

Top End

Native Plant Society

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August 2012 Newsletter

General Meeting Times

The next TENPS meeting is on *Thursday August 16th 2012*. General meetings are 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 general 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 at 8pm. All are welcome.

Field trips are usually on the weekend following the General Meeting, details provided in the newsletter or at the meeting.

What's in Flower?



Grevillea aurea photographed during the Open Garden on August 4 - 5 at Jasmine Jan's by Louisa Cowie.

Natives mean more!

www.topendnativeplants.org.au

Upcoming TENPS Speakers

August 16th: TENPS Committee presents "My Favourite Photos".

September 20th: Zoe Carmichael - Land For Wildlife.

October 18th: Dave Liddle - TBA.

August 16th: Peter Ebsworth - A glimpse of West Papua, Indonesia

TENPS Field Trips

Sunday August 19th - High Tea at Dave & Robyn's - as they farewell to 56 Savannah Drive, Leanyer.

Come at 2 pm on Sunday 19th for a tour of the garden followed by high tea at 3pm. TENPS was involved in a very successful Open Garden at Savannah Drive in 2002 and the garden has matured since that time.

From the President - Membership Renewals

A reminder that membership renewals for the 2012/2013 financial year were due in July 2012. We invite you to make a special effort to attend one of our general meetings in the near future to renew your membership in person.

Come along on Thursday 16 August, invite your friends along, if you think they may be interested and encourage them to join. It's a great way to meet other like-minded folk and to learn about native plants, their habitats, conservation and propagation, as well as getting access to informative newsletters, our library, notices about upcoming events, discounts on native plant purchases, information about field trips, and details of other clubs activities.....

Welcome to new members and a special welcome to those who joined at the recent Open Gardens and Wildflowers of the Darwin Region Website launch at Jasmine Jan's.

Article by Russell Dempster - TENPS President.

TENPS Committee Meeting

Committee meetings are held every second month and members are most welcome to attend. The next committee meeting will be on **October 9th 2012** at 7.30pm. Venue TBA. All welcome.

NT Field Naturalist Club Events

Sunday August 19 Field trip: CSIRO field work

An opportunity to view a section of the CSIRO bushland that has remained unburnt for over twenty years. There is a striking difference in the appearance of the vegetation in this area compared to much of the Top End's regularly burnt landscape.

The Biodiversity Unit of NRETAS has been conducting an annual trapping survey of the small mammals on CSIRO's bushland property at Berrimah. This year traps will be set for two evenings from Friday 17 August. Traps are checked at sunrise the following morning. Captured specimens will be identified, weighed, measured, sexed and set free.

NTFNC members have been invited to participate in checking the traps on the morning of Sunday 19 August. **Stuart Young** will give us a brief on the project after which we will split up to check the traps. Expect to find bandicoots, possums, tree rats and other small mammals. It is anticipated this will conclude around 9am.

We will then meet **Trish Bate**, who has been conducting an experiment on Red-flowered Kurrajong (*Brachychiton megaphyllus*) with fellow NTFNC member Don Franklin at a plot on this site to evaluate the cues and drivers and ecological significance of seasonal patterns of leaf shed, leaf shoot, flowering and fruiting. Trish will explain the purpose of the experiment and then take us on a tour of the Brachychitons being surveyed.

Meet at the CSIRO property on the corner of McMillans Road and Vanderlin Drive in Berrimah. Entry is via Vanderlin Drive, approximately 300m south of the roundabout.

Meet at the gate at 6.30am - don't be late, the security gate will close after entry. For further details contact Tissa on 8921 8226.

July meeting report – Seasonal Calendars by Emma Woodward.

Emma Woodward from CSIRO presented a talk on Indigenous seasonal calendars, which she has compiled with Aboriginal language groups from the Northern Territory and Western Australia over the past 5 years. She focused on four seasonal calendars - the Ngan'gi and Malakmalak from the Daly River, NT and the Gooniyandi and Walmajarri calendars from the Fitzroy River, WA.



Working on the Gooniyandi Seasonal Calendar, Fitzroy River WA: (L to R) Isaac Cherel, June Davis, Helen Malo and Mervyn Street.

