....about the Conservation Partners Program

The Conservation Partners Program aims to encourage and assist private landholders who have formed or wish to form voluntary partnerships with the NSW National Parks & Wildlife Service (NPWS) to look after native vegetation and provide habitat for wildlife. These partnerships include Voluntary Conservation Agreements, Wildlife Refuges and Land for Wildlife.

The program provides advice and assistance to landholders. This includes arranging entry into schemes, producing *Bush Matters* and providing management notes, as well as field days and networking opportunities.

Under the National Parks and Wildlife Act 1974, NPWS is responsible for implementing Voluntary Conservation Agreements and Wildlife Refuges, as two longstanding mechanisms for private land conservation. A third option is the Land for Wildlife scheme facilitated by NPWS but implemented by community groups or local government. We believe that this offers landholders a broad range of choice.

The level of assistance and advice available varies according to the scheme. All landholders receive signage indicating the scheme in which they are participating.

Voluntary Conservation Agreements are agreements between a landholder and the NSW Government. They are legally binding, in perpetuity and registered on title. A plan of management is prepared, land is exempt from council rates and funding is available for on-ground work and surveys.

Wildlife Refuges are agreements between a landholder and the NSW Government, with the area of the refuge gazetted in the Government Gazette and able to be revoked or amended if requested. A brief plan of management is prepared and funding may be accessed from other sources with this level of commitment. Wildlife Refuges are applicable to remnants as well as revegetated areas, constructed habitats and land managed for both production and biodiversity.

Land for Wildlife (see article on Page 7) is a registration scheme for landholders with properties being restored or managed for wildlife habitat. It has no legal status.

The range and level of assistance available relies on partnerships with community groups, non-government organisations and conservation agencies.

For more information contact the Conservation Partners Coordinator on (02) 9585 6040.
I am happy to introduce *Bush Matters*, the newsletter of the Conservation Partners Program of the NSW National Parks & Wildlife Service (NPWS).

The NPWS is strengthening its role in conservation by placing greater emphasis on recognising and supporting community involvement in nature conservation. We aim to build partnerships with community members and groups and to achieve nature conservation through cooperative, constructive and innovative programs.

In bringing you this newsletter, we hope to enhance our contact with interested landholders. Landholders with Voluntary Conservation Agreements, Wildlife Refuges and in other partnerships, comprise a wide variety of people, from those on the coast to those in the far west. Landholders include those who work in ecotourism, have grazing properties, wetlands, cropping areas and bush properties. The newsletter will be a good forum for sharing information, advice and suggestions on managing land for nature conservation.

**from the Director General**

Brian Gilligan
DIRECTOR GENERAL
NSW National Parks & Wildlife Service.

**JOINT ASSISTANCE PROGRAM FOR VCA AND WILDLIFE REFUGE LANDOWNERS**

Funding from the NSW Environmental Trust has enabled the development of the Joint Assistance Program. This program is a partnership between the NSW National Parks & Wildlife Service and Conservation Volunteers Australia (CVA).

The program began in April 2000, and provides teams of volunteers (organised by CVA) to work on Wildlife Refuges and land conserved under Voluntary Conservation Agreements. The volunteers may be locals or overseas visitors.

The type of work completed has varied. Removal of lantana and other weeds has been a task on several properties. Construction and maintenance of fences and tracks has also been carried out. Habitat restoration and revegetation has been undertaken on a number of properties by planting species local to the area.

Since the commencement of the program around 52 weeks of volunteer work has been carried out. Feedback from landholders has been positive, with the teams of around eight to 10 people enjoying a great social time as well as undertaking valuable conservation work.

Funding to support this program is now available for use in 2002. If you are interested and have not yet applied, call (02) 9585 6671.

Volunteers at work on Chakola Wildlife Refuge in Kangaroo Valley, near Nowra, January 2002
Crystal Hill – our regeneration project
By Stephanie Lymburner

Crystal Hill is an eight hectare property on the Far North Coast of NSW at the southern end of the Blackwall Range and west of the township of Ballina. Considered ‘useless’ for farming, the land was acquired by my mother (a pioneer conservationist) in 1970. The property has three waterfalls with sweeping views of the Richmond River and a patchwork of cane fields reaching to the Pacific Ocean.

During the 1920s several plots were planted with bananas. When this proved unsuccessful, the owners left and the weeds arrived! Camphor laurel (*Cinnamomum camphora*), lantana (*Lantana camara*), crofton weed (*Ageratina adenophora*) and mist flower (*Ageratina riparia*) are the dominant weeds.

On returning to the north coast eight years ago, both Julian and I completed the Bush Regeneration Course offered by the local TAFE. A management plan, written as a component of the course, was incorporated into the Voluntary Conservation Agreement, which was granted for 7.3 hectares of the property.

