Land for Wildlife and Garden for Wildlife

Central Australia Newsletter

October 2018

From the Land for Wildlife Coordinator

As a new arrival to Alice Springs and originating from cooler climes, at least for the coming months, I was keen to know when I should prepare myself to become an over-sweating, bedraggled soul, looking like I had just emerged from taking a shower fully clothed. I am nicely alarmed to learn that I should begin to resemble a sodden rat right about now, and followed shortly thereafter, a drowned one! However, I was more interested in learning about the local Indigenous weather knowledge of the area. Weather knowledge of the Gariwerd (Grampians) people in Victoria, where I was living, recognise six seasons that are associated with different bush foods availability. A similar understanding of the 'time of year' (season) and weather knowledge of the Arrernte people here in Alice, also relates to environmental processes. For example, *Uterne mpepe* is the time when the wild oranges flower, and corresponds with the middle of summer. *Alhwerrpe urle*, is when the Milky Way is just starting to slope toward the east and occurs in early winter, while *Ure* corresponds with late spring and is the 'fire season'. Ure is the time of year when the Arrernte people would light fires at night, confident that the dew in the morning would extinguish them. I guess that season has passed!

As I settle into my new position and Alice surrounds, I will be meeting some of you as I follow up property reassessments and new memberships. During these hotter months, we will be planning the activities and workshops for 2019 and I invite you to let us know if you have requests or ideas for newsletter topics or workshops focused on things you want to know more about. We will consider anything you pose, to assist you in your endeavors of habitat provision in your gardens to attract local wildlife, and pests you would like to *discourage*.

Kate and the LfW & GfW team

"Nature is not a place to visit. It is home."

— Gary Snyder

A male Painted Finch (*Emblema pictum*) collecting nesting material to construct one of the smallest nests built by an Australian Grassfinch (*Image: Caragh Heenan*).

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Beware! Bearded Dragons use roads too!

A work colleague at Low Ecological Services was driving to work one morning and stopped to remove Bearded Dragons from the road, not just once, but three times. Of course he took the opportunity to study them more closely, and snapped off a few shots to capture their magnificence (see below). The eventful trip caused us to wonder about not only their ecological and physiological needs (e.g. warm, sunny spots for body heating), but also of their habitat requirements. Our Land for Wildlife and Garden for Wildlife members might be happy to note that there are many things that can work in urban and peri-urban native gardens that can benefit this particular native species and attract them to use your garden as habitat.

Central Bearded Dragon finding an early morning basking spot...on the road!!! (*Cr: Xavier Kingsley)*

As their name implies...

The Bearded Dragon derives its common name from the 'guttural pouch', a pouch-like projection under the neck and chin areas, and which turns a darker colour than the rest of the body. Male beards are typically darker than females'. Bearded Dragons have specialised scales along both sides of the throat, neck and head that form many narrow spines running down the side of the body to the tail. These scales/ spines are not as sharp as they are rubbery, and are a useful evolutionary characteristic with which to convince potential predators that they would make a painful meal. When feeling threatened, a Bearded Dragon will flatten its body against the ground, puff out its spiny throat and open its jaws to make itself appear larger. Bearded Dragons are not known to attack humans. Native to the Alice Springs area is the Central Bearded Dragon (*Pogona vitticeps*). Being skilled climbers, the Dragons spend as much time in elevated positions such as trees and fence posts, as they do on the ground. Morning and early evenings are spent sunning themselves in warm, exposed areas, such as rocks or branches. During the hotter times of the day they will use shady areas or underground burrows as refuges from the heat. They can also change their colour slightly (lighter/darker) to moderate their body temperature, though not as dramatically as a Gecko!

Watch out for lizards on roads in the morning or early evening, and after dark on hot days.

(Anti-)Social habits.

Although not social animals, they will sometimes gather for a group 'bask-off' in a sunny area. Researchers have discovered that a hierarchy exists amongst Dragon basking groups. The highest-ranking animals will take the best basking spots, usually the highest or sunniest, while others arrange themselves lower down. If a low-ranking animal tries to challenge one of the dominant Dragons, the dominant Dragon will demonstrate its superiority by bobbing its head and inflating its beard, at which point the challenger may signal submission by waving one of its front legs in a circle. However, if the low-ranking Dragon doesn't submit, it will return the head bob and a standoff or fight can ensue. Females also use a wave and a slow head bob to indicate when they are ready to mate.

