

Greening Australia

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FOR  
WILDLIFE  
VOLUNTARY WILDLIFE CONSERVATION

# Top Notes

Land for Wildlife Top End newsletter - November 2011



## Birds and your block

### **This Issue**

*How do we value our native birds and ways to attract more onto your land.*

*Native grass or exotic weed? A guide to help you spot friend from foe this wet season.*

*Exploring Karst Limestone land, its unique flora and fauna.*

*News of our Wild Day Out workshop, members' musings and lots more.*

TERRITORY  
ECO-LINK



21<sup>ST</sup> CENTURY CONSERVATION

# WELCOME

## From the Coordinator



Welcome Land for Wildlife members and friends to the third edition of our bi-annual newsletter. As you may notice we have a name now for our newsletter "Top Notes" and a new format which I hope you enjoy.

In this issue of Top Notes we look at some of the native grass species that are found in our region with photos and descriptions to assist you in identifying them on your properties or out in the bush.

We also have a focus on birds with a fascinating article written by LfW member Gill Ainsworth on the social values of Australian Birds. Also provided is a species list of local plants that can be used in your gardens or revegetation areas to provide shelter and food for our feathered friends.

Earlier this year, while on a seed collecting trip with Lyn Gerdes to Katherine, we had the pleasure of visiting a property to assess for LfW membership. It is the first property in the Katherine area to be put on the register and the "custodian" of this beautiful property, Moira McCreesh, has written an inspiring piece for us about her experiences and challenges in managing her property for biodiversity. I hope Moira will be the first of many in that region to join the growing numbers of like-minded people in the program.

On that note, we have been busy applying for funding to employ a coordinator to kick-start the LfW program in the Katherine region and another to provide some assistance to qualifying LfW members to manage weedy grass species on their blocks. I wait eagerly to hear if we have secured both of these grants.

I'd like to take this opportunity to thank the previous LfW coordinator Catherine Orme for all her hard work in restarting the Land for Wildlife program in the Darwin region through Greening Australia. Catherine did a great handover to me before she left on her adventure to South America. I am happy to report Cat is having a fantastic time ridding the Galapagos Islands of *Pennisetum rubra*.

And it's great to announce that we finally have a presence on the internet and you'll find the web address throughout this edition. Part of the site is a forum which you can use to discuss all sorts of matters. Please use this to further strengthen our network.

Finally, thanks to all our contributors this edition - all members are encouraged to send in articles and photos. Thanks also to Ganesh Design who created our new look newsletter and also kindly built our new website free of charge.

Have a great wet season,

Zoe



[www.landforwildlifetopend.org.au](http://www.landforwildlifetopend.org.au)



Northern Territory Government

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Cover photo: Brown goshawk by Gill Ainsworth

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If you know of people with Land for Wildlife signs who have not re-registered, please ask them to contact us so that we can make sure they are on board!

On the 11th of June the Wild Day Out workshop was held at Helen and Andrew Spiers property in Darwin River.

Members and friends of the Land for Wildlife program came along for a day of activities that began with a walk led by Sarah Hirst to look at the native grasses that grow in the Darwin River area. (see article overleaf on grasses with descriptions and photos).

That was followed by some revegetation work in a small area between the Darwin River and the wet season creek where weedy grasses had been sprayed out. The idea was to use some large tree species that will attract birds, therefore bringing in other seed that the birds have ingested. Andrew and Helen have been hand watering the fifty trees and shrubs and I am happy to report they are all still alive.

Roni from weeds branch and Peter McFadden, our own weed man at GA, discussed the management of weeds on our properties: Catherine took us through the process of assessing properties for Land for Wildlife registration and Andrew Spiers shared his experiences regarding conservation covenants on private land.

We then enjoyed a delicious lunch, with thanks going to all those who brought a plate to share and to Helen and Abbie who slaved over a hot BBQ for us!

Thanks also to Sarah, Andrew, Roni and Peter who served as our experts on the day and to Catherine for organising the workshop.

Look out for our next workshop in the near future.



# Grass Identification

## FIELD GUIDE

With the wet season upon us all sorts of grasses begin to cover our blocks; encouraging native species assists with biodiversity and also reduces the risk of fire in the dry season.

This guide focuses on identifying the native species which should be encouraged. By way of contrast, two of the significant “bad guys” Gamba and Mission are below. Remember the Herbarium in Palmerston will identify any species you are unsure of free of charge - a very useful service.

Pictures and descriptions by Sara Hirst

### Gamba Grass

*Andropogon gayanus*

Introduced (African) pasture grass - Tall perennial grass with a white midrib, hairy leaves & densely hairy leaf bases.



### Perennial Mission Grass

*Pennisetum polystachion*

Introduced (African) pasture grass - Perennial grass forming large tussocks similar to Gamba Grass after a few seasons and very tightly packed cylindrical seed heads with a yellowish tinge. Seeding spikes are narrower in diameter than *P. pedicellatum*.