There are three distinct vegetation types on the property-dry rainforest; subtropical rainforest and moist sclerophyll forest – making the property an interesting mix of vegetation types. There are several threatened species; these include rough-leaved Queensland bush nut (*Macadamia tetraphylla*) and veiny lace flower (*Archidendron muellerianum*). Several species reach their southern limit, including finger lime (*Microcitrus australasica* var. *australisica*) and the red-fruited kurrajong (*Sterculia quadrifida*).

The property is home to a small koala colony, and there have been sightings of the threatened rose-crowned fruit dove that feeds on some of the figs. Swamp wallabies are a familiar sight, nibbling the emerging native seedlings, and a lace monitor regularly checks on the progress of regeneration!

Large areas of lantana have been lopped and the stumps pulled out and left dry on the rocks. This method of regeneration has been very successful, as there is still a viable native seed bank present. In areas where crofton weed has been the dominant species to regenerate, it has been pulled out by hand. Local canopy species grown from seeds collected in the area have been planted.

Monitoring is essential to assess the rate of recovery of the treated areas, and NPWS has supplied monitoring posts to assist with this process.

We see the project as ongoing, with no quick results expected. However, areas previously weed infested are responding with vigour and we are enjoying the return of fauna species, including an increase in the bird population.

Open days have been held on the property to encourage other owners of remnant vegetation to undertake similar projects to protect the environment for future generations.

The Voluntary Conservation Agreement allows the protection of works already completed and will be the realisation of my mother’s vision.

Stephanie and Julian Lymburner signed a Voluntary Conservation Agreement in late 1998. They both have a great love of the north coast of NSW and nature conservation in general, and are actively involved in bush regeneration on private land. Stephanie was the first Chairperson of the Australian Association of Bush Regenerators, Far North Coast and South-east Queensland Subcommittee.
Exciting days as diverse grasslands are explored.  
A story from Nithdale Wildlife Refuge

Landowners, Tim and Janey Lenehan and Rainer Rehwinkel from NPWS talk about managing grasslands on a sheep and cattle property near Braidwood.

Nithdale is a property of some 470 hectares, situated south of Braidwood. Passing through the area it is easy to see why the creek running through the property is called Bald Hill Creek, as a vast expanse of the property is treeless.

In early November 2001, a group which included botanists, landcare coordinators, National Parks staff and other interested people visited Nithdale for a Grassy Ecosystems field day, kindly hosted by the Lenehans who own Nithdale. When Tim and Janey Lenehan bought the property six years ago, little did they realise that their grassy paddocks would produce so many ‘Ooohs’ and ‘Aahs’ from people peering at the ground.

In 1999, the Lenehans contacted the Department of Land & Water Conservation (DLWC) to discuss the possibility of a woodlot on the property. They were impressed when the officer who met with them wrote a report on the quality and diversity of native species found in the grassland. Past and present farm management had resulted in the survival of some 200 hectares of native grasslands.

Interestingly the property had been gazetted as a Wildlife Refuge in 1973, but notes on the property and its proposed management at that time concentrated on describing treed areas and swamps, with little mention of the grassland.

At Nithdale, the Lenehans run sheep and cattle with 80 hectares of pasture improved country on the more fertile river flats of the upper Shoalhaven.

The 200 hectare area of native grassland is integral to their farm management. The native vegetation is able to survive during dry spells and during these periods is used for grazing. The area is also used to ensure that cattle do not gain too much weight, especially prior to calving.

In many ways the land is used as it was in the 1840s, when Hugh Wallace MLC settled Nithdale. The carrying capacity of the land hasn’t changed much since then-by contrast the human population has fallen from 31 in the 1841 census to five now (convicts 17 in 1841, one convict descendant now).

Past and present farm management had resulted in the survival of some 200 hectares of native grasslands.

A High Conservation Value Grassland

Rainer Rehwinkel from NPWS in Queanbeyan, who conducted the field day, described the grassland as one of very high conservation value, with over 150 species of native grasses, herbs and associated tree, shrub and wetland species recorded. Amongst these, the highlights are various orchid species, including an unusually tall form of the tiger orchid, the small sun orchid, and parson’s bands (an autumn flowering orchid). Other wildflowers include lemon beauty-heads, grass trigger-plant, billy buttons, yam daisy, small milkwort, nodding chocolate-lily and black gum.

The grasslands at Nithdale are of two main types. Most of the area is occupied by high integrity, dry kangaroo grass grassland. Grasslands dominated by this species undergo spectacular changes from season to season. Putting on fresh green growth with summer rains, kangaroo grass also flowers at this time, and the aspect then is of a dark bronlyz-purple. The grasses hay off towards autumn; they then take on a paler, burnt orange-brown appearance. With the frosts of winter, the landscape takes on bleached pink tones, before putting on a spectacular display of yellow, white and pink wildflowers through spring and early summer.

The other main grassland at Nithdale is of a wetter type, dominated by the tall river tussock and associated wetland species of sedges and rushes. This grassland type is typically found on river flats and drainage lines. It also occurs as swampy patches where springs emerge from hillsides. Regionally, this type of grassland has been the most seriously impacted upon, because it occurs in the wettest and most fertile parts of the landscape. It is these parts of the landscape that have traditionally been favoured for cropping and pasture improvement, and very few samples of these wet grasslands remain in good condition. The Nithdale examples are particularly diverse.
The Natural Temperate Grasslands of Southern Tablelands of NSW and ACT are listed by the Commonwealth as an Endangered Ecological Community. These grasslands are now rare, due to agricultural and infrastructure development.

Where grasslands have survived and are in relatively good condition, past management has generally been:

- relatively low or no grazing pressure (respectively in traditionally managed pastures, or in cemeteries and roadsides);
- short spells of relatively high grazing pressure (again as in some traditionally grazed pastures, and travelling stock reserves); and
- areas which are slashed or mown (cemeteries), or burnt (rail easements).

**Grassland Management**

Where traditional management has resulted in a grassland of high conservation value, grassland ecologists recommend that this form of management should be maintained.

Some slight changes, such as adjusting timing of grazing, may even enhance the values of a site. Say, for example, for sites that receive grazing during spring, it may be recommend that this be changed to summer grazing, as it is during spring that most of the herbs flower and set seed, while the bulk of green feed is produced during summer months. This style of management allows for successful seeding of the herbs (wildflowers), and the summer grazing enables inter-tussock spaces to form in which the seeds of these plants can then germinate.

Generally when wildlife, habitat and vegetation are discussed, people talk about retaining tree cover and planting additional trees and shrubs. Indeed many people in both urban and rural areas are involved in planting activities on both private property and public reserves. However, wholesale planting of grassy ecosystems is once again a change in management, and loss of species can occur. Grassy ecosystems formerly provided habitat for a range of medium-sized marsupials and large birds (betongos, bandicoots, the emu and bustard), many of which are now seriously depleted or even locally extinct.

However, even now, grasslands provide habitat for a range of reptiles, amphibians and invertebrates. Several of these are listed as threatened. Many grassland plant species are similarly listed as threatened.

While none of the threatened species have been recorded in the grasslands at Nithdale, potential habitat does exist for some of them. However, the grasslands at Nithdale are certainly of particularly high quality, in terms of their integrity (ie lack of weeds), diversity (ie the number of species present), size and, not least of all, their aesthetic values.

Participants in the Grassy Ecosystems field day, examining the diversity in the grassland at Nithdale in November
Funding to assist vegetation protection

Greening Australia (GA) has been involved in this type of program since late 1996. Previously, Martin Driver from GA in Deniliquin recognised that one of the major impediments for landholders managing their remnant vegetation was the cost of fencing materials. After lobbying for funding to assist landholders, the first Fencing Incentive program began in the Murray catchment.

Since that time, programs throughout other areas of NSW have started, with funding to support these being made available by the Natural Heritage Trust (NHT).

Integrating management of native vegetation into agricultural enterprises is one way to achieve more sustainable environments. Grazing management is one of the more important strategies to conserve and enhance remnant vegetation. It is easier and cheaper to look after existing vegetation rather than trying to replace it further down the track.

The vegetation to be protected does not just have to be areas of trees. Other important plant communities include native grasslands and wetlands or swamps. Sometimes landholders do not realise that these areas contain native vegetation. Areas of remnant vegetation along rivers and creeks are also high priorities.

This type of program has proven to be successful. For example one program covering the Murrumbidgee catchment was set up as a partnership involving sponsors, landholders’ contributions and GA who (through NHT) provided some funding. Over the period of the project, from 1999 to 2001, around 22,129 hectares of native vegetation were conserved by 298 landholders.

Most landholders fenced sites primarily for conservation, with others fencing to better manage their areas of remnant vegetation. Other reasons for fencing were aesthetic, arresting tree loss and maintaining production.

An important feature of these programs is the contact with landholders and the opportunity to raise awareness about remnant vegetation and its values, and provide management advice.

For many sites there is a need for ongoing management. As GA’s fencing manager in Dorrigo, Ross Macleay says, ‘Fencing is definitely not the end of the story. The problems can be fenced in as well as out.’ The vegetation type may make a difference. High fertility and high rainfall sites can produce weed growth that needs control.

Competition from exotic grasses and weeds can prevent natural regeneration of tree and shrub species. Strategically timed grazing and other management techniques may be needed to reduce competition and allow natural regeneration to occur.

Funding is available in some regions until the end of September 2002. For more information contact the Greening Australia offices below.

- Dorrigo. (02) 6657 2411
- Merriwa (02) 6548 2505
- Armidale (02) 6772 3248
- Bathurst (02) 6332 9488
- Cowra (02) 5341 9310
- Gundaroo (02) 6227 1423
- Wagga (02) 6921 8202
- Griffith (02) 6963 3067
- Deniliquin (03) 5881 3429.