Perfect spot for a bask in the garden

Incorporating Bearded Dragon habitat into your garden.

If you live near woodlands or dry eucalypt forests (i.e. almost anywhere in Alice), you may see Bearded Dragons coming to investigate your garden, looking for food or a good spot to sun themselves. Considerations for Dragon habitat in your garden should be given to having an area that is restricted from pets and has basking areas that are exposed to the morning sun, such as a large rock, garden pavers or available tree branches.
Mulch your garden beds so that lizards and other insects will be available as a Bearded Dragon food source. Bearded Dragons will eat insects, ants, beetles, cockroaches, spiders, and the occasional small rodent or lizard. They are also known to eat some plant matter such as fruit or leaves. Provide water in a shallow dish on the ground for them, and always keep the water fresh.

FrogID Week November 9-18 2018

FrogID Week has just been launched by Museum Australia to create an annual 'audioshot' of Australia's frog calls, captured by members of the public. This Citizen Science project will support scientists to better understand Australia's frog populations.

One frog record sent recently from Central Australia to FrogID is of the Centralian Tree Frog (*Litoria gilleni*). This frog (closely related to the Green Tree Frog (*Litoria caerulea*)) has distinctive white or cream coloured spots on their backs, are about 8cm in length, and found *only* in central NT.

We need you to identify a local pond, dam, stream or wetland that you can visit regularly to capture the croaks, whistles, bleats and barks. And don't forget to invite a friend to join! Register here

National Landcare Awards recognise Land for Wildlife Central Australia

Image (L-R):

Billy Van Uitregt (DEWNR, South Australian Government),

Candice Appleby (Land for Wildlife Central Australia),

Caragh Heenan (Land for Wildlife Central Australia),

Emma Lupin (Land for Wildlife Top End),

Isobelle Campbell (Mannum Aboriginal Community Association).

Thanks to everyone that supported us by voting for Land for Wildlife Central Australia in the National Landcare Awards People's Choice Category. Your efforts are appreciated! Although we didn't take out the National Award, we are still winners. The recognition and involvement in the award ceremony as finalists in the People's Choice Category saw Caragh Heenan give a presentation about the engagement, involvement and efforts that our members in Central Australia do for increasing habitat on their properties. It was a great opportunity to showcase our members commitment to support our local wildlife.

We were proud to sit alongside representatives from Land for Wildlife Top End and Mannum Aboriginal Community Association (see above), who were finalists for the Australian Government Partnerships for Landcare Award, and the Rio Tinto Indigenous Land Management Award, respectively. We give hearty congratulations to all the inspiring finalists and Award winners of the Landcare Group Awards, 2018.

A Land for Wildlife member shares...

Mulga Ants and their nest ecology

Des Nelson, October, 2018

On the flat intergrove areas on red earth in Mulga country you may see numerous ant nests of a unique form; 40cm or so in diameter, outlined by a thickness of Mulga phyllodes, they look like a kind of bird nest. The vertical entrance is like a funnel.

The ants which construct these homes are known to some as 'Turkey Nest Ants' but I have always known them simply as 'Mulga Ants'. They are fairly large dull black ants that do not swarm or travel in lines as do many other species. They wander about in solitary fashion. They prefer to leave the nest at night or on overcast, humid days. During periods of rain the hard surfaces of Mulga country intergroves may be flooded. The water flow is gentle as the gradient of the intergroves is slight. The Mulga Ant nests stand out, their construction preventing the entry of surface water. But what about rain that enters the nests from above? It would need a big rain to flood those nests. They are excavated vertically to about one metre, with side galleries along the length. Moisture stored in the soil of those structures would benefit the insects for some time during dry periods.

