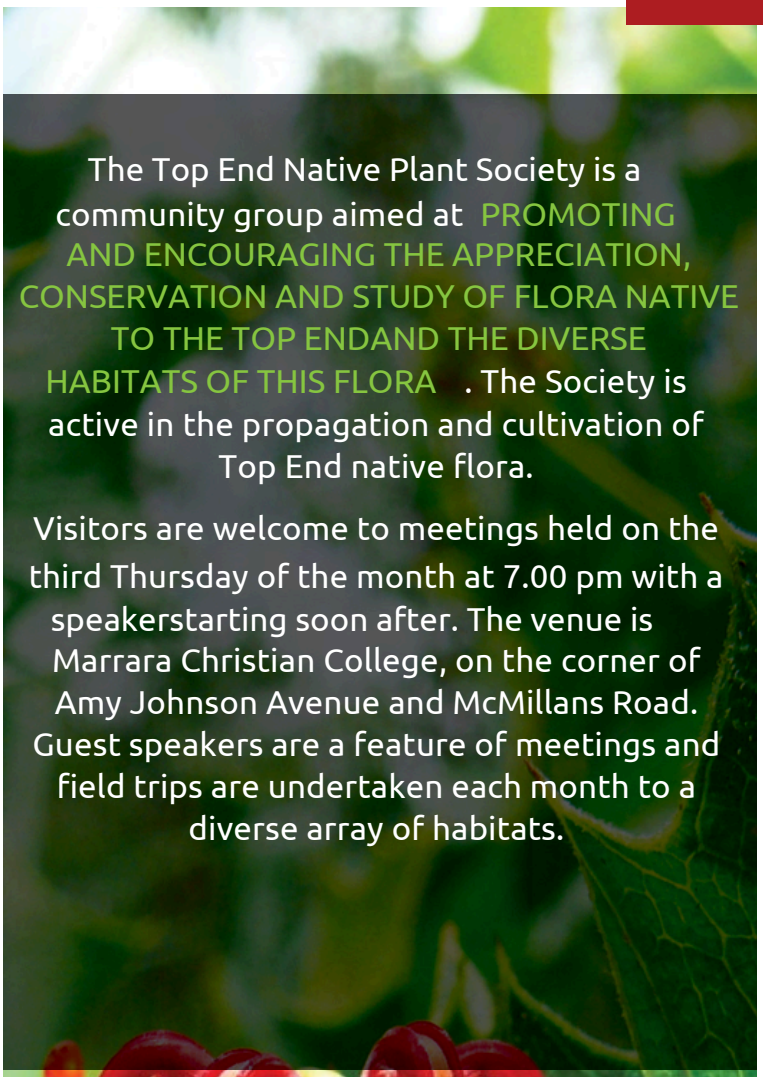
Top End Native Plant Society

BECOME A MEMBER!

Member discounts for plant sales.

MEMBERSHIP APPLICATION

(Due annually on 1st July each year)



The Top End Native Plant Society is a community group aimed at PROMOTING AND ENCOURAGING THE APPRECIATION, CONSERVATION AND STUDY OF FLORA NATIVE TO THE TOP ENDAND THE DIVERSE HABITATS OF THIS FLORA . The Society is active in the propagation and cultivation of Top End native flora.

Visitors are welcome to meetings held on the third Thursday of the month at 7.00 pm with a speakerstarting soon after. The venue is Marrara Christian College, on the corner of Amy Johnson Avenue and McMillans Road. Guest speakers are a feature of meetings and field trips are undertaken each month to a diverse array of habitats.

New Membership ☐ Renewal ☐

Membership fees are:

Individual Waged:	$35.00
Family Waged:	$45.00
Individual Unwaged:	$15.00
Family Unwaged:	$20.00

Payment: $_____

Family name:_____

Name/s: _____

Email address:_____

Postal address:_____

To pay online:

Bank Bendigo Bank

Account Name: Top End Native Plant Society

BSB: 633 000

Account: 207 974 247

Note: Please include your name in the transfer reference and email the information in this form to topendnativeplantsociety@hotmail.com

Or pay in person at meetings or events where cash or card will be accepted.

Follow 'Top End Native Plant Society' on Facebook for information on current activities and events.

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