Erica Higginson
First launched in Victoria, this national program is now commencing in New South Wales

If you are on the North or Central Coasts or in the Riverina, you may have heard the good news!! Land for Wildlife is coming to these regions following NPWS signing third party agreements with local community groups to work in partnership to implement the scheme.

Land for Wildlife is a voluntary property registration scheme, which aims to encourage and assist private landholders in managing areas for wildlife on their properties. Landholders receive newsletters, technical notes and a property sign. Land for Wildlife costs nothing to join and is not legally binding. It is a national scheme, originating in Victoria. NPWS has signed an arrangement to be the agency responsible for overseeing delivery of the scheme in NSW. This is one of the suite of private land management schemes run by NPWS as part of the Conservation Partners Program.

Land for Wildlife originated in Victoria in the early 1980s as a result of regular meetings between the Bird Observers Club of Australia and the Department of Fisheries and Wildlife (now Department of Natural Resources and Environment). It was agreed that the efforts of landholders who were trying to provide habitat for wildlife on their properties should be recognised and supported. The first property joined the scheme in 1981.

In a cooperative effort, Land for Wildlife is now being delivered nationally, with consistency assured through a national arrangement signed by all participating states and territories, though the model for implementation of the scheme varies from state to state. In NSW a community-based model has been developed.

The Nature Conservation Working Group Inc, operating in the Murray catchment, is the first group in NSW to sign a partnership agreement with NPWS. A pilot project has commenced to build on the Farmers for Wildlife initiative of the Murrakool Landcare Group. The landcare group will work with the Landcare Coordinator (based at DLWC) and the Wildlife Officer based at Greening Australia in Deliniquin to undertake a pilot for six months in the Riverina area.

Also signing up before Christmas was the Upper Clarence Combined Landcare, who will be working with up to five councils on the upper North Coast to implement the Land for Wildlife scheme. Once again this is a pilot project for 9 months to establish the scheme with the aim for it to continue in the region, long-term.

Central Coast landholders can look forward to learning more about Land for Wildlife as part of a range of private land management options being encouraged by the Central Coast Community Environment Network. This group has a new project encouraging the establishment of wildlife corridors in the Gosford, Wyong and Lake Macquarie local government areas.

We are currently in contact with other groups and local governments who are considering becoming involved with the scheme. If you would like to know more about the current Land for Wildlife projects, or how to establish or get involved in a new partnership in other regions throughout NSW, contact the State Land for Wildlife Coordinator on (02) 9585 6040, or email conservation.partners@npws.nsw.gov.au.
Working across a landscape to manage natural resources is a challenge for landowners. The Tilbuster Commons is a group of landholders who have a bold but realistic strategy to develop a model, contemporary agricultural ‘Commons’ – a system of Common Property Resource management to address a wide range of rural, social, environmental and economic issues.

The group of four families and community members making up the Tilbuster Commons collectively owns and manages most of the Tilbuster Creek valley sub-catchment situated between Armidale and Guyra. They share common values and a vision for a sustainable future, …… “As individual owners, we’re working together as a collective for improved lifestyle, prosperity and land health.”

The Tilbuster Commons group has developed plans to share grazing, infrastructure and natural resources across all properties, and to work together on rehabilitation and revegetation projects. The plans address the long-term commitment of the group to recover ecological processes across the landscape (larger than property scale areas) coupled with increasing vegetation cover as natural capital (ecological banks) and to address rural debt recovery and economy-of-scale production issues.

A novel arrangement of structures is being developed with donated time of professionals, funding from a variety of sources including the Natural Heritage Trust and Land & Water Australia and assistance from the University of New England’s UNESCO Centre for Bioregional Resource Management and Institute for Rural Futures. The group manages the common land resource, rotational grazing, conservation, creek rehabilitation and revegetation, environmental restoration (including, in the future, establishment of agroforestry for greenhouse sinks and tradeable carbon credits), and trial other restorative industry diversification.

To achieve these goals, to date the following activities have been undertaken:

**Comprehensive and integrated planning** with the development of strategic plans which look at long-term options in terms of potential diversifications and niche value adding opportunities; planning for time, labour, partner contributions and funding. The financial plans of the group allow for compliance requirements and include the financial outcomes associated with production and also the impacts of the obligations associated with maintaining conservation areas in perpetuity.

Collective decision-making and planning for all resource allocation, conservation and environmental works is well integrated. Geographic Information System is used for the location and management of the resource base management, implementation of the rotational grazing methods adopted by the group and as a communication tool.

Implementation of the grazing plan involves timed rotations of a single herd across all properties (cattle and goats are all owned by the entire group with each family having shares to distribute profits). Monitoring of pastures assists in adjustments to the plan and is already demonstrating improvements in soil organic matter, surface humus and much higher biomass and diversity of native pasture.

**Land and environmental rehabilitation:** The Tilbuster Valley, like much of the New England Tablelands, has a long history of clearing and livestock grazing. As a result, the valley has suffered impacts leading to the decline in the capacity of the natural environment to provide a healthy productive farming resource base. Attempting to deal with these issues revealed the necessity to develop a plan that would address the site-by-site problems within a larger scale strategy that guarantees the continuation of the broader natural processes. In attempting to address these issues, areas of land previously included in the grazing enterprises were strategically fenced for livestock exclusion and revegetation.
Wondering about serrated tussock?

Research on the longevity of serrated tussock seed helps tailor control programs.

Research has shown that serrated tussock (Nassella trichotoma) has dormancy periods, where germination is restricted, of up to five months after ripening. For example the germination of serrated tussock in the 1,2,3,4, and 5 months after ripening in December, was respectively 1 per cent, 20 per cent, and 63 per cent compared to 71 per cent for one-year old seeds. This means that most of these seeds avoid germination in the hot/dry months of summer and autumn and wait till the cool and wetness of winter to start germination. This is another adaptation of a ‘good’ weed, and many other weeds do the same. It means that if we are spraying to control serrated tussock with flupropanate, we should spray in spring and summer after as many seeds as possible have germinated in the year.

Germination tests of seeds stored in the laboratory indicate that the life of serrated tussock seeds is about 14 years. Seeds collected near Rockley, Orange and Trunkey showed germinations of, respectively 0.1 per cent, 2 per cent and 3 per cent after 14 years. No seeds were viable after 24 and 34 years. The longevity of seeds in the soil is often shorter than that of seeds stored in the laboratory.

Practical use can be made of this information by adopting a three year program when controlling serrated tussock. After initial control of mature tussocks, spraying of re-infesting seedlings can be carried out every three years in late spring with a low rate of flupropanate. This will kill the seedlings before they seed. After the fourth or fifth spraying there should be very few viable seeds in the soil, and provided seeds are not showered onto the treated area from an outside source, little reinfestation should occur.

Editor’s note: The same timing for control of serrated tussock can be applied to programs where physical removal, eg hoeing, rather than herbicide is used.
Looking for the Bush Stone-Curlew

Have you heard the wailing ‘weer-loo’ call of the bush stone-curlew recently? Have you spotted this long-legged bird in your district? Catherine Price from NPWS would like your help in finding them.

The National Parks & Wildlife Service (NPWS) is conducting a survey to discover where this endangered bird is still found across the state. If you have seen the bird recently or would like information on the species or its management, please contact us (see below).

The bush stone-curlew (also known as the bush thick-knee or bush turkey) stands about 50 centimetres high. It was once a common resident of open woodlands across NSW. With the clearing of much of its habitat for agriculture and the proliferation of foxes, it is now endangered in NSW. It occurs in isolated locations along the western slopes of the Great Dividing Range, western plains, the Riverina and on the coast north from Gosford.

Very few bush stone-curlews are found within national parks or conservation reserves and the future survival of the species now depends upon landholders’ willingness to manage habitat sympathetically.

If you have a breeding pair on your property, you have probably been doing the right things already. If this is the case, keep managing the area as you have been and ensure foxes and other predators (such as cats and dogs) do not threaten the survival of the chicks.

Another major problem for the bush stone-curlew is the lack of suitable habitat for young birds to colonise. Rehabilitation of bushland remnants and the regeneration of areas of suitable habitat (even small areas such as around isolated paddock trees) will make a big difference to the ongoing conservation of the species. The provision of corridors of suitable habitat assists the dispersal of young birds to formerly inhabited areas.

The NPWS has practical information on the management of the habitat of this unique woodland bird and can assist landholders to develop management plans to conserve the species and its habitat.

The NPWS website also contains information on the bush stone-curlew—at:


If you have records of this species or would like further information on the management of this species, write to:

Bush Stone-Curlew Survey
Biodiversity Management Unit,
NSW National Parks & Wildlife Service,
PO Box 1967,
Hurstville NSW 1481.

Contact Catherine Price
phone: (02) 9585 6602
fax: (02) 9585 6544 or email:
catherine.price@npws.nsw.gov.au

Helping your bush stone-curlew to survive

Fortunately, it is not difficult to manage bushland remnants in a way that suits the bush stone-curlew. However, a few management considerations are required:

1) Active fox control is required around breeding sites as chicks are easy prey – erecting fox-proof fencing around a nest site is the best (but most expensive) method. Make sure a large area is enclosed for the chicks to feed. A targeted fox baiting program is also extremely worthwhile and will assist many other native species as well.

2) During breeding (August to February), bush stone-curlews have to be able to see over grasscover while sitting on their nests. Grass should be kept below 15 centimetres in height, but not grazed so that it is too thin or bare.

3) Bush stone-curlews require scattered timber on the ground as this provides cover and camouflage. Leave the majority of fallen timber on the ground – do not ‘clean up’.

