Land for Wildlife and Garden for Wildlife
Central Australia Newsletter

June 2019

From the Land for Wildlife Coordinators

This month has been a time of reflection and readjustment as Land for Wildlife and Garden for Wildlife reaches the end of a long-running funding agreement we have held with the Parks and Wildlife Commission for the last 9 years. As this arrangement wraps up due to NT government financial constraints, we want to thank the PWC for it's role in assisting in conservation on private lands and to reassure our members and the Central Australian community that the LfW and GfW programs *will* continue to operate under a 'support-as-needed' approach.

We are so far yet to be successful in garnering grants from other funding bodies, but we will continue to provide land, flora and fauna management guidance where we can. Indeed, we love our environment and the challenge of keeping it viable! We all work in the environmental sector during a time of global climate change, the biggest challenge to life on the planet, and we'll continue to do our bit! But it does mean that staff will have a focus on grant seeking and less time as a resource base. If any of our members and readers have suggestions or contacts that might help us gain funding for the not-for-profit program, please let us know.

Although program funding is currently in a state of flux, this does not detract from the importance of the continuity of biodiversity conservation that you, our on-ground network, do. Keep up the good fight; our landscapes, our unique flora and fauna and our planet live on because of, *and for*, your efforts.

KEEP MAKING *YOUR* DIFFERENCE

~ Kate Stevens and Bill Low

"Do your little bit of good where you are; it's those little bits of good put together that overwhelm the world."

- Archbishop Desmond Tutu

Land for Wildlife Central Australia 16 years and continuing…

In This Issue

Banner Image: The *Acacia intertexta* forest in Ilparpa 2018 following a decent dump of rain or two
Image: Barb Gilfedder

What's in a rainwater tank???

Well may you ask that question! (Well...it is a type of a well *per se).*

Choosing a water tank to capture rainfall on your property can prove to be as much of a dilemma as it is shopping for cereal, milk or a car! The range of tank types are many and varied. No longer is it a simple matter of deciding you would like to drink unadulterated water, going to the closest tank shop and purchasing said tank. As you may discover, you could find yourself considering such things as 'How many litres do I want to collect?', 'How much space have I got to position a tank and where would be the best location to put it?' And if you don't have guttering on your roof, 'Do I need to replace or install guttering?' Your next question would undoubtedly be something like '*Who built this house and what were they thinking anyway???*' Dinner table conversations with family and friends might start to incorporate discussions about tank shapes, tank colour, how your/their guttering holds up to a sudden deluge and where to purchase the perfect tank at the right price.

Types of tanks

There are many tank styles - big, small, round, tall, rectangular, underground (to save space) or bladders (storing water under the house).
Materials that are used in their construction include concrete, fibreglass, galvanised iron and stainless steel. Before you rush out and buy the first tank you see, you necessarily need to consider how much space you have and how much storage you need. It is estimated that installing a 10 000 litre tank on a medium sized house would save an average 40 000 litres of water per year*.

You CAN save 10's of 1,000's of litres of water just by *reducing your shower time* from 7 to 4 minutes = 30 000 litres per year!!!!
(per 3-person family)

Other items you need

As well as space for the tank, you will need gutters, a first flush diversion device (this stops the dirtiest roof water from getting into your tank), leaf guards and insect screens. If you plumb the tank to a fixture, you will probably need a pump and a filter. A filter will help prevent drip irrigation from getting clogged.

Maintenance

Tanks should last at least 20 years. Position your tank in the shade to extend its life. At the end of a dry period and between big rain events clean gutters and screens and flush out first flush tanks. Make sure the roof is clean and clean out sludge in the bottom of the tank every few years. Check screens are in good condition to keep animals and insects out.

Approvals and guidelines

Building approval is needed for tanks on stands, however not for tanks sitting on the ground. Depending on the rainwater tank set up you may need back-flow protection on the mains supply. Consult a back-flow accredited plumber for advice. Check the Department of Health website for more information and consult a licensed plumber for installation advice.

*Based on desertSMART COOLmob rainwater tank calculator.

The ins and outs of water harvesting

Rainwater ... the best water for plants, people and wildlife

Rainwater has many benefits for many things and in many ways. I guess to 'boil it down' and simplify the infinite list of rainwater benefits, it would be something like: *the essence of all LIFE*. So given that water is something that provides us (and all living things) with life, let me elucidate on what it is that makes rainwater so outstanding.

