SOUTHERN TABLELANDS ECOSYSTEMS PARK-A REGIONAL BOTANIC GARDEN, EDUCATION AND ECOSYSTEMS RECOVERY FOR THE SOUTHERN TABLELANDS.

NEWSLETTER: March 2014.

PO Box 440, Jamison Centre, 2614. **www.step.asn.au**

From the President

Margie Bourke

As we all know, the first two months of 2014 produced some of the hottest continuous days ever recorded in Canberra. Despite this, the plantings in Forest 20 have survived very well, with the exception of two of our eucalypts. Our Thursday morning working bees are gradually filling in the under storey squares and keeping the weeds under control, so that the whole site is looking fantastic. If you haven't visited for a while I would urge you to come and see how rapidly the site is changing from the bare hillside of four years ago.

There is a separate report elsewhere in this newsletter of the progress on the Educational Space, which will be a great asset to STEP, and also to the Arboretum.

We are continuing to work with the Arboretum administration to remedy drainage problems which have caused flood damage previously in Forest 20.The issues of signage to inform the public of our existence, and the need to improve access to our Forest, are ongoing matters we are negotiating with the Arboretum.

Open Day 8 March

A disappointing number of people were lured to the STEP site but they were quality! Eight STEP volunteers did walks and kids craft activities:

Judy Smith and Thanh Foster set up

Walking Billboard Tony Lawson got them in.

Tony telling STEP stories.

Judy and Thanh give out a Certificate.

Royal Botanic Gardens - Cranbourne (SE Melbourne)

David and Lainie Shorthouse

A short visit to the Cranbourne botanic gardens last week confirmed their place as a spectacular demonstration of how native flora can be used in a variety of landscaped settings from suburban gardens to public parks and other open spaces. The gardens were designed by the same company that designed the arboretum and they opened in 2006 with an extension added more recently. The gardens demonstrate how native plants can be massed, shaped, pruned, espaliered and otherwise displayed to show off their form, flowers and foliage.

While the STEP forest's aspiration to become a regional botanic gardens for the southern tablelands has some way to go (and perhaps espaliered eucalypts are not quite what we plan!), our understorey plantings in the 3m X 3m plots according to our Master Plan (Barbara Payne - Quandong Designs) are clearly showing how a mass planting of each species will work for us. Like the Cranbourne gardens we will also be demonstrating the variety of form and colour of our local flora, perhaps as examples for local gardens.

Forest 20 has survived the summer well, with only a very few trees succumbing, and most understorey plantings managing with the heat and lack of rainfall. In February and March volunteers at our weekly working bees have maintained existing plantings and planted another 8 species including some propagated for us by Alison Mcinnes (Australian Native Plants Society) from seed donated by Rainer Rehwinkel. We are very grateful to Alison and Rainer for this contribution to our project. We have new members joining our working bees, and there are always plenty of tasks to do and good company to do them with. Please let us know if you or any of your friends might like to join the STEPpers as we continue to develop Forest 20.

Species planted recently include:

Cynoglossum australe Native forget-me-not; *Plantago varia* Native plantain; *Goodenia pinnatifida* Cutleaf goodenia; *Calocephalus citreus* Lemon Beautyheads; *Acaena ovina* Sheep's burr; *Linum marginale* Native flax; *Pultenaea procumbens* Heathy bush-pea; *Dillwynia retorta* Small-leaf parrot-pea.

STEP Education space.

Led by Bill Handke the team of stone pickers and placers, along with bobcat and bucket loader, as well as shovels and pinch bars have made great strides. The Education Space is now taking serious shape and will be a great resource when completed. On the basis that pictures are worth a thousand words here is a progress report in pix, thanks to various contributors:

Site and access preparation

Cutting the path

"How many STEPPers to place a stone?" DS.

Fine tuning.

A breather.

First row in place.

Well done team, thanks to Bill and the crew.