Picture: Ark on Eyre (NPWSA)
How will our rural landscapes look in the future?

A significant aspect of our rural landscapes is contributed by paddock trees, both individual isolated trees and small patches. Thinking about the survival of these trees results in the obvious conclusion that they will disappear over time.

As the trees age a natural loss will occur. This is accelerated by the stress paddock trees are under from salinity, soil compaction from grazing and agricultural activities, and interactions between increased nutrient levels and insect attack.

Observation shows that these trees are not being replaced by natural regeneration, with little recruitment of young trees seen in the average paddock. Survival of any seedlings is minimal under most current grazing regimes and agricultural activities.

Recent research initiated by the Riverina Highlands Vegetation Management Committee and undertaken by Miles Boak and Dr Phil Gibbons of the NPWS has shown that almost 50 per cent of the remaining trees on the South West Slopes are found in clumps of less than one hectare. Thus these very small patches and isolated paddock trees play a vital role in maintaining the economic and environmental health of the region.

Simple management actions can reduce dieback in existing trees. Periodic reductions to stocking rates, or temporary or permanent fencing around paddock trees will assist in the survival of seedlings and young trees which naturally regenerate from the existing mature and senescing tree.

This regeneration event only needs to occur once every 50 – 100 years to allow tree replacement. Regeneration in this fashion is cheaper and more effective than planting.

For copies of the brochure, contact NSW NPWS 1300 361 967.
Information on birds and habitats available

The New South Wales Bird Atlassers Inc. is a non-profit organisation incorporated in NSW. The organisation was formed in 1982 and has a current membership of 400 enthusiastic bird-watchers who are distributed throughout the state. NSWBA’s objective is to protect and preserve Australian birds in NSW and the ACT by ongoing mapping and monitoring of each species distribution and preferred habitats.

Members submit records on a monthly basis. This provides the best possible data on matters such as species movements and breeding patterns. This ‘atlassing’ function is unique to the NSWBA and distinguishes it from other bird groups.

Our computer bird-database contains over four million individual sightings. This is the largest such computer database of birds in NSW. The system enables us to produce species maps of birds, species distribution lists, location lists and statistical analyses quickly and efficiently. Government agencies and environmental groups have themselves taken advantage of our services.

Our work will continue indefinitely as this is the only means of monitoring changes in distribution of species of birds over a long period.

For more information about the New South Wales Bird Atlassers contact the publicity officer:
Jen Southeron, ‘Old Dromana’, Moree. NSW. 2400 Phone: (02) 6753 3242. Fax:(02) 6753 3204. Email: old_dromana@northnet.com.au

Plan to reduce threat of Gambusia

Gambusia holbrooki, the plague minnow was introduced into the Royal Botanic Gardens in Sydney in 1925 for the purpose of mosquito control.

Gambusia (formerly known as the mosquito fish) is now common and widespread, occurring in almost every conceivable freshwater habitat in south-eastern Australia, as well as the coastal drainages of Queensland, some parts of the Northern Territory and Western Australia.

It has been an extremely successful invader, assisted by human dispersal and facilitated by its high reproductive potential, fast maturation rate, flexible behaviour and broad environmental tolerance. In five months, a population of G. holbrooki can increase to over 100,000 fish in small ponds despite natural mortalities. Once introduced, G holbrooki is almost impossible to remove from the environment, particularly from connected waterways such as creeks, rivers and streams and large permanent water bodies.

Gambusia has generally failed internationally as an effective mosquito control agent and the World Health Organisation no longer recommends its use for malaria control programs primarily due to its harmful impact on native species. What remains, however, is the legacy of another introduced species establishing itself in Australia and impacting on native species including frogs, fish and macro-invertebrates. Predation by gambusia is now been listed by the NSW Scientific Committee as a key threatening process.

The NPWS is currently preparing a threat abatement plan to reduce the impacts of gambusia on threatened species, particularly frogs.

The community can participate in the implementation of this plan by ensuring that gambusia are not accidently released into farm dams and creeks.

An objective of the draft plan is to minimise human dispersal of gambusia. This may happen as a result of:
- putting gambusia in farm dams to eat mosquitoes,
- releasing unwanted aquarium fish into nearby creeks
- collecting fish and releasing them in a different place.

Contact Ron Haering (02) 9585 6426
**Biograze – researchers, the wool industry and landowners working together for conservation.**

The Biograze project looks at the integration of biodiversity conservation with grazing in the dry rangelands, which will protect Australia’s plants and animals and create a green marketing advantage for industry.

Australian Wool Innovations Ltd, together with Land & Water Australia, is providing funding for Stage II of the Biograze project. Stage II, looks at implementation of principles developed in Stage I.

A final report on Stage I of the project ‘Biograze: Waterpoints and Wildlife’ was issued in 2001.

