Land for Wildlife and Garden for Wildlife
Central Australia Newsletter

February 2017

From the Land for Wildlife Coordinator

What a wet summer it has been! The rains have resulted in an abundance of greenery and the grasshoppers to match. It's a good time to prune the loose ends off your plants to get them back to health, and get active in the garden pulling out (or spraying) the Buffel Grass.

This month saw LFW organising a Buffel Busting tour of inspiration—visiting properties that have removed it to learn the how's and see what natives can return with a little hard work. Have you removed Buffel? Get in touch, as we will be running a series of articles from members about their experiences and are looking to snap some inspiring photos to match.

It's World Wildlife Day on March 3rd so get on board if you're not already a Land for Wildlife or Garden for Wildlife member!

Crowds of bees are giddy with clover
Crowds of grasshoppers skip at our feet
Crowds of larks at their matins hang over
Thanking the Lord for a life so sweet
~ Jean Ingelow

The Superb Katydid (*Alectoria superba*) is found throughout central Australia, but is relatively rare due to the unpredictable nature of rains in arid zones. This specimen is a female that was spotted west of Alice Springs (*Image B. Low*).

In This Issue

Frog Frenzy for World Wetlands Day

Land for Wildlife went along to the Territory NRM World Wetlands Day Event on February 1st at Simpsons Gap and were delighted to see all the frogs that have emerged following recent rains. Three species were present at the TNRM hosted event, including the Centralian Tree Frog (*Litoria gilleni*), Red Tree Frog (*Litoria rubella*) and Spencer's Burrowing Frog (*Platyplectrum spenceri*). The Centralian Tree Frog is distinguished by its green colour and white spots on the back, while the Red Tree Frog is much smaller, can be grey to brown in colour and possesses a broad black stripe running down the side of the body. Spencer's Burrowing Frog has large and irregular splotches of dark brown on a lighter fawn body, and has a somewhat distinctive shield or plate behind the back of the head.

Simpsons Gap provides the perfect breeding ground for native amphibians after large rain events.

There are two main lineages of frogs in Central Australia, the first two species observed belong to the Family Hylidae (or tree frogs) and the third belongs to the Family Limnodynastidae (the Australian ground frogs). While Spencer's Burrowing Frog spends most of its life underground to avoid dehydration, and emerges only for short periods after rains, the Centralian Tree Frog and Red Tree Frog are unable to burrow and climb into humid microhabitats such as crevices and tree hollows close to permanent water.

To learn more about World Wetlands Day (2nd February 2017), head to www.worldwetlandsday.org/.

Are there frogs in your yard? Want to identify them? Pick up a copy of the Land for Wildlife production 'Reptiles and Frogs of Alice Springs' by Nic Gambold and Deborah Metters at any of our upcoming stalls and events. To find out more about this publication head to our Books for Sale webpage. *Blog*►

***Clockwise from Top Right*: Red Tree Frog (*Litoria rubella*), Centralian Tree Frog (*Litoria gilleni*), and Spencer's Burrowing Frog (*Platyplectrum spenceri*).**

Biodiversity Matters: Buffel Busters Tour of Alice Springs

Land for Wildlife kicked off last weekend with its first collaborative workshop for 2017 – a Buffel Busters inspiration tour of Alice Springs. Arid Lands Environment Centre hosted the event as part of their Biodiversity Matters initiative, with Land for Wildlife supporting the tour to a range of Land for Wildlife properties and other local landcare properties. This was supported by Territory Natural Resource Management, Desert Knowledge Australia, Olive Pink Botanic Garden and Alice Springs Landcare Inc. The workshop was attended by 25 keen Buffel Busters, seeking inspiration for the removal of the pesky introduced Buffel Grass (Cenchrus ciliaris). The drive gave the workshop participants several chances to compare Buffel-laden versus buffel-free sites, including identification of some of the native grasses, forbs and shrubs that can germinate in the absence of Buffel.

