

Top End

Native Plant Society

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Jude Ebsworth 0437278799

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Russell Dempster 8983 2131

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Publications:

Sarah Hirst

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Helen Spiers

Librarian:

Liz Howells 0415461850

General Committee Members:

Alex Bakunowicz

Louise Finch

Webmaster:

Dave Liddle

PO Box 135

Palmerston NT 0831

April 2013 Newsletter

General Meeting Times

The next TENPS meeting is on *Thursday April 18th 2013*. 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?



This magnificent Grevillea dryandra ssp. dasycarpa was photographed near the Gubara carpark during the March field trip by Russell Dempster.

Natives mean more!

www.topendnativeplants.org.au

Upcoming TENPS Speakers

April 18th: Peter Ebsworth - Combined land holdings Conservation Agreements.

Peter will be discussing Territory Conservation Agreements and especially a so far unique "combined landholding agreement" that covers 5 properties in the Darwin River and Blackmore River catchments, most of which are owned by TENPS members. A TCA is a voluntary agreement made between Territory Natural Resources Management and a landholder. The agreement establishes a partnership based on a conservation plan for a site with important conservation values on a landholder's property, and may include the whole property. The criteria for selection of the sites, management plans, validation of conservation activities and support provided by TNRM will be discussed.

May 16th: Sarah Hirst - A sneak preview of "The Pines" (Sarah's childhood home) prior to the field trip.

TENPS Field Trips

April 20 & 21st: Open Garden at Tricia Hartmann's 8 acre property at 26 Zill Road Girraween.

TENPS will also conduct guided walks through the nearby Wetlands on Sunday morning. *Meet at the property at 10.30am.*

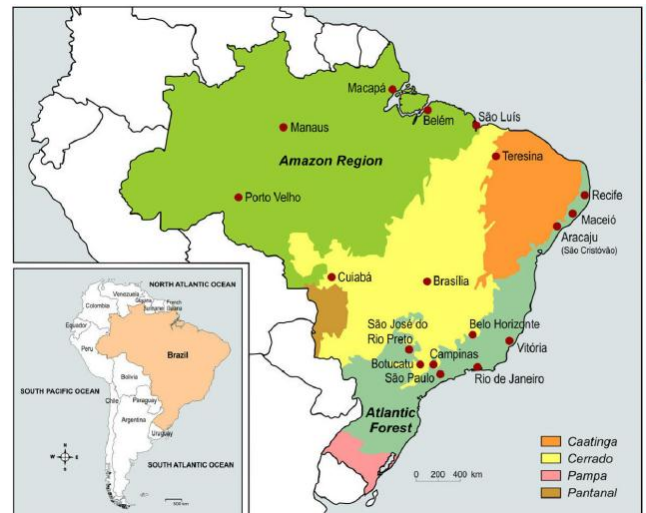
May 18 & 19th - An exploration of various habitats found at "The Pines", Douglas River led by Sarah Hirst. Camping available.

March Meeting Report - Marcelo Claro de Souza on Brazilian Biomes.

At the March meeting we were given a peek into the biomes of Brazil by the visiting researcher Marcelo Claro de Souza.

A biome is defined as "a bio-geographical formation characterized by the distinctive life forms and principal plants" and examples include desert, tundra, tropical forest etc.

In Brazil 6 biomes occur as shown on the following map.



Source:

<http://www.malariajournal.com/content/9/1/115/figure/F6>

The most well-known of these is probably the Amazon rainforest, a biome that is also shared with Bolivia, Colombia, Ecuador, Guyana, French Guyana, Peru, Suriname and Venezuela and covers 5.5 million km². The annual rainfall from 1500 to 1700 mm (rising to 3000mm near the Amazon mouth) and mean annual temperature from 21 to 30°C. The rainforest is home to ± 40,000 plant species including the Abiu fruit which is a cultivated species around Darwin and a threatened mahogany species (Mogno) (*see below*). This biome is also home to leopard (Onça pintada), ocelot (Jaguaritica), macaws (Papagaio de cora vermelha), Amazonian manatee (Peixe boi) and the Piraracu a huge fish of 'River Monsters' fame.



