

LAND FOR WILDLIFE



Newsletter of the Land for Wildlife Scheme in Alice Springs Municipality, NT

June 2007

Land For Wildlife Update

Welcome to the Winter 2007 edition of the Land For Wildlife newsletter for Alice Springs. Studies have shown that there has been an increased emphasis toward off-reserve conservation as a means of conserving biodiversity. Efforts by LFWers to conserve natural environments are being recognised. By encouraging wildlife corridors between reserves and private land, movement of species across the landscape will be achievable. Thank You LFWers! All your hard work is paying off.

Membership

We now have 52 properties registered with LFW and 5 properties currently working towards registration. Please let your friends and neighbours know about LFW. Information is available at www.lowecol.com.au, or call Heidi on 8955 5222.

Garden for Wildlife (GfW)

GfW was launched on Saturday the 24th March 2007 at Olive Pink Botanic Garden. There were a total of 70 people at the presentation and possibly 130 passing through over the morning period. GfW has successfully registered over 35 properties and is certainly proving to be a valuable community program for wildlife conservation. At the recent Melaleuca Awards sponsored by Power and Water, the GfW/LFW application received an honourable mention. Tell all your friends, as we would soon like to register streets as GfW members, maybe even entire blocks.

For your interest please have a look at the website www.lowecol.com.au and hit the GfW logo.



GfW Launch at OPBG 24th
March 2007

Future

If anyone is interested in coming along to a couple of biodiversity survey workshops, I will be commencing a biodiversity study on 8 LFW properties. My plan is to survey birds (30min line transects), reptiles (30min active searches), small mammals and reptiles (Elliott trapping along a line transect) and vegetation surveys within vegetation community 17 (Ironwood & Fork-leaved Corkwood on alluvial flats). The surveys will be conducted over 3 days for each property (30min each morning and 1 hour each afternoon). I am looking forward to meeting with fellow LFWers and I encourage members to come along to the surveys as often as you can. I will arrange a couple of BBQ's after the survey sessions to catch up and chat about how everyone's properties are going. Surveys will commence once the weather warms up a little and they will provide us with an insight into the biodiversity levels of areas with and without Buffel Grass on private land. This will assist with helping members to establish monitoring programs, so that we can measure the positive changes within LFW properties. The data collected will also assist when applying for further grants to keep LFW going.

Happy reading!

Heidi Groffen and Bill Low
Land for Wildlife Coordinators

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Open Days

It's been a busy 3 months promoting both LFW and GfW with 3 different open day events plus the GfW launch.

DKA COOLmob presented their annual **Retro Fit Day** promoting energy and water efficiency for Alice Springs households. A LFW and GfW stall was set up for this mini eco-expo with various organisations and businesses attending. AZRI open day proved to be a successful day with 3 LFW and 15 GfW applications completed. World Environment Day was held at the beginning of June and again proved to be a busy day with many people approaching the stall asking questions about wildlife conservation and how to create wildlife habitats within their own properties.

Practicalities

"Shrubbery" Observations

By Tim Collins from Alice Springs Desert Park and the Australian Plant Society

The cooler months of the year bring about subtle changes to the bush around Alice Springs. Many of the summer growing annuals and short-lived perennials are producing their seeds and fruits. The rain which fell in January and March this year has produced masses of these summer growing plants as well as lots of Buffel Grass.

Prickles are in abundance and quickly become a trap for the unwary. Lamé dogs, pneumatic tyres and screaming toddlers are classic victims. One of the fiercest of them all is the Caltrop or Bindieye (*Tribulus spp.*). In disturbed soils the prostrate stems, compound leaves and yellow flowers of this annual plant seem to have excluded all other plant life. These plants love disturbance and are great at stabilising the soil. The sharp-spined woody fruit are a menace to all but the larger parrot species who love them! Galahs, Red-tailed Black Cockatoos and Major Mitchell Cockatoos are commonly seen eating (and destroying) the spiky seeds.

Currently there is a profusion of Burrs (*Sclerolaena spp.*), these low growing Chenopod sub-shrubs with their spiky fruits can be very annoying. There are 13 species of *Sclerolaena* around the municipality and

they provide great habitat for reptiles and invertebrates, food for parrots as well as helping to protect the delicate soil crust and reduce erosion.

The summer rains also produced a wide variety of local native grasses which have almost finished seeding now.

