



The Friends of The Australian Arid Lands Botanic Garden *Port Augusta Incorporated* **Newsletter**

August 2011

The next AGM of the Friends of AALBG

The Friends of Australian Arid Lands Botanic Garden AGM will be held on Saturday the 10th September at 1pm at the herbarium/meeting room at visitors' centre at AALBG.

Our guest speaker will be Dr Peter Hayman

Title: The relevance of Goyder's Line in the current and future climate

The presentation will include a brief history of Goyder's Line of reliable rainfall, an analysis of how the line sits with current climate and land-use and a project that SARDI is conducting with Adelaide University called TREND - the Transect for Environmental Decision Making.

Peter is especially interested in local input on the history of Goyder's Line and vegetation clues that Goyder may have used to draw his line in the 1860s.

Dr Peter Hayman is the Principal Scientist in Climate Applications at the South Australian Research and Development Institute (SARDI) based at the Waite Institute, a position he has held since May 2004. Prior to moving to Adelaide he was coordinator of climate applications for NSW Agriculture.

He is an agricultural scientist with an interest in applying climate information to dryland and irrigated farming systems with a recent focus on impacts and adaptation to climate change in the irrigated wine grape industry and low rainfall grains industry.



Dr Peter Hayman

President's Message

Recently the Curator of the Garden, Michael Anlezark handed in his resignation to Council. Since then the Port Augusta City Council which owns and operates the Australian Arid Lands Botanic Garden has reopened communication with the Friends. A meeting was arranged to talk to members of the Friends committee about the future direction of the Garden and how best the Friends can participate in the operation of the garden, making use of the wealth of volunteer expertise and labour as well as our financial contributions.

A couple of weeks later Council held a social function to thank the Friends for their years of involvement. This was attended by volunteers and council staff and Garden employees as well, and was a gesture appreciated by those Friends who were able to attend, following years of little communication and a period of greatly reduced opportunity for Friends to undertake a range of tasks in a voluntary capacity which they had done in the past. This new spirit of openness and cooperation is a breath of fresh air and I think will help the Garden move forward, making the best possible use of our volunteers, many of whom have wide ranging skills which will be utilised to benefit the Garden and help catch up with outstanding work and improve neglected areas of the Garden.

At present the Garden is being managed by Council Senior Staff member Michael Dunemann. Some would see a possible problem in a group of volunteers charging recklessly ahead, but I am sure that with good communication between Friends and the new

manager, works done will be properly planned and be undertaken in an ordered manner.

On Friday 29th July the Garden's recently re-established Management Advisory Group will meet for the second time, and I expect the future management of the Garden will be an agenda item. The appointment of a new curator will no doubt be discussed as well. I am the Friends representative on this committee. Following this meeting Michael Dunemann has called another meeting with the Friends to discuss ongoing management issues directly with us. Also later on this day a small ceremony will be held acknowledging a donation to the Friends by BHP Billiton, which enabled the panels featuring Friend Peter Langdon's bird paintings and descriptions to be updated and remade and mounted in the Garden's bird hides, to help visitors identify birds they are likely see from each hide.

We hope this will be the beginning of an ongoing relationship with BHP Billiton. Had it not been for the financial generosity of the former WMC Resources and their persistence in lobbying governments to help with initial funding it is unlikely that the AALBG would have eventuated. Such corporate sponsorship is invaluable and it would be wonderful if BHP Billiton could follow where WMC Resources left off. Peter Langdon is one of Australia's best bird artists and we are fortunate to have his input. Our thanks to Friends Treasurer Geraldine too for applying for the grant and for liaising with BHP, council, Peter and the panel designer to make it all happen.

On the same day, in the evening the Friends Conference Planning Committee will meet to continue with planning the Conference of the Association of Friends of Botanic Gardens from Australia and New Zealand which we are hosting in Port Augusta in August next year. There is already interest from interstate.

With good rains again this year late winter and spring should be a wonderful time to visit the Garden which is looking more established with every year that passes. Best wishes to all Friends and thanks for your ongoing support of our wonderful garden. To those too far away to visit enjoy this newsletter which we hope is a useful link with the Garden.

