

Looking for native plants and animals in Western NSW

Laura Kelly, Project Officer with DEC, has spent a busy few months writing up reports for some landholders she visited in Western NSW, to tell them about the plants and animals found on their Wildlife Refuge properties.

Work carried out as part of the Voluntary Conservation and Biodiversity Project funded by the Environmental Trust, allowed detailed surveys of flora and fauna to be carried out on a number of Wildlife Refuges, based on an Expression of Interest sent to landholders.

Laura says “I loved working outdoors in the varied environments of western NSW. I also really enjoyed meeting the landholders, everyone was so welcoming and helpful and gave us a lot of their time to show us around.” Louise Brodie from the DEC office in Hurstville also visited some of the properties with Laura, and says “The highlights for me were meeting the landholders, talking with them about the challenges of managing their properties for both conservation and production – and of course the opportunity to visit Western NSW again.”



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Gathering information at survey sites

Some of the highlights included the occasions when a wider group involved on the property were interested in seeing what was found there. For example, in one case many of the property staff were involved in helping check the bat traps. All were able to see the Lesser Long-eared Bat (*Nyctophilus geoffroyi*), a few geckoes and skinks and the Holy Cross Toad (*Notaden bennettii*).

The presence of small insectivorous bats on a number of properties provided much interest to landholders. To capture these small bats ‘harp

traps’ were used. These consisted of a frame strung with vertical lengths of fishing line and a holding bag at the base of the frame. The idea is to place these in potential bat flight paths, usually where they might access water. The survey team often had fun finding these sites and erecting the traps – including the near loss of shoes in mud by Laura!

Landholders were interested to see the small size of these bats – some weighing only 3 kilos. It is often assumed that such small bats are babies, rather than being full-grown. Landholders had a good knowledge of the birds and the larger reptiles on their properties, and were interested to find out about the small geckos and dragons.

At another property workers were able to see the Central Netted Dragon (*Ctenophorus nuchalis*), the two Suta snakes (Curl Snake - *Suta suta* and *Suta spectabilis*), geckoes, including the Marbled Velvet Gecko and Beaked Gecko, and some frogs and bats.

In some cases, children were able to help out. Laura and others carrying



© DEC. L. Kelly

Lesser Long-eared Bat (*Nyctophilus geoffroyi*)

out the surveys near Lightning Ridge visited the Hebel school for a “show and tell” of the animals that had been captured.

The Wildlife Refuges visited covered 132,152ha in total. Fifty five formal survey sites were selected over the total area of these Refuges. Other species seen during the property visits were recorded. Given the size of many of the properties, the time spent at each property (2 to 4 days), and the size of the formal plots, the surveys were not able to cover every plant and animal likely to be found there. The weather conditions and time of year also played a part in what was found. The drought conditions may result in different and probably fewer species being found than if surveys were taken after good levels of rainfall.

The properties had a variable level of modification depending on their farming activities. All had some areas of native vegetation or waterbodies which provided habitat.

It was nice to find a number of threatened species during these surveys, with most properties having at least one threatened species present. Among those recorded were the Grey-crowned babbler, Brown treecreeper, Hooded robin, Major Mitchell’s Cockatoo, Brolga, the Little Pied Bat and the Yellow-tailed sheath-tail-bat. One threatened plant species was found on a property near Bourke, being winged pepper-cress (*Lepidium monoplacoides*).

In many cases, regeneration of new trees to replace the mature trees was not occurring. As these older trees age and become stressed due to changes in environmental conditions, it is vitally important that replacement trees establish. It is known that the presence of such trees contributes to both economic and environmental health of the land. Thus successful natural regeneration of these trees is desirable. If regeneration occurs it is



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Students from the Hebel School examining some of the animals found on a nearby property.

important that some seedlings are able to establish and reach maturity. Stock can be managed to allow this to occur by use of short-term paddock spelling or reducing stocking rates until seedlings are established enough to resist stock pressure.