Also of note is the Satiny Bluebush (*Maireana georgei*). These small shrubs are usually not noticed except for when they produce masses of shiny papery fruits in pastels of orange and pink. The Satiny Bluebush is common in Alice Springs in Mulga communities where it grows to a height of approximately 70cm.



Satiny Bluebush *Maireana georgei*

Photograph By Jenny Purdie

The small amount of rainfall received more recently in May has revived many short-lived plants and produced flowers on many plant species. The Ilparpa valley has many beautiful flowering plants at the moment including Parakeelya (*Calandrinia spp.*), Paper Foxtail (*Ptilotus gaudichaudii*) and Annual Yellow-tops (*Senecio gregorii*) to mention a few.

Watch out for the weed Ruby Dock (*Acetosa vesicaria*) which is also starting to appear!

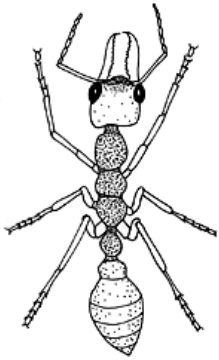
Biodiversity in Soils and Leaf Litter

The soil and leaf litter world is teeming with a great variety and number of living creatures. It rivals coral reefs as one of the most biodiverse places on Earth. It is a realm of darkness with tiny caverns, tunnels and crevices. It houses heavily armoured eight-legged mites that clamber about like miniature tanks, elongated earthworms that burrow through the soil, and scorpions that stalk their prey with their massive pincers outstretched. The soil and litter world is also

home to countless microorganisms, such as protists (microscopic organisms) and bacteria.

Many of the animals living in soil and leaf litter are both tiny and remarkably abundant. For example, microscopic nematodes or roundworms are so common that if everything else were to disappear, the Earth's outline could still be recognisable as a continuous sheet of roundworms. There is a great diversity among the species and lifestyles of these tiny organisms.

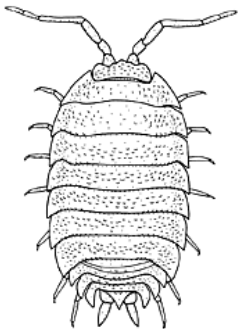
The most visible inhabitants of leaf litter are arthropods, such as ants, termites, beetles, millipedes, slaters and spiders. Many of these are important decomposers of plant matter while others, like spiders and some ants and beetles, are predators.



Ant
(Illustration By K. Dempsey)



Centipede
(Photograph By E. Moon)



Slater
(Illustration By K. Dempsey)



Springtails
extension.missouri.edu/.../g07363art01.jpg

The most important soil arthropods that decompose organic matter are springtails (can be up to 2000/m² in arid areas) and mites. While numerous, they are less obvious because they are small. Their food preferences range from decaying plant material to

carcasses and faeces with associated fungi and bacteria. Termites get a bad press but the few destructive species give the rest a bad name. Termites, like *Spinifex*, are synonymous with the arid lands and provide much needed break down of dead plant material to provide nutrients for fungi, plants etc. Termites also provide food for lizards, birds and small mammals.

The interactions within the community of soil and leaf litter organisms help maintain soil fertility and structure. Nutrients locked up in dead organic matter, like leaf litter, are released via a complex food chain. This starts with leaf litter being broken down by decomposer organisms (animals, fungi, protozoa and bacteria). The excreta and carcasses of both the decomposers and their predators provide organic material which micro-organisms actually turn into the basic nutrient materials needed by plants.

Lygaeidae or better known as seed bugs are common in leaf litter in arid Australia. Most species in this family are known as seed bugs and are usually brown to red in colour. Lygaeidae have a hard, elongated body ranging from 4 to 20 millimetres in length.



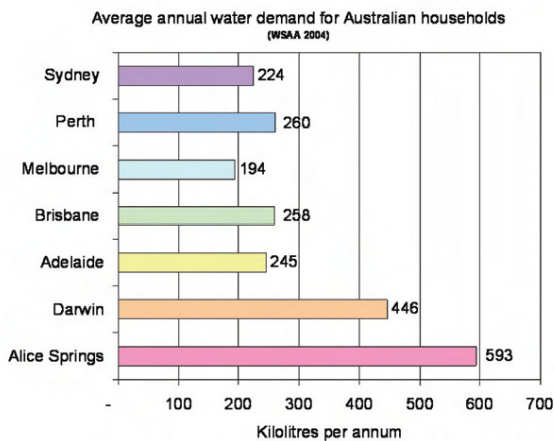
Keep an eye out for these red and brown bugs and remember that soils and leaf litter provide important niches for varying critters from the insect world.