The calendars reveal annual cycles of meteorological events, water flow, lifecycle stages of plants and animals and key environmental indicators that Aboriginal people watch for that will tell them important ecological events are imminent. This rich phenological knowledge is a key driver of people's behaviour, particularly the harvesting of bush resources. Emma highlighted some of the species that are common to all four seasonal calendars – and are of importance across the extensive geographic region in which she was working. These species include *Barringtonia acutangula* (freshwater mangrove), *Flueggea virosa* (white current), *Vitex glabrata* (black current/plum) and the figs *Ficus racemosa* and *Ficus coronulata*.

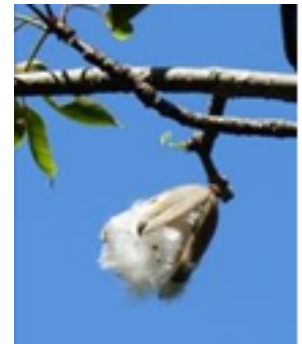
In both the Fitzroy and Daly regions, Aboriginal people that Emma worked with observe that freshwater turtles eat the figs that drop into the river from the banks where they frequently grow. Walmajarri people say that if there is a poor wet season, and the rains don't wash the figs into the river, then the fish will be skinny as they will only have river weed to eat.

Plants also play an important role in ceremony and for medicinal reasons. The freshwater mangrove (*Barringtonia acutangula*) is recognised by all 4 language groups as important for medicinal purposes including the treatment of skin sores and for catfish spike injuries.

Most predominant in the calendars however, is the role that the various life-cycle stages of plants play in providing cues or indicators to knowledgeable Aboriginal people of when to harvest animal resources. For example,



- Malakmalak people of the Daly River (NT) know that when *Cochlospermum fraseri* (above left) starts flowering then freshwater crocodiles are laying their eggs (above right) and it is time to start searching for them.



- Ngan'gi people of the Daly River (NT) look for the flowers of *Bombax ceiba* (above left) and *Eucalyptus papuana* to tell them freshwater croc eggs are ready for collection, while the appearance of *Bombax* seed pods (above right) tells you the baby crocs have started hatching – and it is too late to collect eggs.

Emma finished the talk with some reflections on Indigenous ecological knowledge and why it is important that this information is documented. Producing the Indigenous seasonal knowledge in the bright and colourful poster format has created a tool for communicating information to younger generations – which was a key reason why there was such interest from the Aboriginal

research partners to see the calendars finalised. The calendars are also being used more widely, by schools across Australia, and serve to increase understanding of Indigenous knowledge systems.



Minimindi (Nymphaea spp) collected by Patricia Marafurra McTaggart at Nauiyu Nambiyu, Daly River (NT)

The calendars reveal detailed Aboriginal knowledge of the local environment, formed by consistent and constant local observations over many generations. This information, together with knowledgeable Aboriginal observers, holds potential for the early observation and warning of environmental change. Scientists looking for ecological linkages are unlikely to arrive at the linkages commonly used by Aboriginal people (plant-animal indicator relationships) - and there might be higher level ecosystem drivers that are worth investigating that could explain these connections. As such, the calendars could provide a basis for local monitoring programs in which the de-coupling of Aboriginal-observed ecological events could alert to more serious environmental issues.

For more information please contact Emma.Woodward@csiro.au

Thank you Emma for speaking to TENPS members on your important work and also for contributing this article to the newsletter.

Article by Emma Woodward.



Corymbia ptychocarpa photographed in Litchfield National Park by Russell Dempster in August 2012.

Field Trip Report - Land for Wildlife Field Day July 2012

Greg Leach - Identifying Plants

Greg led the first session at the Land for Wildlife Field Day held on July 22nd at Thorak Road. He spoke about using keys to identify plants and then we had some hands on practical work in groups to use the "Field Keys for the Monsoon Rainforest Flora of the Darwin Region" to enable us to gain experience in using this wonderful resource, developed by Ron Booth, Bob Harwood and Chris Mangion.

