



UnderStories

*promoting preserving protecting
& rehabilitating native vegetation*

Spring 2014, No 67

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and memberships to:*

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FROM THE PRESIDENT

I want to start my comments in this newsletter with two big thankyou's. First, to all of those members who included a donation with the renewal of their subscriptions for 2014-15. The committee really appreciates the efforts made. As donations of \$2 or more are tax deductible I hope that by now everyone has received a receipt. If not please let us know. There was a slight delay in processing membership renewals because the volunteers were on holiday but everything should have been caught up by mid September.

A second thankyou goes to those members who took the time to respond to my comments in the last newsletter about the future of the USN. I am pleased to report that all responses supported the USN remaining as an independent organisation but were happy to see a cutback in the hours of the co-ordinator and a change in administrative arrangements to permit us to continue to operate at a lower cost. We have a lease on the current office until November but will be moving activities to the nursery and the co-ordinator's home office after that date. A number of respondents had participated in workshops, seed collecting days and other activities run by the USN, often in conjunction with funded projects and expressed a strong desire for these activities to continue. I am pleased to advise that your committee is also keen to see such member activities continue and develop and we have a couple planned for the forthcoming year that should be noted in your diaries now.

The first really important "member only" event is the annual general meeting to be held at the Botanical Gardens in Hobart on Saturday 27 September. Many people consider an AGM to be boring and some would prefer to visit the dentist rather than come to an AGM. However, I sincerely hope that as many members as possible will put these feelings aside and join us at 10.30 on that Saturday. In anticipation of this we have included an agenda and nomination forms for committee members within this newsletter.

As a “not for profit” incorporated organisation we are legally required to hold an AGM but we try to make the business part of the meeting flow as quickly as possible so that we can get onto the “fun” part. The meeting allows members from many different geographic areas to meet and discuss topics that interest them. It allows members to put faces to names and allows us to begin to formulate plans for the future of the organisation. Given the need to adapt the USN to meet changes in financial fortunes it is probably more important than ever that as many people as possible attend the AGM this year to let us know what they would like the committee to do during the next twelve months.

One reason that people do not like to attend an AGM is because they are concerned that they may be dragooned into joining the committee. I assure you that we do not intend to adopt strong arm tactics but we really do need new committee members. While the USN requires some funding to enable it to continue to operate it is more important for it to have an enthusiastic committee, the members of which are able to come up with innovative ideas, if it is to survive. We have just had our 20th birthday if we wish to see 25 we need new members on the committee who can bring a new perspective to our activities. This is not to say that the current committee members are not doing a great job. They are but the majority can count their committee membership in two figure numbers and we run the risk that they may not be able to see new opportunities because they are too bound up with past achievements. Also, a number of our members have retired from paid work and are taking the opportunity to travel. While it is wonderful to receive their input into meetings from boats at sea, the middle of the Australian desert, on top of Amazonian mountains, somewhere in the United Kingdom and having “just climbed” Table Mountain in South Africa it does make running the organisation somewhat difficult.

I therefore plead with everyone to give serious consideration to joining the committee. At the moment we meet for about 2 hours in the evening of the second Monday of the month, except January, but that is not set in stone, a new committee could decide to meet at a different time and on a different day. Being on the committee does not mean that you have to volunteer to take on any other responsibilities if you do not wish to do so, so please give it some consideration. If you cannot attend the AGM you can still submit a nomination.

Another point to note about the 2014 AGM is that it will be held on the day of the football grand final. If you are a football fan we ask you to attend the meeting, in football colours if desired, partake of a light lunch at the end and depart to watch the match on a large screen. However, if you do not like football we suggest that you attend the meeting, eat the light lunch and spend the rest of the day in the football free zone of the Botanical Garden. How's that, the USN thinks of everyone!



That's enough of an attempt to “sell” the AGM. Another planned activity to not miss is a plant identification and seed collecting walk at the property “Bangor” on the Forestier Peninsula, planned for the last weekend in January. We are also trying to arrange for permission for an autumn walk on one of Tasmania's premier private properties, identification to be withheld until permission is granted. I can only say “watch this spot”, please say hello at the AGM and consider joining the committee to play an important part in future developments of the USN.

Joan Rodrigues

GARDENS FOR WILDLIFE AND THE UNDERSTOREY NETWORK PARTNERSHIP FOR WILDLIFE

The Understorey Network has been a long-term partner of the Gardens for Wildlife (GFW) scheme and has worked in collaboration with DPIPWE's Iona Mitchell to develop the scheme which was first officially launched in Tasmania in August 2008. Since that time Gardens for Wildlife has steadily grown and recently reached a significant milestone with the registration of its 500th member, Angela Andriopoulos.