### Annual Mission Grass

*Pennisetum pedicellatum*

Introduced (African) pasture grass - Broadleaved annual grass often with reddish leaf bases and cylindrical slightly open seed heads with pink/purple tinge.



### Kerosene Grasses

*Aristida sp.*

Perennial fine leaf grasses with fine needle-like seeds with 3 awns usually longer than the seed column. Column may be spirally twisted.

### *Eriachne trisetata*

Fine perennial grass with distinctive seeds having 3 awns (seta). May be confused with *Aristida* but *E. trisetata* has a more bulky seed (*Aristida*'s have 3 awns but have a straight thin seed column).



### *Eriachne burkittii*

Common tall perennial tussock grass with curled awns on seeds and persistent “rabbit ear” glumes that remain on the open head after the seed have fallen. Usually in wet areas, but may also grow in dry woodland after wet seasons.



### Sugar Cane Grass

*Heteropogon triticeus*

Tall perennial grass with thick seeding stems, long awned seeds and the persistent glumes on old seed heads give a wheat-like appearance. Leaf bases are laterally flattened and quickly resprout from the base after fire. A favourite Dry Season food of the Antilopine Wallaroos.

### Fire Grass

*Schizachyrium spp.*

Sprawling annual grasses with large bracts extending along one side of the seed head and a characteristic coppery colour when dry.



### *Eriachne ciliata*

Very fine small annual grass with short awns on seeds and persistent "rabbit ear" (*Eriachne*) glumes, that are slightly cup shaped.

### *Eragrostis sp.*

Many species of *Eragrostis* but all with distinctive plaited arrangement of seed spikes in clumps along seeding stem. Some species have curly leaves. Most species can only be distinguished by detail under a microscope.



### Forest Bluegrass

*Bothriochloa bladhii*

Perennial broad leaf grass usually found on heavy clay floodplains and creek banks. Flowers & seeds early in Wet season.



### *Eriachne agrostidea*

Very fine annual grass with long awns on seed pairs and persistent pointed "rabbit ear" glumes that remain on plant long after seeds have fallen. Dries to a fine pale yellow coloured 'hay' often flattened on ground.

### Golden Beard Grass

*Chrysopogon latifolius*

Perennial broad leaf grass with tall whorled seed heads reminiscent of a christmas tree. Root bases have characteristic stringy/woolly fibres when pulled up. A favourite Dry season food of the Agile Wallabies, they dig up the roots to eat.



### member's musings

### Pleasant Pheasant

I have been seeing many cuckoo shrikes and the pheasant coucal has been around and calling since about June.



*liz howells*



**Hare's Foot Grass**

*Ectrosia leporina*

Small perennial tussock with dense pink heads like a hare's foot. May be variously pale green, pink or yellowish depending on ripeness of seed head. Very common along roadsides, firebreaks etc where mowed/slashed regularly.



**Blacktop**

*Pseudopogonatherum contortum*

Annual grass with distinctive dark brown feathery heads that appear almost black from a distance, hence the name. Seeds ripen quickly and fall very early in the Dry season, leaving almost white spikes on a nondescript dry grass.

*Heterachne gulliveri*

Small erect annual grass found around seasonally wet areas (sandsheet and billabongs) with many densely packed flattened seeds, often slightly pinkish.



*Whiteochloa capillipes*

Very fine annual grass with very sparse open seed heads with many tiny individual seeds.



*Ectrosia agrostoides*

Sparse fine pink tinged seed heads. Often seen in seasonally wet areas



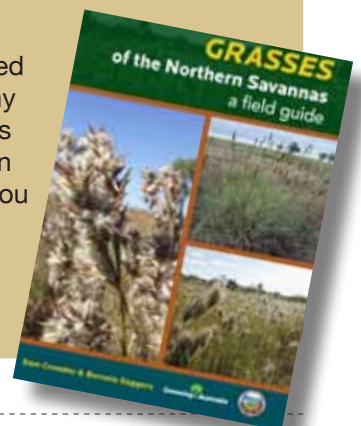
*Mnesithea formosa*

Straggly grass with distinctive 'white' segmented seed heads (due to fine white hairs around seeds). Individual seed stacked directly on top of one another and leave an inverted conical stem with a flat top when seeds have fallen.

**Want to learn more?**

Some of the grasses described in this feature along with many more can be found in Grasses of the Northern Savannas - an essential field guide to help you plant, weed and revegetate.

Available now through **Greening Australia**



by Gill Ainsworth

**Gill Ainsworth is a long term resident of Bees Creek and first joined the Land for Wildlife scheme in 2003. She has worked in the environmental sector for more than ten years and is currently researching her PhD on the social values of Australian threatened birds as part of an Australian Research Council project.**



I was sitting at my desk at home last week typing busily away when I became aware of a flurry of activity in the native cherry outside the window. I thought it might be one of the varied-trillers; the male and female can often be seen around the garden, most recently with a hungry chick in tow. The trillers would have been a lovely enough distraction, but in fact it was a rose-crowned fruit-dove. The male's bright colouring of yellow, orange, green, grey and pink really stood out against the dark green foliage.