References: Mike Gray [Arachnology](http://www.aronline.net.au/factSheets/biodiversity_litter.htm) Australian Museum www.aronline.net.au/factSheets/biodiversity_litter.htm

Zborowski, P and Storey, R. 2005. A field Guide to insects in Australia. Part 2, Springtails, Proturans, Diplurans.

Alice Springs gains NUMBER ONE Water Consumption Status

Water Services Association of Australia has produced National Performance Reports for water utilities for 2005-06.



Unfortunately, Alice Springs is way out in front with number 1 status. 535 kL/property/year. Second is Darwin 443 and a close third is Hobart with 432, with the previous title holder Kalgoorlie well down the list at 366.

Central Australia is one of the driest places on earth. Alice Springs has a plentiful supply of good quality drinking water but it is diminishing. We should treat our precious resource wisely. We use about twice as much water as people in other Australian capital cities.

By making a number of small changes in our homes and gardens you can help save water. Gardens are amongst the highest users of water in Alice Springs. The Northern Territory Government is addressing the demand for water in Alice Springs with an innovative water wise rebate scheme. Visit the below web site to learn more.

www.nt.gov.au/nreta/naturalresources/water/pdf/water_poster.pdf

Problems with pests?

Protecting our wildlife:

Responsible Pet Ownership

The health of our environment relies on the harmonious inter-relationship of all species within a given habitat. With good pet management and public awareness the needs of domestic and native animals can both be met.

Responsible pet ownership allows you to enjoy the presence of native fauna as well as your pet. Poor management of animals by individuals, however can impact severely on animal welfare and the environment.

A wide variety of native wildlife, ranging from Euro, and Black-footed Rock-wallaby to reptiles like Central

Bearded Dragon and Perentie and bird species may be at risk from domestic pets that are not secured within a property. Domestic dogs that are allowed to roam free harass, maim and even kill other animals, such as Euro and large reptiles. Cats are by nature hunters and are more likely to kill birds and reptiles.

We have received a couple of emails that have told stories about pet/domestic dogs in packs, attacking Euro. Unfortunately one individual Euro had to be euthanased due to the terrible extent of the injuries inflicted by the dogs. It was reported that the dogs were pet dogs not wild dogs or camp dogs. The responsibility for managing domestic animals rests with their owners. Simple measures can make a big difference. By encouraging responsible pet ownership in your family and neighbourhood you can ensure the welfare of all animals.

Ensure that dogs are kept under control both day and night. It doesn't take much to build a suitable dog yard for your pet to stay in while you are at work. This prevents your dog from roaming the area and becoming a nuisance and prevents the threat to wildlife.

If you would like to control dogs in your area, please contact the Alice Springs Town Council Rangers to book a dog trap. The council will provide you with instructions on how to use the trap and they will retrieve any dogs caught and take them to the RSPCA.

References:

<http://www.biodiversity.environment.gov.au/threaten/index.htm>

The importance of private land for wildlife conservation

Research plays an important role in nature conservation by providing new information on the distribution of plants and animals. Habitat understanding is vital as well as improving the knowledge about the processes that effect wildlife abundance. In recent years we have seen a great increase in our knowledge of the species that occur in rural environments, and fascinating insights into the ecology and conservation requirements of many species.

Private land in Alice Springs is important for vegetation communities such as Witchetty Bush

and/or Mulga on rocky hills of granite, gneiss or schist (vegetation community 4) and Ironwood & Fork-leaved Corkwood on alluvial flats (vegetation community 17). 16% of LFW properties have vegetation community 4 and 46% have vegetation community 17. From the 27 vegetation communities within the Alice Springs municipality outlined by Botanist Dave Albrecht, 23 are represented on LFW properties. Refer to **Figure 1)** for an overview of the vegetation communities present on 50 LFW properties.