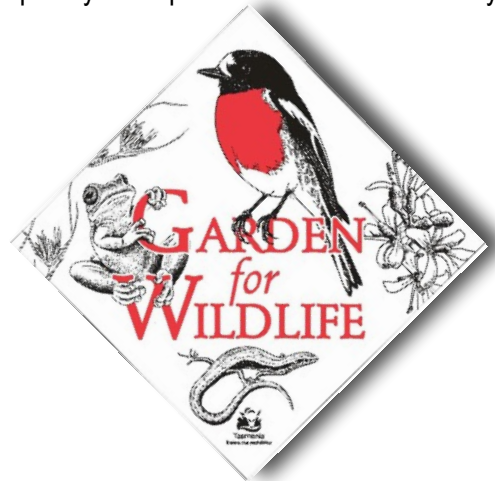
To celebrate the occasion, Mary Jolly from the Understorey Network and Iona visited Angela at her Lower Snug property to deliver 50 local provenance native plants grown and donated by the Understorey Network. The collection included broadleaf hopbush, she-oaks, tea trees, saggs and wattles. Angela also was given a copy of NRM South's Native Gardens planting guide and the recently revised 'Bugs, birds, bettongs and bush' book by the DPIPWE Protected Area on Private Land Program.

Angela was absolutely thrilled to receive these gifts and proud to show Mary and I her garden and to tell us of her plans and ask advice. Fortunately, in her garden she has some remnant native vegetation which has not been cleared. There are a few large trees and native shrubs which are naturally regenerating. Since working to develop a wildlife-friendly garden she has acquired a passion and great love of native plants. 'I just love it and could spend hours in the garden without needing to talk to anyone' she said. After a busy week at work it is a welcome break and a means for me to switch off and tune out'. Angela aims to encourage a greater number and diversity of native birds to her garden and delights in seeing them using the bird baths which she has in several locations.

At a state level GFW has steadily grown to cover 2,622 ha. Each garden displays the attractive GFW sign which allows members to be recognised. It also increases awareness, promotes the scheme and encourages others to join. The GFW scheme shows that habitat conservation is for everyone not just large landholders, national parks or reserves and has proven very effective in increasing members' enjoyment through contact with local wildlife,

especially birds, but also pademelons eastern-barred bandicoots, frogs, lizards and brush-tailed possums.

The scheme also focuses on environment-friendly sustainable practices, as what we do in our gardens affects other places beyond our boundaries. By planting native species it is possible to minimise water use and use of chemicals, so preventing run-off of pesticides or excess fertilisers into stormwater drains. These chemicals, when used, frequently end up in the local river or estuary.



All these elements are represented in the GFW sign. The kangaroo grass and frog image represent wise-water use and chemical-free gardening. The prickly box flowers represent drought tolerant plants, safe habitat for little birds and food sources for birds and other wildlife as they either produce nectar or are insect-attracting. The skink represents invertebrates and their importance above or below ground as a food source, decomposer and recycler of nutrients back into our soils.

Gardens for Wildlife has now spread outside Tasmania. It has recently been adopted by the Barung Landcare Association, based in Maleny (Queensland), through a signed MOU agreement. This agreement will maintain the ethos and standard appearance of the scheme. Barung Landcare have used the same artwork for their GFW sign only changing the scarlet robin of Tasmania to a more familiar bird species for the Maleny region of Queensland. The bird chosen is the red-backed wren.

Working in partnerships, such as the collaboration between Gardens for Wildlife and the Understorey Network is a great way to share our knowledge and skills, so that together, to borrow a line from a Paul Kelly song "from little things, big things (will) grow".

Iona Mitchell

Coordinator Gardens for Wildlife

www.gardensforwildlife.dpipwe.tas.gov.au

TOLOSA ST NURSERY AND COMMUNITY GARDEN UPDATE

Two large projects have been undertaken by the volunteers since last spring. Members would have read about the 'Besser' brick that is now a beautifully painted and displaying mosaic, native flowers. And of course the pizza oven had its official opening and is now a wonderful asset.

However, there have been many and varied 'smaller' projects that have been accomplished since last spring.

We all love the pizzas that come out of the oven, but perhaps even more to the volunteers' appreciation are the benches that now 'house' our precious little plants. No more bending to lift up heavy polystyrene boxes of plants, no more navigating our way through closely placed boxes..... heaven! Now we have all our plants at eye level..... what a joy!

A grant from the Westpac Foundation allowed us to buy the materials needed to construct the benches. Labour and tools from the *BMI Construction* team, Bill Hills, Michael Jones and Ian Brinkman and some extra help from Oliver and pakana services, had the benches completed in time for the autumn plant sale. Great job guys.



The Life Without Barriers team, who assist us with much of the pot washing, now have three large sinks from which to operate instead of three wheel barrows that needed to be filled with the washing, bleaching and rinsing water. Now it's easy to fill the sinks and with a quick pull of the plugs easy to empty. And they are much more ergonomic. Another thank you to BMI Construction.