An endemic biome is the Caatinga or steppe savanna which covers 850 000 km² in the east of Brazil. Mean temperatures range from 24 to 28°C and annual rainfall 250 to 1000 mm. This biome is home to around 3000 species of plant

and includes the quince (Marmeleiro), baubinia (Mororó) (*see below*) and the blue columnar cactus (Facheiro). Animals include the turtle dove (Asa branca), hyacinth macaw (Arara azul), armadillo (Tatu peba), cane toad (Sapo cururu).



The coastal region in Brazil's south east is the Atlantic Rainforest a biome shared with Argentina and Uruguay and covering 1.315 460 km². The annual rainfall 1600 to 2500mm and mean annual temperature 22 to 27°C and this biomes has around 20,000 plant species including mango (Manga) and pepper (Aroeira) trees. Animals include the Toucan (Tucano de bico preto) (*see below*), Macaque (Macaco prego), wooly spider monkey (Muriqui-do-norte) and pit viper (Jararaca).



Brazil grasslands or Campos (known also as Pampas) are also shared with Argentina and Uruguay and cover 750 000 km². Annual rainfall is about 1200 mm and mean annual temperature range from 19 to 22°C. This biome has ± 3000 plant species including the jacaranda (Caroba) (*see below*) and conifers including the Brazilian pine (Pinheiro do Paraná). Animals found in this region include the maned three-toed sloth (Preguiça de coleira), black-necked swan (Cisne de pescoço preto) and burrowing owl (Coruja buraqueira).



The Pantanal biome covers 195 000 km² in central South America and is also found in Bolivia and Paraguay. The mean annual rainfall is between 1000 and 1400 mm with mean temperatures between 23 and 25°C. This biome has about 3500 plant species including guava (Araçá), and a *Pouteria* species (Fruta de veados) (*see below*). Animals of the Pantanal include the largest rodent in the world the giant otter (Ariranha), Capybara (Capivara) and Piranha along with crocodile and deer species.



The final biome found in Brazil and Paraguay is the Cerrado or savanna covering 2 million km² of central Brazil and has an annual rainfall 1200 - 1700mm and mean annual temperature of 20 - 23°C. The region is home to 30000 plant species in a mosaic of 5 different vegetation types; grasslands (campo limpo), tree-covered savannah (campo cerrado), open savanna (campo sujo) tree dominated grassland (cerrado sensu stricto) and deep forest (cerradão). Animals in this area include toucans, ant eaters, armadillos, and the maned wolf (Lobo Guará) (*see below*) which has an extraordinary relationship with the wolf apple (Lobeira) or *Solanum lycocarpum*. This is significant as the wolf is the only animal to eat the toxic fruit of this plant and is therefore it's primary dispersal

agent. For footage of this amazing relationship see part 2 (Secret of the Savanna) of the recent SBS documentary series Secrets of our Living Planet with naturalist Chris Packham. <http://www.sbs.com.au/documentary/program/1119>.



Other significant plants are the custard apple (Araticum-do-cerrado), Brazilian grape (Jabuticaba) in the Myrtaceae family (*see below*), and the white, pink and yellow Tabebuia (Ipê branco, Ipê rosa & Ipê amarelo) which are common street trees in Darwin.



We thank Marcelo for his presentation showing the great diversity in Brazil and for reminding us of the origins of many of the fruit trees cultivated in the Top End.

Article by Sarah Hirst.

TENPS Committee Meeting

Committee meetings are held every second month and members are most welcome to attend. The next committee meeting will be on Tuesday 7th May 2013 at Michael Gunner's office at Parap at 7.30pm.