Rainwater has a sweet and chemical-free taste.

Surveys have shown that people prefer the taste of rainwater over mains water.

Environmental benefits and $$$ savings.

Rainwater is low in salt and is non-alkaline. Unlike the Alice Springs mains water, rainwater is classed as 'soft' water which means that it has no dissolved salts in it. This property allows soap to lather easily, hence washing such things as clothes, dishes, hair, in rainwater, will provide more suds with less soap, which of course saves $$$'s. Using non-alkaline rainwater in a hot water system or in evaporative air conditioners also prevents the build-up of scale in these systems. Harvesting rainwater will supplement Central Australian's use of mains groundwater, in turn, reducing the demand and supply pressures on these reserves and helps to conserve supplies for the future. Harvesting rainwater immediately reduces your water bills, and provides an alternative supply during extended dry periods and drought. In fact, depending upon tank size, and during times of high rainfall, rainwater harvesting can reduce mains water use by 100%.

Water harvesting techniques and tips

Direct and channel water run-off from roofs and other hard surfaces e.g. paving and driveways, to reserve areas or higher water needs. Build paved areas slightly higher than garden areas so water runs off instead of puddling on the impermeable surface. Landscape additions of swales (contoured ditches), low ridges and sumps add interesting features to a garden as well as channelling and collecting rainwater. Divert run-off by implementing shallow spoon drains or simulated creek lines, to high water usage areas such as garden and vegetable beds or fruit trees. This can effectively provide water to plants, saving you time and money and potentially increase food and flower yields and production longevity. Simulating a creek bed can be achieved by putting in gravel or sand ditches and depressions. Create dishes around trees and channel water into them. Rainfall in Central Australia is low and sporadic, so water harvesting fosters a responsible use of making the most of what we do receive.

Naturally occurring dry creek beds or drainage lines can be installed with a large central sump. The pump structure provides both a landscape feature as well as a large reservoir for water run-off. Plants that need more water should be put in swales and by terracing sections of sloping land which will assist in holding run-off and retain water on your property. Put pot plants outside when it rains, you can tell they benefit more from rainwater than tap water from their vibrant response to a good dose of rain.

Provide stability to a swale or naturally occurring depressions by planting deep-rooted vegetation and groundcovers around and in them. This will assist in maintaining their structure.
Image: Caragh Heenan

