



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

Newsletter

August 2015

President's Report *by John Zwar*



Eucalyptus websteriana - Julie Owen

Our next meeting on September 5th will include Council recognition of very substantial funding provided by the Friends for the redevelopment of the circular courtyard adjacent to the Visitor Reception Building over the last few years. It will also be our AGM and following the formal part of the meeting Vice President Brian Reichelt and Peter Hall will give a presentation on developments at the Garden in recent years in which they and other friends have been heavily involved. The role of our Friends volunteers in helping further develop and maintain the Garden is very significant and we appreciate Council recognition of this. It will be interesting to see a presentation of some of these projects which have enhanced the Garden very significantly.

Brian and his helpers have continued installing the very well made garden seats which they have constructed, with 9 now installed. Our volunteers have continued with propagating and potting up, and weeding and pruning, and our "Grants Expert" Shirley Mundy, with Garden Manager Cherie Gerlach, have applied for another grant for 5 shelters for the Garden. Brian is also very involved as a member of the sub-committee investigating the relocation of the old Yudnapinna

Station Homestead from the now closed Homestead Park to the AALBG where it may be redeveloped as a Friends' Centre and for other use. This would be a most appropriate way to save this heritage building and give it a meaningful use. Our volunteers have also installed new paths leading to the two bird hides and have assisted with the planting of a trial of new hybrid eucalypts bred by Dr. Kate Delaporte of the University of Adelaide's Waite Campus.

To date, 5 of the new garden seats have been sponsored by donors with 16 still available. The article to the right provides more information. The Friends recently provided \$4,000 to assist with ongoing research being conducted at the AALBG by The University of Technology, Sydney into understanding how arid zone plants tolerate extreme heat. Ronda Hall has assisted researchers with this work which will continue at the Garden.

The ongoing progress at the AALBG is really pleasing to see and we thank all Friends who have contributed in any way, even if only through ongoing membership. Best wishes to you all and we look forward to seeing you if able to make it, at our AGM.

GARDEN SEAT DONATION SCHEME

In the February 2015 Friends Newsletter an article featured the Friends Garden Volunteers installing a Garden seat and since this time they have installed a further 8 seats. The seats have proved very popular with the visitors to the Garden, so the Friends have decided to install many more to allow our visitors both young and old to stop, sit, rest and enjoy the Garden. We are now offering a scheme where you can donate a Garden seat for the cost of \$700, which includes a plaque recognising your donation; or if you wish, the seat can be donated in memory of a loved one.

The attached photos show the Garden seat and also a plaque that has been installed. If you can see your way clear to donate to this worthy cause it would be greatly appreciated as we currently need 16 donors to complete our first installation program as we have had 5 so far.

- By Brian Reichelt.



First seat installed 22.5.2015 - Peter Hall



Garden seat plaque - Peter Hall

DIARY DATES

Annual General Meeting and Official Opening of the Courtyard and The Bush Tucker Garden: Saturday 5th September
1pm in the AALBG Conference Room.
Guest Speakers: locals Brian Reichelt and Peter Hall
"What Friends have achieved in the last 12 months"
A photo presentation with commentary, followed by the presentation of a recognition plaque to the Friends of the AALBG from Port Augusta City Council.

Wattle Walk Sunday 6th September
1pm at the AALBG. Join us for a fascinating walk through our extensive collection of Acacias - you'll discover some amazing things!
Walk only \$7.95. Walk and coffee afterwards \$14.95.
Contact AALBG Visitors Centre.
Bookings essential, phone 8641 9116.

Nature Play Festival - All Day, Every Day
From 27th September - 10th October
AALBG, Children's Animal Discovery Trail.
Call 8641 9116 or email info@aalbg.sa.gov.au

Breakfast with the Birds Sunday 30th August

Meet 7am in the AALBG Visitor Centre Car Park.
Breakfast from 9am.

Take an early morning tour with expert birders and see how many birds you can spot of the more than 140 species that frequent the Garden. Then enjoy a hearty breakfast in the Bluebush Cafe.

\$25 per person, children \$15; cost includes 2 hour tour, cooked breakfast and hot drink.