The garden has not been ignored. A 'new' area has been planted and mulched on the edge of the bicycle track at the bottom of the garden. Decorative pavers, made at the nursery, have found their way into the paths and the garden. Very, very, large rocks have been dragged (by car) levered, pushed, shoved (by hand) and encouraged (by onlookers) into place in different areas of the garden. We now have the rocks that will define where gates may be erected one day in the future. Stone edging continues to grow around the paths as suitable rocks become available.



And the sauna, I mean, meal room, has received a much welcomed boost with the installation of a heat pump courtesy of Life Without Barriers. What a relief to come in for a 'cuppa' or lunch to a wonderfully warm environment after working outside during the winter months.

*If you would like to volunteer **any** amount of time at the nursery or the garden we would love to see you.*

Plant sales are available Monday from 9.30 to 2.30. For stock queries contact Oliver on 0407 352 479 or email oliver@understorey-network.org.au

If you haven't yet visited the USN's Tolosa Nursery please pay us a visit. The garden is open during the park's opening hours 7 days a week.

EUCALYPT DIEBACK REVISITED

Is it really all just about nitrogen and should we burn the woodlands more?

You might or might not remember the article I wrote two years ago “Eucalypt dieback and Understorey Networkers”, in which I tried to get my head around the various explanations offered for the terrible decline and death of eucalypts in much of Tasmania’s Midlands (and increasingly in other areas).

It can be a complex topic, to say the least. Some of the various factors blamed (not in order) include:

- **moisture stress**, at least partly due to **climate change** (especially reduced rainfall and increased temperatures)
- **shallow soils** and **exposed aspects** make this moisture stress worse, and it tends to be worse on rocks like **dolerite**
- small areas of **remnants** and **isolated trees** (remaining trees are more exposed)
- competition with **improved pastures**
- **Cultivation**
- **stock grazing** (where stock camp and defecate nutrients tend to be greatly elevated, however you will notice in the text below that sometimes stock can be used to help the trees by removing nutrients)
- **elevated nutrients** (such as nitrogen and phosphorus)
- alternatively, sometimes **nutrient deficiency**
- **soil compaction**
- altered **fire regime** (changing soil processes, understorey density and composition, and nutrient status of soils)
- **removal of large fallen logs** and limbs from bushland (which aid seedling establishment)
- reduced **mycorrhizal fungal** biodiversity
- **altered fungal** diversity (in some cases resulting in dominance by the aggressive native fungus, *Armillaria luteobubalina*, the Australian Honey Fungus)
- in **coastal areas**, increased exposure to strong, salty winds (due to clearing)
- **dryland salinity** (for example, in Prospect Vale, where conversion to housing has resulted in raised salty water tables and led to death of many remaining trees)
- increased **possum browsing and insect attack**
- **noisy miner** dominance (fewer other birds to eat the insects, which then defoliate the trees)

PHEW!! That’s quite a list, and of course there are often multiple, related factors operating.

Another factor, which I forgot, is **industrial emissions**, such as acid rain in the northern hemisphere. The dieback of eucalypts on the Tippogoree Hills around George Town, as well as around Rowella on the western side of the Tamar, is credited to fluoride emissions from Comalco (hopefully no longer the case?!)

Diseases, such as phytophthora rootrot, have not so far been found to be a major cause of eucalypt dieback in Tasmania. (Phytophthora does, however, cause terrible dieback of many other species).

But maybe it’s all really simple, actually...

After the article was published, I received some comments and references from silviculturist Vic Jurskis, from Forests New South Wales, who wanted to point out the importance of an aspect of one of the factors above – **nitrogen accumulation**. Vic says,

“Tree declines around the world are a result of nitrogen accumulation... In Australian eucalypt forests/woodlands it happens with exclusion of frequent low intensity fire. In the Midlands this is exacerbated by pasture improvement. On the east coast a lot of forests/woodlands were maintained by unimproved grazing which can be ecologically analogous to burning and prevent N accumulation. Since grazing has been reduced/withdrawn from a lot of country it has scrubbed up and trees are declining/dying. I worked in the forests south of Bicheno in 74/75 dragging a survey chain on compass bearings. It was pleasant work. Wouldn't be able to do it now.”

Surprisingly, Vic does not consider tree decline complex at all;

“overly complex explanations or management responses are unnecessary. Rural tree decline is associated with increased soil N and associated changes, either under improved pastures or with exclusion of grazing and fire from grassy woodlands”



Nitrogen accumulation can be a problem because it is often associated with soil acidification, base cation depletion, suppression of mycorrhizal fungi and nutrient imbalances and toxicities (e.g. aluminium or manganese toxicities, and inhibited uptake of nutrients such as calcium and magnesium). Deteriorating roots and chemical imbalances in trees may initiate feedback loops whereby trees become more susceptible to pests, parasites, diseases and competition.