Understory Plants of Forest 20 *Text and photo Andy Russell*

Leucochrysum albicans, Hoary Sunray

This attractive erect woolly herb growing to 45 cm high is of the Asteraceae (Daisy) family and is generally found in natural open grassy areas of the slopes and plains from Queensland through to Tasmania. It can be found in parts of the Canberra Nature Park. It has narrow grey-green leaves and an everlasting type flower head. The centre is a yellow disc which is surrounded by white or sometimes yellow bracts which are 2 to 2.5 cm wide. While it is a perennial its life can be short lived. At Forest 20 it has been planted with stone mulch and it has been successfully regenerating from seed.

PlantNET (NSW Herbarium) divides this species into four varieties or sub species. *L albicans subspecies albicans* is found in all NSW except for the South west and Sydney regions *L albicans variety albicans* is distinguished by having yellow bracts and inner bracts and is also widespread.

L albicans subspecies alpinum which has wider leaves and is only found in the higher parts of the Southern Tablelands in NSW and the ACT (also in Victoria)

L albicans variety tricolor is limited to the Central and Southern Tablelands and the Central West Slopes of NSW while also found in Victoria and Tasmania. The undersides of the bracts are purple which makes this form particularly attractive.

Hoary Sunrays in full glory.

Where are the frogs?

Tony Lawson

Under the auspices of the Friends of the National Arboretum Canberra (FoNAC), a lot of citizen science has been undertaken in the Arboretum, covering both flora (tree measurement) and fauna (surveys of birds and frogs).

The frog surveys started in March 2010, and follow the methodology of the ACT-wide Frogwatch program. Surveys of each of the ponds and dams in the Arboretum are undertaken every three months. In addition, in Spring 2013 the surveys were undertaken every week from the end of August to the end of October. (Traditionally, the Frogwatch Annual Census is carried out in the third week of October, which was considered to be the peak calling period for frogs. The aim of the weekly surveys was to see if this peak had moved forward, for example due to global warming.)

It is very hard to spot frogs, though they are occasionally seen on surveys, or at other times in the STEP site, eg skulking in a mulch heap. But frogs (only male) call loudly at certain times of the year to attract a mate. And each species of frog has quite a distinctive call. So calls are used to estimate the frog population.

The surveys involve making a 2-minute recording of the calls in each of the water bodies, and their surrounds. These recordings are later checked by experts at Frogwatch to identify each of the species that are calling. The recorders also try to identify the calls, and more importantly to estimate the number of calling frogs of each species. This is done by listening

to calls from different parts of the water body. It is not easy and so estimates are made of groups of frog numbers, eg 1-5, 5-20, 20-50, more than 50. Notice the problem – what if 5 calls are identified? Is that 1-5 or 5-20?

Soon after the surveys commenced, it was suggested that the STEP ephemeral wetland be included in the waterways, and I offered to participate in the surveys, which are led by Roger Hnatiuk.

The first STEP survey was in Winter – June 2010. We heard no calls. But then we have never heard any calls at STEP in winter – unlike some other sites in the Arboretum.

In the following Spring surevey we heard our first frogs – the Spotted Grass Frog *Limnodynastes tasmaniensis*. Since then, this frog has been heard at all times except Winter, but not at all surveys (around 6 out 10 non-Winter surveys up to Spring 2013). Furthermore, the frogs that are recorded are sometimes heard away from the wetland – there are two farm dams to the North of the STEP site and the overflow dam to the South.

Another regularly heard frog is the Plains Froglet *Crinia parinsignifera*, which has been recorded in five out of 10 non-Winter surveys. Its close cousin, the Common Eastern Froglet *Crinia Signifera,* has also been recorded.

Although it is an ephemeral wetland, the STEP wetland has had some water for most of the time from 2010 until around November 2013 when it dried out, and stayed that way until the heavy downfalls in February 2014.

There was not much water during the ten weekly surveys in Spring 2013. There was quite a lot of variation in the recordings. No frogs were heard in three of the October surveys, though we did hear the two most common species in Census week. There was more calling in September, especially in the last two surveys. The survey on 25 September was special, as in addition to the three already mentioned species we recorded a Smooth Toadlet *Uperolea laevigata* .