I'd never seen this dove before let alone found one in my garden. Rose-crowned fruit-doves are notoriously difficult to see as they tend to sit in the canopy hidden amongst the leaves where they look remarkably leaf-like themselves, so the fact that a male was foraging in a tree right outside my office window was a pretty special thing. This one was quite bold and not at all fazed by the yellow figbirds and olive-backed orioles also foraging noisily nearby. In fact he seemed to be posing and it would have been rude not to sneak outside and take his photo. Once back inside I added him to the growing list of species I've recorded on my bush block in the last couple of years. He's number 88, but he's so much more than just a number.

We all have birds on our blocks and we probably can hear more of them than we'll ever see. But what do they actually contribute to our lives? Birds mean many things to many people. For some people birds are a means to an end, for example their meat is used for food or

their feathers for decoration; others appreciate them for their colours or songs and may create paintings or write poetry about them. The thrill of the chase drives some enthusiasts to travel thousands of kilometres just for a sighting of something unusual. Scientists get excited about birds too as they can teach us not only about their own life histories but also about the workings of our natural environment. Some people find them a nuisance when they eat the best of the veggie patch. But for many of us they simply make the experience of rural living that bit more enjoyable.

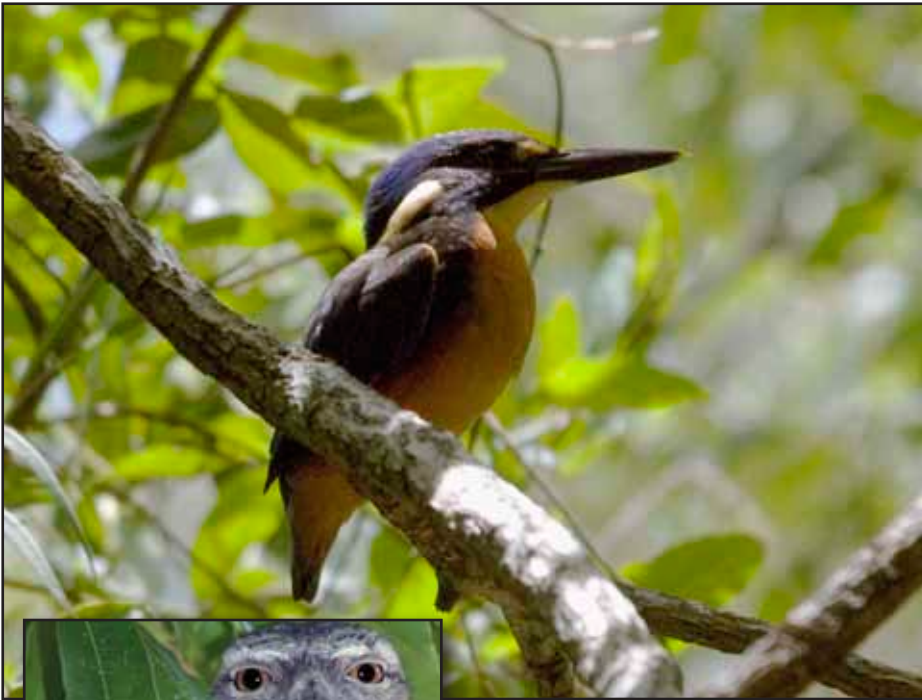
Exploring the values that Australians hold for native birds has shown me they play a far greater role in our lives than we might realise. Over three hundred different birds lend their names to Australian streets, towns and waterways. Would it surprise you to know that swan is the most popular breed with over 250 locations named after it? We see images of native birds on our coins and stamps, while government, councils and the defense forces use birds as emblems to reflect their values. And of course Australia's love affair with sport would be far different without the Crows, the Roosters, the Magpies, the Sea-Eagles, the Kookaburras and all the rest. Birds add richness to our language giving us colorful and unique idioms such as 'ostrich



*The rarely spotted rose-crowned fruit-dove © G Ainsworth*

policies' and 'budgie smugglers', someone can be a 'dronko' and something can be 'grouse'.

Bird watching is a popular activity and contributes significant amounts of money to regional and remote economies around Australia, not just from local twitchers, but also from international visitors. Overseas the Australian identity is wrapped up in many of the creatures unique to our country: tourists flock to buy



### Birds of Bees Creek

Images: clockwise from above. azure kingfisher; white-gaped honeyeater; rufous rwl; rainbow bee-eater; large-billed gerygone; tawny frog mouth owl.

*All images copyright Gill Ainsworth*



gifts such as tea-towels, post-cards and posters illustrated with parrots, emus and kookaburras.

And what economic value could we place upon the environmental services birds provide such as pollination of plants and pest control through feeding on insects and rodents?

Yet for all our native birds contribute to our society, they are neither as loved nor as protected as they need to be. There are over 800 species of native birds in Australia but around a quarter are currently endangered.