Until next time, John Zwar - President

Dates to Remember

Conference of Friends of Australian Botanic Gardens at Australian Arid Lands Botanic Garden
Port Augusta 18th -19th August 2012

Expressions of interest forms for this event will be available on the Friends of AALBG and Friends of Botanic Gardens of Australia website from 1st September 2011

Wattle Walks

Every Sunday in September at Australian Arid Lands Botanic Garden at 11am
(Please note change of time)

A Day Trip to Andamooka

For those of us who live in the 'Jewel of the North' at the cross roads of Australia it's just a day trip to Roxby Downs and Andamooka and because of more than usual rain-fall, 2010 was a good year to make that trip if you were interested in plants and scenery.

Leave Port Augusta early in the morning out past the Australian Arid Lands gate, about a kilometre up the road on the left Dempsey's Lake was and still is full. If the sun is in the right place the Tent Hills are reflected in the lake and can be spectacular. On up the highway past island Lagoon which is usually surrounded by red rocks, which were still there last year but you couldn't see them as much because there was a sea of pink. The Frankenias had grown and were flowering. Continue on and veer right at Pimba and on past Woomera. From Woomera on is where the colourful plants started, pink and purple pea species and the orange-red flowers of *Swainsonia stipularis* really showed up.

There were some Sturt peas but not as many as a few years ago, turning on the Andamooka road plants changed a bit, there were poached egg daisies and *Ptilotus* with a few Sturt peas mixed in. On nearing Andamooka the sand rises were covered with purple peas mixed with daisies. *Swainsonia stipularis* was there too. On into the distance on the flats the little pop-salt bushes with their grey leaves and pink fruits added to the colourful scene; very different to the usual trip to Andamooka. What difference a decent amount of rain makes.

Peter Hall



Swainsonia stipularis



Polycalymma sturtii (Poached egg daisy)



Unidentified plant found near Roxby Downs.
Can you identify it?



Eucalyptus youngiana (Ooldea Mallee)
This beautiful Eucalypt grows in the arid and semi arid areas of Southern Australia to approx. 8 metres. Flowers yellow or red.



Brachet fungi on an eremophila at AALBG.
Photo C Nayda

Bird Watching Programme

Sunday 18th September 2011

Bernie's Block

Meet Mambray Creek parking bay at 8.00am

Saturday 1st - Monday 3rd October

Bimbowie Conservation Park Camp Out

Sunday 13th November

Blanche Harbour

Meet at Shack Road turn off at 7.30am

Phone: Peter 8642 5723 / Greg 8648 6882 / Shirley 8642 4013

Acanthocladium dockeri (Spiny daisy) at AALBG



In immediate foreground; *Crotalaria cunninghamii* (Regal Bird Flower or Rattle pod bush), behind this is Spiny daisy (*Acanthocladium dockeri*)
Large round bush at far left; *Acacia schelosperma* (Limestone wattle), in background; *Eucalyptus brockwayii* and *Eucalyptus woodwardii*
Tree far right back; *Myoporum platycarpum* (Sugarwood) Photo C Nayda

CONSERVATION STATUS

The Spiny Daisy is classified as critically endangered under the Commonwealth's Environment Protection and Biodiversity Conservation Act (1999). It is classified as endangered under the South Australian National Parks and Wildlife Act (1972) and presumed extinct under the New South Wales Threatened Species Conservation Act (1995).

DESCRIPTION

The Spiny Daisy is a low blue-grey shrub that grows to about 0.5 metres in height. Branches often have pairs of sharp spines at their ends forming a 'V' shape. Leaves are small and oval shaped. The leaves and branches of the Spiny Daisy are covered in a whitish to blue-grey fur. Flowers are small and yellow with grey bracts (a modified leaf surrounding the flower).

This species is a member of the Daisy family; Compositae (referred to as Asteraceae outside South Australia).

HABITAT REQUIREMENTS

Due to the small number of populations and a lack of information, it is difficult to define the habitat requirements of the Spiny Daisy. The five existing populations all occur in remnant native grassland on low hills and plains in the Mid North of South Australia. Soils are light brown clay to clay loam.