Peter Latz (AKA Latzi) explains how he took on Buffel Grass head first.

» Peter Latz

The first stop on the tour was made to the property of local botanist and grass expert, Peter Latz. Peter has spent many years on his eight hectare plot, removing Buffel Grass, Couch (Cynodon dactylon) and invasive Lovegrasses (two of the Eragrostis sp.). Peter, along with several neighbours, has removed Buffel from adjacent drainage lines, which he says is one of the main incoming sources of seed to his property. Buffel Grass has resulted in several large fires incinerating some of the old Ironwood (Acacia estrophiolata) trees, one of the main problems with this introduced grass, according to 'Latzi'. The effort to remove Buffel Grass, which has been a ten-year task, has resulted in greater plant and animal diversity on his block.

The removal of Buffel has been accomplished by spraying large patches, chipping out smaller pockets with a hoe or mattock. He suggests that you should never spray Buffel once the seeds have fallen, as they are tough enough that they become resistant to herbicides. The Buffel should be sprayed twice and then removed by mechanical means (hoe or mattock). Peter states that they key to effective Buffel removal is to be present during the active growing season (following heavy rains), so that the plants and seed heads can be removed before they are released from the plant.

Peter argues that while Buffel Grass is invasive and responsible for promoting more intense fires, it isn't as bad as some of the other grasses that are taking hold in the area, such as Couch and African/Stinking Lovegrass. Buffel Grass may be helping to keep some of the other invasive weeds at bay. Buffel makes good mulch and growing plants stabilise the soil in areas of erosion concern, however the seeds must be removed to prevent the spread of the grass. Buffel grass also

(Continued from page 3)

acts as a nutrient recycler, putting carbon back into the soil, and increasing soil fertility for when the natives regenerate. However this isn't long-term and so nutrition declines over time in grass-dominated ecosystems, requiring phosphate to strike a balance (or the growth of legumes).

Peter recommended a book 'Where Do Camels Belong' by Dr Ken Thompson, which suggests that invasive species vigour declines after 50 years and becomes part of the landscape. This suggests that Buffel grass populations will eventually diminish in areas of early establishment. However, the native seed bank needs to be replenished in order for the natives to regenerate, and hence Buffel control is still needed in the meantime. This seed stock also provides food for a range of local wildlife, keeping populations of invertebrates, birds and native mice well-fed.

» Bruce Simmons

The second site visited was the verge of Schaber Road, where Bruce Simmons has focused his Buffel bashing efforts for many years. Originally, Bruce was concerned about the effects of erosion when removing Buffel but went ahead with some advice from the experts. He convinced his neighbours to get involved, with many others in the street taking part in the Buffel Grass removal quest.

Bruce helps out at the Alice Springs Community Garden, an Arid Lands Environment Centre initiative and Garden for Wildlife property located in Eastside. The Buffel Grass pulled by Bruce and others is used to create compost for the gardens, but he states that the Buffel can also be placed directly under the base of fruit trees as mulch. He re-states the suggestion that Buffel Grass removal requires persistence but once the bulk has been removed, maintaining the native verge requires minimal effort.

Bruce Simmons explains how his Buffel busting excursions made their way out onto the verge and neighbouring yards.

Buffel Grass seeds wash in from neighbouring areas in the drainage lines and so the recent rains have been a challenge, germinating a host of Buffel seeds along the verge. The native forbs that have returned to the verge include Variable Daisy (*Brachycome ciliaris* complex), Woolly Oat Grass (*Enneapogon polyphyllus*), Erect Kerosene Grass (*Aristida holathera*) and Golden Everlasting (*Xerochrysum bracteatum*), among others. These natives provide habitat and foraging space for a range of birds, with birds such as Rainbow Bee-eaters (*Merops ornatus*) and Sacred Kingfishers (*Todiramphus sanctus*) calling the street home.

» Debbie Page

Debbie Page is a keen Buffel Buster with her Land for Wildlife property in Ross, and this made for an inspiring

Debbie inspires the keen Buffel Busters about how she removed the invasive grass from her patch through hard work and determination.

