



Land for Wildlife and Garden for Wildlife Central Australia Newsletter

From the Land for Wildlife Coordinators

Hi everyone

Now that we can officially shake off the whiskers and wraps of winter living, it's time to embrace the warmer days and get into the garden to prepare your wildlife habitat for the ensuing hot desert summer. Its always a good idea to increase the ability for soil moisture retention by mulching plants around their root area, taking care to leave a mulch-free zone at the base of the trunk/stem for the plant to breathe. Try not to overwater the garden, as this can foster an unnatural dependence on water in what are naturally arid zone species. You might even try changing your watering regime by reducing the amount of water provided during these spring months when the weather is not (yet) scorching. For example, a good soak every 4-6 days and increasing to twice over 7-10 days as the weather intensifies. This promotes natural hardiness in local native plants.

And speaking of change...we are still working hard toward changing LfW's current lack of funding. Here's where YOU can assist in that change.

Often, when charities and non-profit organisations appeal for money, they suggest donating the price of a cup of coffee (\$3.50 - \$5.00). Well, Land for Wildlife are a little more daring! We believe that our present funding crisis, and the continuing decline of the environment, is demanding all of us to be more risqué. We are asking for your financial support to assist us in program delivery during this difficult time, **BUT!!!**...Instead of donating the price of a cuppa, we want you to consider the dollar value of what Land for Wildlife and Garden for Wildlife provides you as a member, and as a community. Here are just *some* of the core services we provide you **for free**: Access to a wealth of expert environmental conservation technical advice, information and resources; A 1-2 hour appointment with a professional ecologist at your home; An environmental property assessment; Further desktop research and a detailed property report delivered to your door; Proudly unique signage; Ongoing loans of pest animal traps; Invitations to workshops and community events; Information on enhancing environmental services on your property, such as water harvesting and management and hence, reduced water use and costs, and; Ongoing engagement and networking from staff to inform, support and promote habitat and wildlife conservation. If you estimate a realistic cost on these services, the total \$\$\$'s would come to...more than the cost of a cup of coffee!!! We are asking you to donate what you decide the value to be for these free services provided to you, and to the community, who *are* Land for Wildlife and Garden for Wildlife Central Australia, for the past 17 years.

Prior to LfW providing a donation link on our website (under construction), you can donate now via electronic transfer to the bank account details provided in the box on the right and the last page of this newsletter. We would welcome a 'once off' donation, or you may want to set up monthly, or annual, amounts to spread your donation over time. We resoundly assure you that *any* donations will be very gratefully received. All donating patrons will be acknowledged in the next newsletter, but ***please let us know if you don't wish your name to be published.***

And in wild and excited anticipation...we sincerely thank you for your generosity

~ Kate and Bill

October 2019

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XERISCAPE FOR A DESERT-FRIENDLY GARDEN

What is Xeriscape?



While most gardens are not blessed with a natural salt pan in them, plants retaining the low bank and sand dune structure surrounding the pan (above) are typically well adapted to the arid central desert region of Australia.

The term xeriscape comes from ‘xeros’, the Greek word for ‘dry’. The word was first coined in 1981 by staff of the Denver Water Department in the US, which had formed a Taskforce to work on water-smart gardening methods for the city’s residents. The goal of a xeriscape is to create a visually attractive landscape that uses local native plants selected for their water efficiency. Properly maintained, a xeriscape can easily use less than one-half the water of a ‘traditional’ urban garden planted with non-local and exotic plants. Once established, a xeriscape should also require less maintenance than a lawn area.

Wherever you live, you can find local native plants that thrive in their natural environment. These plants grow wild without someone to water them, so with a little care, they can be a spectacular addition to your garden and require a minimum of water.

A compost heap can be an ideal way to add compost to your garden, which will add nutrition and moisture retention ability. You can make

compost from vegetable scraps and leaves. [Create Your Own Compost](#) will get you started and also read [Choosing the Right Compost Bin](#) if you want to make your own compost in a bin.