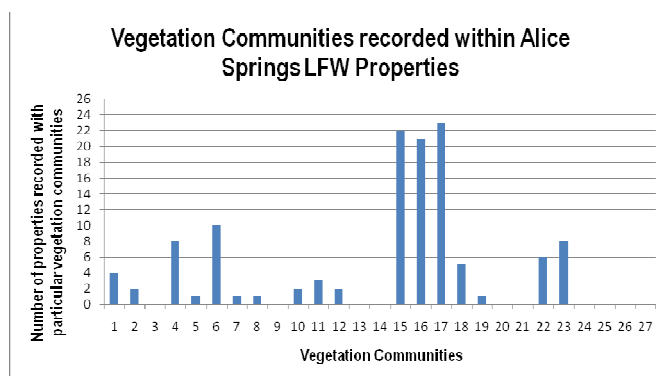


Figure 1) Vegetation communities recorded within Alice Springs LFW Properties

Research studies have examined different aspects of wildlife habitats, highlighting particular features that are important to manage. Over grazing by domestic stock in natural habitats have detrimental effects, including lower species and numbers of reptiles compared to ungrazed habitats, reduced diversity of ground-dwelling invertebrates, and a lower or complete absence of tree regeneration. Grazing horses can be used to assist with fire breaks by putting in lane way fencing around rural blocks. These lanes need only be 3 or 4m wide to provide horses freedom to wander as well as provide a fire break strip.



Overgrazed land in Mulga Habitat.

Large trees are a critical resource for many species. Tree hollows are essential for our arid bird populations (Red-tailed Black Cockatoos *Calyptorhynchus banksii*, Cockatiels *Nymphicus hollandicus* and Budgerigars *Melopsittacus undulatus* to name just a few) as the hollows provide nesting locations and will increase as



the trees age and become larger. Large trees also provide diverse foraging substrates like dead wood, peeling bark, dense foliage and large branches. Branches that fall from large trees provide shelter for ground dwelling animals like the Sandy Inland Mouse *Pseudomys*

Photograph By Ian Stych.

hermannsburgensis, Desert Mouse *Pseudomys desertor* and Kultarr *Antechinomys laniger*, all known to occur in the Alice Springs rural area.

More and more plants and animals are becoming dependent on habitats within private land for their future survival. Habitats on private land are essential parts of the network of habitats necessary to maintain biodiversity in rural environments.

References:

Dr Andrew Bennett, School of Ecology and Environment, Deakin University.

Victorian Land for Wildlife News, Vol.4, No.6 Special Edition July/August 2000.

Alice Springs Land for Wildlife database 2007.

Bush Detective

Golden Orb Spider

Can you find a Golden Orb Spider on your property? Golden Orb Spiders build semi-permanent webs which they occupy continuously, sitting head-down at the central hub.



Male Golden Orb Spider *Nephila sp*
Photograph taken at Emily Valley By Erin Moon

The golden refraction from the strands of the web are the source of the name for this group of spiders. The web is approximately 1m in diameter and it is asymmetrical with the hub off-centre, closer to the top of the web. *Nephila* are sexually dimorphic. Mature males can be less than 10% of the size of a mature female. Once prey is caught, the spider cautiously approaches the prey, wraps it in silk to immobilise it and kills it with a bite, probably injecting venom and digestive enzymes. The prey is then moved to the hub of the web where it is either consumed or added to the food store. *Nephila* are active in prey capture both day and night and will take a wide variety of insects ranging from beetles, bees, flies, crickets, wasps and cicadas. Comparison of the prey of *Nephila* species shows that they are an opportunistic predator and will eat anything that lands in the web.

Conserving habitats not only protects the spiders but also the whole ecosystem of which they are a part. Habitat conservation is an essential element of maintaining sustainable ecosystems.

Reference:

http://www.amonline.net.au/factSheets/orb_weaving_spiders.htm

http://www.conservationinstitute.org/pcn/invertebrates/golden_orb_web_spiders.htm

Low, W. A., 2007. Pers. comm. Low Ecological Services.

Wildlife Calendar

Seed eaters make the most of the "Boom Time"

By Pat Hodgens Alice Springs Desert Park

The recent rains over the past few months have had a huge effect on our arid zone birds.

Following the rains, flocks of seed eating birds have been attracted to Alice Springs and its surrounding areas. Opportunistic Budgerigars *Melopsittacus undulatus* have inundated this area, making the most of this "boom time". Flocks of Budgies will fly vast distances across Australia, following the rain, in their constant search for the best feeding and breeding habitat. Just after the rain, these birds will begin prospecting large River Red Gums *Eucalyptus camaldulensis* for suitable nesting hollows. Normally Budgies will rear one clutch of between four to six chicks before leaving the area. However if the season is good, a second clutch is not uncommon.

