...conservation on private land

Increasingly there is wide consideration given to conserving nature on private land. In August 2002, a national forum was held in Adelaide where presentations and discussions covered a range of topics around this subject. Sally Ash and Louise Brodie from NPWS Conservation Partners Program were among the participants who came from around the country and included private landholders, public land managers and those who are setting up and running support programs for landholders. Rather than dwelling on the negative and presenting pictures of doom and gloom, the forum included presentations on a range of initiatives which are occurring both within Australia and abroad.

All participants agreed that extension and support services need to be improved, made more relevant to the landholder, and have long-term funding. All recognised that conservation can place a financial burden on landholders, and the costs of encouraging landholders to conserve native vegetation and fauna, and the recognition of stewardship should be shared across the community. Other discussions were very topical including questions of what constitutes duty of care and property rights. Landholders gave insights into the problems they face on a day to day basis trying to make good decisions on management to balance nature conservation with farming activities.

This forum was timely as it focused attention on issues for private land conservation. The Natural Heritage Trust 2 is considering how best to progress this. The forum workshops produced proposals which will be put forward to those involved in these considerations, of which a major area is Capacity Building. Papers from the Forum are available from the Nature Foundation S.A., Post: PO Box 448, HINDMARSH, South Australia 5007

Telephone: 1300 366 191
Facsimile: +61 8 8340 2506
or on www.naturefoundationsa.asn.au
... from the Director General

Partnerships are a key factor in the success of protecting and conserving our natural and cultural heritage across the whole landscape. Landholders who have voluntary agreements such as Voluntary Conservation Agreements and Wildlife Refuges, or are members of the Land for Wildlife Scheme are making an important contribution to the on-ground survival and recovery of local native animals, looking after the bush and wetlands, and protecting places of cultural significance.

The National Parks and Wildlife Service works closely with landholders in a variety of ways, which leads to better conservation outcomes both within and outside national parks. Some examples of our co-operative programs include feral animal control and fire management, which are critical issues for the Service and private landholders alike and these sorts of co-operative control programs provide benefits to all land managers. We also work with landholders on special projects to help recover threatened species.

Along with our regular updates on research, what’s on and management information, this issue of Bush Matters recounts stories from landholders about their work in protecting and conserving our Australian heritage, and the important partnerships that have helped make these efforts a conservation success. It is important to recognise what has been achieved through voluntary efforts by hundreds of committed private landholders across New South Wales.

HELP STILL AVAILABLE UNDER JOINT ASSISTANCE PROGRAM FOR VCA AND WILDLIFE REFUGE LANDOWNERS

The Joint Assistance program, funded by the NSW Environmental Trust, has funded 29 weeks of work by volunteer teams provided by Conservation Volunteers Australia. This work has been undertaken on properties covered by a Voluntary Conservation Agreement and on Wildlife Refuges.

The program runs until March 2003, and currently funding is available for a few more weeks of work on Wildlife Refuges or VCA properties.

On-ground work to assist conservation may include weeding, fencing or planting.

If you are interested in assistance on your property, call Louise on 02 9585 6671.

Do we have your correct details? Are you moving on?

Let us know if you are moving on from your property. This way we can ensure that information is received by the correct property owner. If you have new owners on part of your Wildlife Refuge, encourage them to contact us.

If you are leaving your Wildlife Refuge or VCA land, we will be happy to retain you on our mailing list. Just let us know.

Phone 02 9585 6671, or your local NPWS office.
Brucedale—site of Windradyne’s grave—caring for our cultural heritage

John Fry, from Conservation Volunteers Australia, and David Suttor of Brucedale, talk about the site and recent conservation projects.

Conservation Volunteers Australia (CVA) recently provided a team of volunteers to work at Brucedale near Bathurst, where the Aboriginal cultural site of Windradyne’s grave is protected under a Voluntary Conservation Agreement.

The site of Windradyne’s grave at the Brucedale property is one of the most important known Aboriginal cultural sites in the region. Brucedale, 15 km north of Bathurst, is also noted as being the oldest farming property in inland Australia and has been owned by the Suttor family since 1823.

Windradyne was the last chief of the Wiradjuri Nation. He led a campaign against the local settlers over land use, and later died in 1837 from spear wounds inflicted during a tribal dispute. In 2000, a Voluntary Conservation Agreement (VCA) was made between the owners of Brucedale and the Minister for the Environment, with the involvement of the local Aboriginal groups, to protect the site.

The site was well known and documented, and David Suttor and family were aware of the cultural value of the site. It was suggested by Lloyd Kingham, who was then the local Landcare Coordinator, that assistance and permanent protection of the area was available.

Following this advice, David worked with Bill Allen, NPWS Aboriginal Sites Officer, to set up a VCA over the area. John Bugg, a Wiradjuri elder, was thrilled to find that recognition of the site had resulted in this voluntary agreement. Management of the site is carried out in consultation with the Bathurst Local Aboriginal Land Council and the Wiradjuri people, and this requirement is written into the agreement.

Following finalisation of the agreement, the grave site was fenced out to protect it from potential damage by grazing, and the work was celebrated with a traditional smoking ceremony.

In 2001, in an event which was linked to the Windradyne memorial garden project on the Bathurst Campus of Charles Sturt University, local Wiradjuri people planted 18 varieties of endemic flora in memory of Windradyne and the Wiradjuri Nation.

The grave site area is not easily accessible and can quickly fill with weeds. As time did not permit sufficient maintenance, more help was made available. In July 2002, a team of nine local and international volunteers with Conservation Volunteers Australia’s Better Earth program spent a week restoring the site to assist regenerating native vegetation. More plantings of local shrubs and grasses were completed after removing weeds. The site is linked to over 20 kilometres of local riparian corridors.

The team was funded under a grant obtained by CVA from the NSW Environmental Trust, for a Joint Assistance Program with NPWS. The program provides assistance to land managers who have entered into a VCA or own a Wildlife Refuge with on-ground works to protect and enhance valuable off-reserve remnants.

The project at Brucedale has attracted many visitors during the past few years, and will continue to play an important role in regional Aboriginal culture.
My husband Bruce, came to the Watercourse area west of Moree in the early 1950’s and quickly fell in love with the country. At that time, the Watercourse area, as the name suggests, was an inland delta where the Gwydir River spread its water over a huge region as the river ran till it emptied. Sometimes that took months. This created a vast area of marshy vegetation and thousands of waterbirds flocked there to feed and breed.

To a young stockman riding all day, and most days, it seemed near to paradise mustering sheep and cattle and taking in the natural environment as he rode. Like most stockmen in the area, he quickly learned to watch the birds, as they were a good indicator of the next fresh coming into the area. He enjoyed nothing better than to boil the quart pot by a lagoon and watch the birds, learning to identify them as time went on. He watched the water rats and platypus in the deeper channels, as well as the snakes. The Red-bellied Black Snake was the most common and it grew to a huge size living on the variety of frogs and small amphibians living in and around the water’s edge. But there were Brown Snakes and Death Adders as well.

Rookeries were fairly common. Huge flocks of Nankeen night herons, cormorants, egrets; these and spoonbills nested in their preferred habitat and at different times. The open lagoons were covered with swans leading dozens of cygnets and a myriad of ducks and grebes everywhere. At times it was dangerous riding in long grass. One never knew just when or where a ground nesting bird would rise in a flurry of feathers and squawks. Sea eagles were seen nesting and rearing their young – an unusual sight so far from the coast. Huge flocks of brolgas, of eighty to a hundred birds played and danced on the plains – a fascinating sight.

And, of course, the cattle fed and bred along the channels too. There was many a wild ride to muster them from among the sag beds and lignum swamps.

By the end of the 70’s Bruce realized his dream of owning some of this country, but Copeton Dam had been built on the upper reaches of the Gwydir River and it was holding a huge volume of water than had once flowed into the wetlands. This was devastating for the natural wildlife, and, in an attempt to keep the area in its natural state, we had Old Dromana declared a Wildlife Refuge. As the area was drying out shooters were discovering the accessibility of the wildlife and had no regard for the natural environment.

We started identifying the birds we saw as we went about our work and soon had nearly 200 bird species on our list. Of these almost half were breeding here as well, so it was essential that the area be kept in its natural state as far as possible.

As the irrigation industry grew so the wetland area diminished. When white man first came into the watercourse area in the 1850’s it was considered to cover at least 100,000 acres. By 1984 it was barely 2000 acres with very little of the natural water grasses still alive.

We sought assistance from NPWS to rectify the situation to some degree, but it seemed there was nothing that could be done. ‘Ramsar’ was a word that seemed to crop up with some naturalists visiting the area, but once again we seemed up against a brick wall trying to discover what or who could help us.

One way of understanding the enormity of the demise of the watercourse is that prior to the loss of water we could muster a thousand head of cattle out of one paddock in the heart of the wetlands. The steers and calves were fat enough to truck immediately to sale and the cows themselves were rolling fat. By the
early 90’s when the area had been dry for about fifteen years, the same area carried 150 cows and we had to fatten their calves on crops to be able to sell them. No steers came into the equation at all. With a high debt ratio our income from that area was in a rapid decline.

The same devastation affected the fauna in the area. There were virtually no colonial water birds breeding. Rookeries were non-existent. The red-bellied black snakes disappeared. The water rat colonies vanished, and the platypus went from the end of the river. It was a sad and sorry sight to behold.

In 1995 a change of government policy turned the situation around and the wetlands were given an allocation of water. The wetland environment had to be sustained!

The watercourse will never be as large an area as it was before man’s interference, but what is there now will survive. The birds have come back and rookeries once again can be observed. Small flocks of brolgas are occasionally found. Black snakes and water rats are not uncommon but the platypus is yet to reemerge.

Pied Geese are back again to nest regularly and another surprise newcomer is the Jacana - also from northern regions of Australia. Our bird count has reached 240 different species with almost 200 breeding at some time. Apart from the waterbirds the migratory birds pass through the region on their north/south pathways - the most spectacular are probably the rainbow bee-eaters coming in late October to dig their burrows in the sandy ridges and feed their young on the swarms of insects that invade throughout the summer months. Parrots find their way down from the mountains in harsh winters, and dry times in the centre bring the crimson chat searching for sustenance.

In an effort to keep this area in its natural state as much as possible we have had 1500 acres declared a Ramsar site. We understand that this is the largest privately owned Ramsar site in Australia. At present a moderate flood will cover about 70% of our country, with a major flood covering about 95%. As the Gwydir River is regulated, the watercourse will never be as it was in the past, but the present situation is probably as close to the natural regime as we will ever see and we are relieved to see it this way.

We seem to have an even bigger battle on our hands now than we ever had trying to get water back into the watercourse. This battle has a new name— Lippia weed (Phyla canescens), also known as condamine couch and no-mow lawn. This insidious noxious weed is probably the perfect weed if there is such a thing. It has no known enemies here in Australia and is infesting the whole of the Murray-Darling Basin. From our perspective here on the land we feel that it affects the fertility of our stock and the growth of our calves, but this has not been proven scientifically. At the rate it is spreading there will be very little wetland unaffected in the whole of the basin in a very few years. There is no known chemical control. The only control known at present is ploughing and cropping the country affected, but this is not acceptable in the watercourse.

We hope that the watercourse will survive so that future generations can ride through this wonderful country and enjoy it as much as we have, riding with our children and grandchildren.

What is Ramsar?

Popularly known as the Ramsar Agreement, the Convention on Wetlands is an intergovernmental treaty adopted in the Iranian city of Ramsar in 1971. The treaty aims to protect wetlands of International Importance and promotes the ‘wise use’ of all wetlands. Wise use refers to sustainable use of the wetland for the benefit of humankind in a way that is compatible with maintaining the natural properties of the ecosystem.

In Australia there are currently 57 Ramsar sites, nine of these being in NSW. Two of the NSW Ramsar sites include private land: in the Gwydir (4 landholders) and Macquarie Marshes (1 landholder). The other sites are NPWS managed areas.

For more information contact Penny Brett at NPWS on 02 9585 6692
Looking after Koalas

One of our Aussie icons is under threat. The coordinator of the koala recovery plan, Amelia Hurren from NPWS, explains why, and what you can do to help.

One could imagine that overseas tourists and many locals think koalas are pretty common. They see koala souvenirs everywhere and even see them “in the wild” at the various wildlife parks which are on the fringe of metropolitan areas. Unfortunately this is not a true picture of how they are faring in their natural habitat in NSW.

Recordings of koalas at the time of European settlement suggest that they were much more abundant than today. However, they were identified as a good source of fur, and over time continuing up to the 1930’s, millions of koalas were shot for their pelt. Hunting, combined with epidemic disease, severe drought and extensive loss of habitat severely depleted populations and numbers have diminished to the point where koalas are now listed under the NSW Threatened Species Conservation Act (1995).

The koala is listed under the Threatened Species Conservation Act as ‘vulnerable’. This means that the species is likely to become endangered if current threats continue. In NSW, koalas face a number of threats, the main ones being loss of their habitat by clearing and tree dieback; and death and injury by cars and dog attacks. With the help of a recovery team, the NSW National Parks & Wildlife Service (NPWS) is preparing a recovery plan for the koala. Recovery plans look at the ecological requirements of a species, threats and actions which must be undertaken to ensure the viability of the species in the wild.

Most koalas live on private land and not in national parks or reserves. This provides the opportunity for landholders to be actively involved in assisting the populations of koalas to recover, with NPWS providing advice and support.

Where are they found and how do I find them?

Koalas are scattered throughout the coast, tablelands and central west of NSW. They have even been spotted as far west as Ivanhoe. Their strongholds are on the north and mid-north coasts and central west.

Koalas are often hard to see as they sit amongst the leaves in the canopy, and they can remain motionless for long periods of time. The easiest way to locate a koala is to look for their droppings beneath trees. Koala droppings are generally 2-3cm long and 1cm wide and they have a slight eucalyptus smell.

Koalas in NSW carry the microorganisms Chlamydia. Outward signs of infection include urinary and genital tract infections and conjunctivitis, which often become obvious when koalas are under stress. By protecting and planting preferred food trees, removing weeds in koala habitat and helping to reduce the threat of dogs and cars, you can provide high quality habitat where the stress on koalas is lower and they are better able to fight disease.

At the NPWS, we get lots of inquiries about translocating koalas to NSW. The issue of large populations and over-browsing in parts of South Australia and Victoria is well known, and people are understandably concerned about the welfare of these animals. However, for reasons like genetics, food tree preferences and disease the NPWS and Koala Recovery Team do not support the movement of koalas from South Australia and Victoria to NSW.

We have prepared a Fact Sheet which explains translocation in detail and why translocation of koalas into bushland in NSW is not appropriate. To obtain a copy, check the NPWS web site at http://www.npws.nsw.gov.au/wildlife/factsheets/koala_translocation.pdf or contact Amelia Hurren (details Page 7).
Helping Koalas

If you have koalas on your property, or even if you don’t, there are lots of things you can do to reduce threats and assist their survival.

Improving habitat

The best way to help koalas on your property, or to encourage them to your property, is to plant local koala food trees. Koalas eat different tree species in different parts of NSW. They particularly like trees which grow in more fertile soils in valleys and along creeks and rivers because the leaves of these trees have a higher nutrient and moisture content (koalas rarely drink, but rely on the water in their food). Food trees in these fertile valleys also provide vital habitat where koalas can find refuge during fires or in times of drought. But koalas also forage in forest and woodland on foothills and slopes, and they also use isolated paddock trees. A few, but by no means all, of their favoured food trees include Forest Red Gum (*Eucalyptus tereticornis*), Tallowwood (*E microcorys*), Ribbon Gum (*E viminalis*), Cabbage Gum (*E amplifolia*) and River Red Gum (*E camaldulensis*). Cypress Pine (*Callitris* sp.) is also a good species to plant as these trees provide shelter for koalas during hot weather.

By retaining and/or planting locally occurring tree species, you can provide high quality habitat for koalas. For a complete list of koala food and shelter trees relevant to your area, please contact Amelia Hurren (details below).

Avoiding injury by cars

Many koalas are injured or killed by cars across NSW each year. The breeding season (spring and summer) is the time when koalas are particularly vulnerable, as males are more often on the ground, roaming their territory to exclude other adult males and to find mates. Koalas are also more active and more likely to be on the ground at night. To avoid hitting a koala when driving, keep a close eye out, particularly in spring and summer and in the evening. If you do accidentally hit a koala, or you see one injured on the side of the road, please call your local wildlife rescue organisation as soon as possible. Quick action may save the life of the koala and any young it might be carrying.

Reducing attacks by dogs

Keep an eye on the behaviour of your dog if a koala is about. Koalas are most vulnerable to dogs during the breeding season and at night when they are more likely to be on the ground. Dogs can be startled by koalas and their natural reaction may be to become territorial or aggressive. Restrain your dog until the koala has moved off. If you see a koala that has been injured by a dog, please call your local wildlife rescue organisation.

Providing a swimming pool ladder

Koalas can swim, but if they fall into a swimming pool the slippery sides prevent them from getting out and they can drown. If you have a swimming pool and you live in a koala area, drape a thick and sturdy rope into your pool, securely tied to a solid fixture, so that koalas can climb out.

Managing Fire

Koalas can and do survive bushfires, but high intensity fires which burn the canopy can cause the injury or death of koalas. Koalas are better able to survive fires if refuge habitat, which remains unburnt, is available. Ways to manage fire to reduce impacts on koalas include mosaic burning (which ensures that areas of unburnt habitat are always available), not burning in spring (when koalas are more likely to be on the ground) and planting or retaining koala food trees in sheltered locations to provide refuge habitat.

Just by doing simple things like keeping a look-out for koalas, noting the tree species they are in, noting whether any females are carrying young and noting whether they are increasing or decreasing in number in your area, you can help us with our aim to recover koalas in NSW.

Any information you gather can be provided to Amelia Hurren on 02 9585 6878 to help us understand more about these animals.
NPWS project to restore koala habitat on private lands

The NPWS, with funding from the NSW Environmental Trust, has commenced a major project aimed at assisting the conservation and restoration of koala habitat on private properties on the far South Coast.

NPWS project manager, Chris Allen, said that this restoration project is an important component of the Koala Recovery Plan for the South Coast Management Area.

‘There’s no doubt that koalas in this region need help. The population is very small for a number of reasons with the most significant being the broadscale clearing of high quality habitat for agriculture in the 19th century. We believe a key to rebuilding the population will be reestablishing such habitat in strategic areas on private property in the region,’ Mr Allen said.

In the first year the project will seek the support and participation of landholders in establishing demonstration sites where active habitat restoration and rehabilitation is possible. Participation in this project will be on a voluntary basis. The project will establish a list of landholders keen to be involved in the project. Early indications show that the project will obtain widespread support. To date, 10 sites have been selected to demonstrate how to restore and rehabilitate bushland to make it suitable for koalas. These sites are in the more fertile areas that can produce nutritious feed for koalas.

The restoration work will include fencing, removal of weeds, planting of seedlings, direct seeding, thinning of dense regrowth where appropriate and the protection of native plants favoured by koalas from browsing by other animals. Appropriate grazing and fire management practices will also be discussed with participating landholders who will be encouraged to develop property management plans or enter into voluntary property agreements for the long-term conservation of the koala habitat areas. This project is taking the long-term view that if we can restore koala habitat on private lands in the more fertile areas we have a better chance of maintaining koalas in the region and facilitating their recovery.

For further information call Chris Allen on 6495 5007!

‘How to plan wildlife landscapes—a guide for community organisations’

Australia’s natural environment provides opportunities for us to enjoy a range of activities. This might be walking, swimming, picnicking and camping. Or we might simply enjoy seeing the plants and flowers, birds and other animals which are part of the bush.

We can enjoy wildlife which we see in our immediate surroundings and local bush. Property Management Planning is a means by which an individual can integrate land uses on a property and enhance biodiversity. However, many species depend on habitats across the landscape. Birds and bats may move across the landscape in search of different food sources at different times of the year. It is important to have the bigger picture when providing habitat for fauna.

‘How to plan wildlife landscapes’ is a new book which describes, in plain English, principles used in planning for native wildlife at a scale such as a neighbourhood or part of a catchment. It will be useful for community organisations and individuals who want to understand how to act more strategically to protect and restore wildlife landscapes.

The guide is available online at www.nre.vic.gov.au Or phone (03) 9637 8325 ( $16 plus postage and handling).
Landholders in the western New South Wales are familiar with the problems caused by woody weeds. In these areas, woody weeds are native perennial shrubs that have encroached on significant areas of the land. They can form dense thickets which pose significant management problems for landholders. Management problems are different to those caused by woody weeds in coastal areas, where the problem species are non-native invasive species such as lantana or privet.

A project funded by WEST 2000, studied the relationship between woody weeds and biodiversity. This resulted in a report released recently Woody Weeds and Biodiversity in Western New South Wales. (WEST 2000 Plus is a partnership between Western Division landholders and State and Commonwealth governments—for information see www.west2000plus.org.au)

The study was a collaborative project led by Dani Ayers, and involving staff from the Department of Land and Water Conservation, NSW National Parks and Wildlife Service, NSW Agriculture, CSIRO and WEST 2000 Plus as well as landholders, students and volunteers. Since the study was carried out on private leasehold properties, landholders were a key group providing locations for the survey work to be undertaken.

The project was initiated in response to landholder requests for reliable information on the effects of woody weeds on biodiversity. Results significantly improve our understanding of these effects and can be used to guide decision-making and policies about future management of western shrublands.

The study provides a snapshot of three locations which have undergone encroachment by woody weeds. The sites were: north of Ivanhoe; west of Cobar; and between Wanaaring and Louth. Information gathered at the three locations included the number and type of plants, animals and insects and the ability of the soil to capture and retain water and nutrients.

Interesting results were obtained from the surveys, and indicated that areas of woody weeds were not the ‘biological deserts’ which many believed.

It was found that the diversity of plants and animals which live in areas of high shrub cover is equivalent to that of open areas, as is the overall abundance. Most broad groups were equally diverse within shrubby and more open areas.

The survey identified some species that decline when woody weeds increase, while other species showed a positive relationship with some aspects of habitat provided by woody weeds. Most of the species responded differently, and their responses also varied between the three study areas. For example, while Blue Bonnets become less abundant as woody weed cover increases, Splendid Wrens increase with increasing woody weed cover. Species, such as Echidnas don’t seem to be affected by any level of woody weed cover.

The results also show that woody weeds are used as habitats for shelter, feeding and breeding, and once again the value of the habitat varied for the species concerned and with the different locations.

Unexpected results were also generated in the area of landscape function. The study found that soil stability, nutrient retention and infiltration capacity were largely unaffected by woody weed cover. The use of areas by pest species also showed no particular response.

The report available is an easy to read summary of the results from each location and highlights similar results between the three areas. There are brief descriptions of some methods used in the survey.

Woody Weeds and Biodiversity in Western New South Wales is a free publication and is available from WEST 2000 Plus on 1800 068 072.
Spotlight on Foxes

Leanne Wheaton talks about setting up regional program to control foxes in one area of the Murray catchment.

In the NSW Murray catchment we have more foxes than people; 4 per sq km in rural areas and 14 per sq km in urban areas. Foxes are known to kill chooks and lambs, and reduce the populations of a number of native species. Imagine approximately 200,000 foxes consuming 350g of food per night.

Our ground dwelling animal numbers are plummeting and foxes contribute to this. Species particularly affected are the bush-stone curlew, the plains wanderer and the Murray turtle.

The Spotlight on Foxes program was the idea of the Hume Rural Lands Protection Board. Previous baiting programs were run by an individual RLPB feral animal officer. The scale of fox numbers however, is immense, and co-ordination of a program to reduce the numbers is too much for one person. Fox baiting programs done occasionally and on individual properties, mean other foxes migrate into baited areas.

So to assist in a coordinated program across a large region, we brought together all the landcare co-ordinators in the Eastern Murray, local councils, State Forests, Greening Australia, Albury Field Naturalists, Riverina TAFE students and some members of private industry, and focused on the areas around Holbrook, Culcairn, Holbrook, Henty and Albury.

We worked together to actively increase fox baiting participation amongst both public and private landholders. The baiting program involved around 600 landholders and had a 500% increase in baits placed over the previous year. 15000 baits were taken in March and 5000 in July – that must result in a lot fewer foxes!

The target specific bait 1080 was used, so that non-target species would not be affected. Free baiting (poison free baits) were put out prior to using poison baits. This helps identify and accurately track the movement of foxes. This not only saves time and expense when putting out poison baits, but also helps to ensure that the baits are taken by foxes, and not non-target species.

The Sporting Shooters Association (SSA) has been of great assistance and members have shot an additional 800 foxes. They achieved an added bonus for the shires of Culcairn and Hume who by working with the SSA have shot 90 feral cats on their municipal tips.

Culcairn Shire has also been fox baiting a 300 hectare wildlife reserve under its management at Walla Walla Swamp, predominantly a grassy box woodland, with some river red gum in the lower sections. State Forests has been baiting the 162 ha Kentucky State Forest, a white cypress vegetation community.

To raise the public’s awareness of damage that foxes cause to the environment and hence get greater participation in fox baiting we have:

??Erected big signs at the entrances to all our rural towns advertising bait collection days

??A fortnightly Nature Spot on ABC regional radio

??Parades in fox furs—Fox pelts are no longer a fashion item and therefore worthless—(although Victoria pays a $10 bounty on pelts at the moment!)

??Articles in newsletters: schools, landcare, RLPB, Field Naturalists.

??Personal contact over the phone

??A stand at the Henty Field Days

Support during the campaign, especially for new baiters

The plight of the bush-stone curlew in our catchment, with maybe as few as 50 individuals left has given us lots of impetus to lessen the fox numbers. Sites where these birds still exist have had a long history of baiting or shooting foxes. However, baiting by individual farmers is not enough to stop the remaining breeding pairs losing their chicks every year. The fox campaign needs to encompass the whole community, twice a year, to have any hope of lessening the fox numbers thus allowing the curlew chick to fledge.

The Spotlight on Foxes campaign is a twice yearly, large scale community effort to lessen our fox numbers. It will run for as long as we have foxes.

For more information contact: Leanne Wheaton (02) 60263297 wheaton@dragnet.com.au

Interested in fox control?

NPWS has completed the Threat Abatement Plan for Predation by the red fox. This gives information about foxes and their impacts on wildlife. The Plan details current research into the effects on wildlife when fox-control programs are put in place. The plan also gives interim best-practise guidelines for fox control using baits, in order to minimise effects on non-target species. The Plan can be seen on www.npws.nsw.gov.au, or a copy can be obtained from NPWS (call 02 9585 6671)
Working group - Working together

Land for Wildlife in the Murrakool

In New South Wales, Land for Wildlife, a property registration scheme, is being run as pilot programs with local organisations in partnership with NPWS.

Over that past 6 years the Murray Nature Conservation Working Group has been a major player in nature conservation within the Murray Catchment, with its first major project being the Fencing Incentives Program, administered by Greening Australia. Now it is involved with the delivery of the Land for Wildlife program in the Murray Catchment.

The Nature Conservation Working Group signed a third party agreement with NSW NPWS to run Land for Wildlife in the Murray catchment, joining forces with the Murrakool Vegetation Sub-committee to commence a pilot program in that part of the catchment.

The Murrakool area is situated in the south west of the Murray Catchment, covering the area between the Murray and Wakool Rivers, from Barham in the east, to junction of the Murray and Wakool in the west. Its position in the landscape leads it to consist largely of Riverine habitats dominated by River Red Gum, Black Box and associated species, with sandhills rising up, dotted across the area. These sandhills, while much cleared, support remnant stands of Cypress-pine, Wilga and Buloke to name just a few species.

Training on how to run the scheme, delivered by Sally Ash and Louise Brodie of the NPWS Education and Community Involvement Unit, was conducted with members of the Murrakool Vegetation Sub-committee in March. Some of the trainees are now volunteer assessors. The training included discussion about the program, how it works and who can be involved. The group worked through the LFW assessment process at three different properties. This opened up the world of management issues; the successful, or not, registration of the properties into the scheme; potentially curly and difficult situations; talking to the landholder in a non-confrontational way, and why a property may be not successful in their bid to be a LFW place.

In the short time since the commencement of Land for Wildlife, there have been many interesting and exciting findings from large Moonahs (Melaleuca lanceolata) growing more like a medium sized tree than a low-growing spreading tree, to a Feather-tailed Glider living in sheds on the edge of the Murray River near Mellool.

“As my husband and I struggled with the problems of soaking our over-dry, cracked irrigation channel, I took a breather on the shovel. A jewel-like pardalote perched on a bent reed a metre away. Four rufous whistlers, two of them juveniles, took turns at bathing in the new flush of water. Suddenly, the day picked up. I started to think about what gives us quality of life on the farm. What makes us love our place?

Murrakool is a dryland and irrigation farming area that lies between the Murray and Wakool Rivers. It has the usual rural environmental woes – salinity, soil degradation, stream decline, vegetation loss, feral pests – but is still home to a surprisingly wide range of wildlife. Who has not had their breath taken away by the flash of cobalt blue that is the white-winged wren? Or watched in amazement a large group of emus playing their own private version of Drop-the-hanky in a cropping paddock? Or been besotted by the softness and fragility of a tiny, sleeping feathertail glider?

We are a small committee – just half a dozen locals and concerned agency people – and we originally
Integrated Weed Management

Many landholders will be familiar with the term Integrated Weed Management, but others might be asking ‘What is it?’ and ‘What does it mean to me?’ even though they are already putting this concept into practice.

In a nutshell, IWM is a term which describes any approach to weed control that uses a range of options in combination or in sequence, to manage or reduce weed populations.

The relevance of Integrated Weed Management (IWM) has increased as landholders have realised that herbicide has not provided the magic solution to weed control, and they are still working as hard as ever to reduce weed growth. Many are becoming concerned over the level and type of herbicide use; effects on human health, effects on the natural environment and increasing economic costs being the prime considerations.

In agricultural systems, control methods can include competition from crops and better pastures, collection of weed seeds at harvest, and well-targetted herbicide use. Consideration might be given to acceptable levels of damage from weeds, competition theory, weed lifecycles, climatic factors, grazing regimes and other routine agricultural practices and how different herbicides work.

How can we adapt the concept of Integrated Weed Management to natural areas, given that some of the methods used in cropping or pasture systems are not able to be used? The underlying theory of IWM involves finding out about the weed, the system it is invading, and considering the factors listed above.
Integrated Weed Management (Continued)

For an individual weed, we would find out: the life cycle of the weed; how it reproduces; what conditions it likes; how it is spread; how long the seed is viable; what herbicide is effective; what time of the year or method of herbicide application is effective; and what other control methods are effective. Control may involve a sequence of different weed control methods.

When carrying out weed control in natural areas, other factors need to be considered; methods of control should have a minimal adverse effect on native vegetation. Weed growth may be providing habitat and protection for wildlife; absorbing nutrient rich run-off which may otherwise have a negative effect on vegetation; or may be preventing erosion of unstable areas. The replacement of these functions must be built into the restoration of an area after weed control.

Often a range of weeds may be present, and control of one may be easy. However, other weed species may be more difficult to control and the removal of one weed may provide the niche for another to invade the area further. For example, lantana can be abundant, but can be easy to remove given the right level of labour. However lantana can suppress other weeds, especially vine species. Once the lantana is removed, the vines, such as morning glory or Madeira vine are able to grow at a more rapid rate and invade into new areas. These vines are difficult and very time consuming to control.

Those involved in managing weeds in natural areas use a variety of methods. These include physical removal, fire, slashing, grazing, and herbicide applied using methods such as spraying, rope wicks, injection and other direct application methods. Experienced bush regenerators are accustomed to using a variety of suitable methods in a planned and staged approach when restoring bushland degraded by weed invasion. Of course a regular program to check and control weed regrowth is always required.

Help!

Sounds complicated? Luckily help is at hand. The Co-operative Research Centre (CRC) for Weed Management Systems has produced a number of Best Practice Management Guidelines. To date the weeds covered are Blackberry; Bitou Bush; Boneseed; Bridal Creeper; Broom, Horehound and St John’s Wort. Weed books, (such as those detailed in Bush Matters No1/2002, provide the information required on individual weeds. The Best Management Practice Guidelines from the Weed Management CRC for can be downloaded from www.waite.adelaide.edu.au/ CRCWMS/resources/publications/index.html , Or you could call 08 8303 6590 or email crcweeds@waite.adelaide.edu.au

Bush regeneration courses teach you about planning your restoration project and weed control methods commonly used in natural areas. Field days held by a variety of organisations and groups can also focus on weeds. Such courses and field days also provide an avenue for discussion with others on their experiences with weed control.

Your own observation and reflection can also help identify successful weed control methods on your property. If you try a few different things, keep a note of what you did and when. Look both at the short term and long-term success.

Newsletter, such as Bush Matters can be used to tell others about your success stories.

Bitou Bush—a good example of Integrated Weed Management

- Stands of Bitou bush can be first tackled by spraying with herbicide — and research has shown that application at low rates during winter can effectively kill the weed, yet have a minimal effect on native coastal vegetation.
- Physical removal is also a good option.
- Subsequently the area can be burnt as long as there is no risk of erosion. This burning stimulates seed germination and reduces the seed bank stored in the soil.
- Follow-up work to remove the mass of seedling which establish can be delayed until before they reach their first flowering —by this stage, the number of seedlings will have reduced.
- Follow-up is still required in successive years to remove the seedlings which establish, although hopefully reduced in number.

Bitou Bush (Chrysanthemoides monilifera subsp. rotundata) is a Weed of National Significance. Originally used as a sand stabiliser on the NSW coast, it has spread and now occurs along the entire coastline.
Getting information on Aussie Bees

Most Australians know the commercial honey bee, which is an introduced bee species.

Australia has about 2,000 species of native bees, which have an array of colours and sizes. Many of our native plants rely on native bees for pollination.

Our stingless native bees produce the tangy honey, prized by Aboriginal people and called the ‘sugarbag’.

The Australian Native Bee Research Centre was founded by Les and Anne Dollin. The Centre promotes the Preservation and Enjoyment of Australian Native Bees.

The Research Centre is a privately-funded organisation based in the lower Blue Mountains, west of Sydney, NSW. To help ensure the bees’ survival in Australia, the Centre provides information on all native bee species. It publishes information booklets, a field guide (see ‘Useful Books’), a video and other products. It also published Aussie Bee bulletin for a five year period.

The Dollins are currently supporting the growth of the new stingless bee industry in Australia by investigating the latest techniques and hive designs then distributing this information to stingless bee keepers. They are also involved in research on blue banded bees and stingless bees and the potential of these bees as greenhouse crop pollinators.

Sales of the booklets, field guides, videos and other products support the work of the Australian Native Bee Research Centre.

For more details, please visit the Aussie Bee website: http://www.zeta.org.au/~anbrc/ or write to ANBRC, PO Box 74, North Richmond NSW 2754.

FACTS ABOUT TREES

- When stock camp under trees they provide extra nutrient which is taken up by the trees, making the leaves more tasty and therefore more susceptible to insect attack.
- Insects are always in the canopy munching away, harvesting 15% of the leaves at any one time. When this rise to 20% (outbreak level) trees are hard pressed to beat the bugs. If also under other stresses, they cannot outgrow the insects.
- In bad conditions, a tree will dump leaves that are partially eaten, leading to further diminution of the canopy.
- In every paddock there are at least 200 species of insects, both beneficial and harmful. One or two will break out at any one time.
- Using insecticides to fend off insect attacks on trees is not a good option because it kills all insects. It may appear to confer short term benefits, but the long term effects are not known.
- Trees under stress are easier for insects to attack. A strong, vigorous tree is less susceptible.
- Dry trees under water stress produce smaller leaves so the impact of insects is greater.
- The best watering regime for red gums is standing in water every winter/spring for eight weeks. Every year is best, but less often will do.
- Healthy red gums produce 200 million seeds per ha per year.
- Black box trees need water at least three times a decade. If irrigating, water should be put on and off quickly in the spring.
- Red gum roots go down 10 metres and a big red gum uses between 200 and 1000 litres of water a day.