Take for example the orange-bellied parrot. It is one of only two migratory parrots found in Australia and one of the world's most endangered animals. Experts estimate there are about thirty adults left in the wild. Another hundred or so exist in a captive breeding program and it's hoped that in a few years' time their offspring can be released back into the wild. But will the habitat they need still be available to them or will it have been developed for our own purposes?

That so many species of birds face extinction is a national tragedy. When I see a logo of a Tasmanian Tiger on a beer bottle, I wonder what society must have been thinking to drive such a creature to extinction; what will future generations make of us, with our resources and riches, if we allow so many more of the species we're entrusted with to perish on our watch?

In the Top End we are lucky to live with bountiful biodiversity, but even so, over 200 species of wildlife found in the NT are endangered.

Our birds face threats on many fronts and habitat loss is the most significant. While the rate of development around about us can seem daunting, through the Land for Wildlife program we have an opportunity to stall habitat loss to some degree. That's why I think Land for Wildlife is so important: we can contribute towards the protection of native birds through managing our properties in an



## SOME ENDANGERED NT BIRDS\*

**Carpentarian Grasswren**

**Yellow Chat**    **Horsfield's Bushlark**

**Grey Falcon**    **Red Goshawk**

**Masked Owl (Tiwi Islands)**

**Chestnut-rumped Heathwren**

**Gouldian Finch**



appropriate way. By working with our neighbours and other Land for Wildlifers to protect existing habitat and plant new bird-friendly areas, we can provide essential nesting and foraging resources for our Top End birds. This gives them a far better chance of survival against the threats they may face elsewhere.

During my research, I've been interviewing many people involved in recovery efforts for some of our threatened birds. One story emerged that should encourage all "Land for Wildlifers". A lady in rural Victoria noticed a large flock of unusual birds feeding on the ground near her property. She identified them as the endangered swift parrot and contacted a member of the swift parrot recovery team at Birds Australia.

These birds hadn't been recorded in this area before and the grazing behavior she observed was previously unknown to scientists studying these birds. She gathered hours of video footage which resulted in the scientific knowledge of this species being rewritten and her local area has become an important reserve for the endangered birds. This passionate lady has gone on to become a champion in the cause of swift parrot recovery.

By understanding what we get out of birds, we can also identify ways that we can give something back to birds. For example, as a group we Land for Wildlifers hold a great deal of knowledge about land management in the Top End. All those hours spent weeding, planting

and observing wildlife are worth more if we share our experiences with others.

One way we can do that is through citizen science where the public, interested amateurs and professionals can all contribute to scientific knowledge, for example by recording our wildlife sightings on the Atlas of Living Australia (ALA).

If you visit the ALA webpage and go to the "Explore" tab (full address below) you can view which species have been recorded in your area. Go to "Share" and you can upload your own sightings. I did a search for my immediate area and discovered that of all the 150 odd bird species recorded, there's only one previous record for a rose-crowned fruit-dove. My record will make two. But I've also realised there are at least seventy more bird species to add to my bush-list. Can't wait to see them all!

So, take note of what you see in that tree or that different call you hear one morning, and share it; it may mean a lot more than you imagine.

© Gillian Ainsworth

ALA website  
<http://www.ala.org.au/explore/>

\* Information taken from the 2010 Action Plan for Birds

# Getting more birds on your block

## PLANTING

**A**s development puts more pressure on suitable environments for our native birds there are some practical measures you can take to support the birds that currently visit your block and attract more and different species.

1. Planting and growing more native trees, shrubs and grasses. Some bird friendly species are listed below - the more variety the better. Have plants and trees that flower at different times of the year. Do some planting close to your house or outdoor areas so you can enjoy the birds that visit.
2. Take a holistic approach towards eco-systems; having bushland that supports small marsupials, lizards, frogs and insects is going to attract birds of various sizes and shapes in search of a meal. Minimize your use of insecticides and herbicides. Leave fallen trees and leaf litter as much as possible for use as habitat for both birds and other creatures. Similarly, dead trees can provide habitat and roosts for birds standing for years after the last leaf has dropped. Tree hollows are especially important for many species.
3. In the dry season and build up keep "bird baths" and similar water containers topped up with fresh water.
4. Manage your pets responsibly. Keep cats indoors at night and 'supervise' walks during the day (yes, you can walk a cat or at least the cat will walk you). The important thing is to stop hunting behaviors. Be similarly responsible with dogs; while they may not catch birds they do damage and destroy nests and chicks of species which roost in the ground such as bee-eaters.
5. Mahoganies have become a public enemy in Darwin; they are a weed, can be dangerous in urban environments and they do need to be managed. But they do provide habitat and roost opportunities for many bird species. Ask for some professional advice from an arborist before deciding to remove any tree.

*What do you think; do you have some ideas that you'd like to share? Join the discussion!*

[www.landforwildlifetopend.org.au/forum](http://www.landforwildlifetopend.org.au/forum)

## Bird Attracting Plants

Just some of the native species which attract native birds and (in brackets) what features the birds specifically like.