Instead of planting a lawn, consider installing porous pavers, stones or native ground covers to create an area in your garden for relaxing. Native trees can provide shade. Once established, the trees will need little or no water. Australia has hundreds of species of native plants that require little watering and Land for Wildlife can help you identify plants that thrive in your area (see link on page 4 of this newsletter). Some plants like full sun while others like shade or partial shade. Finding the right location is important. If they are in a location they can thrive, they will require little maintenance and infrequent watering.

The Basics of Xeriscaping

- Collect rainwater: rainwater tanks of all shapes and sizes are available to meet your requirements.
- Compost helps retain water and helps plants grow
- Plant small lawns or don't have a lawn. Lawns require a great deal of water.
- Choose local Central Australian native plants which will require little water
- Water intelligently. Use misting sprinklers or drip irrigation systems to save water
- Mulch your garden to help retain water



The use of natural ground covers such as grasses, stones, and logs (above) can help retain soil moisture and reduce erosion risks.

BATS EAVESDROP TO INDICATE MEAL TIME!

In the evolutionary arms race between predator and prey, recent research has revealed that bat species' have evolved even more sophisticated ways of catching their prey than was previously known. A lot of research has been conducted on the hunting methods of bats and which has shown they have many different hunting strategies. A recent review looked broadly across bats worldwide to investigate the patterns and processes underlying the sensory and cognitive adaptations bats have evolved to successfully hunt their prey.

Bats hunting in open spaces, high above the forest or over water, depend primarily on their echolocation systems. When they receive an echo from a prey, they produce more and more frequent signals -- producing what is called a feeding buzz -- as they go in for the kill. In contrast, bats that hunt in more enclosed, cluttered spaces often cannot use echolocation alone to find their prey. The echoes that bounce off vegetation are difficult to distinguish from the echoes of the prey. These bats are very good at *listening* for sounds emitted by their prey.

Desert-dwelling long-eared bats for example, listen for the sounds made by scorpions as they move through the environment, and use these sounds to pinpoint their prey. Bats from New Zealand forage up to 40% of the time hunting on the forest floor. These NZ species use their hearing skills by listening for movement, as well as their sense of smell, to detect prey in the leaf litter. Vampire bats 'go one further' and are able to recognize the sounds of a specific *individual's* breathing pattern, returning to feed on the same blood night after night!

The Túngara frog, *Engystomops pustulosus*, is a small terrestrial frog located across South America. The male frogs call, hoping to attract a female. However, the Fringe-lipped Bat, *Trachops cirrhosis*, perceive the frog mating calls as a dinner bell and locate singing frogs, zeroing in on their sound for a feed of frog. Katydid's are from the family *Tettigoniidae* and are also known as Bush Crickets, species of which are found in Australia. These insects also call to attract mates. Research has shown that different bat species respond to different Katydid calls so that bat species are divvying up available food.



Searching for prey takes a lot of time and energy and bats have cleverly evolved their eavesdropping skills as cost-saving measures to minimize search effort. They eavesdrop on their prey as they communicate, and they also eavesdrop on other bats to find out where they are catching prey.

Bats observe other bats as they hunt, paying special attention to locations where bats are making feeding buzzes, indicating abundant patches of prey. Bats tend to have hearing abilities that match their hunting strategies. Bats relying purely on echolocation to find food tend to emit loud, far-reaching echolocation calls and have smaller ears, while gleaners have large ears, lower-frequency hearing and produce quieter echolocation calls. No matter which hunting strategy they use or

where they hunt, bats seem to be adept at learning from one another. Not only do they learn from their own species, they also learn from *other* bat species.

Despite bats being an excellent group to learn about the sensory adaptations of predators, the vast majority of bats are poorly studied, and none more so than those that are native to the deserts of Central Australia.

Reference

Smithsonian Tropical Research Institute. "Bats use private and social information as they hunt." *ScienceDaily*. *ScienceDaily*, 24 September 2019. <www.sciencedaily.com/releases/2019/09/190924175729.htm>.

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XERISCAPING FOR A DESERT-FRIENDLY GARDEN CONTD...