Source: CSIRO Field Day on Tree Dieback, Deniliquin, early 90’s.
USEFUL BOOKS

Managing Native Grassland: a guide to management for conservation, production and landscape protection was produced in July 2002 by WWF. It is a free, 20-page, full-colour book to help conserve southeastern Australia’s threatened native grasslands. It is available from the author, David Eddy, at deddy@wwf.org.au or can be downloaded from www.wwf.org.au.

Greening Australia has released a native plant field guide for the Wagga Wagga region, ‘Bidgee Bush’. The guide contains descriptions and full colour photographs of 130 of some of the most common native plants of the region. The title denotes the connection of the guide with plants within the mid-Murrumbidgee River catchment. ‘Bidgee Bush’ was compiled over three years by local botanists Karen Walker and Lynne McMahon, both of Greening Australia, and Dr Geoff Burrows of Charles Sturt University. ‘Bidgee Bush’ sells for $30.00 (including GST), or $35.00 including postage and handling.

Contact: Greening Australia at Wagga Wagga, phone (02) 6921 8202 or (02) 6925 8404. Email: gasws@bigpond.com

Native Bees of the Sydney Region: A Field Guide
A practical field guide, A5 size, 72 pages, featuring colour plates and extensive illustrations, to help wildlife enthusiasts, bushwalkers, gardeners, beekeepers and students to identify our dazzling native bees. The book describes 31 of the most easily-recognised Sydney species, and includes over 20 species also found in QLD and VIC. There is a comprehensive section on garden plants loved by native bees, and designs for artificial nests.

Price: $15.00 plus $2.50 postage and handling
Available from the Australian Native Bee Research Centre, PO Box 74, North Richmond NSW 2754.

NPWS Publications

Threatened Species Information Books

Two books produced in 2002 are Threatened Species of the Upper North Coast Fauna and Threatened Species of the Upper North Coast Flora. These A5 format books cover the region from Coffs Harbour north to the Queensland Border and west the the escarpment of the New England Tableland. The books cover 115 fauna species including marine mammals and fish, and 129 plant species and 2 endangered ecological communities. Information and photos to assist in identification are given as well as actions to assist in management.

Life in the Darling Riverine Plains is a landholder’s guide to native wildlife and their habitats along the Darling River and its floodplains. This A4 booklet gives details and many photos of the varied habitats found and the variety of native wildlife. The book was produced as part of a project under the NSW Biodiversity Strategy.

A fabulous new A4 brochure on the Bush stone-curlew, which unfolds to become a colourful poster and contains facts on this quirky bird, plus advice on what you can do to help.
WHAT’S ON

Wildlife Management On Farms
A one-day course
At Tocal 7 April 2003,
At Wollombi 5 April 2003
This is a practical short course on the biology and ecology of Australian amphibians, reptiles, birds and mammals. The trainers, Dr Patrick and Mary Whitaker will deliver the day through a series of field demonstrations, open discussions and practical sessions. The participants can expect to develop practical ways to promote and/or manage wildlife habitat on their property such that it integrates with, and benefits, their commercial farming activities.
For more information call Mary on 4958 9799 or register by phoning 1800 025 520.
Cost $46.25 - per property

Swift Parrot Recovery Program
If you live on the coast or on the western slopes, there are number of things you can get involved in.
Contact Debbie Saunders on (02) 6298 9733 or 1800 66 57 66 email: debbie.saunders@npws.nsw.gov.au

Upper Blue Mountains Threatened Species Management Activities for Volunteers -Spring & Summer 2002-
• October 21-25th; Leionema lachnaeoides monitoring and surveying (endangered plant);
• November 11-15th, December 2-6th, 10 - 12th, & 16-20th: Blue Mountains Water Skink monitoring and potential habitat survey.
• November 27th: Purple Copper Butterfly larval monitoring:
• To register contact Xuela on ph: 02 4787 3104 or email: xuela.sledge@npws.nsw.gov.au

Biodiversity ‘TIPS & TOOLS’
SGS (Sustainable Grazing Systems)—an initiative of Meat & Livestock Australia—has produced six Fact Sheets.
The Biodiversity ‘Tips and Tools’ are:
• Encouraging biodiversity benefits
• Encouraging birds onto your farm
• Increasing earthworms in pastures
• Native Vegetation 1: Assessing the condition of remnant vegetation
• Native Vegetation 2: Improving the value of remnant vegetation
• Native Vegetation 3: Revegetating the farm.
For copies call Meat & Livestock Australia on 02 9463 9333; www.mla.com.au

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NSW NPWS, PO Box 1967, HURSTVILLE NSW 1481
Phone 02 9585 6040; email: conservation.partners@npws.nsw.gov.au
www.npws.nsw.gov.au

Property Management Planning
8 Modular Workshops.
At Tocal starting 31 October 2002, and November 11, 2002 on the Central Coast.
Contact Mary on 4958 9799
For courses in North and North West NSW call Doug Richard 6742 9267
For further information on these and other courses, phone 1800 025520, fax 02 49385549 or write to Tocal College, PATTERSON NSW 2421, Australia. Email info@tocal.com