Please call 8641 9116 for bookings - spaces limited.

Birdlife Australia Club,

Port Augusta and District, Field Trips.

- Sunday 16th August, Bernie's Block.
Meet at 8am, Mambray Creek Parking Bay.
- Sunday 13th September, Tania's Block.
Meet at 8am, Stirling North Service Station.
- Saturday 3rd October - Monday 5th October,
Camp Out at Lake Gilles Conservation Park (no facilities available). Meet at 8.30am, Tanks/Iron Knob turn off.

For more information, ring:

Peter on 8642 5723 or Greg on 8648 6630



WATTLE WALK

*at The Australian Arid Lands
Botanic Garden*

1PM SUNDAY 6TH SEPTEMBER 2015



Smaller Eucalypts for the Home Garden



Dean Nicolle is well travelled throughout Australia, and he shared with us pictures of some of the Eucalypts that he has photographed, and grown. He has been responsible for sorting out confusing species, sometimes having to change their names, and discovering new species. His latest book "*Eucalypts of SA*" is for sale at the Garden Gift Shop.

During his talk, he shared his top 10 species for home gardens, including some that are grown in our Botanic Garden, as they are from arid areas. Some have particular features, such as having the ability to be pruned down to the ground, sometimes growing in a better shape the second time around. We learned that not all species have adult leaves, (following juvenile leaves), but retain one kind of leaf right through their life. There are about 1000 different species and sub-species, of which about a half are multi-stemmed. I particularly liked the look of the *Eucalyptus synandra*

an elegant fine branched tree, which does not cast a shadow, it has so few branches.

Other species would please those residents who complain about falling leaves and bark, "Gum trees are SOOO messy", as they hold on to these features. They would certainly not have approved of his number one choice the *E. erythrocorys*, a tree widely planted in Port Augusta as a street tree.

Another street tree, in the Flinders View area, was planted during John Zwar's time here - 30 years ago. It is the *Corymbia aparrerinja* (Central Australian Ghost Gum). I was able to drive past these trees later in the afternoon. They are certainly striking looking trees.

After the talk, Dean took a group out into the Garden where we were shown some of the trees that he had been talking about. He was particularly pleased to note the trees growing which were as a result of Bernie and Ryan "raiding" his seed supply.

Eucalypts are not endemic to the area around Port Augusta, as was discovered during the plant survey carried out before the Botanic Garden was being planned. This was something else that I learned, as I had assumed that any that might have grown here were removed by early settlers. Dean thought it might have been several thousand years since Eucs had been part of this landscape. The only trees found here were *Acacia papyrocarpa* (Western Myall), *Alectryon oleifolius* ssp. *canescens* (Bullock Bush) and *Callitris glaucophylla* (Native Pine).

- By Shirley Mundy, a synopsis of a presentation at the AALBG by Guest Speaker, Dean Nicolle.

TOP 5 MALLEE SPECIES DISCUSSED BY DEAN

1. *Eucalyptus websteriana* or *E. minniritchi* or *E. orbifolia*
2. *E. erythronema* ssp. *erythronema*
3. *E. priessiana* ssp. *lobata* (lobe fruited mallee)
4. *E. synandra* (jingymia mallee) or *E. lacrimans* or *E. sepulcralis*
5. *E. pimpiniana* or *E. uittilis* or *E. platypus*

DEAN'S TOP 5 TALL TREES

1. *E. erythrocorys* (red capped gum)
2. *E. victrix* (smooth barked coolabah)
3. *Angophora hispida* (dwarf apple)
4. *Corymbia torelliana* (cadaghi)
5. *C. aparrerinja* (Central Australia Ghost Gum)



An Unusual Specimen



Actinobole uliginosum must be one of Australia's most unusual little plants. It's an annual, is prostrate, and grows to about a metre in width. It belongs to the Compositae or Daisy family, and has several common names, one being Flannel Cudweed and another Cotton Weed.

Although the name *uliginosum* means growing in damp places, I found it growing amongst the rocks and Triodia on the hill behind Mount Ive Homestead in the Gawler Ranges.