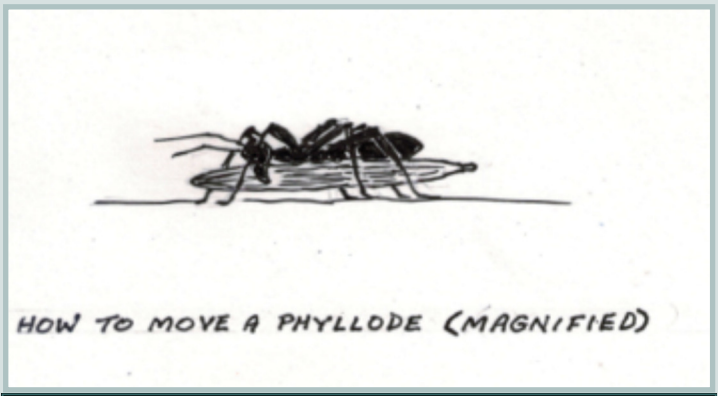
I had noticed that in times of high humidity the ants could be seen clustered on the inside of the earthlined nest entrances. I tried an experiment. On a hot day I carefully poured a little water around the

Mulga Ants nest found in the arid area of Central Australia *(Image: Caragh Hennan)*

inside of an entrance. Sure enough, ants emerged and stationed themselves on the damp earth. After repeating this exercise on several occasions I decided to take a closer look at what was happening. I noticed that on the slope of the nest entrances were small freckle-like spots. It was these, when dampened, that attracted the ants which appeared to be eating or drinking from them.

Is it because the spots concentrate moisture, or are they a food source? Are they part of fungal material? The compacted nature of the phyllodes surrounding the nest may be suitable for the propagation of a fungus.

The Mulga Ants show their best trick when constructing their nests.



A Mulga Ant's action of moving nesting material (phyllode) to the colony's nest entrance. *(Image: Des Nelson)*

Work begins when the soil is damp. At first, a low wall is built around the nucleus nest. Fallen Mulga phyllodes are brought to be placed on the wall. More soil and phyllodes are added to build up the rim around the entrance.

It is intriguing to watch how phyllodes are carried. With many ant species objects are dragged along, or if small enough, carried upright. To carry a phyllode, a Mulga Ant stands astride it, then lifts the phyllode to be snug against its underside. It can then move off quite smartly to the construction site.

One night while lying on the ground in Mulga country I shone a torch towards a nearby Mulga Ant nest. I noticed tiny specks of light. The eyes of many creatures reflect light shone upon them. No doubt the light spots I saw were from the eyes of ants doing their night-time duties.

Having spent many years working in Mulga country, my spiritual eco-unit, I was able to observe many features there, and one of the most fascinating was to observe my little friends, the Mulga Ants.

"The compacted nature of the phyllodes surrounding the nest may be suitable for the propagation of a fungus."

Did you know…? In most regions of the world the highest ant species richness occurs in rainforest areas. In Australia the richest areas are in much more arid regions.

Australia has 101 genera of ants with about 50 of these only occurring in moist, forested areas toward the coast. The dry arid zone of central Australia is occupied by only about 25 genera. None of these genera are limited to the arid zone. However, rainforest genera tend to contain only a small number of species, while many of the arid zone genera include many species. Thus it would seem that while relatively few genera have been able to invade the Australian arid zone, they nonetheless have been very successful. Locations with the largest numbers of species typically occur in one of two regions: either the semi-arid transition zones where the faunas of the moist south-eastern forests mix with those of the arid areas, or in the northern arid zone where the northern tropical fauna mixes with that of the more southern arid zone. It is possible that up to several hundred species may be found at locations in these regions.