NT Field Naturalist Club Events

Monthly Meetings are held at **Charles Darwin University**, in **Blue Building 1, Room 1.54** Business Faculty, usually on the second Wednesday of every month (except January), starting at 7:45 pm.

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.

March Field Trip Report: Gubara

Our March field trip was to Gubara in Kakadu National Park. We met a slightly weary Ian Morris early on Saturday the 16th in the carpark at Gubara (*below*) at the end of a week of field work he'd been involved with.



Carpets of *Merremia incisa* flowers (*above*) were opening up to the sunlight near the carpark, many with water droplets glistening on them from the good rains the day before. The

attractive pink flowers have a deep yellow throat. *Merremia incisa* is a member of the Convolvulaceae family. The scrambling vine is endemic to the top end of Australia and is commonly associated with sandstone near creeks and in lowland open woodlands.



Always a favourite, pink-red *Grevillea dryandri* flowers were spectacular against the background of the fine light green foliage on the many shrubs growing next to the road. Interspersed with the *Grevilleas*, the Bloodroot *Haemodorum coccineum* were striking (see above), with masses of deep-red flowers in clusters on terminal branching inflorescences on stalks that arose from the base of the plants. Bulbous rootstock and the flowers are used by indigenous folk to produce the purple-red dye for colouring *Pandanus* baskets and bags.

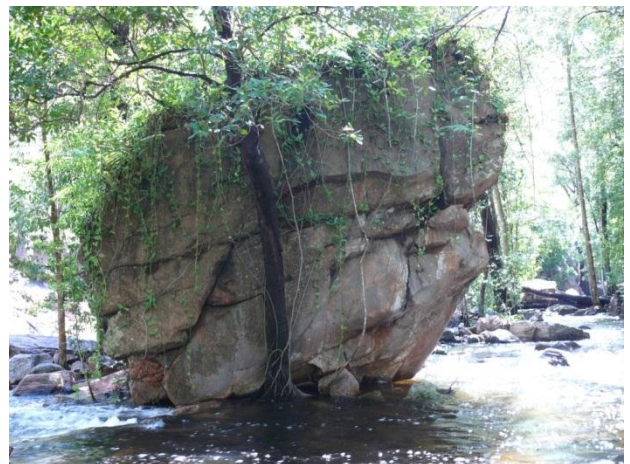


There were still some Leichhardt's Grasshoppers to be seen on their favourite food plant, *Pityrodia jamesii* (see above). Many of these Verbenaceae plants, endemic to Kakadu National Park and the sandstone escarpment country of western Arnhem Land, had been burnt in previous season fires, but some of the unburnt shrubs were flowering.

Initially we walked along the track into Gubara flanked by picturesque yellow flowers of *Cartonema parviflorum* (see below). *Cartonema* is a genus of perennial or annual herbaceous flowering plants in the Commelinaceae family. It is restricted to Australia and part of Indonesia. The small tapering tubers were cooked and eaten by Aboriginal people who describe them as bush carrots.



A swim and morning tea refreshed us after the 3 kilometre walk into Gubara. *Drynaria quercifolia* (Rock Fern) and *Hoya australis* subspecies *rupicola* were growing atop a huge boulder at the swimming hole (see below).



Venturing on upstream we came across a collection of flowering *Mackinlaya macrosciadea* plants (see below). A member of the Araliaceae

family, the spherical flower heads are a feature of these plants, which grow along cliff bases and ledges.



We walked on as far as we could before the fast flowing creek stopped us. *Aidia racemosa*, *Allosyncarpia ternata*, *Blepharocarya depauperata*, *Buchanania arborescens*, *Callophyllum sil*, *Carallia brachiata*, *Carpentaria acuminata*, *Ficus benjamina*, *F. virens* (Banyan), *Helicia australasica*, *Horsfieldia australiana*, *Lophopetalum arnhemicum*, *Lophostemon lactifluus*, *Polyalthia australis*, *Syzygium forte* (Water Apple), *Terminalia microcarpa*, *Xanthostemon eucalyptoides* and *X. psidioides* provided shade for us in the monsoon forest.