Levels of weed invasion were a problem in some areas. *Lippia* (*Phyla canescens*) was one of the more serious weeds recorded on properties in the Bourke and Moree areas. This weed poses a serious environmental threat to the inland wetlands and floodplains of New South Wales. A fast-growing and hardy weed, *Lippia* forms a “carpet” over the entire ground. Because of its root system, it can be the cause of severe river and creek bank erosion. *Lippia* secretes toxic substances, leading to degradation of soil and water and displacement of native plant species.

African Boxthorn (*Lycium ferocissimum*) was also seen. On some properties this was as individual plants, and in others, signs of invasion were more extensive.

It is felt that the project has been a positive experience for DEC officers and landholders alike, and that discussion during property visits and the information provided to landholders on possible on-ground works would assist with conservation on their properties.

***Lippia* (*Phyla canescens*)**

This plant has been around for more than 50 years. Originally promoted as a soil stabilisation plant, it has been spread over large distances by floodwaters. It has also been marketed as a low maintenance “no-mow” turf, and is now found in many household lawns.

Lippia has invaded thousands of hectares of the State’s inland watercourse country. *Lippia* can completely dominate the ground cover and out-compete all native vegetation including tree seedlings. It poses a severe threat to all watercourse and adjacent grazing lands. It has virtually no value as stock feed and can reduce a paddock’s carrying capacity by 40 – 60%.



Land for Wildlife in Ballina Shire

James Brideson, Land for Wildlife Extension Officer for Ballina Shire, talks about Ballina Council and the scheme.

We all know that the north coast of New South Wales is a popular spot. Ballina Shire is one of the many beautiful scenic areas of this region, with its mountains and rainforest providing the backdrop to wonderful beaches and coast. Ballina Shire lies within the Richmond River Catchment in northern New South Wales (NSW).

In addition, it is an area rich in flora and fauna species. Its coastline, vegetation communities, fertile soils, temperate to sub tropical climate and high rainfall create a highly diverse setting resulting in high biodiversity. In fact the region is the most biologically diverse in New South Wales and the third most diverse in Australia.

Ballina Shire has the hinterland mountains as a backdrop to the coastal regions of the floodplains and headlands. Sub tropical rainforest (known as the Big Scrub) once covered much of Ballina Shire along with coastal littoral rainforests, wet and dry heathlands, sclerophyll forests and extensive wetlands. Ballina Shire has a wide range of soil types that cater for these differing vegetation communities.

Much of the original native vegetation has been cleared over the years for horticultural, agricultural and development use. Remnant native vegetation is now very fragmented and regrowth vegetation is holding the key to improving wildlife corridors and remnant expansion. Native vegetation and habitat on private and public land through restoration, rehabilitation and conservation measures greatly assist in protecting and ensuring the many endemic flora and fauna species survive and coexist.

Land for Wildlife

Ballina Shire has many landholders interested in conservation. Pressure on the area and its flora and fauna, by urban development, agriculture and clearing prompted Council to look at a number of initiatives to assist the community to manage and restore areas for habitat. Running the Land for Wildlife program has been one of these.

Ballina Shire Council recently signed a third party agreement with the NSW National Parks and Wildlife Service to conduct the Land for Wildlife scheme within Ballina Shire. The Council saw the Land for Wildlife scheme as a valuable extension

opportunity to provide a face-to-face service to rural landholders interested in conservation. The scheme allows for a greater understanding in the creation and protection of our wildlife habitats and overall biodiversity. I was employed by Council as the Land for Wildlife Extension Officer to facilitate this.

Prior to this, Ballina Council was involved in a pilot program for the Land for Wildlife scheme (in 2002), alongside five other NSW Far North Coast Councils. This was through an agreement formed between the NPWS and the Upper Clarence Combined Landcare Group. I was also the Land for Wildlife Extension Officer during this north coast pilot project.

During the pilot program Ballina Council had a very positive response from rural landowners in Ballina Shire to join up to the scheme. There was great interest from rural landholders with properties of all sizes ranging from 1-2ha up to 111ha. The small size and land distribution of Ballina Shire meant that more properties of smaller sizes joined up.

At the end of the pilot program Ballina Council had 95 properties signed up with a total land ownership of 1,634ha of which 924ha were dedicated towards wildlife habitat. Many of these properties were clustered around the escarpments containing native sub tropical rainforest stands in the gullies. Many other properties were also linked to Landcare groups. These groups already had an interest in land restoration and rehabilitation and of course appreciating our unique flora and fauna. There were farmers new to the land signing up to the scheme.