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third stop. Debbie is eager to motivate and inspire land owners to remove Buffel on their own properties. She claims that effective Buffel control is about awareness, which Debbie gained through seeking advice from various contacts around Alice Springs. Debbie's journey to a Buffel-free property came from three catalysts: Land for Wildlife and the technical support provided by the nature conservation program, Rosalie Breen and her efforts spraying Buffel at OLSH in Alice Springs, and some friends in the area, Carmel and David Leonard (also a Land for Wildlife property in the day). With some inspiration from others and the phrase 'Dream, Believe, Create, Succeed', she took up the Buffel removal challenge, though found it daunting at first. Debbie doesn't attempt to convince her neighbours to remove Buffel, though she confesses that she has been known to jump the fence and spray clumps of Buffel in the early hours of the morning, and she can see that they have become Buffel Busters through watching her actions.

Debbie started her Buffel Busting efforts with a small spray pack, Glyphosate 360 and the appropriate safety equipment. Debbie suggested that a small amount of eco-friendly detergent can be placed in the spray pack to act as a surfactant, and Peter Latz added that sulphate ammonia can also be added to increase potency of the mix.

Debbie would find a window of opportunity after rain when the conditions suited spraying and would do an hour or two of spraying in the morning on her two hectare property. She states that the task has taken her four years, but the reward of native birds such as Splendid Fairy-wrens (*Malurus splendens*) and Quails (*Turnix sp*.) returning to her block is worth the hard work and she has enjoyed the challenge. Debbie recommends getting in touch with your property and becoming aware of the value that Buffel-removal can provide, as selectively spraying and watching the native understorey returning gives her a sense of accomplishment. Debbie's property is now home to a huge variety of native grasses, such as Woolly Oat Grass (*Enneapogon polyphyllus*), Erect Kerosene Grass (*Aristida holathera*), Wiregrass (*Aristida arida*), Silky Bluegrass (*Dichanthium sericeum subsp. sericeum*), Native Millet (*Panicum decompositum s.lat.*), Silky Browntop (*Eulalia aurea*), and Curly Wiregrass (*Aristida inaequiglumis*).

Native grasses and herbs flourish when Buffel Grass is removed.

Jude Pritchard tells the Buffel Busters about how Buffel removal has worked on sacred crown land for the Alice Springs Landcare Inc.

» Jude Prichard (Ankerre Ankerre)

The Buffel Busters Tour of Alice Springs made its way to Ankerre Ankerre, also known as the Coolabah Swamp, in Eastside. Jude Prichard and Alice Springs Landcare Inc has been working to remove Buffel Grass and other natives from the area for approximately four years, with amazing results. The Coolabah population has slowly started regenerating, with a few seedlings becoming established in recent months. They have

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managed to establish the native flora in the area, which is contributing to a solid seedbank, which they feel they are custodians of for future generations. Jude confirmed that the maintenance effort required is now minimal, so long as the landcare group can remove the plants before they seed.

Jude explained how the large trees were protected from fire as the first strategy and once the main areas had been cleared of Buffel, the location site-lines were opened up to change perception of the area from a wasteland to a place of beauty and significance. She suggests setting goals, with small areas dealt with at a time and expanding from there.

Doug McDougall showed the group how the Green Army team and other volunteers have removed Buffel Grass from sensitive sites within Olive Pink Botanic Garden.

» Doug McDougall (Olive Pink Botanic Garden)

The final stop of the tour was to Olive Pink Botanic Garden, where Doug McDougall showed the participants the hard work that the Green Army team

Bruce Simmons, Peter Latz, and expert young Buffel Buster, Ossian Lewis, discuss the other invasive grass found around Alice Springs—the Lovegrass (*Eragrostis* sp.)