Sugar Ants are rather large ants that are found all around the world where several hundred species have been identified in Australia alone. Sugar Ants that are found throughout the north of Australia have a dark-brown, yellowish exterior and are mostly nocturnal. Genus: *Componotus*.	**Mulga Ants** are fast and aggressive ants that are found mainly in the desert areas of the Northern Territory. These ants appear in large colonies that consist of different nests connected by little roads or 'freeways'. Mulga Ants are classified as tyrant ants. Tyrant ants typically have an acid inside their body relating to a 'crushed ant' odour. This pheromone is used to communicate with each other or as a defence mechanism. Genus: *Iridomyrmex*.
Common Black Ants are closely related to the Mulga Ants, and both species use their pheromones to protect themselves and communicate with one another. Common Black Ants nest in the open and usually form busy roads which make them easy to spot. They do not vary in size and are mostly scavengers. Genus: *Iridomyrmex*.	**Spiny Seed Ants** are similar to the common pest species, the Big Headed Ant (see following page), but are larger, darker in colour and construct a less complex nesting system. Their nests are usually found in the ground with only a single entrance. Genus: *Pheidole*.
Desert Ants are found in arid zones. These species are thermophilic, meaning 'heat loving', also making them known as **Common Furnace Ants**. They are endemic to Australia, foraging only in high temperatures when most other ants find it too hot. Desert Ants are mostly scavengers but some species are also predators, while others are seed-harvesters. Over a thousand species have been identified in Australia. Genus: *Melophorus*.	**Mono Ants** are found globally and throughout Australia. The genus has a high diversity in Australia with an estimated 500 species identified. Mono Ants are seed-harvesters and are also known as **Smooth-seed Ants**. Mono Ants produce a pheromone that acts as ant repellent especially towards tyrant ants. Genus: *Monomorium*
Giant Snappy Ants are named by the way they catch their prey; hunting with their giant mandibles open, their prey brushes against specialized hairs triggering their mandibles to snap shut and capture their prey instantly. These ants are found in tropical areas around the world, though the estimated 30 species in Australia are mainly found in the tropical savanna. They are commonly mistaken for Bull Ants because of their intense sting and large size. Genus: *Odontomachus*.	**The Lesser-horned Pony Ants**, or **Armoured Ants** are quite large ants with a sharply angular head. These ants are found only in Australia with around 350 species identified. A similar ant is the Greater-horned Pony Ant where there are horn-like corners on either side of its head. Genus: *Rhytidoponera*.

BIG HEADED ANTS INVADING BEHIND THE SCENES

Note from the Land for Wildlife & Garden for Wildlife Coordinator (2018):
While on the topic of ants, it is worth reprinting some of an article published in the Land for Wildlife Newsletter in August 2004, regarding the movement and management of an invasive ant species in Alice.

In December 2001 an article appeared in the Alice Springs Advocate that warned of the potential threats that the feral Big Headed Ant, (*Pheidole megacephala*), poses in our backyards and the Central Australian environment. Once again this little ant is in the spotlight and for good reason.

The Big Headed Ant is originally from South Africa, and most likely arrived here in Alice in a pot plant transported from Darwin or the east coast. The Big Headed Ant is light brown to dark reddish brown. 'The ant is minuscule, and only a few in a colony will have the characteristically big head. It is more easily identified by its nest which are often found in exposed soil or under cover, or in rotting wood. They form nests in soil with a low mound of loose dirt around the centre' (CSIRO, 2004).

The Big Headed Ant is a serious threat to local invertebrate communities as it reduces native insects. It is more aggressive then native ant species and incredibly invasive, reducing ant species diversity in an area from typically 20 to 30 species to only the Big Headed Ant. This is likely to have a 'major impact on ecological services that native ants provide, which include soil aeration, pollination and seed dispersal' (CSIRO 2004).

The Big Headed Ant needs moist conditions to survive and currently is [still, in 2018] found nesting in the soils around homes in many areas of Alice Springs. There is a threat that the Big Headed Ant may potentially spread to wetter environments within the region, environments that often also hold high biodiversity value.

'The Big Headed Ant is relatively easy to control: a granular bait, commercially available, sprinkled at the entrance to the nest, will get rid of the ant.' (Advocate 2001). For further information on the Big Headed Ant, visit the CSIRO webpage on Big Headed Ants' impact and management.

Land for Wildlife Central Australia named a 2018 NT NRM Awards Finalist

Territory Natural Resource Management

'Peoples Choice Award' voting now open!

CONFERENCE & AWARDS, DARWIN
13-15 NOVEMBER 2018

Finalists have been announced for the NT NRM Awards for 2018. The three finalists in the 'Environment and Conservation' category are:

- Land for Wildlife Central Australia, hosted by Low Ecological Services and based at Alice Springs,
- Central Land Council's Murnkurrumurnkurru Gurindji Rangers, based at Daguragu,
- and Li-Anthawirriyarra Sea Rangers run by Mbunji Aboriginal Resources Indigenous Corporation and based at Jawuma (Black Rock Landing) near King Ash Bay, 45kms North East of Borroloola.

Click on their names above to learn more about each of the nominees and their natural resource management efforts.

You can now cast your vote in the 'Peoples Choice Award' here.

A Snippet From Significant Trees

» Boab *(Adansonia gregorii)*

Listing No. 27 on the NT Register of Significant Trees identifies four individual Boab trees that are located at the Big Horse Creek Rd roadside rest area. The listing celebrates the Boabs' unique shape and awe-inspiring size. These significant trees highlight this particular rest area as a necessary stop when passing by.