Although it will never make native plant of the year it is an interesting little plant. It was identified for me by AALBG Friend Mr. John Barrie of Coonalpyn.

- By Peter Hall.

Bird Talk from the Garden

FAN-TAILED CUCKOO AT THE AALBG

On Saturday 2nd May 2015, I noticed several Yellow-throated Miners pursuing a bird of similar size near the Arid Smart Gardens. It was a Fan-tailed Cuckoo (*Cacomantis fabelliformis*) and was the first one I have seen in the Garden. They are usually seen in wetter areas, including the nearby Flinders Ranges, but occasionally turn up in Port Augusta. Fan-tailed Cuckoos are "brood-parasites", laying their eggs in the nests of Fairy-wrens and Thornbills. This is a further addition to our Bird List for the Garden.

- By Peter Langdon.



BIRDS OF OUR GARDEN SECOND EDITION

Discover the many birds that can be found in our Arid Land Garden in this unique book created by the Friends of the Australian Arid Lands Botanic Garden. Cost \$7.95 - Proceeds from the sale of this book support the Friends and the development of the Garden.

Would you like to buy a copy but don't live locally? Phone (08) 8641 9116 for more information and postage costs.



New Chipper Mulcher for Garden

The Friends of the Australian Arid Lands Botanic Garden, via its "Grants Officer", Shirley Mundy, applied to the South Australian Government "Community Benefit Grants" to purchase a Chipper Mulcher to assist the Volunteers and staff in recycling prunings in the Garden. The grant application was for the amount of \$2,732 and we are pleased to advise that our application was successful and that the Chipper Mulcher has been put to good use since its arrival. We thank the South Australian Government Community Grants for making these grants available to assist our volunteer group.

- By **Brian Reichelt**.



Vice President Brian unloading the Chipper Mulcher on arrival - Peter Hall

Sturt's Pigface

STURT'S PIGFACE - *Gunniopsis quadrifida*

This plant has always fascinated me and is now for the first time available at the AALBG Nursery Shop! It grows in a compact round shape to about 50cm high and in sandy and salty soils; so is perfect for growing near the coast.

The leaves are fleshy and grey and it has pretty white flowers with yellow stamens. As well as being a fast grower, it is an easy care plant needing very little water, so it's definitely an Arid Smart plant.

- By **Chris Nayda**.



Gunnioopsis quadrifida - Chris Nayda



Gunnioopsis quadrifida - Chris Nayda

Time Travel

This new feature will highlight growth and development of the AALBG by contrasting photos from earlier times with those of the current day - a photo history!

The Eremophila Garden that can be seen through the windows of the Bluebush Cafe was marked out and developed in March 1996 and planted with the assistance of the Friends in April 1996. Of course there have been many changes along the way but some of the original plantings still exist almost twenty years on.



Before (1996) - Bernie Haase



After (2015) - Bernie Haase



Before (1996) - Bernie Haase



After (2015) - Bernie Haase

Contacts

President: John Zwar Phone Home: (08) 8338 6658 Work: (08) 8372 6876 Email: jzw@bigpond.com

Vice President: Brian Reichelt Mobile: 0418 896 995 Email: breich@bigpond.net.au

Treasurer: Geraldine Davis Phone: (08) 8648 6399 Mobile: 0418 447 020 Email: glgadavis@bigpond.com

Secretary: Christine Nayda Phone: (08) 8642 4684 Mobile: 0434 717 382 Email: b.nayda@bigpond.com

PO Box 2040, Port Augusta, South Australia 5700 Email: friends@aalbg.sa.gov.au

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FRIENDS PROVIDE \$4000 EACH YEAR FOR 3 YEARS TO ASSIST FURTHER RESEARCH.