Ballina Shire boasts a variety of environments from beach, lakes and bushland to mountains.



Photo: J. Brideson.

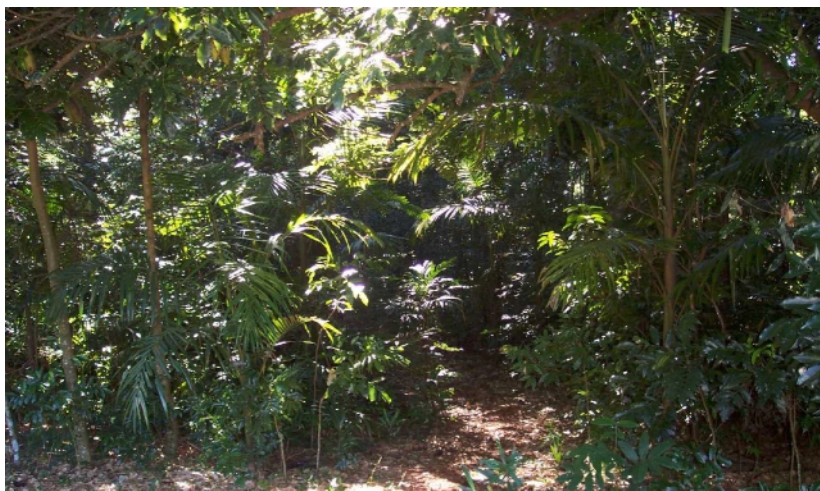
Longstanding landholders whose family are interested in conservation have also signed up.

The highlights for me as an Extension Officer have been the opportunity to view some amazing properties in the shire and experience our natural environment with the landowner. It has been a privilege to be able to assist them and provide guidance and support towards their goals of conservation.

Now that the Council has signed up directly to conduct the Land for Wildlife scheme, we plan to continue the same level of support for landholders in the scheme. This will involve information dispersal, newsletters, field days, support for grant submissions, links to networks and school talks. These were all provided during the pilot program and received by landholders with great enthusiasm. Already a new Council brochure has been printed promoting the scheme and we are preparing

for a field day. Several new rural properties have already signed up to the scheme ensuring another corner of the shire will be managing their wildlife habitat with conservation in mind.

NPWS which is now part of the Department of Environment and Conservation supports Council and landowners by sending out the *Bush Matters* newsletter and occasional fact sheets to all Land for Wildlife landowners, providing the signs to landowners, and in the future, will collaborate with Council to arrange field days and gatherings.



Lumley Rainforest

Photo J. Brideson



Need help to develop a tourism business concept that achieves conservation outcomes!
Tourism and Conservation Partnerships

The guidelines for the second round of the Tourism and Conservation Partnerships are now available at www.industry.gov.au/TourismAndConservation. Also on this site you will find FAQ's, contact details and summaries of the six studies funded in 2004/05.

The Tourism & Conservation Partnerships program aims to develop commercial tourism concepts that make a substantial and direct ongoing contribution to conservation through the program. This program provides funding for feasibility studies and business plans

for ventures that deliver conservation outcomes through tourism.

The second round is expected to fund 10-20 feasibility studies and several pilot ventures that have already completed feasibility studies. Closing date for Expressions of Interest is April 6, 2005.

Guidelines can be found on www.industry.gov.au/TourismAndConservation.

OR contact

Jacqui Jeffery 02 62761861 or
Carrie Steffen 02 6213 7029

Land for Wildlife In Northern New South Wales

During the pilot project in Northern New South Wales, a large number of landholders signed up to Land for Wildlife through officers employed with the project who worked with a number of councils in that region.

Landholders in council areas other than Ballina, who signed up to Land for Wildlife during the pilot project, continue to get support from DEC via the newsletter and invitations to future gatherings and field days in their region.

In addition to Ballina Shire, Land for Wildlife is also being run on the Central Coast, Hornsby Shire and the Murakool area in the Riverina.