Did we hear more frogs in September because the breeding season has moved earlier, or were conditions better at our wetland in September? One piece of evidence in support of the former view is that the calls were also more numerous at the other waterways in the Arboretum in September.

Our own frog hollow.

If anyone is interested in joining us on our regular surveys please contact Tony Lawson, via info@step.com . We currently survey at four ponds/dams, but we may add more. There are two dams in the area to the North of the STEP site that has been added to the Arboretum. And the dam for the water from the overflow carpark above the STEP site certainly has the two common frogs from time to time, and is scheduled to be expanded as part of the drainage system for the car parks.

FEATURE PLANT OF FOREST 20: Blue Devils *Eryngium ovinum*

Many visitors to our site are surprised to see us cultivating what they think of as "thistles". But these beautiful small herbs have done spectacularly well this past year, though now dying down into their winter hibernation. While this member of the carrot family, Apiaceae (along with Flannel Flowers), is in a genus, *Eryngium,* of some 250 species there are only a few in Australia. It occurs from south-western Queensland in an arc down the east coast and in south–western Australia. The name "Eryngium" comes from an ancient Graeco-Latin name for a related plant, Sea Holly, while the "ovinum" is from Latin for sheep but the reason for this is not clear!

Blue Devils real and imagined for kids at the Open Day.

Much more about them at: http://www.anbg.gov.au/gnp/gnp11/eryngium-ovinum.html where the text was written in 1981 by Nora Ollerenshaw.

MALLEES DANCING ***J.E. Smith***

Mallees dancing on the skyline
Holding twiggy arms aloft
Waving scraps of leafy brollies
In silhouette - what joy.

FOREST LITTER

- Spraying of St John's Wort was effective, but it will be a long ongoing annual job to eradicate. Richard Jones, David Shorthouse and Max Bourke put in 3 days of solid spraying work in mid-December, with the approved chemical for the purpose, to try to reduce our population of St John's Wort which is spreading over the STEP site, and surrounds, rapidly. We appear to have had a very good kill, but the work will be ongoing and require follow-up every December to February for quite some years. Thanks to Cathy Robertson for getting us this original connection with the providers of the spray unit **Southern ACT Catchment Group**. **(Who we acknowledge here and thank!!)**

- The Eurobodalla Regional Botanic Gardens, our "analogue" on the South Coast, and located just south of Bateman's Bay is well worth visiting. It was created, in part, by ex-Canberran plant people, many with backgrounds in CSIRO, ANU or the ANBG. Drop in and have a look at what a group of citizens did with hard work and eventual, Council support. Originally the project was driven by Mrs Pat Speirs, this site on former NSW Forestry Land was opened in 1988. While it is 42 ha in size it gives us STEPpers a fraternal concept to aspire to! See http://www.erbg.org.au/ Besides a core of committed volunteers Eurobodalla Shire provides several full-time staff.

Support for STEP

- Support to STEP is most welcome and greatly appreciated.

- STEP has benefitted from several grants from the ACT Government and from the Dahl Trust, which has helped to produce pamphlets, plant labels, and develop our website, and our education space.

- We are looking for further funding for our education space and gratefully acknowledge the donations towards it that we already have received.

- STEP also benefits from considerable ongoing support from the National Arboretum Canberra (NAC) in the development of the Garden

- We have also received a generous gift from the Australian Native Plant Society for the purchase of plants for our Garden.

- We would also like to acknowledge the financial contributions of our Corporate members.

- STEP is also supported by a number of Community Groups, including our Founders, Friends of Grasslands (FOG) and the Australian Native Plants Society (ANPS), but also

- And of course we would not have achieved anything without the weekly efforts of many volunteers at our Thursday Working Bees, supplemented by occasional support from Greening Australia and the Conservation Volunteers, and public planting days.

- **STEP is truly a community effort**.

SPONSORS AND COPORATE MEMBERS…THANK YOU!

Sponsors: DFK Everalls, Morgans in Alliance with CMB and Tom's Superfruits.

Organisations that are members of STEP: ACT Herpetological Association, ANPS Canberra Region Environmental Defenders Office, Field Naturalists Association of Canberra, Molonglo Catchment Group.

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