Acacia estrophiolata
Ironwood

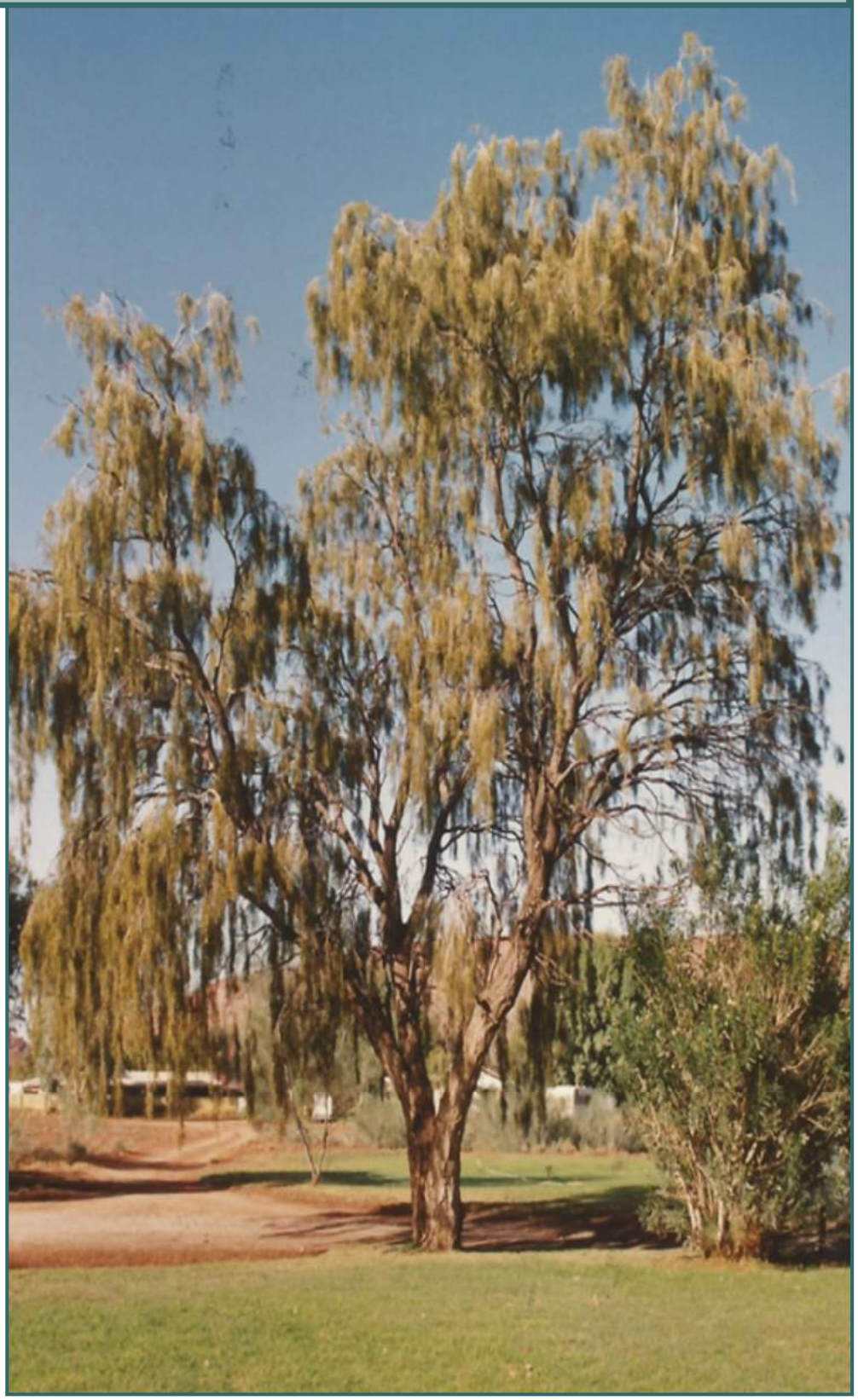
A Snippet From Significant Trees

This magnificent Ironwood specimen, sadly, no longer exists where it once stood. The tree was one of many Ironwoods in the gardens of the Araluen Arts Centre, in Alice Springs, and pictured here *in situ* in 1999.

Ironwoods are very slow growing, taking 60 to 100 years to reach maturity. The species looks vastly different in it's juvenile stage, resembling a shrubby *Grevillea*-type form which lasts for 6 -10 years. At this age, the upright tree begins to take shape into it's adult form (*right*).

Ironwood timber is hard and tough and traditionally used to make spears and other tools by Indigenous peoples in this Central Australia.

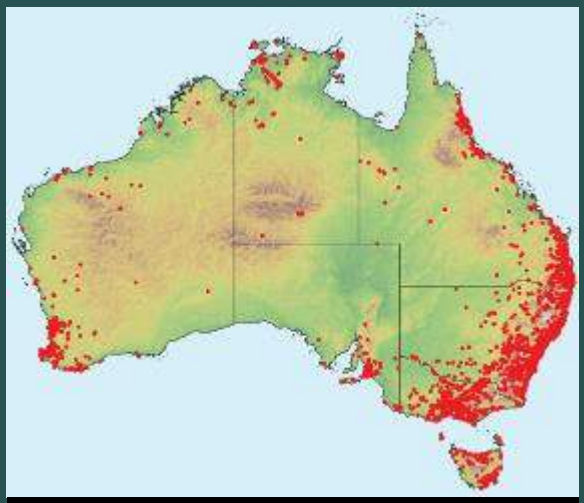
» View the NT Register of Significant Trees page to learn more about the register. The NT Register of Significant Trees was established by the National Trust NT and Greening Australia. It is managed by Land for Wildlife Central Australia.



FrogID'S FIRST YEAR: WHAT *YOUR* DATA TELLS US

Can you recall the auspicious launch of the Citizen Science program, FrogID, by Museum Australia a few months ago? Did you download the app and have fun taking part on a frog hunt? Well, for your interest and satisfaction of a job (being) well done, here are some the recently released findings from the program's first year in operation.

In just one year, FrogID has generated the equivalent of 13% of all frog records collected in Australia over the last 240 years. The submitted recordings have resulted in over 66,000 validated calls and detected 175 of Australia's 240 known native frogs. The data has informed scientists on the impacts of climate change and pollution on Australia's frogs including the first evidence of the decline in Sydney of the Australian Green Tree Frog; the spread of the invasive Cane Toad; and information on the breeding populations of 28 globally threatened and 13 nationally threatened frog species.