- ☛ Acacia spp. (seed)
- ☛ Aidia racemosa (fruit)
- ☛ Alphitonia excelsa (fruit, nectar)
- ☛ Alstonia actinophylla (nectar)
- ☛ Asteromyrtus symphyocarpa (nectar)
- ☛ Banksia dentata (insects, nectar, seed, shelter)
- ☛ Barringtonia acutangula (nectar)
- ☛ Breynia cernua (fruit)
- ☛ Buchanania arborescens (fruit)
- ☛ Canarium australianum (fruit)
- ☛ Callitris intratropica (seed)
- ☛ Carallia brachiata (fruit)
- ☛ Casuarina equisetifolia (seed)
- ☛ Chrysopogon elongatus (seed)
- ☛ Corymbia bella (insect, nectar)
- ☛ Corymbia jacobiana (nectar)



- ✦ *Corymbia ptychocarpa* (nectar)
- ✦ *Cupaniopsis anacardioides* (seed, nectar)
- ✦ *Cyclophyllum schultzei* (fruit)
- ✦ *Eucalyptus herbertiana* (nectar)
- ✦ *Eucalyptus miniata* (seed, nectar, fruit)
- ✦ *Eucalyptus phoenicea* (nectar, seed)
- ✦ *Erythrina vespertilio* (nectar)
- ✦ *Ficus aculeata* (fruit)
- ✦ *Ficus coronulata* (fruit)
- ✦ *Grevillea angulata* (nectar)
- ✦ *Grevillea dryandri* (nectar)



- ✦ *Mimusops elengi* (fruit)
- ✦ *Myristica insipida* (fruit)
- ✦ *Pandanus spiralis* (seed, shelter)
- ✦ *Syzygium armstrongii* (fruit, nectar)
- ✦ *Syzygium fibrosum* (fruit)
- ✦ *Syzygium forte* (fruit, insects, nectar)
- ✦ *Syzygium nervosum* (fruit, insects, nectar)
- ✦ *Terminalia microcarpa* (fruit, nectar)
- ✦ *Xanthostemon paradoxus* (nectar)

These are available through Greening Australia Nursery's in Darwin and Katherine. Subject to availability

- ✦ *Grevillea formosa* (nectar)
- ✦ *Grevillea heliosperma* (insects, nectar)
- ✦ *Grevillea pteridifolia* (insects, nectar)
- ✦ *Grevillea pungens* (nectar)
- ✦ *Grewia retusifolia* (fruit)
- ✦ *Hydriastele wendlandiana* (fruit)
- ✦ *Leptospermum madidum* (insect, nectar)
- ✦ *Pittosporum moluccanum* (nectar, fruit)
- ✦ *Maranthes corymbosa* (nectar, fruit)
- ✦ *Melaleuca argentea* (nectar)
- ✦ *Melaleuca leucadendra* (nectar)
- ✦ *Melicope elleryana* (nectar, seed)

### from the kitchen window - Forest Kingfishers

*Eileen Blyth*



member's musings

## FEATURE

*Moira McCreesh lives on a 14 acre property called Baraka (Arabic for 'blessing' or 'gift from God') about 6 kms NW of Katherine. The property is karst limestone country and is spotted with low native woodlands. Moira was previously a Greening Australia board member and has recently joined Land for Wildlife; she shares her experiences of her property with us.*

I moved onto Baraka in January 2008 and lived there for the next ten months in a small caravan. This proved to be a wonderful opportunity to learn about the seasons and the wildlife there. The caravan was an old pop top and, parked under a couple of eucalypts next to a group of White Currants; it served as a marvellous bird hide. I spent many happy hours peering out at birds such as White-gaped Honeyeaters feeding on the Currants.

Although I've lived in the Katherine area for 25 years, Baraka was a revelation. The craggy grey limestone rocks present a complete contrast to the red and brown terrain found in many other areas around Katherine. My 14 acre block here seems much bigger than the 20 acre block I lived on previously to the west of town. Walking around the undulating land gives the impression of moving from one room to another as you meander past rocky pinnacles – frequently distracted to explore one tempting rocky hidey hole after another.

Another aspect of Baraka that is different from anywhere I have lived before is that the native grasses and other vegetation are still in place and the biodiversity is high.

In one more stroke of good fortune, Baraka is situated at the end of a cul de sac backing on to bushland and the landholders there have generously allowed me and my dogs to wander

on their land over the past few years. Aesthetically, Baraka is stunning in a brooding, grey, gothic sort of way. Environmentally, it is an almost intact habitat with a diverse array of wildlife.

The skeletal framework of Baraka is made of karst limestone. Limestone pinnacles sit atop a rocky outcrop at the SE end and along a limestone ridge running along the length of the block. There are sink holes and hidey holes and grikes (widened joints between blocks of pavement limestone – sometimes a couple of meters deep) scattered unpredictably throughout. Baraka is not a place to wander around off the tracks in the dark.