The story so far... Since 2012, Dr Leigh has been supervising PhD candidate, Ms Ellen Curtis, on research into plant thermal tolerance at AALBG. Ellen's PhD research at the AALBG (with the invaluable assistance of the nursery staff and Ronda Hall) has revealed some exciting discoveries. Ellen developed a new protocol to measure plant thresholds for tissue damage from heat stress. This gave her the ability to measure heat stress thresholds for 42 plant species at the AALBG, the first time such thresholds have been measured for any Australian plants (in fact, it has hardly been measured for any Australian plants). Among Ellen's discoveries were that thresholds not only vary by over 5°C among species in any given season but also that plants shift their heat stress thresholds during the year by up to 5°C on average. This acclimatisation is an adjustment to season, with plants able to withstand higher temperatures in summer than winter. Thermal thresholds also vary, depending on native habitat: species adapted to areas typified by very low access to water, such as dunes or ridges, can withstand higher temperatures than those adapted to low lying areas, such as floodplains.

Where to next... Of course, these findings raise a raft of new questions and two new enthusiastic PhD candidates, Alicia Cook and Kirsty Milner, will be addressing some of these next. The nursery staff have been busily making cuttings and arranging seed for a big planting experiment at the Gardens and Alicia and Kirsty are making their first visit this July and August, following subsequent visits over the next two or more years. Among the questions they will be addressing are: how does heat stress affect seedling emergence? Most work on thermal tolerance research is conducted on adult plants but little is known about the long-term effects of extreme heat events on emergent seedlings, either at the time of stress or as they mature. Also to be investigated is how long plants need to recover from heat stress, how nutrient and/or drought stress affect plants' ability to cope with heat stress and what happens at a molecular level (inside the cells of leaves) when plants experience stress?

- By **Dr Andrea Leigh**, Associate Head of School, Teaching and Learning, Plant Ecologist, School of Life Sciences, University of Technology, Sydney.

We look forward to sharing the results of these investigations with you as they become available.

What's New in The Garden?

Although I've been a friend of the Australian Arid Lands Botanic Garden for 15+ years, the changes that greet me each time that I visit the Garden never fail to amaze me.

On Saturday 23rd May I left home, Hallett, at 6.00am to drive to Port Augusta for the May meeting, arriving at the Garden at 8.30am. On arrival it was fabulous to see one of the new bench seats which had been installed the day before. This one was at the beginning of the part leading to the entrance to the courtyard.

The courtyard garden was simply bursting with new plants including the self-sown Everlasting Daisies. This section of the courtyard had been fenced with rabbit proof fencing to protect the seedlings.

It was a pleasant surprise to see the sculpture "Desert Daisy" by Rob Garrett, which had been an item on display elsewhere in the Garden, on the right hand side of the path as you entered the information centre.

Following the meeting, Syd McDowell and I wandered around for some time to see what other changes had been made since we had last visited the Garden. We inspected the extension to the Eremophila Garden with its new paths and it was amazing to see that some of the new plantings were already out-growing their tree guards.

Several of the sections of the Garden had been revamped including the Bush Tucker Garden, and a second bench seat had also been installed near the Display Gardens.

I was thrilled to see several young *Xanthorrhoea quadrangulata*, with their new flower spikes developing.

Spending time wandering through the Garden is just the best for relaxation - I can thoroughly recommend it. But be prepared to be amazed!

- By Joy O'Brien.



Xanthorrhoea quadrangulata - Joy O'Brien

NEW CORPORATE MEMBERS OF FRIENDS OF THE AUSTRALIAN ARID LANDS BOTANIC GARDEN

We welcome these Corporate Members and encourage Friends to patronise their businesses.

Don't forget to mention that you are a Friend of the AALBG and that we appreciate their business participating as a corporate member of the Friends.



Eremophila willsii - Julie Owen



Sturt Desert Pea at AALBG - Julie Owen

Join or Renew Subscription

TO JOIN OR RENEW SUBSCRIPTION

Fill in this form and send with remittance to:

Friends of the Australian Arid Lands

Botanic Garden Port Augusta Inc.

PO Box 2040, Port Augusta SA 5700

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Any donation will be gratefully accepted. Donations of \$2.00 and over are tax deductible. Please make cheques payable to 'Friends of the Australian Arid Lands Botanic Garden Inc.' Receipts will be posted. A SAE would be appreciated but not obligatory.

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BSB: 035-065

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Please notify by email to

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MEMBERSHIP SUBSCRIPTION

Annual: \$30.00