

Chapter 12

Wildlife and Habitat Management

David Parker
Wildlife Extension Officer
Greening Australia – Riverina
Deniliquin, NSW

Introduction

Remnant native vegetation and the wildlife that may be found therein are all part of a complex system of interactions. A healthy remnant, to be valuable to wildlife, should contain not only living trees of various size and age, but other components such as standing, hollow-bearing dead trees, fallen timber, shrubs and grasses, leaf litter, twigs and more.

As components are lost from these natural systems, the health and function of the system, and its value as habitat declines. For example, honeyeaters that feed on insects and nectar need a well-structured understorey of shrubs for nesting and refuge from predators and a variety of nectar-producing plants. The loss of such resources, and the birds that depend on them, can result in increased insect attack and tree dieback.

All native vegetation is valuable, however, for the long-term protection of our native wildlife, a patch of remnant vegetation needs to be managed to achieve and maintain this natural complexity to provide for the needs of a range of native animals.

Broad habitat types

Broad habitat types are typically described in terms of the dominant vegetation or vegetation community in

which it is found. Broad habitat types in the area covered by this Guide are termed wetlands, Riverine forests, woodland, mallee, shrublands and native grassland. All these communities are discussed in detail in Chapters 1, 5 and 6.

Key habitat components

A habitat is a home! Just as we require some necessities to survive, wildlife also require certain elements from a habitat to survive, such as shelter, food and nest sites. Habitat features include both biotic (living) and abiotic (non-living) components.

Vegetation is the key component to any habitat and all species are dependent on vegetation to survive. The type of vegetation, its condition (or health) and the area it occupies will determine the value of the vegetation to wildlife in the area. If a habitat is changed or components are lost in any way, the species that live there may be placed under stress, which may cause a reduction in population size, their displacement from the area or local extinction.

To maintain biodiversity (meaning, diversity of ecosystems or habitat types, diversity of species and diversity of genes within species) we must keep a variety of resources or habitat attributes/components. These include:

- **large patches of bush/vegetation.** Many animals require large areas of habitat to supply adequate food supplies or to satisfy their territorial requirements. Migratory species may require large areas of habitat scattered throughout their migratory range;
- **herbs and grasses.** The composition and structure of the ground cover is important for ground dwelling, and seed and insect eating fauna;
- **understorey shrubs.** Shrubs provide resting, refuge, breeding and feeding habitat for some wildlife;
- **diversity of tree species.** Different species of trees provide different resources that are required by a range of animals. In the Riverina, the Superb Parrot utilises River Red Gum as nesting sites, and Box and Boree woodlands as feeding sites;
- **tree hollows.** About 20 percent of birds and 30 percent of mammals need hollows for nesting and shelter. Small hollows (suitable for small bats) can take up to 80 years to form while hollows utilised by large animals may take 150 years to form;
- **dead standing timber.** Similar value to above;
- **fallen trees.** Ground foraging birds (eg. Robins), frogs, reptiles and mammals require fallen timber for shelter and food supplies; and
- **rocks.** Provide shelter and nest sites for some species.

These habitat components are valuable to different species in different locations. Not all of these attributes are necessarily desirable in the one location. In grasslands, tree hollows and fallen timber are not important, nor required for wildlife in this habitat. These features are more suited to woodlands and forests. It is important to understand what habitat attributes should be found in particular vegetation types. The vegetation profiles in this Guide will help identify what

attributes should be found in your patch of native vegetation.

Significant wildlife species

Plains-wanderer

(*Pedionomus torquatus*)

The Plains-wanderer is a small ground-dwelling bird found in sparse native grasslands. The female is slightly larger and more brightly coloured than the male. Grasslands occupied by the Plains-wanderer tend to be those where the topsoil has been eroded to expose a red clay subsoil which does not support dense pasture growth.

Such areas comprise about 50 percent of bare ground with litter comprising a further 10 percent. In the Riverina, pairs of Plains-wanderer occupy home ranges of 18 hectares. They forage during the day for a wide variety of seeds (particularly grasses and saltbush) and ground dwelling insects. Its main threats include loss of habitat, overgrazing by domestic stock, particularly during dry periods (drought), and predation by foxes and cats.



Superb Parrot (*Polytelis swainsonii*)

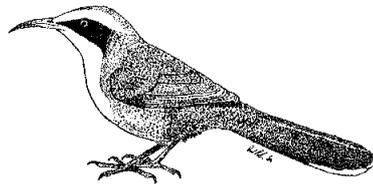
The Superb Parrot is a slender, long-tailed, bright green parrot. They nest in large, hollow-bearing River Red Gums in Riverina forests along the major watercourses of the Riverina (Murray, Edward and Murrumbidgee Rivers). They feed in woodlands on a diet of seeds, and blossoms of eucalypts and mistletoe. The main



threats to this species include the clearance of the understorey shrub layer from Cypress Pine/Box woodlands and suitable nest sites.

Grey-crowned Babbler
(*Pomatostomus temporalis*)

The Grey-crowned Babbler is a medium-sized bird with a broad white eyebrow over a black eye mask. This species lives in community groups usually between 4-13 individuals. