Top End Native Plant Society NEWSLETTER

MAY 2026

A EARLY DRY SEASON TOP END FLOWER

Acacia auriculiformis with hover fly

Monthly Meetings

Top End Native Plant Society (TENPS) general meetings are held at 7 pm on the third Thursday of the month.

From 21st May 2026, meetings will be at the hall within the Knuckey Lagoon Recreation Reserve.

From McMillans Road turn into Farrar Road and follow it for approximately 700 m until you reach the intersection with Brandt Road. Turn left onto Brandt Road. After 300 m, turn right onto the unsealed road into the Knuckey Lagoon Recreation Reserve. Follow the road for approximately 300 m until you reach the parking area and see the hall. Park here. The meeting will be on the first floor of the hall.

There will be balloons / signs leading to the Knuckey Lagoon Recreational Reserve. If you get lost, call Sean Stieber (0401 117 439) or Plaxy Purich (0435 027 116).

The meeting will commence with a cup of tea and a chat, allowing those who may go to Marrara to be redirected to Knuckey Lagoon. Sean will be waiting at Marrara until approximately 7.20 pm to redirect people. It will also give people a little more time to find the new location before the presentation starts. The presentation on 21st May will be by Jenni Risler on **"Demystifying taxonomic nomenclature - the meaning behind plant names."** Bring a favourite (or as many favourites as you like) plant name along to share and learn with each other.

Follow directions above and consult location maps on page 9

TENPS (Top End Native Plant Society) Committee Members

President: Plaxy Purich (0435027116)

Vice President: Sean Stieber

Secretary: Johanna Stieber

Treasurer: Graham Zemunik

Publications: Roland Muench

General Committee Member: Claire Hewitt

Webmaster: Amanda Lockwood

Public Officer: Dave Liddle

Publicity: Vacant - please inquire

In this Newsletter

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www.topendnativeplants.org.au

April 2026 field trip: Palmerston Escarpment

by Richard Boyne

On the 18th of April some TENPS members met in Bakewell to explore a section of the Palmerston Escarpment. It's got an interesting mixture of plants associated with monsoon forests and drier woodlands. Some of it is remnant vegetation and some areas were planted by direct seeding in the 80s. The last time we had a walk here was during the Buildup in 2023, so this was a chance to see what it's like towards the end of the Wet Season.

We started off walking along the fire break on the lower side. The firebreak gets mown regularly by the council and allows us to see what grows on the edge of a forest. It had also been recently sprayed as much of the tall grass (mostly *Cenchrus*) was dead or dying.

Even though we're supposed to be a *native* plant society, I was very keen to point out the exotic garden escapees that grow there. Most of these were probably dumped as garden waste that put down roots. These include *Agave americana* (century plant) and *Ananas comosus* (ornamental pineapple), *Syngonium podophyllum* (arrowhead vine) and *Curcuma* (turmeric and many ornamental gingers). We also found a big pile of fresh zig-zag plant clippings (*Euphorbia tithymaloides*) two branches of frangipani (*Plumeria sp.*) that were flowering despite not being rooted in the soil. Also present were *Ardisia elliptica* (shoebutton), C*aryota mitis* (fishtail palm) and *Anacardium occidentale* (cashew nut). They were more likely to have been carried there by animals eating the fruits.

In terms of native plants, the tallest trees included *Eucalyptus tetrodonta* and *E. miniata*. Ferns such as *Cheilanthes* were thriving in the shadier spots, and there were large patches of *Dicranopteris linearis,* which is distinctive for its dichotomously-branching fronds.

We reached the official track and continued along it to a section where there had been a lot of storm damage over the past few months. This was great for the vines and fungi! The most abundant native vine was *Parsonsia velutina*, which had lots of pale green pods with a light covering of brown hairs. Some dead trunks and branches were sprouting *Panus* and *Pleurotus* mushrooms. Not much was in flower at the time, but some notable exceptions were *Boronia lanceolata*, *Acacia auriculiformis* and *A. oncinocarpa*. Additional colour was provided by *Persoonia falcata* which had new leaves with red tips.

We're very lucky to have this patch of forest in the middle of Palmerston because I learned from Mike Clark that it might have been cleared for housing in the 80s. He and John Brock lobbied the council to prevent it and got the counsellor Dawn Cook on board. She started a petition and sent enough signatures to Environment Minister Mike Reed to pressure the government into preserving the Escarpment (it helped that it was an election year). This didn't go down well with the developers and they demanded one million dollars in compensation for the land they had to give up, but in the end they managed to use the reserve as a way to promote living in the blocks that were adjacent to it. Walking between blocks under the trees is a lot more pleasant than walking in the sun along the main roads. Native plants that we saw on the walk include:

Acacia auriculiformis
Acacia oncinocarpa
Ampelocissus acetosa
Boronia lanceolata
Callitris intratropica
Calytrix brownii
Calytrix exstipulata
Carpentaria acuminata
Cheilanthes sp.
Coelospermum reticulatum
Dicranopteris linearis
Eucalyptis miniata
Eucalyptus tetrodonta
Ficus aculeata
Livistona humilis
Parsonsia velutina
Persoonia falcata

Cheilanthes fern species - Photo Richard Boyne

Dicranopteris linearis - Photo Russell Dempster

Parsonsia veluntina - Photo Russell Dempster

Boronia lanceolata - Photo Russell Dempster

Persoonia falcata - Photo Russell Dempster

The pollination of *Ficus virens* var. *virens* (Darwin Banyan)

by Roland Muench

Banyans are truly extraordinary creatures. More often than not starting out as a 'strangler' high up in the canopy of another tree and, thereafter as a seedling scraping for any bit of dust and debris it finds accumulating on the bark of the host tree for nutrition, their aerial roots slowly grow downwards to reach the ground helping the tree to expand in size to an impressive 20 – 30 m or more wide canopy. While strangling the host tree, they build a monsoonal thicket habitat underneath as many shade tolerant blown in/dropped seeds of a range of rainforest plants take opportunistic advantage of the dappled shelter and mulch the deciduous Banyan canopy provides. Banyans are quite common in the Darwin area and some of them are believed to be in excess of 200 years old, for example the tree in the Government Precinct (see photo fig 1). These old trees seem to be especially resilient having survived cyclones, bombs and extensive development.

Banyans produce fruit in huge quantities almost throughout the year but mostly from March to December. Each fruit is a fleshy syconium, which is basically an inverted inflorescence with many individual male and female flowers inside each syconium. Many of the fructivorous animals, such as the Figbird (with its short digestive cycle) will eat the fruit and in some cases, deposit the seeds within minutes left intact onto the branch of a host tree or another tree and so helping to promote the range expansion of the strangler fig. Such dispersion enables the fig seeds to germinate close to the tree top canopy, which receives far more sunlight than the forest floor, where the fig seedling would struggle to survive.

This short piece is about the fig's unique flowers and the mutual relationship of these flowers with fig wasps. There are approximately 900 to 1,000 species of pollinating fig wasps, all belonging to the family *Agaonidae*. They are tiny wasps that often have an exclusive one-to-one relationship with the roughly 900 different species of *Ficus* (fig) trees, meaning each fig species relies on a specific wasp species for pollination. This highly specialised, symbiotic relationship is an example of co-evolution, where both the wasp and the fig depend on each other for survival. We have 26 species of figs in the NT (including subspecies) of which 9 are described and illustrated in John Brock's 'Native Plants of Australia'. It is not clear which species of fig wasp pollinates the local Darwin Banyan. There may be a great opportunity for a pHD student or scientist to do some research. Most Fig wasps are tiny at approximately 1.5 mm and therefore a good macro camera is required to observe and document these wasps but even if you have such equipment, there are hurdles to capture a 1.5 mm moving fig wasp on a moving fruit and moving camera for ID purposes. I tried to photograph a fig wasp on a branch of the Nemarluk Drive fig shown in the photos (figure 2) but found none as half a dozen of dragonflies perching on this very branch appeared to be picking tiny flying objects from the air, presumably tiny fig wasps as no mosquitoes were there. Next time maybe. Now on to the fig flowers.

Female and male flowers are produced in every Banyan fig syconium, described as an inverted inflorescence on fleshy receptables, which are produced on short woody burrs in the leaf axils. The separate male and female flowers inside each syconium are protogynous (female flowers mature before the male flowers). When female flowers enter maturity and are ready to receive pollen, they produce and release volatile attractants into the area, that provide an apparently irresistible signal and enticements to the wasp as a welcome to enter the fig.

How does the female wasp, which is sensing the attractant, get into the syconium? At the bottom of the fig is a tiny hole, called the ostiole (a small opening pore, see figure 3) which remains tightly shut during the development of the flowers. As the female flowers become receptive, the structures around the ostiole are loosened thus making it possible for the wasp to push through. Squeezing through the ostiole is a risky and often life threatening undertaking and, at a minimum, the wasp is very likely to break her wings and damage its antennae. Once inside the main instinct for the female wasp is to lay her eggs. She lays these into the ovaries of flowers by piercing the ovule with her long ovipositor. While laying, the fig wasp brushes off the pollen previously picked up inside her birth fig syconium.

Since the ovaries are damaged by the developing wasp larvae, the fig tree had to come up with a method to protect some ovaries for seed development. Hence the evolution of the fig ended up with developing two types of female flowers, one with a long style and with a short style. The short styles are much more accessible to the wasp's ovipositor which means that the long style type flowers are less likely to receive deposited eggs yet they may still receive pollen as the wasp crawls over the top of them. In that way the pollinated long style

flowers develop ultimately into fruitlets while the short style flower type are likely to be consumed by the growing larvae.

When the female wasp has laid her eggs she dies (dead fig wasp inside syconium, photo fig 4) and her body gets dissolved into proteins and taken up by the fig (which is using a special enzyme similar to the process in carnivorous plants). It is fascinating that the first wasps to emerge from the ovaries are always males, which physically are recognisable by a lack of wings, lack of ovipositor and by having a much stronger mouthpiece compared to the females. When these 'horny' males emerge, they seek to impregnate the young female by getting inside the ovaries containing female fig wasps. It is unclear how the males identify the ovaries with female wasps, perhaps by accessing the holes drilled by the ovipositor. After the males have have impregnated the female wasps they are doomed to die but some manage to chew a small hole through the syconium. This hole acts as a parting gift to the young females who can then leave the syconium and visit another fig. The mutualism between fig and wasp is so finely evolved that pollen is developed to maturity only when the new females finally emerge from the ovary and move over the male flowers to pick up pollen onto their thorax pollen pockets. After that they utilise the holes that the males chewed out of the syconium. They now fly out and wait to get the chemical signal from another fig ready for pollination and the cycle starts over again.

What a fascinating story of the pollinating fig wasp and truly amazing considering so many moving parts have to be synchronised by fig and fig wasp for it to work. I wonder what climate change will do to this process.

I have been inspired to do research for this article after watching the video clip 'The truth about wasps inside a fig syconium' from the 'Nature Clearly' Youtube site created and maintained by Elizabeth Argue and Ondre Palat. This 10 minute video contains rare photos and video footage of fig wasps in action. Here my link to this highly recommended botanical information site.

https://www.youtube.com/watch?v=uZf0qGoD_XY

Another clip from a different site shows a video of the fig wasp getting into with and out of the ostiole without its wings.

https://www.youtube.com/watch?v=arpEEssFUBQ

Fig 1. *Ficus virens* var *virens* - Photo Roland Muench

Fig 2. Perching dragonfly on fig - Photo Roland Muench

Fig 3. Syconium with ostiole - Photo Roland Muench

Fig4. Dead fig wasp - Photo Roland Muench

Presentation Summary – Russell Dempster – 16 April 2026
Claire Hewitt
3 May 2026

Presentation – Native Plant Propagation
Russell Dempster – 16 April 2026

On 16 April 2026, Russell Dempster kindly shared his knowledge on some of his plant propagation techniques for native species of the Top End.

Initially, he shared advice on useful resources that he has used, including:

- a propagation publication produced by TENPS in the 1980s. This will be placed on the TENPS website (www.topendnativeplants.org.au). The advice in the publication is still relevant today.
- Native Plants of Northern Australia (Brock, 2022)
- Native Plants for Top End Gardens (Smith, 2007)
- Australian Rainforest Seeds (Chapman et al., 2020)
- The Waterwise Australian Native Garden (Stewart & Bishop, 2019)
- Gardening with Australian Rainforest Plants (Lake & Bailey, 1999).

Russell then ran through common plants that he propagates, appealing features of these plants and a few tips for their successful germination and growth. He suggested that useful tools are a mattock, a Japanese weeding knife and a good trowel. A native potting mix containing perlite is a suitable medium to germinate most of the plants that Russell propagates.

The plants that Russell discussed are summarised in the table below. Details of the plants can be found on the Northern Territory Herbarium website FloraNT at https://eflora.nt.gov.au/home.

One species - *Grevillea longicuspis* – is the TENPS floral emblem. Russell challenges TENPS members to propagate this species.

Family	Scientific Name	Common Name	Features	Notes
Annonaceae	*Meiogyne cylindrocarpa*	Meiogyne (or native apricot).	Very slow growing shrub / tree. Shade tolerant.	Seeds take 8 – 10 weeks to germinate. Potting seedlings sees quicker results.
	Monoon australe	Polyalthia	Shrub / tree with new growth sometimes orange / green. The flowers have an unusual banana smell and fruit are black when ripe.	Easy to propagate from fleshy fruit. Remove the flesh from the fruit and press the seed into the potting mix in a long tubestock pot. Seedlings can also be potted. Prone to termites.
Boraginaceae	*Cordia subcordata*	Cordia	Shrub or tree which is loved by the red-tailed black-cockatoo (*Calyptorhynchus banksii*)	Whole fruit can be placed in potting mix. Takes a few months to germinate.
Ebenaceae	*Diospyros* spp.	Diospyros	Shrubs / small trees which provide good screening.	Remove the flesh from the fruit and press the seed into the potting mix in a long tubestock pot. Seedlings can also be potted.
Euphorbiaceae	*Croton habrophyllus*	Croton	Small, hardy tree which attracts the atlas moth (*Attacus wardi*)	Dig up seedlings in the wet season and pot. Requires about 4 weeks to establish.
	Suregada glomerulata	Suregada	Shrub with interesting fruit. The species is dioecious – there are male and female flowers on different plants.	Easy to propagate from fleshy fruit. Remove the flesh from the fruit and press the seed into the potting mix in a long

Presentation Summary – Russell Dempster – 16 April 2026
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Family	Scientific Name	Common Name	Features	Notes
				tubestock pot. Seedlings can also be potted.
Fabaceae	*Acacia* spp.	Wattles	Shrubs / small trees. Many species.	Seeds often require treatment (boiling water or scarification) and soaking to permit germination.
Gleicheniaceae	*Dicranopteris linearis*	River fern	Distinctive fern with branching leaves.	Ferns are generally easy to germinate but this species is a bit more challenging. Requires humidity.
Malvaceae	*Abelmoschus* spp., *Hibiscus* spp.	Abelmoschus / Hibiscus	Small shrubs which can look a little straggly. Require full sun.	Soak seeds before planting.
	Helicteres isora	Helicteres	Hardy shrub which likes full sun and attracts birds. Can be straggly during the dry season.	Twist ripe seed pods when woody and ripe to obtain seeds. Requires regular watering.
Myrtaceae	*Allosyncarpia ternata*	Allosyncarpia	Large tree with unusual trifoliate leaves. Distant relative of eucalypts. Develops deep tap root.	Remove the flesh from the fruit and press the seed into the potting mix in a long tubestock pot. Seedlings can also be potted.
	Syzygium spp.	Syzygium	Trees, attract a variety of animals, fruit of some species are edible.	
Pittosporaceae	*Pittosporum moluccanum*	Pittosporum	Small tree with red fruit and black, sticky seeds. Also attracts the atlas moth.	The seeds can be sprinkled on a low, flat container of native potting mix and kept moist.
Podocarpaceae	*Podocarpus grayae*	Podocarpus	Native to Arnhem Land and from an ancient lineage of plants. Collected seed was used to grow these trees in Darwin Botanic Gardens.	Remove the flesh from the fruit and press the seed into native potting mix in a long tubestock pot. Seedlings can also be potted.
Proteaceae	*Grevillea* spp.	Grevilleas	Shrubs / small trees. Very popular and attract nectivorous animals. *Grevillea longicuspis* is the TENPS emblem.	Require full sun and misting 2 – 3 times daily for germination.
Rubiaceae	*Aidia racemosa*	Aidia	The flowers are fragrant and the fruit edible.	The tiny seeds can be sprinkled on a low, flat container of native potting mix and kept moist.
Rutaceae	*Glycosmis trifoliata*	Glycosmis	Small shrub / tree. Fruit is edible. Plant grows well as a pot plant.	Remove the flesh from the fruit and press the seed into the potting mix in a long tubestock pot. Seedlings can also be potted.
	Micromelum minutum	Micromelum	Shrub / small tree which insects love, particularly butterflies.	The tiny seeds can be sprinkled on a low, flat container of native potting mix and kept moist.
Sapindaceae	*Ganophyllum falcatum*	Ganophyllum	Hardy tree with fleshy red fruit	Remove the flesh from the fruit and press the seed into native potting mix in a long tubestock pot. Seedlings can also be potted.
Thymelaeaceae	*Phaleria*	Scented	Shrub with a beautiful scent,	Easy to propagate from

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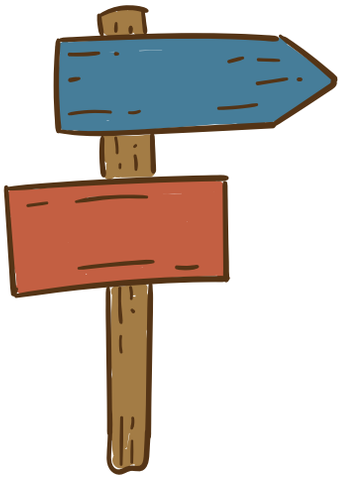
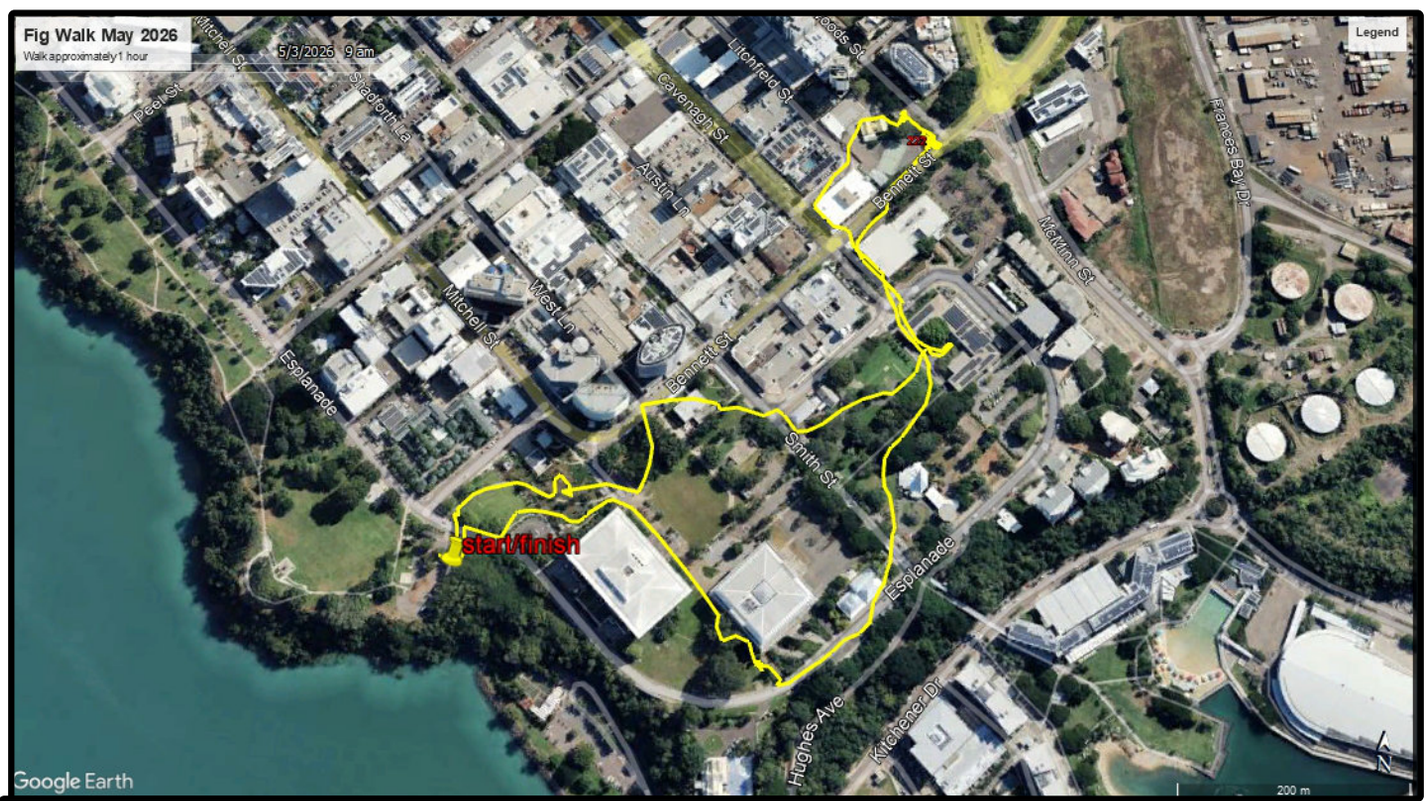
Family	Scientific Name	Common Name	Features	Notes
	macrocarpa	Daphne	can cope with shade.	fleshy fruit. Remove the flesh from the fruit and press the seed into the potting mix in a long tubestock pot. Seedlings can also be potted.
	Phaleria octandra	Phaleria	Shrub which can cope with shade.	
Vitaceae	*Leea rubra*	Leea	Small shrub / tree. Fruit are edible but bitter. Attracts insects.	Needs humidity and time to germinate.