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 and is managed by Land for Wildlife Central Australia.

Two of the Boab trees (above & right; circa 1989) from the group of four listed at this site on the Big Horse Creek Road. The group has been listed under the categories: *Aesthetic, Group, Size & Habitat* and are listed in the Katherine & Daly River area. Along with the magnificence of these trees, note the fashionable camping couture of the time (above) — long dress and cardie!!

WHATS FOR DINNER MUM???

"...despite using spiders as food for their young, adult Spider Wasps feed on nectar from a variety of flowers."

Spider Wasps (Family: *Pompilidae*), as their name suggests, are a family of wasps that prey on spiders (Order: *Araneae*). There are four subfamilies, including *Ceropalinae, Ctenocerinae, Pepsinae,* and *Pompilinae*, where coloration and wing appearance vary greatly among the many species. They are solitary wasps that are native to Australia, and despite using spiders as food for their young, adult wasps feed on nectar from a variety of flowers.

The female of the species will generally start by digging into soft and sandy soil to prepare a nest chamber for their larvae, using long spines on their front legs. They will then search the area for a spider, which can be twice as heavy as the wasp. On finding a suitable prey, the wasp will sting and inject the spider with venom which will paralyse the prey, and it can then be dragged back to the wasp's burrow. Some species of wasps will bite the legs off particularly hairy spiders to make them easier to manoeuvre. The wasp lays an egg on the body of the paralysed spider and seals both spider and egg in the burrow. Spider Wasps will protect the nest by placing dead ants into the outermost chamber of the burrow, as the chemicals produced by the ants will help to deter predators.

A Spider Wasp dragging a paralysed Huntsman Spider to a burrow where the wasp's young await dinner!
(Image: C. Heenan).

Once the egg hatches, the larvae has a pre-prepared meal on which to feed before pupating within the cell, following five instar stages. However, the size of the prey will determine whether the larvae develops as a male or a female (large prey = large female, small prey = small male).

There are some behavioural differences within the family of wasps, whereby some will not use a burrow but instead, leave the spider and egg where it lies. There are also species that will steal spider prey from other wasps; termed 'klepto-parasitism'.

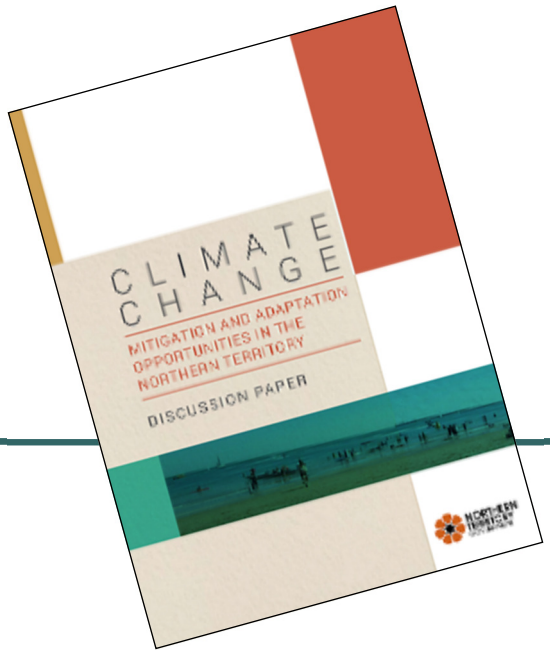
The more you know, hey?!

~ Caragh Heenan

A note on the spider [in image on left] from Alice Springs spider expert; Robbie Henderson

"The spider is a Huntsman for sure, I believe it's [of the] *Neosparasis* genus, but I don't know the species. The genus is quiet easy to identify, they are sometimes called 'Badge Spiders' because of a marking on the underside of the abdomen. They also have distinctive 'eye brow' markings and are generally quite colourful as far as Huntsman go. They are relatively small for Huntsman and have a more rounded body shape as they are not the sort of Huntsman that retreats under bark, but often hang out in vegetation. Perhaps this is why they are commonly caught by wasps – most of the time that I see a wasp dragging a spider around, it has been a Badge Spider."