Location of all frog records for the first year of FrogID in Australia
Image: Museum Australia

"Due to FrogID and the thousands of people recording the calls of frogs across Sydney, we have enough data for the first compelling evidence of the disappearance of the Green Tree Frog from most of Sydney." Dr Jodi Rowley, Australian Museum Curator of Amphibian & Reptile Conservation Biology said.

Evidence of the decline of the iconic Australian Green Tree Frog (*Litoria caerulea*) (pictured left) in Sydney is integral to conservation efforts. We can now provide up-to-date information to land managers to better understand where the frogs are located and ensure the habitat that supports them is protected.

Another surprising result from the first year of the project has been the number of records of native frog species detected calling from well outside their known range, including the Eastern Dwarf Tree Frog (*Litoria fallax*) found up to 400km from the known edge of their native range near the NSW/Victoria border. (Learn more about hitchhiking frogs on this blog).

This is all thanks to the efforts of you, the amazing FrogID'ing Citizen Scientists driving this data collection.

Check out the Nations top frogger, Matt from the NT, featured recently in the Sydney Morning Herald.

Landcare NT is asking for *your* help to formulate a 'Volunteer Engagement Strategy'. The strategy will assist organisations, such as Land for Wildlife and Landcare NT, to make more informed decisions. It will assist us to better target [our] usefulness and resources, and increase more effective on-ground actions. By completing an online survey and sharing *your* volunteering experience, you will be strengthening a future strategy to engage, support and maintain our volunteer base.

The survey doesn't take long and the more people sharing their volunteer experience with us will provide a broader range of views.

Help us gain even better understanding of how to support our most valuable asset .....YOU

Click on the link below to complete the VES survey.

Volunteer Engagement Survey

The leaves and seed pods of the White Cypress Pine, *Callitris glaucophylla*. This species is native to Central Australia and grows on rocky ranges or rises, offering it greater protection from wildfires.
Image: Land for Wildlife CA

The dried seed case of the *Callitris glaucophylla* lying where it fell, beneath its parent tree. The seeds have long since dispersed via wind or animal vectors.
Image: Land for Wildlife CA

Why its worth pulling a weed...when you don't have the time.

Many land managers and habitat gardeners would like to remove invasive shrub species, but worry about what happens afterwards. Will they need to launch a costly remediation program to re-establish native plant communities?

A recent study published in the journal 'Invasive Plant Science and Management' provides important insights of this gardeners dilemma. Researchers manually removed 18 species of invasive shrubs from five plots in a mature, deciduous forest in eastern United States. They cut the shrubs off at the base with hand clippers and treated foliage emerging from stumps and roots with herbicides. New seedlings were removed each spring.

Seven years after the initial removal, native plants had regenerated and filled the gap on their own -- and they did so to a much greater extent than expected. Researchers found a significant increase in plant diversity and abundance among both native understory species and small trees.

"Natural regeneration in the areas where invasive shrubs had been removed actually exceeded the growth of native cover in unmanaged forest control plots -- even those where no invasive shrubs were found," says Erynn Maynard-Bean of Pennsylvania State University.

These recent findings go a long way to suggest that removing weeds is worth doing, even when active steps to restore the native plant community aren't possible.

For further details on this research, go to the link in our 'Further Reading' section on the last page.

Be WEED AWARE!
Although attractive plants, invasive species have the potential to cause untold damage to the environment, now and long into the future.

This Months Habitat Quiz...??

1. Where are the only two locations in Australia where you can see the Nationally listed vulnerable species, *Acacia latzii*?
2. Which reptile species, found in Central Australia, sports a 'second head' on the back of its neck and what is it used for?
3. What does the term 'Environmental Service' refer to?
4. What is one of the most invasive and prolific grasses in Central Australia and does it influence important environmental factors that change landscapes e.g. fire, water movement, soil retention? (*see images below*)
5. How many FrogID-ing groups from the NT where listed in the Top 10 recorders in Australia?