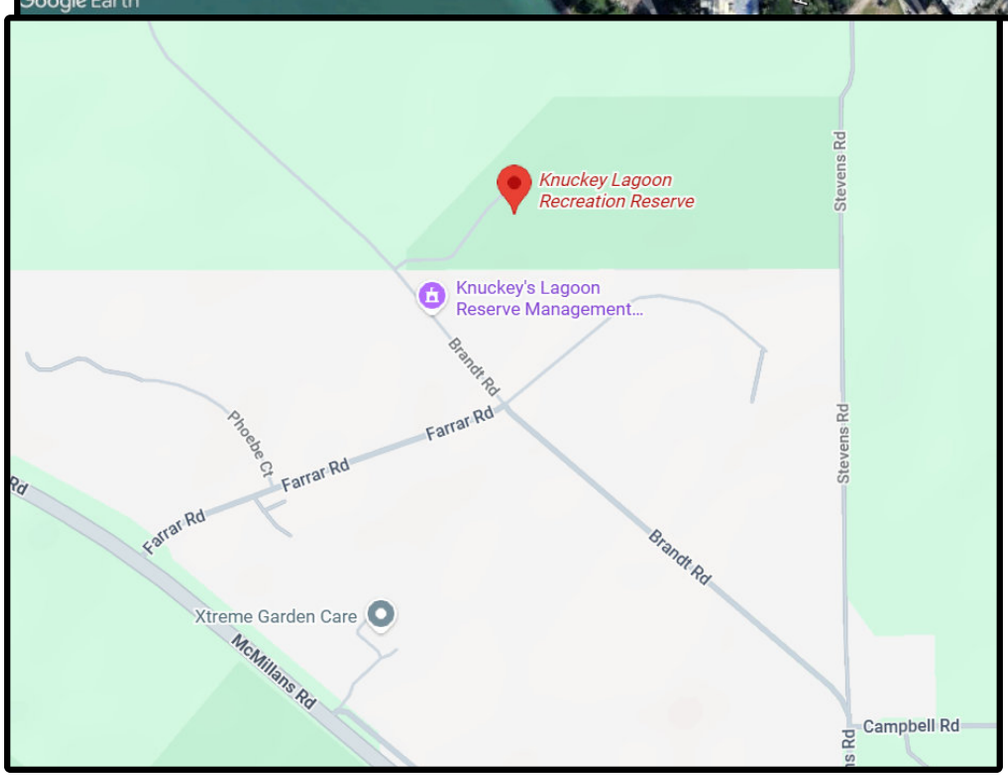


May 2026 Field Trip

This field trip will be on Sunday the 24th of May and we will meet in the toll free parking area near the cenotaph on the Esplanade at 8:30 am. From there we wander through the landscaped grounds of Parliament House to the Darwin City Council offices taking in the sights of many tall, mostly native, shade trees, including the signature Banyan tree there. Then we head to the Chung Wah Temple grounds, viewing 'lithophytic' banyans and ferns growing on the rocky cliffs adjoining the temple grounds and then taking in the view of the large temple fig (*Ficus religiosa*). Finally we head to the magnificent Banyan between the Supreme Court and Parliament House after skirting the lookout at the escarpment on the way. This stroll will be just over 1 hour during a time when the Government Precinct is at its most quiet.