(and other volunteers) had been doing to remove Buffel Grass on Nurse's Hill. The Buffel Busters in the garden use a bio-friendly food dye in the spray pack so that they can clearly see the areas that have been sprayed to prevent waste of chemical. Visitors to the botanic garden are now met with an array of beautiful flowering native plants, as well as birds, Euros (*Macropus robustus*) and Black-footed Rock Wallabies (*Petrogale lateralis*).

Many thanks go to the participants for taking part and to the Buffel Busters for opening your homes and gardens to the eagre Busters-to-be – providing so much inspiration. Thanks go to the Arid Lands Environment Centre for hosting the event and all of the supporters for making the event such a success.
Blog►

Silky Bluegrass (*Dichanthium sericeum subsp. sericeum*) has regenerated following the removal of Buffel Grass (*Cenchrus ciliaris*).

Domestic Cat Monitoring and Awareness Round 2

The data from the first round of domestic cat monitoring and awareness is nearly complete and so we are ready to roll again! The next round of monitoring will take place in mid-March with a few more kitties taking part. The data from the trackers shows that domestic cats take several large wanders from home over a week period. More data may enable us to see if there are any trends to the direction of wander, the distances travelled etc. Stay posted for more information as Round two gets underway.

Do you have a domestic cat and live in the rural areas of Ilparpa, Ross or Connellan? Get in touch with us to take part in the monitoring program!

Discovery Circle Cat Tracker in South Australia

The South Australian Cat Tracker program is being run through the University of South Australia by researcher Philip Roetman and his team. They tracked a total of 443 cats over the period of the program in Adelaide and surrounding areas.

The results showed that male cats have larger home-ranges than female cats, neutered cats had smaller home ranges and cats wandered less as they got older. Cats also had larger home ranges at night compared to the day. The interesting finding is that there was no difference in the time spent with owners when comparing sedentary and wandering cats, which suggests that keeping cats indoors does not negatively affect their personality. Check out more of the Results of the South Australian Cat Tracker program.

Arthropod Populations Swelling Following Rain

Female Golden Orb Weaving Spider (*Nephila edulis*) feeding on a Yellow-winged Locust (Acrididae; *Gastrimargus musicus*).

With all the rain we've had in central Australia over the last couple of months, the abundance of Arthropods (including insects, arachnids, myriapods, and crustaceans) has gone through the roof. Once of the obvious examples that long-term residents may notice is the increase in the number of Golden Orb Weaving Spiders (*Nephila edulis*). These are large fawn-grey spiders that produce a silk with a distinctive yellow colour. The large female constructs a web that is up to a meter in diameter, with guy-lines as long as three to four meters. Webs are often set at an oblique angle off the vertical, with a male (the size of which pales in comparison to the female) that takes up position to one side. Females can produce over 250 meters of silk in one sitting, which is strong and elastic, and the webs have even been known to ensnare small birds (such as finches). The silk is not only used to construct the web, but also to spin an egg sac. The female will fast for several days in preparation for spinning the oval sac, attached to a branch or other object in the vicinity of the web, in which the eggs are deposited.

So why are there so many of these healthy-looking spiders around at the moment? The spiderlings (baby spiders) of *Nephila* species have the ability to hatch in the egg sac and stay dormant, for over a year, until favourable weather conditions arise. Like many animals, spiders require moisture to remain hydrated, and do best when there is rain around or there are generally wet conditions. After the rains, many of the young spiderlings would have ventured out from the egg sacs and feasted on the excess food around.

I don't think we need to point out the grasshopper populations that has flourished in recent weeks – this is an epic food source for the orb spiders. The persistent rains have resulted in lush green grasses and small shrubs, which is food for the grasshoppers, and they have responded by increasing in abundance. Many wood boring beetles have spiked in numbers, as they breed in wood or under layers of bark, which is easier to bore into when wet. A range of other invertebrates have prospered with the rains as well, and hence the food source for spiders has increased dramatically. In addition, spider webs become stickier and thicker due to the moisture soaked up from rain, which can result in more food being trapped. All these factors result in some very healthy looking spiders indeed! This will be made even more obvious in the following wet period, as healthy spiders will breed more prolifically, resulting in an increase in the spider population. Arachnophobes - beware!