The rangelands, the dry pastoral lands, make up about 60 per cent of Australia and are home to many animals and plants.

Case studies conducted by the Biograze team showed that most native species appear to be surviving well in grazed rangeland areas. Others are so sensitive that they occur only where there is negligible grazing pressure, typically sites a long way from water points.

Rangeland regions in Australia are well placed to be the leaders of the emerging market niche satisfying consumers who want assurances that agricultural production and environmental health do not compete. Production in the rangelands is based on natural, uncleared ecosystems where “biodiversity friendly” credentials are possible with relatively small effort.

The objectives of Stage II are

- to gain knowledge and techniques that allow the wool industry to demonstrate environmental and biodiversity-care credentials; and
- to develop a toolbox of management guidelines and technology that improve the precision of doing the right thing (eg, stocking rates, feral animal/weed control etc), in the right place at the right time.

The Biograze report and technical fact sheets, can be downloaded from the web at http://www.cazr.csiro.au/biograze

Wildlife Refuge and Voluntary Conservation Agreement landowners can call (02) 9585 6671 for copies.

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**FarmBis in NSW**

The FarmBis program, which is jointly funded by the state and commonwealth governments, provides financial support to primary producers and rural land managers for learning or training activities. The purpose of the program is to assist land managers to acquire and apply the management skills, information and practices that are needed to take advantage of opportunities that arise.

NSW’s farmers and fishers can now access the latest training and educational courses to help up-date their business management skills.

Since it started in NSW in late 1998, FarmBis has helped more than 25,000 farmers to improve their understanding and skills in a range of areas including marketing, natural resource management, leadership, financial planning, risk management and quality assurance. This will help ensure that land managers become more self-reliant and better equipped to benefit from change.

**To find out more about FarmBis in NSW call 1800 678 593 or visit the web site at:** http://www.raa.nsw.gov.au

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**Conservation Resource Management Toolkit, being developed by NSW Farmers’ Association**

NSW Farmers’ Association is developing a conservation resource management toolkit for farmers Guide to Farm Conservation in NSW.

It includes fact sheets on natural resource management activities, case studies about landholders practicing conservation management on farms in NSW and a regional directory of information, advice, training and incentives for conservation initiatives.

Guide to Farm Conservation in NSW will be available from April 2002 at www.nswfarmers.org.au/nht

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**Bush Matters - Autumn 2002**
Introducing the Team

The team working in the Conservation Partners Program is based in the National Parks & Wildlife Service office at Hurstville in Sydney, where it carries out statewide coordination of the Program. Team members have been lucky enough to talk to some of the landholders who have Wildlife Refuges or Voluntary Conservation Agreements and the groups setting up Land for Wildlife Schemes, and it is a highlight to work with so many interested and interesting landholders.

Many landowners, especially those with Voluntary Conservation Agreements will also have worked with other staff at Hurstville. Of course, there are also many NPWS staff in other sections and regions whom some of you talk to and work with on a regular basis.

We hope this newsletter has something to interest everyone, and would love to hear your comments, feedback and suggestions.

Sally Ash
I joined NPWS a year ago. In my role as Coordinator, Conservation Partners Programs I have focused on supporting the review of the Wildlife Refuges and establishing the Land for Wildlife pilots. My background and training are in earth sciences, horticulture and adult education. I came to NPWS from Greening Australia (NSW), where I was Program Coordinator and Sydney Regional Manager. I also spent five years teaching and training in the environmental field at TAFE and with labour market programs such as LEAP.

Louise Brodie
I have been in my current role with NPWS since August 2001. My main role in the Conservation Partners Program is dealing with the Wildlife Refuge Program and the Joint Assistance Program for landholders.

Bernadette Sharpe “Detective Bernie”
Previously I worked for local government in Nowra and am currently half way through a Bachelor of Science (Parks Recreation and Heritage) degree.

Learning about Rainforest Restoration

The NSW National Parks & Wildlife Service, with funding from the Natural Heritage Trust, is offering training programs to landholders who actively manage areas of native vegetation within the Tweed, Brunswick and Richmond catchments.

For further information contact local Landcare Coordinators
Bob Jarman, Kyogle, (02) 6632 0000
Kerri Francis, Alstonville, (02) 6627 6009
Ros Elliott, Brunswick (02) 6684 5428
Kate McKenzie, Tweed (07) 5523 2500

Training available includes:
- **First Aid Certificate**
  - national accredited Senior Certificate.

- **Rainforest Restoration**
  - A 16 week accredited course (delivered by TAFE) - one day per week including theory and practical sessions. Topics covered include weed and native recognition, weed control techniques, bush regeneration and management issues and preparation of a workplan for a site.

- **Chemical Application Course**
  - Nationally accredited – gives participants the knowledge required to fulfill their legislative obligations when undertaking weed control activities using pesticides.
USEFUL BOOKS

Looking for information - there is always a lot around! Here is some brief information about some of the newer resources.