The higher limestone areas are home to *Ficus platypoda* (Rock Fig), *Canarium australianum* (Canarium), *Pouteria sericea*, *Lysiphillum binatum* and *Lysiphillum cunninghamii*, *Vachellia valida* (previously *Acacia bidwillii*), *Petalostigma pubescens* (Quinine Tree), and various others. Pockets of a little alkaline-soil loving, fan-leaved legume, *Christia australasica*, grow amongst the rocks in the higher places.

### What is Karst?

Karst limestone describes a distinctive grey, soluble carbonate rock that breaks through the soil surface. Karst landscapes are shaped by ongoing chemical reactions over a very long time. The chemical reaction occurs when rainwater reacts with the limestone, gradually dissolving the limestone into all sorts of shapes.

The dissolving action on the limestone bedrock results in distinctive landscapes such as sinkholes, caves, exposed ridges, towers, pavements and pinnacles. These formations can be hundreds of metres high and cover thousands of square kilometres. Examples of karst landscapes are seen all over the world including China, Vietnam, Thailand, South and Central America, the United States, Europe and Australia.

'Karst' is a German word, originating from where this sort of geological landscape was first studied.



*Storm clouds gather over Baraka*

The flat parts of Baraka are mostly limestone pavement with some grassland. Many of the trees growing in the higher, pinnacle areas grow here too, but there are differences. Far more eucalypts and *Lysiphylum binatum* grow here, few *Vachellia* and no *Pouteria sericea*. *Terminalia platyphylla*, *Buchanania obovata* (Green Plums), *Brachychiton paradoxum* (Red-flowered Kurrajong) and *Cochlospermum fraseri* (Kapok Bush) are more likely to be found in the low lying areas. *Erythrina variegata* (Coral Trees) seem to prefer the liminal area at the foot of the ridges.

There are many types of grasses and I have been told species here include *Themeda triandra* (Kangaroo Grass), *Heteropogon contortus* (Black spear Grass), *Sehima nervosum* (White spear Grass), *Sorghum intrans* (Annual Sorghum), and *Sorghum plumosum* (Plume Sorghum). There are Native Grapes, *Flueggea virosa* (White Currants) and a host of colourful little forbs in the undergrowth. *Cymbidium canaliculatum* and mistletoe grow in the low lying areas here, since they only seem to use eucalypts as hosts.

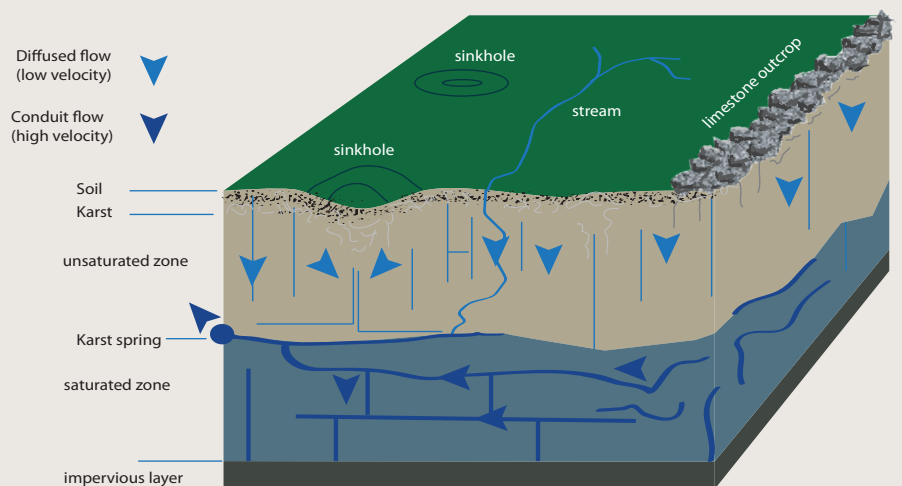
The trees and grasses of Baraka are host to a marvellous range of bird life that varies as the seasons change. The Wet brings channel billed cuckoos, koels, pheasant coucals, dollar birds, orioles, fig birds, double bar finches and red backed wrens. Toward the end of the Wet, when the grass seeds are ripe, the little corellas and red tailed black cockatoos arrive in their hundreds. They noisily and cheerfully flatten the tall stands of grass that have gradually concealed the rocks over the wet season.

The Dry brings the usual range of red collared lorikeets, sulphur crested cockatoos, various honey eaters, willy wagtails and doves. There are many others that are here all year including brown quail, two types of shrike, several raptors, blue winged kookaburra, bower birds, butcher birds, peaceful and bar shouldered doves. I've seen a bower bird nest here but have only found bowers on the neighbour's land.