Why Xeriscape?

Here's a few *very* good reasons to consider xeriscaping in the arid Central Australian environment:

- Xeriscaping Saves Water
- Using native plants can significantly reduce water use.
- Xeriscaping Saves Time
- Removing or reducing the size of lawns and other thirsty plants is a common-sense approach that can reduce the time you spend watering, fertilizing and mowing.
- Xeriscaping Saves Money
- Reducing water use can lower your water bill. Xeriscaping will also reduce maintenance costs and increase the beauty and value of your property.



The distinctive form of a Bloodwood tree (above), an iconic native species of the Centralian desert region around Alice.

For More Information:

Land for Wildlife has a host of information and resources about native plants and natural and water-saving gardening techniques in Central Australia, and which can be found by clicking on the following link:

[Native Plants and Gardening in Central Australia](#)

The principles of xeriscaping are simple and can be applied particularly well in Central Australia. While we provide a link here to a comprehensive guide to xeriscaping produced by the Water Authority in New Mexico, Land for Wildlife strongly encourages utilising the principles of xeriscaping found in the guide while substituting the listed New Mexican plants with local native plant species of your area:

[The New Mexico Water Authority's 'How-To' Guide to Xeriscaping](#)

RAKALI 1 - CANE TOADS 0

The Rakali (right), a native water rat, has been discovered feasting on cane toads in the Kimberley

Australia's water rats, known as Rakali, are one of our beautiful but lesser-known native rodents. And these intelligent, semi-aquatic rats have revealed another talent: they are one of the only Australian mammals to safely eat toxic cane toads.

NOTE FROM COORDINATOR: Read more about this feisty feaster in the full article from [Australian Geographic](#)





Examples of some of the flora that can be seen at Ooraminna Gorge. Read below for one of our contributing author's experience of conducting floral surveys in this area.

The Tricksters

Ooraminna waterhole is a pleasant little spot 40 km south of Alice Springs. During 1969 - 19971, I made frequent visits in connection with conducting a plant ecology survey, and one visit was particularly memorable. In those days, Ooraminna waterhole was rarely frequented. On this occasion I presumed I was alone as there was only a single track that led into the area and no sign of another vehicle being present. Suddenly there came the distinct sound of someone chopping wood. It was difficult to determine where the sound was originating from and it presently ceased. Meanwhile, the only birds I observed at the waterhole were some Zebra Finches. Suddenly there came a loud 'Kark!' of a crow, closely followed by the strident warning call of a Pee-Wee [Magpie Lark] and then the pleasant harmony of a Butcher Bird song. All of these bird songs were repeated, but interrupted occasionally with the sound of wood-chopping.

Some years later and again on plant survey work, I was camped on a remote part of Narwietooma Station in close proximity to the West MacDonnell Ranges. My camp site was located near a large River Red Gum. While I was preparing my dinner that evening there came the loud cry of howling and hissing cats, apparently fighting in the upper branches of the gum tree that I was near. The sound ceased and then started up again, and just as vociferous. Similar to the wood-chopping experience at Ooraminna, these sounds were repeated with the sequence always sounding similar, as if they were being replayed from a recording. What was going on?

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This Months Habitat Quiz...??

1. What is the most common term that is used to describe the sensory hunting skills employed by bat species?
2. What is the Arrernte name for the bird pictured in this months newsletter banner and what is the species cultural significance to the Arrernte?
3. Where does the word 'environment' originate? *(no cheating by using Google!)*
4. The acronym 'BED' is used as an informal measurement for ionizing radiation exposure. What does 'BED' stand for? *(Heads up: This is the trick question of the quiz!)*
5. In the NT, 4,515 native flora species have been classified using the assessment guidelines of the IUCN Red List. How many of these species are extinct?

Answers will be in the next newsletter

Our newest Garden for Wildlife-ers utilise bird baths and big trees to attract [and provide for] wildlife to their urban garden



The River Red Gum (above) can grow more up to 45 m tall and is has the widest natural distribution of any eucalyptus species in Australia.