View the *Nephila* Video on YouTube

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Check out the video of a very large *Nephila edulis* feasting on a grasshopper at the Land for Wildlife office recently. I had been walking nearby when I spotted the female. My feet moving through the grass stirred several dozen grasshoppers, one of which met its fate in the web of the female. The grasshopper struggled for a few moments before the female pounced, plunged in her fangs and then stood back waiting a moment. After waiting for the grasshopper to stop thrashing in her golden web, the female sat feasting, while her young crawled about around her. *Blog*►

Stinkhorn Update

For those of you that read the January Newsletter and Blog, you will know that there have been some on-the-nose fungus around lately. I have had the Stinkhorn fungus identified by Deborah Bisa, the Collection Manager at Northern Territory Herbarium (DNA) in Palmerston, in conjunction with a mycologist based in Perth. The fungus is indeed a type of Stinkhorn, but belongs in the genus *Itajahya* (sometimes placed in a very weird group of the genus *Phallus*, but there is good molecular data for keeping it as a separate genus). Identifying it to species level is apparently problematic without obtaining DNA sequence data. Apparently the Australian material is known as *Itajahya hornseyi*, but it too is usually treated as a synonym of *Itajahya galericulata*, and it also has the pink tints of *Itajahya rosea*. So the ID has been broadly left at *Itajahya* sp. for now. The mycologist would be very happy to have some material sent to Perth, including all the collection details, so if you see one around please let us know as soon as possible (to obtain it fresh) to have the specimen lodged with Peter Jobson at the Alice Springs Herbarium.

Images sent in from Ilparpa LFWer! *L to R*: Hooded Scaly Foot (*Pygopus nigriceps*), Central Bearded Dragon (*Pogona vitticeps*), Scorpion (Order: Scorpiones, *Urodacus* sp), Splendid Fairy Wren (*Malurus splendens*). (*Images J. Brittain*).

Ants collecting grass seeds to store away in the colony tunnels.

In The Garden

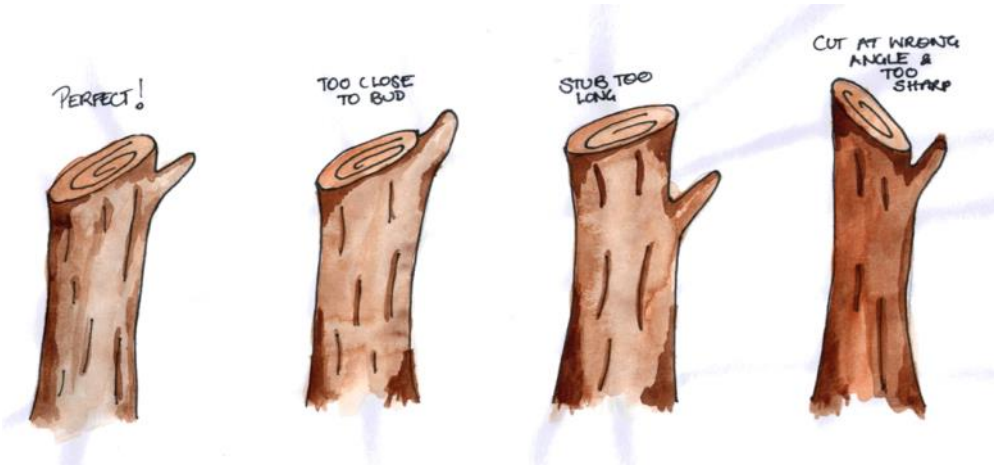
By Candice Appleby

All the rain we have been having of late has bought with it a burst of growth around the garden, which is great! But at times this can lead to unwanted over-hanging limbs, smaller shrubs becoming crowded or just an overall scruffy looking yard. Correct pruning techniques are essential to plant health and growth. Here are some easy soft pruning tips to keep your garden looking sharp, whilst staying healthy.