Information from historical collections indicate that the Spiny Daisy may have also previously occupied a habitat with different rainfall patterns, soil type and landscape characteristics

ECOLOGY

The Spiny Daisy suckers readily from exposed roots and shoots. Despite regular flowering, it produces very little viable seed and no seedlings have ever been observed in the wild. Genetic studies have shown that all plants at each site are a single clone, but that the different populations are distinct from each other. This means that, in genetic terms, there are only five known Spiny Daisy individuals, making this one of the world's most endangered species.

DISTRIBUTION

Very little is known regarding the historical distribution of the Spiny Daisy. The species was first collected in 1860 from central-western New South Wales, during the Burke and Wills Expedition. A second collection was made from the South Australian Riverlands in 1910. Despite searches of these areas in the 1990's, no populations were relocated and for many years this unique daisy was thought to have become extinct.

Fortunately this was not the case and, in 1999, a population was located growing along a roadside just outside Laura. The Spiny Daisy is now known to occur in five locations, all situated on roadsides outside the towns of Telowie, Laura and Hart in the Mid North of the State.

THREATENING PROCESSES

- Small isolated populations
- Competition from weeds
- Lack of seedling recruitment
- Habitat destruction
- Insect attack
- Stock grazing

CONSERVATION AND RECOVERY

Projects that will aid the Spiny Daisy, include:

- Continued management of existing sites, through weed and snail control
- Translocation to new sites to increase the number of populations
- Cross pollination trials to attempt to induce sexual reproduction
- Searches to locate further populations of the species
- Monitoring of known Spiny Daisy populations
- Further studies into the ecology and reproductive biology of the daisy

HOW YOU CAN HELP

- Report any sightings of the Spiny Daisy to the contacts below.
- Protect any native plants and habitat on your property from grazing, clearance and weeds.
- Become involved in a local conservation group such as the Biodiversity and Endangered Species Team (BEST) - Ph: (08) 8841 3402



Some Eremophilas Around Mount Magnet

Eremophila glandulifera



While travelling in Western Australia last year (2010) we decided to stay a few days in Mount Magnet, we had been through before but never stayed. Mount Magnet is 560kms north-east of Perth and is an old gold mining town.

After booking into the caravan park and setting up our caravan we went for a walk around the park and ran into the park manager who was walking around with a small nugget of gold worth \$500 in his hand that (He said) he had just picked up in the park. I picked up a lot of rocks after that but no luck.

Eremophila fraseri ssp parva



While at Mount Magnet we went on their tourist drive. This takes you up the local lookout called Warrambo Hill, a steep rocky hill that overlooks the town and old gold mine sites. Growing on Warrambo Hill was a very small leaved form of *Eremophila latrobei* but not flowering.

Further along the drive we came to *Eremophila platycalyx* with its creamy grey (to my eyes) flowers with lilac spots and pink calyx, a very pretty shrub to about 2metres. There were several colour forms of *Eremophila georgei*, with pink to mauve flowers, also found were some very very old plants of *Eremophila oldfieldii*, and at the same spot was *Eremophila oppositifolia* with cream flowers. This species also grows around Port Augusta so it is very wide spread.

Eremophila georgei



Further still along the tourist drive was the very pretty *Eremophila glandulifera* with its felty grey oval leaves and bright pink flowers; a shrub that grows to about a metre. Further along was another grey leaved *Eremophila* of about a metre. This time the beautiful *Eremophila lachnocalyx* with its lilac to purple flowers; one of the prettiest *eremophilas*. Next came *Eremophila fraseri* with its unusual in this case brownish flowers and large pink calyx. The last *eremophila* found was *E. miniata*. A large dense shrub to about 5 metres. Flower colour is variable from yellow, orange, pink through to red. Well back to the caravan park where I never did find a gold nugget.

Peter Hall - Photos: Peter hall

Bird Hide Opening

Mr. John Zwar President of Friends of the Australian Arid Lands Botanic Garden introducing Mr Chad Menzies Senior Advisor - Community Relations BHP Olympic Dam HSEC to formally open the new Bird Display Boards at the Bird Hides at AALBG.

The Friends of the Australian Arid lands Botanic Garden were successful in obtaining a Community Grant from BHP Billiton for \$3,200 to upgrade the Display boards which were designed by Mr. Peter Langdon.

From left - Peter Langdon, Geraldine Davis, John Zwar, Chad Menzies, Bruce Leane and Fay Poole.



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