Benefits for landowners with conservation agreements

We are aware of the substantial commitments in time and money that landowners make in protecting and conserving the natural and cultural values on your properties. We are also aware that when you manage primarily for conservation you also forego some of the financial incentives that others receive, when they are using their land for other purposes such as agricultural production. Gradually governments are addressing this inconsistency. A few financial incentives have been created this year to assist landowners who have entered into a perpetual conservation covenant such as a Voluntary Conservation Agreement.

Land Tax

In the last edition of *Bush Matters* we mentioned some changes to Land Tax. Since that article was written some further changes have been made.

The current amendments to the Land Tax provisions, applicable to those properties which have a Voluntary Conservation Agreement in place start from 31 December 2004. From that date those who are liable to pay Land Tax on a property are exempt from paying Land Tax over the part of the property that is protected by a Voluntary Conservation Agreement. The amount that you have to pay will be calculated based on the proportion of your property protected by the agreement.

Vendor Duty

Vendor duty was also introduced in 2004. Vendor duty must be paid (currently 2.25%) when people sell a property other than their principal place of residence or farm. If you are selling land that will be liable for vendor duty and it is protected by a

Voluntary Conservation Agreement you are exempt from paying Vendor Duty in proportion to the area of land protected by the Voluntary Conservation Agreement. For example if your agreement protects 60% of your property you are exempt from paying 60% of the Vendor Duty calculated.

Taxation through the Australian Taxation Office

In some cases entering into a perpetual agreement such as a Voluntary Conservation Agreement may decrease the land value. The Australian Taxation Office has brought in a concession when:

- The covenant is perpetual and is entered into after 1 July 2002
- The land is freehold (not available to leasehold at the moment)
- No money was received (apart from assistance in management actions)
- The decrease in market value is over \$5,000.

If the decrease in value of the land is less than \$5,000 you will only be eligible for a deduction if you acquired the land not more than 12 months before entering into the covenant and you meet all the criteria.

This concession is only available where your land is protected by approved agreements. Voluntary Conservation Agreements have been approved by the Commonwealth.

The concession can be spread over five years. Forms are available from the Commonwealth Department of Environment and Heritage.

The valuation of many properties will not change so you must seek a valuation of the change in market value of land from the Commissioner of Taxation through the Australian

Valuation Office (AVO). There will be a charge and the AVO can advise on the details.

This concession was previously only available to agreements with non-government organisations but this has now been changed to include perpetual agreements such as Voluntary Conservation Agreements with the Minister for the Environment.

For further details

- Commonwealth Department of Environment and Heritage on <http://www.deh.gov.au/biodiversity/publications/factsheets/incentives.html> or phone their Community Information Unit on 1800 803 722.
- The Australian Taxation Office website is www.ato.gov.au
- The Australian Valuation Office in Sydney 02 9715 9900 or www.avo.gov.au
- The Office of State Revenue; 1300 139 816 landtax@osr.nsw.gov.au

If you would like to discuss this information or if you don't have a Voluntary Conservation Agreement and you may be interested in discussing what is involved and whether your property meets the criteria for a VCA contact us on 02 9585 6040.



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Succulents cause a big stink in the northern opal fields of NSW

There are a number of ways that states detect previously unrecorded weeds in their jurisdiction. One way is following up on publications where weeds are mentioned. This was the way that a number of previously unrecorded naturalised plants were collected and identified from the opal mining areas of Lightning Ridge, Grawin and Glen Garry.

Matthew Goodwin had written a research report for a University of Sydney research assignment entitled 'Introduced flora and weeds of the Lightning Ridge opal fields'. He sent me a copy of the report after I expressed an interest in naturalised cacti around this area. This report listed and illustrated a number of unrecorded species for NSW.

Specimens were collected in early September and late November 2003 and sent overseas to determine the correct names for the species.

The greatest number of unrecorded (or misidentified species) were cacti in the genus *Cylindropuntia*. These species are native to North America and specimen were sent to Don Pinkava an American specialist on *Cylindropuntia* species based at Arizona State University. The species came back as:

- *Cylindropuntia fulgida* var. *mamillata* (known as boxing glove cactus in the USA)
- *C. imbricata* (rope pear)
- *C. kleiniae* (misidentified as *C. arbuscula* in the past)
- *C. leptocaulis* (pencil cactus)
- *C. rosea* (confused with *C. tunicata* in the past)
- *C. tunicata*.