Once you know the name of a plant, all the information about the plant can be obtained. But first the name of the plant needs to be determined. If you've got the name of the plant then you can find out more details about its growth, habit, flower colour, when it flowers and fruits and so on. How do you know what a plant is? Often it's ingrained, but there are a whole suite of characters that can be used to determine the identity of a plant.

There are two types of keys which can be used, dichotomous keys and interactive keys. Dichotomous keys consist of pairs of contrasting features that can be worked through to progressively lead to a name. Then a book or website can be used to check if the name fits the plant. If a plant specimen doesn't have the character discussed though, then the dichotomous key may not work. This is where interactive keys are helpful. These need a program that enables specific features to be looked at, using a computer.

There are interactive keys available now for Acacias - WATTLE, Eucalypts - EUCLID, and another for grasses - AUSGRASS.

Fundamental Terms for using Dichotomous Keys

1. Leaves may be **opposite or alternate**. Opposite leaves are borne at the same level but on opposite sides of the stem, whereas alternate leaves are arranged singly at different heights on the stem.
2. Leaves may be **simple or compound**. Compound leaves have a leaf blade divided into two or more distinct leaves. There is no shoot between the stem of the plant and the stem of the leaf (petiole) in compound leaves, unlike simple leaves. Compound leaves may be pinnate (once divided) or bipinnate (twice divided).
3. **Oil glands**. Often plants have chemicals stored in oil glands. These appear as translucent dots when a leaf is held up to the light. Often a hand lens is required to see them. Leaves with oil glands have an aroma when crushed.
4. **Distichous**. The leaves are held in one flattened plane when they are distichously arranged, for example *Breynia cernua*, as opposed to spirally arranged.
5. **Domatia**. These are associated with secretory cells. They are often small structures in the junction of the main vein and lateral veins on the underside of leaves. Often a hand lens is needed for domatia to be seen. They may appear as pockets or small tufts of hairs. *Cyclophyllum schultzei* and *Terminalia catappa* leaves have domatia.
6. **Latex (Sap)**. Sap may be present or absent. If sap is present the colour of the sap can be useful.

The workshop concluded with groups working through the "Field Keys for the Monsoon Rainforest Flora of the Darwin Region" to determine the identity of some plants, including *Carallia brachiata*, *Micromelum minutum*, *Cupaniopsis anacardioides* and *Alphitonia incana*.

Article by Russell Dempster.

Launch of the Wildflowers of the Darwin Region Website & Open Garden Report

TENPS was invited to sell plants at the Open Garden on August 4-5th at "The Artists Retreat" at 75 Herring Road, Lambells Lagoon. Owned by Jasmine Jan, the block consists of over 100 acres of natural bush. It includes a variety of habitats, including open woodland, monsoon forest, wetlands and a complete billabong with beautiful paperbarks.



The TENPS plant stall at Jasmine's Open Garden at 75 Herring Road. Photo by Russell Dempster.

The Open Garden was also the venue for the launch of the enhanced *Wildflowers of the Darwin Region* Website. This special event was the culmination of a TENPS project funded by Caring For Our Country - Community Action Grant to add 100 species from the Howard Sand Plains to an easy-to-use identification tool to identify plants by flower colour and is available online for everyone.



The website's creator, Ben Stuckey (centre) shows visitors the site on the demonstration computers at the TENPS stall. Photo by Russell Dempster.

Created and developed by Ben Stuckey, the website is a fantastic resource that will enable people Ben has been very generous in handing over the website to TENPS for maintenance and future development. Thank you so much Ben.

Dave, Sarah and Russell lead small groups on a series of guided walks during the weekend, pointing out small wetland plants, some carnivorous plants, ferns, lilies, climbers, shrubs and trees.

The official launch by the Independent Member for Nelson Gerry Wood and renowned naturalist Ian Morris, was attended by more than 40 people. It was fitting that Gerry was able to do launch the website here as he was also instrumental in saving the 75 Herring Road block from being carved up for horticultural development a decade ago, and Gerry has a passion for the environment.



The website was officially launched by the Independent Member for Nelson, Gerry Wood and Ian Morris. Photo by Russell Dempster.



A good crowd attended the website launch. Photo by Russell Dempster.