Other nomads of the Australian Desert that have been seen recently have been flocks of Cockatiel *Nymphicus hollandicus* and Little Button-quail *Turnix velox*. Common seedeaters like the Red-tailed Black Cockatoo *Calyptorhynchus banksii*, Galah *Cacatua roseicapilla*, Australian Ringneck *Barnardius zonarius*, Mulga Parrot *Psephotus varius*, Zebra finch *Taeniopygia guttata*, Common Bronzewing *Phaps chalcoptera*, Peaceful Dove *Geopelia striata*, Diamond dove *Geopelia cuneata*, Crested pigeon *Ocyphaps lophotes* and Spinifex pigeon *Geophaps plumifera* have also been making the most of this time by breeding prolifically.



Zebra Finch making the most out of the "Boom Time"

Photograph By Ian Stych.

Budgies, Cockatiel and Red-tailed Black Cockatoo have been observed breeding in the River Red Gums along the Todd River in the Ross Highway area.

Seed eating birds are never very far from water, as the majority of seed they eat is very dry. All seed eaters have very strong bills to crack seeds and parrots have specialised hooked bills to remove tough husks from larger food items.

Raptors like the Australian Hobby *Falco longipennis*, Collared Sparrowhawk *Accipiter cirrhocephalus*, Brown Goshawk *Accipiter fasciatus* and the Peregrine Falcon *Falco peregrinus* are also at the end of their breeding season and are making the most of the recent rains by feeding on the small seed eating passerines in and around Alice Springs.

Property Profile

The Toyne Property was registered as a LFW property in May 2005. The block nestles in a gully in the Sadadeen Range and backs on to a granite/gneiss/schist gully and ridge, which neighbours the Alice Springs Telegraph Station Historical Reserve and Undoolya Station.

The Toyne's goals for the property and for joining LFW were to -

- To eradicate Buffel grass on the property, as well as in the hills behind the block, as a means to restore native vegetation.
- To provide natural wildlife habitat on the property and in the hills behind the block, to attract wildlife.
- To enjoy the attachment to native bush land, vegetation and animals.
- To gain information to enable them to actively manage the property to promote conservation, and enhance native habitat.
- To advocate conservation in the region.
- To show respect for sacred areas.



Native vegetation growing on the rocky outcrops that have been cleared of Buffel Grass

Buffel bashing has been an ongoing mission for the Toyne's with an extra half an hectare cleared last season from the western ridge neighbouring their property. Since the removal of Buffel grass, the native vegetation has been able to recolonise with such grass species as Woolly Oat Grass *Enneapogon polyphyllus*, Mountain Wanderie *Eriachne mucronata*, Kangaroo Grass *Themeda triandra* and Bandicoot grass *Monachather paradoxa*.

Some of you may recall Glen Marshall's success with Buffel Grass removal in the August 2004 newsletter. Dave Albrecht identified 65 native plant species in the roadside drain after rains.



Woolly Oat Grass *Enneapogon polyphyllus*

Wildlife observations such as Variegated Wrens *Malurus lamberti* and Western Bowerbirds *Chlamydera maculata* have been recorded as well as Black-footed Rock-wallaby *Petrogale lateralis*.

It is great to see that the Toyne's enthusiasm has not faltered over the years and that they are still clearing Buffel grass from the range at an impressive rate as well as encouraging their neighbours to join both LFW and GfW.

Letters to the Editor

Dear Editor,

Just letting you know about our visiting birdlife.

While we are still waiting hopefully for more rain, the last lot saw an abundance of birdlife happening - the creek was alive with the chatter of budgies. Still pretty noisy down there. Apart from all the usual birds who visit our yard for water and shade, we have seen peaceful doves again, and have a pair of mulga parrots who come each day to feed on native vegetation in the yard. It's really special to see.

I have also seen some unusual geckos at night time.
Regards,
Lesley - Ilparpa Valley.