Of these species, rope pear has been considered to be a weed for some time and a cochineal insect, *Dactylopius tomentosus*, was brought in for its control in the past.

C. rosea, known locally as Hudson pear, is considered to be a serious weed. It now occupies over 100 square kms in and around Lightning Ridge, Grawin and Glen Garry. Prior to specimens being sent to the USA the name for this species was thought to be *C. tunicata*. Hudson pear is also naturalised in WA at an old tip area at Menzies. All of these cactus species are now well established and were introduced to the area as ornamentals.

Other previously unrecorded species of interest are:

Bryophyllum daigremontianum - one of the mother-of-millions group that is not as common as *Bryophyllum delagoense* or the hybrid between these species.

All three types of *Bryophyllum* are found on these opal fields.

Cereus uruguayensis - one of the tall columnar cacti, is naturalised over a number of hectares at Grawin. This species was identified in Argentina.

Opuntia elata - this would seem to be the correct name of what was called *Opuntia paraguayensis* previously. This species was identified at the Berlin herbarium. The cactus is found at a few locations around Lightning Ridge and is much more common along the Murray River upstream of the SA border.



Hudson pear: a serious cactus weed in the Lightning Ridge, Grawin and Glen Garry areas.

Stapelia gigantea - locally known as dead horse plant because the flowers emit an odour to attract blowflies for pollination. This is now common in the shade of native shrubs in a number of locations around Lightning Ridge.

Article and photos by John Hosking

Contact Dr John Hosking

Tel (02) 6763 1129

john.hosking@agric.nsw.gov.au

Useful web address:

www.fna.org/FNA/ (move through Published Volumes and Volume 4 to Cactaceae and then to *Cylindropuntia*), *Malephora crocea* is found in the same volume of Flora of North America.

Article from **weedwatch**, Newsletter of the Cooperative Research Centre for Australian Weed Management. Nov 2004



The pencil cactus (the pencil is not really part of the cactus!).

WHAT'S ON

2nd Riverina Biodiversity Forum at Griffith NSW

"Biodiversity in Modified Landscapes"

Thursday 26th and Friday 27 May 2005

Anyone interested in attending
should visit the Forum webpage (www.rga.org.au/environment/biodiversity-forum.asp),
For more information and registration details, or contact Janelle McGufficke at the Ricegrowers
Association of Australia Inc. on (02) 6953 0598. E-mail: jmcgufficke@rga.org.au



Two new guides

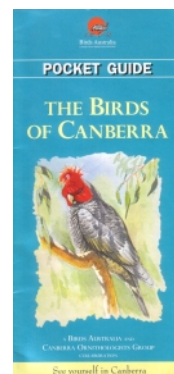
Bird Routes of Coffs Coast

This brochure details a number of routes and locations where good bird sightings are likely. It covers the area from Red Rock in the north to Scotts Head in the south. Available from tourist information centres.

The Birds of Canberra: Pocket Guide.

This brochure features illustrations of over 60 bird species and their habitats, found in Canberra.

Available from Birds Australia (03) 9882 2622



Funding Opportunities

The Bundaberg Rum Bush Fund

Landcare and other community groups tackling water quality projects, are invited to apply for a Bundaberg Rum Bush Fund grant (between \$1,000 - \$5,000). Landcare Australia and Bundaberg Rum will assess proposals, based on environmental and community merits, and allocate grants each year.

Applications for national small grants close on 31 March 2005

Grant applications must address water quality issues within the local area. This may be within a river, lake, stream, creek, or as part of the wider catchment.

Find the Grant Guidelines at www.landcareaustralia.com.au

Or contact: **Jenny Quealy**, Email: jquealy@landcareaustralia.com.au, Tel: (02) 9412 1040



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Department of Environment and Conservation (NSW), PO Box 1967,
HURSTVILLE NSW 1481 Phone 02 9585 6444
www.environment.nsw.gov.au