More than 700 colourful flyers on the *Wildflowers of the Darwin Region* website were also distributed during the weekend.

The Open Garden included the opening of the Artists Retreat - Jasmine Jan's new studio and gallery overlooking the paperbark billabong. The studio was blessed by a traditional Lion Dance by the Chung Wah Society.



The studio is blessed by a Lion Dancers.



Jasmine and Mark with the Chung Wah Society on the studio steps.

The Open Garden was attended more than 1100 people during the weekend and was an outstanding success for all those involved.

Thanks to those who helped the club with all aspects of the weekend. Gerry Wood for his efforts to save this special block of land from clearing and development and for launching the enhanced website; to Ian Morris for his assistance with the launch of the website; to Jasmine Jan for inviting TENPS to attend and hosting our website launch. Many members were involved including those who prepared for the website launch, preparing and printing fliers to advertise the occasion, amongst other things.

Thank you to Russell Dempster for his ongoing effort in propagation and preparing plants for the stall; and others that helped with the sales and promotion of native plants over the weekend. A special thank you also goes to Dave Liddle and to Sarah Hirst for their drive, enthusiasm and hard work on this successful project.



Some of the people involved in the Open Garden that TENPS would like to thank... Gerry, Jasmine, Ben, Sarah & Dave. Photos by Helen and Andrew Spiers.

Article by Russell Dempster & Sarah Hirst.



Cycas calcicola photographed in Litchfield National Park by Russell Dempster in August 2012.



Ilex arnhemensis photographed in Litchfield National Park by Russell Dempster in August 2012.



Eucalyptus phoenicea photographed in Litchfield National Park by Russell Dempster in August 2012.

TENPS Howard Sand Plain Field Day – more information....

On June 23rd TENPS hosted a field day at Howard River providing a great opportunity for the community to find out about the ecology and management of the seasonally saturated lands of the Howard Sand Plains Site of Conservation Significance which is recognised for its biodiversity values



Ian Cowie, Chief Botanist at the NT Herbarium, explained more about the unique annual herbs found on the floodplains.

An additional photographic guide to Howard Sand Plains flowers has been provided by Ian Cowie for inclusion in this newsletter. See Ian's photographic guide to Howard Sand Plains wild flowers on pages 8-10.

Once again we thank the guest speakers from the field day for their contributions.

Article by Sarah Hirst.

A photographic guide to Sand Plains wild flowers...



© Ian Cowie, NT Herbarium

Calandrinia quadrivalvis



© Ian Cowie, NT Herbarium

Huxleya linifolia



© Ian Cowie, NT Herbarium

Centranthera tranquebarica



© Ian Cowie, NT Herbarium

Lindernia clausa



© Ian Cowie, NT Herbarium

Eriocaulon schultzei



© Ian Cowie, NT Herbarium

Lindernia plantaginea



© Ian Cowie, NT Herbarium

Goodenia armstrongii



© Ian Cowie, NT Herbarium

Lindernia pubescens



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Mitrasacme aggregata



© Ian Cowie, NT Herbarium

Stylidium aquaticum



© Ian Cowie, NT Herbarium

Oldenlandia laceyi



© Ian Cowie, NT Herbarium

Stylidium ceratophorum



© Ian Cowie, NT Herbarium

Rhamphicarpa australiensis



© Ian Cowie, NT Herbarium

Stylidium turbinatum



© Ian Cowie, NT Herbarium

Stylidium aff multiscapum



© Ian Cowie, NT Herbarium

Lindernia lobelioides



© Ian Cowie, NT Herbarium

Spermacoce stenophylla



© Ian Cowie, NT Herbarium

Drosera dilatatopetiolaris



© Ian Cowie, NT Herbarium

Nesaea muelleri



© Ian Cowie, NT Herbarium

Stylidium semipartitum



© Ian Cowie, NT Herbarium

Goodenia elaiosoma



© Ian Cowie, NT Herbarium

Stylidium schizanthum



© Ian Cowie, NT Herbarium

Zornia areolata



© Ian Cowie, NT Herbarium

Stylidium schizanthum
(yellow form)

SUBSCRIPTION FORM - MEMBERSHIP DUE 1 JULY 2012

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