One of the special things about the Katherine Karst Limestone area is that it is host to *Sorghum macrospermum* (Katherine Sorghum). This grass has the largest grain of any native species and it grows in a very limited distribution around Katherine. It must once have been an important food source for Aboriginal people living in this area. It prefers growing in the higher limestone areas. The demarcation between other grass species in the lower lying areas and Katherine sorghum in the 'foot hills' of the pinnacle areas is marked.

## Conceptual Model of Karst Aquifer

Karst limestone is a porous rock containing many underground chambers that act as aquifers. An aquifer is a zone within the ground that serves as a reservoir of water and that can transmit water to springs and bores. Karst limestone areas contain the largest springs and most productive ground water supplies on earth. In these karst areas, water passes downward from the surface through an efficient system of natural pipes and emerges elsewhere through soaks and springs or is pumped out through bores. Karst limestone areas are sometimes referred to as places where 'the rivers run underground'. It is estimated that karst areas supply 25% of the world's population with water.



(from Doeflinger and Zwahler 1995)

Non-avian wildlife on Baraka includes: olive pythons, echidnas (seven sightings so far), micro-bats (Dusky Leaf-nosed Bat and Orange Horseshoe Bat), Agile Wallabies, rock rats, at least five types of frog, skinks and geckos, Common Brushtail Possums (only one sighting) and little Gillgai crabs (visible during the Wet only). There are fascinating fungi in the Wet too. Insects and spiders of many types and interesting snails abound, but I have names for few other than the Fire Flies. It is enormously frustrating to see so many species of flora and fauna that I don't have the knowledge to identify.

The privilege of living on a block containing such high biodiversity brings with it responsibilities.



*Xanthomelon sp.* Photo : Vince Kessner

It is a constant effort to try and maintain the native vegetation. The grasses in particular are threatened by invasive species such as *Pennisetum pediculatum* (Mission Grass) and *Calotropis procera* (Rubber Bush). I have made real progress battling the *Pennisetum*, but it takes several days of hand pulling each year.

The Rubber Bush is nearly gone after basal bark spraying with Access and diesel. Cane toads are present, but not overwhelming, and are dealt with humanely.

Fire management is a significant issue. As beautiful as it is to be surrounded by native grasses up to 2m tall during the Wet, it becomes a serious fire hazard during the Dry. Finding a balance between safety and conservation is tricky. I am unable to have a vehicle access track all around the block, because of the pinnacle limestone areas. I have the standard 4m firebreak around the house and the boundary wherever it is possible.

I have hacked a rough vehicle track down the middle of the block to satisfy legislation and provide the best access I can in case of fire.

I aim for mosaic burning, doing one section of Baraka each year, in order to spare the Echidna and Quail. This is more of a problem now, since the friends who used to help out no longer live here.

Balance is what I aim for and it takes a lot of thought and effort. Not only in fire and weed management, but in the larger ways in which I impact on this piece of country.

How much can I take from this land before I surpass what I give to it in my role of minor custodian?



*Ficus virens - Banyan Fig Photo : Nicolas Fedrigo*

I want to supplement my lifestyle with home-grown fruit and vegetables and eggs. Yet how much of Baraka should become 'developed' into garden as opposed to left natural?

What exotics can I safely introduce here?

How big a footprint can I leave with my walking and vehicle tracks and living area and water tanks and power poles and chook house and dogs and bore and septic tank and veggie gardens and fences before I irreversibly alter the nature of the place for the worse?

Does my presence pulling weeds and not slashing native grasses have a net effect for positive conservation or am I kidding myself?

I've never been in the position of developing a bush block from scratch before and it is a humbling responsibility. I am going



*Litoria tornieri - Tornier's Frog*

slowly, since I am unsure of the way: building a food garden rather than an ornamental garden; I have no lawn; the dogs are securely fenced in a yard and the two cats live entirely indoors. I hope that the one possum I've seen will return and that the bower bird will nest again.

Every time I watch the sun set behind the craggy silhouettes of the pinnacles or see the rocks by moon light I hope I'm following the right path to preserve it all.

*Main text © Moira McCreesh*

*Images © Moira McCreesh except where otherwise credited*

*Moira raises some interesting points with regard to our impact on the land and our efforts to conserve it: what do you think?*

*Join the discussion.*

[www.landforwildlifetopend.org.au/forum](http://www.landforwildlifetopend.org.au/forum)



## Flutter-by Invasion

LfW member Sandra Parker emailed with a wonderful report and pictures of an 'invasion' of butterflies: "They first appeared at the beginning of the dry, flitting round a few flowering shrubs with an occasional stop in the veggie patch. By June, they had colonised most of the trees near the house... They continue to delight us.... we hope they will visit often."

Entomologist Dr Michael Braby writes, "The butterfly is the Common Crow, *Euploea corinna*: looks like Sandra has walked into an overwintering aggregation of the species, which they do during the dry season."

member's musings

ALICE SPRINGS UPDATE

**LFW Alice Springs Wins NT Landcare Award**

Central Australia had outstanding representation at the NT Landcare awards held at Parliament House in late October 2011.