Even without improved pastures or other human additions, nitrogen can accumulate with time since fire in dry eucalypt forests. When there is a fire, burning of organic matter leads to the loss to the atmosphere of the contained nitrogen.

On the other hand, fire may also stimulate regeneration of N-fixing species, such as wattles, actually leading to increases in rates of N fixation after the fire.

Another important aspect is increasing tree density where fire frequency has reduced. For example, woody thickening has reduced discharge relative to rainfall from water supply catchments in Western Australia by two thirds whilst the problem has been compounded by a decade of drought (Batini 2009, cited). More trees in a forest means less water each.

Should we burn more?

Vic Jurskis seems to be of the impression that forests are not being burnt enough because of an attitude problem by landholders. Are we mistakenly protecting our land from fires, when we should just get out there and burn to save the trees?

There are many practical reasons why private and public landholders are not always able to conduct sufficient burns.

Leanne Sheriff from Macquarie Franklin says “there are some major barriers that limit the extent to which landholders undertake planned burns. These are (in order of priority): risk of fire escapes; potential liability from fire escapes; access to good weather/forecast information; labour to manage the burn; and equipment to safely manage the burn”. (<http://tasmaniantimes.com/index.php?/article/private-land-planned-burning-pilot-project/>)

Of course, we Understorey Networkers know that there are many positive and negative impacts of fire, on understorey and animals as well as on trees. Overburning can result in loss of diversity, with dominance of bracken, for example. Underburning can result in loss of diversity too, as species which germinate after fire gradually lose the competition with species such as teatree. It is important to get plenty of information about your patch of bush, and the probable best fire regime (another big topic to go into sometime), and of course safety aspects, before you burn.

It is important not to avoid the issue of fire in our bush – find out what you should do in your bush.

I find it hard to believe, as Vic does, that managing native vegetation is simpler than we think! Nevertheless, it is a fair point that nitrogen accumulation may be contributing to eucalypt decline in your area. Fire may be one tool you could use to address it.



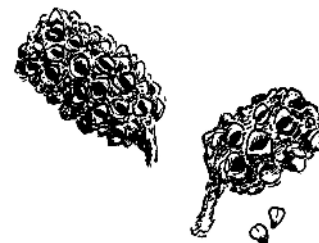
Die back in Trevallyn

To assist private landholders with conducting burns, a private land planned-burning project is being delivered by Macquarie Franklin, with funding by NRM North, with a Planned Burning Manual available at <http://www.macquariefranklin.com.au/red-hot-tips.html>

As a starting point, you can check a basic guide to burning frequency of your type of bush in the Bushcare Toolkit (<http://dipwwe.tas.gov.au/conservation/conservation-on-private-land/bush-information-management/tasmanian-bushcare-toolkit>). And do check out the easy-to-use Tree Decline Toolbox for other ideas too.

Anna Povey

Whats happening



Please call the office on 6234 4286 or email oliver@understorey-network.org.au for more information or to RSVP for any of the workshops.

Also check the website for the latest Calendar of Events.

Understorey Network AGM

With guest speaker Dr Sally Bryant from the Tasmanian Land Conservancy

When: Saturday 27th September 10:30 to 11:30 (Refreshments provided)

Where: Royal Tasmanian Botanical Gardens – Education Pod

Understorey Network at the Spring Festival (South)

We will be having a display/stall at this colourful event – volunteer to help out or drop by to say hello

When: Saturday 4th and Sunday 5th October

Where: Royal Tasmanian Botanical Gardens

Eucalyptus morrisbyi monitoring and installing tree guards (South)

As part of our project funded by NRM South we will be doing some interesting work on this threatened species. Contact Oliver if you are interested in helping out.

When: Saturday 4th October

Where: Calverts Hill, Sandford

Understorey Network at the Sustainable Living Festival (South)

We will be having a display/stall at this popular event – volunteer to help out or drop by to say hello

When: Saturday 8th and Sunday 9th November

Where: Princess Wharf 1, Hobart

Propagation Workshop (South)

How to propagate Tasmanian plants from seeds and cuttings (Also depot day for Southern growers)

When: Saturday 10th October, 10:30 to 12:30

Where: Tolosa Park, Glenorchy

Propagation Workshop (North)

How to propagate Tasmanian plants from seeds and cuttings (Also depot day for Northern growers)

When: Sunday 26th October, 10:30 to 12:30

Where: Exeter, West Tamar (Venue TBC)

Seed Collecting and Plant ID Walk (South)

When: Saturday 31st January

Where: “Bangor” near Dunalley, Forestier Peninsula

Understorey Network Committee Meetings

When: Second Monday of the Month at 5:15pm

Where: USN office, Level 1, 148 Elizabeth Street Hobart

All members are welcome to come to our regular meetings – please RSVP for catering purposes