- Pruning cuts should always be placed just above the growth node and done on no more than a 45 degree angle facing away from the node.
- For larger, over-hanging, branches first take some weight off the branch by pruning off the smaller lower hanging branches. Often, the main branch will spring up out of way and you will avoid excessive pruning that can destroy tree shape.
- To promote bushier plants, regular tip pruning of soft new growth is the best option. This should be undertaken after flowering and during the growing season.
- It is best not to prune in winter as the fresh new growth can easily become damaged by frost.
- If you are pruning to repair broken limbs, or branches attacked by insects (damn grasshoppers!), the branch needs to be pruned back to clean and undamaged wood. Once again, prune close to a limb or node. Infection and dieback can easily occur if the limb is left in a damaged state.

Remember, cuts in tree branches are much similar to a cut on your arm. The wound will provide an entry for bacteria and diseases, and will result in the plant using up lots of energy to heal. Keep pruning cut sizes to the minimum to avoid stress. I also like to treat the plant with a little Seasol after a prune to say thank you to my plants for being such good sports! Happy gardening! *Blog*►

~ Candice Appleby



Snakes Taking a Dip

By Jeremy Snowdon-James

On a recent *Low Ecological Services P/L* field trip, out west of Alice Springs, we were lucky enough to come across two beautiful young snakes, a Desert Death Adder (*Acanthophis pyrrhus*) and a Little Spotted Snake (*Suta punctata*); though at first glance their cryptic behaviour resulted in us missing them both! We were alerted to their presence by staff at the facility we were inspecting.

“Couple of snakes in the pool for ya’s if you want to check them out”

“Ah really?” We asked, “what type?”

“Not sure, one looks like a death adder and the other is more slender, darker. We got them out a few times, but they keep going back in!”

It was early afternoon when we received this information, so after a meal we went to investigate! On first assessment, there were no snakes to be seen in the now largely empty pool. Our disappointment was evident and we figured they must have escaped, not returned or perhaps we had been sold a furphy! But then, just as we were about to give up, we spotted the small reddish brown colour of the Death Adder! It was half hidden beneath leaf litter, pressed against the bottom step; a quarter of the size we were expecting. Quickly our fearless leader picked up a small twig and jumped in to grab it out; highlighting the importance of undergoing some basic snake handling training! After several photos and close inspection, we released the snake up in the surrounding hills, sufficient distance to deter re-entry to the pool trap.

We returned to the pool and looked a bit more, but were unable to find the second snake.

That next morning over breakfast we relayed the information about the Death Adders’ transportation and our lack of luck in finding the other.

“No, it’s in there,” they confirmed. “Saw him just last night, hiding under the drain cap”.

With a belly full of breakfast and fresh morning enthusiasm, we returned to the pool for one last inspection before we headed home. Alas, nothing under the drain cap.

There was a fair amount of leaf litter in a small amount of water caught from rainfall in the bottom of the pool; so, we stirred it up with a stick. And whip, there it was, sneakily hiding within the brush, filling up on frogs and tadpoles! This Little Spotted snake was far less cooperative than the Death

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Colour change in Desert Death Adder (*Acanthophis pyrrhus*). (*Image B. Low*)

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Adder, as it constantly wiggled and curled its body out from under the stick. Finally, after a 20-minute snake/stick dance, we managed to get it stuck and transported it to the hills!