**Bush Invaders of South-East Australia** Adam Muyt, 2001. Published by and available from RG and FJ Richardson, PO Box 42, Meredith, Victoria 3333. www.weedinfo.com.au
304 pages $59.95.
This book is written specifically for those who wish to identify weeds of bushland. Full descriptions are given of 93 weeds, with further information on another 50. There are clear photos and descriptions of confusing native species. The first section of the book gives an excellent rundown on planning for weed control and describes a variety of methods which can be used to manage weed populations.

**Environmental weeds: A field guide for SE Australia,** By Kate Blood, 2001. Published by CH Jerram and Associates and CRC for Weed Management. Available from RG and FJ Richardson, PO Box 42, Meredith, Victoria 3333. 232 pages $35.00 www.weedinfo.com.au
Detailed descriptions in easy to understand language and photos of 175 weeds, including emerging and potential weeds.

Two booklets have been published as a result of the survey by NSW NPWS of the Cobar Peneplain. Available from NPWS Hurstville.

**Fauna of Western New South Wales; The Cobar Peneplain Biogeographic Region** contains lists of fauna found in different vegetation and some detailed descriptions. In addition there is information on how to manage species and habitats.

**Pilaarrkivalu of the Cobar Peneplain – Ngiyampaa traditional uses of plants and animals** documents the valuable cultural information provided by the Ngiyampaa community during the project. Photos and clear descriptions of the plants and animals and their uses are given.

**Threatened Species Information Books**
NPWS has published a number of small books on threatened flora and/or fauna of regions of NSW

**Threatened Species - a landholder’s guide (for the Central West NSW)** (2001), is the latest of these. The book has clear photos and descriptions of 39 different species of flora and fauna of this region, and hints on how landholders can assist their survival.

Other such books on produced in this topic were produced in 1999:

- **Threatened Species of the Macquarie Marshes**
- **Threatened Species of South-eastern NSW (Region 1: Riverina Highlands)**
- **A Landholder’s Guide to Threatened Species; Tips for Saving Threatened Species in New England**

and in 2000:

- **Threatened Fauna of the Shoalhaven**
- **A Guide to Threatened Fauna of the Northern Central Tablelands**
- **Threatened Species of the Lower North Coast of NSW**

**Landholders with VCAs or Wildlife Refuges can contact Louise 02 95856671 or Sally 02 95856040 for your complimentary copy of NPWS books.**

**Managing Farm Bushland; A Field Manual for the Northern Tablelands of New South Wales -**
Richard Morsley and Ruth Tremont WWF 2000
A handy small manual for landholders with good advice on topics such as grazing farm bushland, how to set management goals and monitoring your bushland.
Available from World Wide Fund for Nature Australia (02) 9281 5515
WHAT’S ON

2002
A year for special celebrations!
For the latest information check these web sites.
* Year of the Outback  www.outback2002.com
* International Year of Ecotourism
* International Year of Mountains;  www.mountains2002.org

Regent Honeyeater Recovery Program 2002 Dates
13-14 April:  Tree Planting: Capertee Valley
25 - 26 May:  National Regent Honeyeater/Swift Parrot search days
3 - 4 August : National Regent Honeyeater/Swift Parrot search days
10 - 11 August: Tree Planting - Capertee Valley
August TBA:  Tree Planting at Lurg near Benalla.
For information contact the Coordinator 1800 621 056

Courses at Tocal College
A range of one and two day courses are held at Tocal each year, usually at weekends. They are designed for full-time and part-time landowners.
March 24-25: Natural Resources Assessment (can count towards a Diploma in Landcare): Introduces the process of assessing natural resources of soil, water and vegetation in a landscape. Cost $230 GST free.
May 12-13: Physical Property Planning Assessment (can count towards a Diploma in Landcare): Introduction to the use of a property planning kit, to plan the best use of physical resources of a farm. All materials supplied. Cost $230 GST free.
For further information phone 1800 025520 (overseas +61 249398888), fax 02 49385549 or write to Tocal College, PATERSON NSW 2421, Australia. Email info@tocal.com

Rural Women’s Network
2002 Women’s Gathering - Fortitude & Far Horizons, Bourke NSW
September 27-29
For more information please contact the Chairperson on ph 02 6872 3255 or at PO Box 638, Bourke NSW 2840. Alternatively have a look at the special Gathering page on the RWN website.

Property Management Planning
The Property Management Planning program will help you expand your skills to be better prepared to deal with future highs and lows of climate, markets and other risks. The program suits a wide range of farms including:
• Large or small enterprises
• Different agricultural systems; and
• Broadacre or intensive irrigation or dryland cropping or grazing.

May 3rd, 4th and 5th 2002
Tocal’s Event of the Year
The Tocal Field Days are an annual event for commercial farmers, aspiring farmers and those interested in agriculture and rural life – a great day out for all!

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