*Morning Lesley,
You must have all the birds out your way! At the Todd flood plains on Isotoma Road, we get more during dry times and they disperse when the rains come.
But a quiet mulga parrot must have a nest nearby as the male and female take turns coming to water.
Has the Channel Billed Cuckoo been out your way? A youngster flew at tree top level over my date trees with some Yellow Throated Miners in hot pursuit a couple of weeks ago.*

*We were out to do the assessment for the Pringle's property in February and I was impressed with the Silverton Daisy *Ixiochlamys cuneifolia* that was growing in the river in front of their (and your) place after the rain. I didn't see any Mexican Poppy so you guys must have done a good job of getting rid of the plants before they seeded. The same down on Cramer's block.*



Silverton Daisy *Ixiochlamys cuneifolia*

*Glad you've got peaceful doves and we need to push people to get rid of Spotted Turtle Doves and Barbary Doves if they do appear in the bush.
Cheers Bill*

Dear Heidi,
Just wanted to say thanks again to you and Bill for your time on Tuesday. I enjoyed talking to you both and probably won't look at what I've always considered to be "weeds and prickles" in the same way again! I actually walked past a "Goatshead Burr" and left it in the ground yesterday seeing it as a source of food and not something that might prick me! We spent most of yesterday in the yard, tidying up, pulling some stray buffel and giving the mulgas down the back a good sprinkle. We only got 9 ml from that

rain the other week, but it did still help. The weather is just so right for being in the garden at the moment. All the little fairy wrens were playing in the areas where we were watering and I was lucky enough to see a red cap robin in very close proximity too.
Looking forward to your report
Keep up the good work!
Cheers Carmel - Ross highway

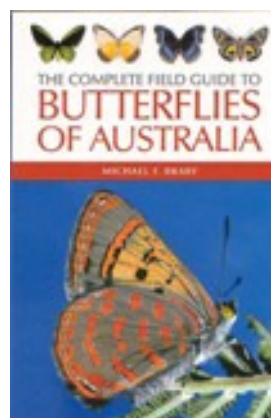


Stand of Mulga Trees on Carmels LFW property

*Hello Carmel,
It was lovely to spend the time walking around your property and I look forward to completing your report in the next few weeks. You have worked very hard and it must be nice to sit in your many garden areas and enjoy the wildlife and healthy habitats that you have conserved.
Cheers Heidi*

Books worth a Look

The Complete Field Guide to Butterflies of Australia
By Michael F Braby



This is the first complete field guide to all butterfly species on Australia's mainland and its remote

islands. It is stunningly illustrated with colour photographs of each of the 416 currently identified species. Red Kangaroo Books stock this field guide for \$ 45.00.

Calendar of Events

Would you like to host a coffee morning?

'Coffee mornings' have been held at Western Australian LFW properties recently and have proved to be very successful. LFWers meet at a member's property and take a walk around the property together, chatting about points of interest like rehabilitation, weeds, soil erosion, wildlife observations and many other issues. This will provide members with an opportunity to meet with like-minded LFWers as well as gain ideas and information about maintaining your own LFW property. I certainly enjoy reading the past assessment reports for LFW properties and I am sure that members would also like to see what LFW property owners are achieving.

If anyone is interested in hosting a 'Coffee Morning' please contact me and I will organise the rest.

Garden for Wildlife Workshop

Big Headed Ants (BHA)

Pheidole megacephala

Have you seen these feral ants around your house? GfW will be holding a BHA workshop at **Bloomin Deserts on the 14th July at 10:30am** to help property owners positively identify BHA's and take action in controlling the spread of this invasive ant. BHA's are one of the world's top 100 invasive species and they are on the move in Alice Springs. The likely impacts on the highly biodiverse habitats in Alice Springs are a major cause for concern. If you think that you might have BHA's, please bring along a specimen for identification.

visit
www.cazr.csiro.au/documents/bighead.pdf for further information.



LACM ENT 142295, Costa Rica. Image by J. Longino Sep'03.

Australian Plant Society

Wednesday 4th July – Alice Springs Show Meeting at 7:30pm OPBG.

Friday 6th and 7th July – Show Weekend. Come along to the APS display and view the arid zone garden, which this year will also include a Garden for Wildlife display.



The sale of seed of Sturt's Desert Pea (*Swainsona formosa*) is the Society's biggest income earner; unfortunately our normal source is unable to supply the seed at the moment and nor are any other commercial suppliers. If you, or any of your friends, have plants growing and you don't want all the seeds please would you donate some to APS; it would be great to have a supply for this year's Show.

Greening Australia are looking for volunteers to help in the nursery every Thursday, between the hours of **8.30 am – 4 pm**. Tools and morning tea provided, no experience necessary. Come along to CDU Primary Industries Entrance. Call **Frances** on **0427775027**.

This newsletter has been produced by
Heidi Groffen and Bill Low, LfW coordinators, W.A. Low
Ecological Services,
Contact Heidi on 89555222 or lfw@lowecol.com.au



Northern Territory Government