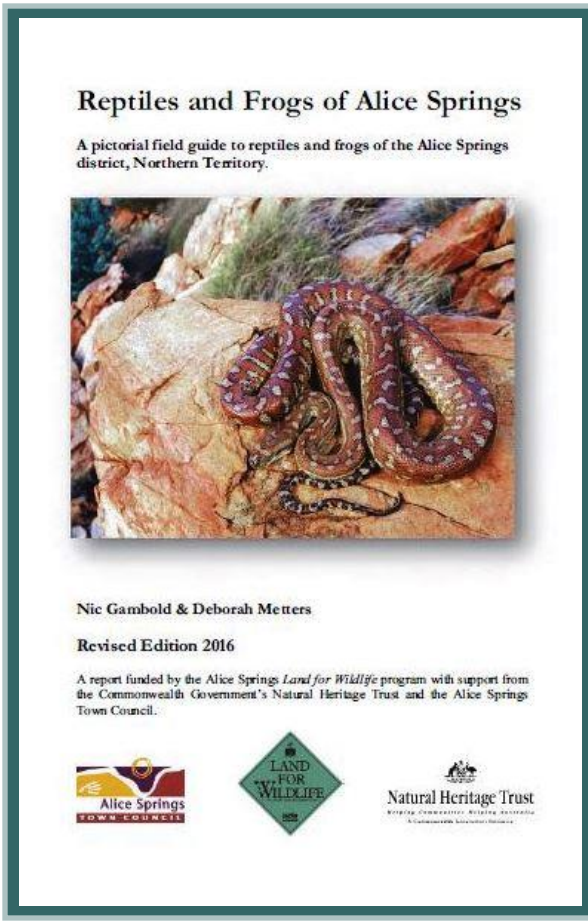
We installed a fauna ladder (branch, pole, house ladder, whatever is lying around that an animal will be able to use to climb out) into the pool, so that if it happened again, the little creatures can make their own way out. With so much water around after the summer rains, and frogs a plenty, it makes for perfect conditions for snakes to be out hunting. And an out-of-use pool makes for an ideal hunting ground; however, also a perfect trap.

Quite often in the desert when out walking, concern about snakes can get subdued, as you rarely see them. This experience reminded us all that sometimes we only think about the big snakes, King Browns or Carpet snakes over a meter in length! We probably come across far more snakes than we think, we just have to take the time to look out for the smaller ones; a good local ID book is paramount!

It was a thought I carried with me the following weekend as I took a walk out behind Stanley Chasm. I came across a great little waterhole, with hundreds of tadpoles and small frogs jumping about; thinking this would be a perfect place for a snake. And there it was, subtly hidden beneath the water at first, a beautiful King Brown! Slowly it made its way up out of the water and back into the safety of rocks! *Blog*►

~ Jeremy Snowdon-James

Little Spotted Snake (*Suta punctata*) out west of Alice Springs (*Image B. Low*).



BOOK LAUNCH

Reptiles and Frogs of Alice Springs: Revised Edition 2016 by Nic Gambold and Deborah Metters

This booklet aims to assist landholders and interested individuals in the basic identification of reptiles and frogs that may occur in and around Alice Springs.

The book will be launched by Land for Wildlife, with a presentation on legless lizards and snake catching services by local reptile expert, Rex Neindorf.

18th March 2017, 9:30 AM
@ the Alice Springs Reptile Centre
Gecko Room

RSVP's are necessary as spaces are limited.
Email us at lfw@lowecol.com.au or call 08 89 555 222 to reserve your seat.

Copies of Reptiles and Frogs of Alice Springs Revised Edition 2016 is available from Land for Wildlife for $15—contact the office or pop in to our stall at any of the upcoming advertised community events. Books will also be available at the launch.

Further Reading

Click the link symbol to be redirected to the article

Article • Feral cats on the rise

Article • How green is my desert?

Article • Buffel busting inspiration tour

Article • Central Australian wildlife warriors fight introduced grasses in the outback

Video • Healthier landscapes: RHDV1 K5 national release

Article • Councils to introduce cat curfews to limit prowling at night

Article • State's controversial vegetation policy bad news for environment, scientists say

Article • Australia's 2016 environment scorecard: rains return but in some cases too late

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.

Cheers,

Caragh and Bill

Land for Wildlife & Garden for Wildlife Central Australia newsletter is published by Land for Wildlife, hosted by Low Ecological Services P/L, through funding from the Northern Territory Government.

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