For directions refer to map below, the walk following the yellow line and start/finish in red.





Map
May Meeting Fieldtrip
Follow directions shown above

Map
Monthly Meeting Venue
Follow directions shown on page 1

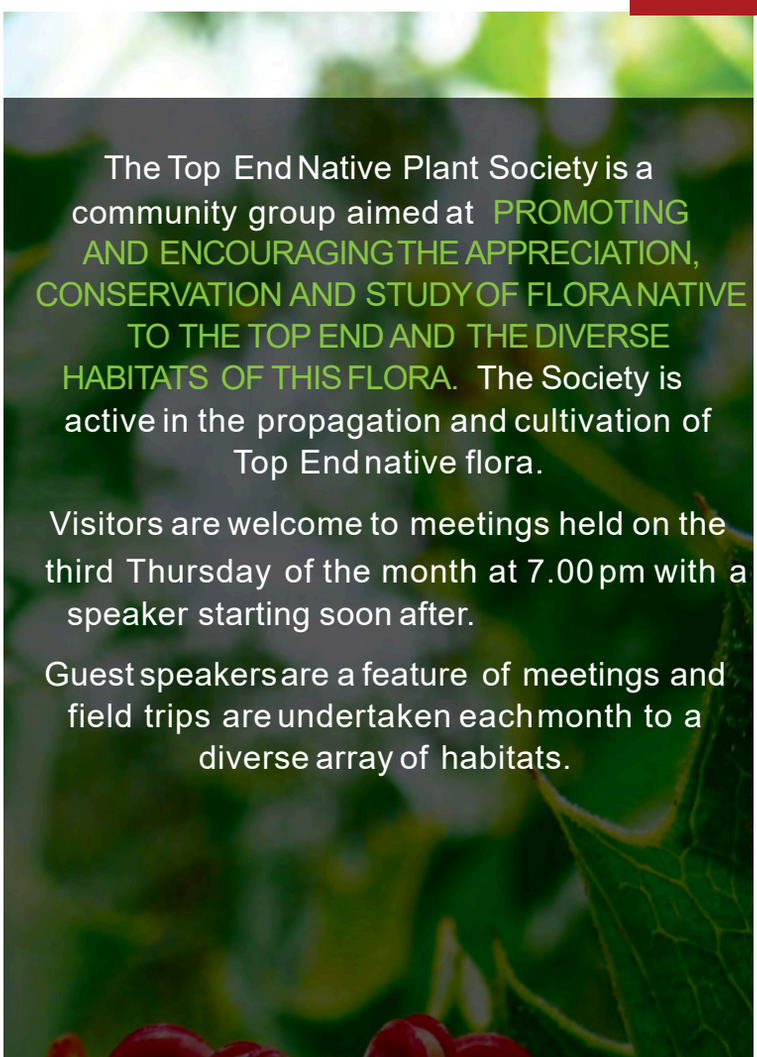
Top End Native Plant Society

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 END AND 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 speaker starting soon after.

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

Name/s: _____

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.

Contact us by topendnativeplantsociety@hotmail.com
www.topendnativeplants.org.au
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