Other species seen included two orchids *Arthrochilus latipes* and *Dendrobium affine*, *Alyxia ruscifolia* and *A. spicata*, *Antidesma parviflorum*, *Boronia lanceolata*, *Cissus adnata*, *Curcuma australasica*, *Cyclophyllum schultzei*, *Desmos wardiana*, *Dianella odorata*, *Diospyros calcantha*, *Drypetes deplanchei*, *Flagellaria indica*, *Gardenia kakaduensis*, *Glochidion xerocarpum*, *Hypoestes floribunda*, *Ichnocarpus frutecens*, *Memecylon pauciflorum*, *Myrsine benthamiana*, *Plectranthus scutellaroides* and *Suregada glomerulata*.

Thanks Ian, for a lovely day in Kakadu.



A hawk moth caterpillar on *Carallia brachiata*.

Article and photographs by Russell Dempster.



Blue Triangle Butterflies at Gubara during the March field trip photographed by Russell Dempster.

Interesting Links....

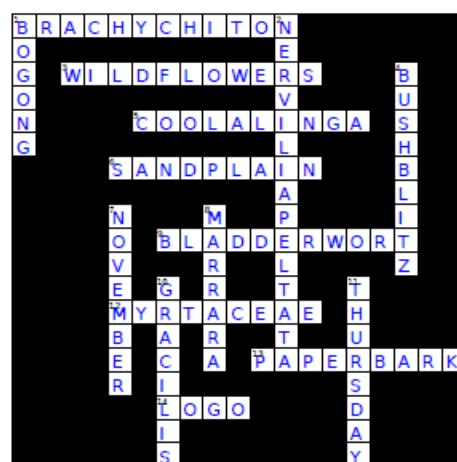
TENPS member, raconteur, and philosopher Strider has been busy recording his observations and thoughts online recently.

His website makes interesting reading and can be found at the following link...

http://www.hipstrider.com/2013_03_01_archive.html

Solution for

TENPS Crossword November



2012 TENPS Scholarship

In 2012 the inaugural TENPS scholarship was awarded to CDU Mastera student Sue Guilfoyle.

Below is a copy of the letter of appreciation from Sue to TENPS members.

Dear Members of TENPS,

Finally some time to sit down and write a heartfelt letter of thanks for your organisations generous provision of the "Top End Native Plant Society scholarship" for 2012.

During 2012 I worked hard to complete 4 units toward my Master's Degree of Environmental Management at CDU. Clearly this entailed a very high workload, especially when combined with working fulltime. Therefore all weekends were spent industriously working away at computer.

I completed:

1. Ecology and management of tropical forests and savannas;
2. Ecological restoration and conservation;
3. Tropical wetland and coastal management;
4. Natural resources and indigenous livelihoods.

All of these units entailed investigating relevant issues that are affecting various Australian Top End environments and their global counterparts.

For 2013 I will be busy completing my final unit the Research project. I am currently investigating topics to decide what area I will focus on. At the moment there are two areas that interest me: cutting protocols for Top End *Grevillea* species; *Grevillea dryandra* and *G. formosa* or possibly becoming involved with a CDU project: *Rehabilitation of Utricularia sandsheet habitat after sand extraction in the rural Darwin area*. Whatever project is finally chosen for my research I am sure that the work will be of interest for the members of TENPS who are dedicated to conserving, learning about and growing native plants in the Top End of the Northern Territory, Australia.

The provision of the "Top End Native Plant Society scholarship" allowed me to purchase a range of books throughout the year that are relevant to my main area of interest (Australian plant species), and which will provide me with valuable reference sources for many years to come.

Many thanks to everyone at the TENPS.

Yours sincerely,



Sue Guilfoyle

SUBSCRIPTION FORM - MEMBERSHIP DUE 1 JULY 2013

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