Local Landcare hero Tim Collins was recognised for the tireless work he has put in over the years with the NT Landcarer of the Year award. This is a richly deserved gong for all of the time and effort Tim has committed to Alice Springs Landcare, but he was quick to redirect the limelight from himself to the organisation he has spent so many years building up and serving. Tim's award is well-earned - congratulations.

The Centralian Land Management Association was also recognised with a highly commended award which was accepted by Glenis McBurnie for soil conservation activities and the many other ongoing projects that CLMA conducts throughout The Centre.

And Land for Wildlife Alice Springs brought home their own piece of recognition winning the Toshiba Community Group category. The award is rightly seen as recognition of the conservation efforts of all the members of the Land for Wildlife and Garden for Wildlife programs across central Australia. The scheme has expanded its membership again this year, and our members' properties now cover 16,404 hectares of central Australia from Tennant Creek in the north to the Alice Springs Correctional Centre in the south. We are currently in talks with a few large commercial properties that will add to the program considerably, and we have just received funding to extend Land for Wildlife into areas remote from Alice Springs.

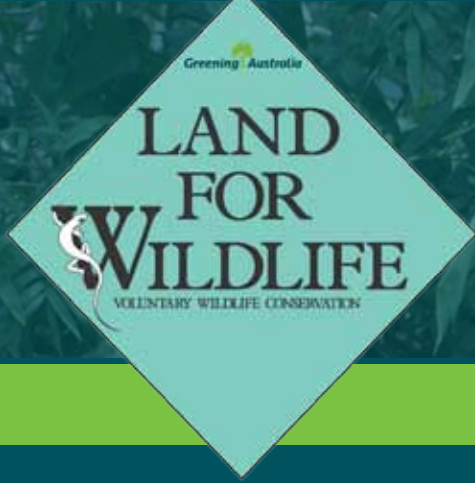
**Alice Springs Correctional Centre registers as Land for Wildlife**

The registration of the Alice Springs Correctional Centre with Land for Wildlife was finalised on 23rd August. The Land for Wildlife coordinators handed over the final report produced from their property assessment conducted with Dr. Bill Low and Chief Horticultural Officer Shane Secombe.

Superintendent Bill Carroll has given enthusiastic support for the program's values from the very beginning of the registration process. Land for Wildlife will now provide support and advice to maintain the conservation values of the property which contains several areas of remnant vegetation, aquatic habitat, and significant trees. The restorative power of spending increased amounts of time and working closer to nature has been well demonstrated by the work of Professor Doug Tallamy from the University of Delaware, and Audubon Medal recipient Richard Louv. Membership of LfW will help ASCC to protect habitat for wildlife and provide a more restorative environment for employees and inmates at the centre.

The LfW scheme also has the potential to open pathways for inmates into training and employment within the natural resource management industry. Shane Secombe already has a thriving horticultural program at the centre. This can be strengthened by LfW workshops and by using the large network of LfW members to distribute seeds and propagated plants from the centre nursery.





[www.landforwildlifetopend.org.au](http://www.landforwildlifetopend.org.au)

## Gamba grass control: planning starts now

Gamba grass is a declared weed that actively grows in the Wet season providing a short window of opportunity for landholders to undertake control.

The Weed Management Branch has resources available, free of charge, to assist landholders to manage gamba grass on their property:

- Quikspray units for trailers;
- Car battery operated 50 L, 100 L and 200 L spray packs; and
- Glyphosate, a herbicide for managing gamba grass.

Under the Weeds Management Act 2001, landholders are required to manage gamba grass on their land.

Additional resources, including the Gamba Grass Management Guide, are available online at [www.nt.gov.au/gamba](http://www.nt.gov.au/gamba)

Good planning and cooperation is essential to reduce gamba grass spread and distribution.

Contact the Weed Management Branch for further information:

Phone: 8999 4567 Email: [weedinfo.nretas@nt.gov.au](mailto:weedinfo.nretas@nt.gov.au)

Web: [www.nt.gov.au/weeds](http://www.nt.gov.au/weeds)



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### Volunteer for us

**Want to help out the environment?**

**Why not volunteer for Greening Australia!**

Greening Australia success in the Territory has largely been built on the tremendous support of volunteers. Every year volunteers contribute thousands of hours to our projects, assisting with tree planting, weed control, plant propagation and seed collecting. Most volunteers start out in our nurseries.

**Darwin** - Tuesday 9am - 4.30pm  
Now open every Saturday 9am to 1pm  
125 Thorak Road (last driveway on the left)  
Knuckey Lagoon  
Phone/Fax: (08) 8947 2176

**Katherine** - Friday 9am - 12pm  
Saturday 9am - 12pm  
19 Second Street (Katherine Training Centre)  
next to our office  
Phone (08) 8972 2349 Mob: 0488 955 838

**Alice Springs Office**  
Charles Darwin University (Centralian College)  
off Grevillea Drive

 **Greening Australia**

[www.greeningaustralia.org.au](http://www.greeningaustralia.org.au)