Image: Olive Pink Botanical Gardens

Our latest arrival to the Garden for Wildlife family admits to enjoying watching native birds in his garden making use of the bird bath as well as the large River Red Gum (*Eucalyptus cameldulensis*) at the back of his property. Steve Jackson lives in Gillen and which is another Alice Springs suburb that has a burgeoning Garden for Wildlife community. Gillen is now populated with 11 keen residents who are sympathetic to growing and maintaining habitat on their properties with the aim of assisting wildlife conservation. When we visited Steve to deliver his membership package, he regaled us with stories of Galah's, Port Lincoln Parrots and Magpie Larks using habitat in his garden.

Galahs drinking and eating in the Land for Wildlife office garden (right)



The Tricksters contd...

It was easy now to deduce that the source of these events was caused by our champion ventriloquist in Central Australia, the Spotted Bowerbird (pictured below).

Much to our delight in recent weeks visitors to our home in Heffernan Rd for a morning drink or bath, have been Bowerbirds, among other feathered friends. Somewhere on our block we hope that they have established their beautiful bower.

Des Nelson, May 2019

Land for Wildlife member



Left: A Spotted Bowerbird collecting decorations for its bower; Centre: an excellent display of a well built and maintained bower at Olive Pink Botanical Gardens, Alice Springs; Right: The smaller violet patch of the female Spotted Bowerbird. Males are discernible by their larger violet patch.

Note from the LfW Coordinator: The Spotted Bowerbird (*Chlamydera maculata*) is a sedentary, mid-sized passerine found across broad parts of the drier habitats of eastern Australia. The species is known for its remarkable behaviours, like many other bowerbirds (Ptilonorynchidae), which include bower building and decorating, courtship displays and vocal mimicry¹. Spotted Bowerbirds are locally common, however, overall the population is thought to be in decline².

References

1. Wikipedia: https://en.wikipedia.org/wiki/Spotted_bowerbird [accessed: 02/10/2019]

2. Frith, Clifford; Frith, Dawn (2004-02-26). *The Bowerbirds: Ptilonorynchidae*. OUP Oxford. ISBN 978-0-19-854844-7

Habitat Quiz Answers

1. Plains Mouse *Pseudomys australis* (right) is the very small mammal species that prefers habitat of cracking clays found in the stony deserts of Central Australia. The species has been classified as Vulnerable on the IUCN Threatened species Red List due to habitat loss resulting from over-grazing, introduced predators, changed fire regimes and drought.
2. The street names located in The Gap (suburb) which refer to Arrernte ancestral beings are:
Achilpa Street = **atyelpe** 'Western Quoll' (*Dasyurus geoffroii*),
Echunpa Street = **atyunpe** 'Perentie' (*Varanus giganteus*),
Gnoilya Street = **akngwelye** 'dog' (*Canus lupus dingo*), and
Arunga Street = **arenge** 'Euro' (*Macropus robustus*).
3. The term 'habitat' refers to the area where plants or animals prefer to live and which provides their critical resource requirements
4. The two structures located on either side of a spider's mouth that assist in identifying and directing prey into their mouth are called 'pedipalps' – cute hey?
5. FloraNT is the website regarded as the primary online resource for information on the Northern Territory's flora. It can be accessed by clicking [here](#)



Happy reading,
and thanks again for
making a donation to
support Land for Wildlife &
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(see right)

Kate and Bill

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Contact Us

Land for Wildlife & Garden for
Wildlife Central Australia
Low Ecological Services
P.O. Box 3130
Alice Springs NT 0871
(+61) 8 89 555 222
lfw@lowecol.com.au
wildlife.lowecol.com.au

Land for Wildlife & Garden for Wildlife Central Australia Newsletter is published by Land for Wildlife, which is hosted by Low Ecological Services P/L and is supported with nominal funding from the Alice Springs Town Council.

Opinions expressed by contributors to the Land for Wildlife & Garden for Wildlife Central Australia newsletter are not necessarily those of the Land for Wildlife program, nor any of the supporting agencies.