Answers will be in the next newsletter




May Habitat Quiz Answers

1. The 10 categories of significance for a tree or trees to be included on the NT Significant Tree Register are:
   Aesthetic Any tree of outstanding aesthetic quality
   Size Any tree that is considered outstanding for its large height, truck circumference or canopy spread
   Age Any tree that is particularly old or venerable
   Historical Any tree commemorating, or associated with, an important historical event
   Cultural Any tree associated with a well-known public figure or ethnic group
   Unique Location Any tree which occurs in a unique location or situation, or provides an important contribution to the landscape, including remnant native vegetation, important landmarks, and trees which from part of an historic garden, park or town
   Rare Any tree that is classed as a rare species or that displays a restricted distribution
   Horticultural Value Any tree which is of horticultural or genetic value and which could be an important source of propagation stock
   Physical Features Any tree which exhibits a curious growth form or physical feature including unusually pruned forms
   Group Any group or avenue of trees conforming to any of the above criteria
   Habitat Any tree or group of trees making an important contribution to habitat for particular flora and fauna
2. Seventeen million i.e. (17, 000 000 000) feral cats are present in every ecosystem across Australia and are one of the main reasons for Australia's increasing rate of native wildlife at risk of extinction.
3. Four million domestic cats are kept as 'pets' in Australia. Domestic cats can have a significant detrimental impact on our native wildlife. Pets that are allowed to roam outside, and most particularly during their natural hunting period - during night hours, cause as much damage in local ecosystems and gardens as do feral cats. Pet cats prey on small reptiles, sleeping birds and vulnerable native mammals. Mammals that are most at risk from predation from your pet moggy are animals that are classed in the 'critical weight range' (35−5500 g: incorporating numerous species shown to suffer the highest rates of population decline throughout Australia). *Moral of the story – keep cats inside at night – it won't hurt them in the least (they can actually live their whole lives inside) and you will enjoy their night-time company*.
4. Main's Frog, *Cyclorana maini* is classed as a burrowing frog.
5. Male Western Bowerbirds, *Ptilonorhynchus guttatusare*, are promiscuous, trying to attract many mates by building bowers, large avenues of sticks and grass stems. Decorations to the bower are mainly white and green and males spend a lot of time collecting and arranging their finds: bones, shells, seed-pods, small stones and things found in gardens. The male displays at his bower with an amazing performance of churring sounds and mimicry, flicking his wings and showing his bright pink nuchal crest on the back of his head.
6. Some decisive local actions you can do today to help reverse the decline of insects: place a rock in your garden, install an 'Air Bee 'n Bee' (see Sept 2016 newsletter), plant a tree that drops leaves and limbs, don't rake up the leaves or burn logs...insects live there!

Themeda triandra
Image: OPBG

Yeperenye
Image: Jon Raveney

Ground habitat
Image: Jen Kreusser

Channel-billed Cuckoo
Image: Bob Gosford

Senna artemisioides helmsii
Image: JP OPBG

THE NEED FOR SEED

Have you noticed, or even bought, some of those lovely little seed packets that are available to purchase around Alice Springs? You know the ones, the small packets that behold the unique seeds of Central Australia's plant species. Well, do you know where those special little seeds are sourced from?

The seeds are collected from a variety of contributors including professional seed collectors that hold permits to collect seed from our Central Australian Parks and Reserves. Seeds are also collected from home gardens...a contribution from local gardeners that grow habitat in their front and back yards and properties. That would mean YOU!

The Alice Springs branch of the Australian Plant Society (ASAPS) are responsible for producing the lovely little packets, but are always in need of more seed from local plants. If *you* notice seed production occurring in your garden amongst native vegetation, gather the seed in a paper envelope and contact the Plant Society. Just think, you will be involved in spreading your garden's progeny to the other gardens. As you know, a wide variety of enthusiastic gardeners visit Alice, so your garden's seed has the potential to be planted to flourish in local, National and even International, gardens.

Address: C/- Olive Pink Botanic Garden, Tuncks Rd, Alice Springs NT 0870
Email: apsalicesprings@yahoo.com.au **Phone**: 08 8952 2154

Click the link for Further Reading

- ***Blog*** • Top tips for making your water tank mozzie proof
- ***Website*** • Alice WaterSmart (an 'oldie' but a goodie!)
- ***Database*** • One for curious minds: A comprehensive list of animals that fart, or not (incl. Aliens!).
- ***Article*** • Invasive shrub removal benefits native plants in an eastern deciduous forest of North America

Happy reading,
Kate and Bill

Do you have any stories or images to share? Get in touch! We are always looking for members to share their experiences via our social media and newsletter. Email us with your suggestions of articles or topics that interest you.

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