~ Robbie Henderson

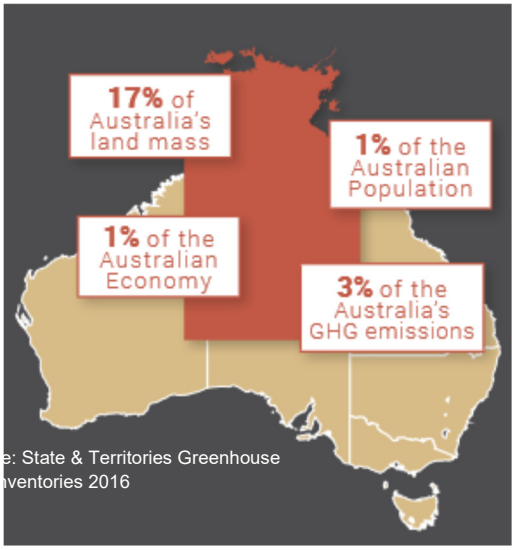


NT GOVERNMENT CLIMATE CHANGE DISCUSSION PAPER;

CALLING FOR PUBLIC COMMENT

The recent release of the NT Climate Change Discussion Paper is an important step in the process of "reignit[ing] the conversation from the previous Northern Territory Climate Change Policy and to engage with the community to develop a Northern Territory Climate Change Strategy" (nt.gov.au 2018). The Discussion Paper was released on 5 October for public comment and submissions will close on the 30th November of this year. We all now have an opportunity to contribute in formulating a climate change strategy for the NT.

Email your comments to:
DCM.EconomicEnvironmentPolicy@nt.gov.au.
If you are short on time, take the online survey.



Remember, you must email your comments, or complete the online survey on, or before, 30th November 2018.

Bad news for Bee-eaters...

...a mass mortality event in Alice

On a sad bird note, numerous Rainbow Bee-eaters have recently been found dead in Ilparpa, Alice Springs. These deaths, although alarming, where not suspicious. Seemingly a large number of Bee-eaters were fairly lean from their migration effort of flying to Alice from further north. When Alice Springs had a cold snap in late September, the Bee-eaters succumbed to hypothermia resulting in several dozen of them dying.

The stunning plumage of the Rainbow Bee-eater makes it a favourite among the public.
Image: C. Heenan

If you come across a mass mortality such as the Bee-eaters' situation, the NT Department of Parks and Wildlife should be notified to enable investigations into the cause. Please contact:
John Tyne
8951 8283,
0401 115 731,
wildlife.management@nt.gov.au.

Injured, sick or orphaned wildlife, can be taken to **Wildcare in Alice Springs: 0419 221 128.**

Remember too, that any **local veterinarian** will accept injured or vulnerable wildlife at no charge.

DON'T MISS THIS OPPORTUNITY

Northern Territory Water Regulatory Reform wants your comment too...

The NT Government is reviewing the current Water Act so as to build a stronger, more resilient framework with which to guide water management in the Territory.

A 'Directions Paper' released by the Government provides an overview of current regulations, the case for reformation and the proposed areas of reform.

Here is another great opportunity to have your say on Government environmental management issues. Provide your feedback by completing the online survey form by 31 March 2019.

Land for Wildlife Significant Tree Register Officer relocates to NSW.

Sadly, the team at Low Ecological Services, of which Land for Wildlife are a part, last week farewelled LfW's Significant Tree Register (STR) Officer, Candice Appleby (last on right), with a Mad Hatter Tea Party. Candice has relocated to the NSW north coast. But happily for us, she is taking her role of Significant Tree Register Officer with her! These days, it takes no effort to continue to be an effective, valuable and contributing team member. No doubt, Candice will continue her excellent contribution and management of the STR, but just from a cooler and greener (as opposed to red) location.

Thank you Candice, for all your dedicated effort and achievements in the role...thus far!

The Low Ecological Services Team (L-R): Constance, Sara, Hayley, Kate (Land for Wildlife), Xavier, Jess, Candice (Significant Tree Register) ***(Image: Bill Low)***

Further Reading
Click the link symbol to be redirected to the article

- *Information/Fact Sheet* • CSIRO Ants of Northern Australia
- *Webpage* • Museum Australia FrogID week
- *Webpage* • Designing urban spaces with nature in mind
- *VOTE!!!* • Cast your vote: 'Peoples Choice Award' @ TNRM Awards

Cheers,
Kate, Caragh, Candice 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 you wish to hear more about.

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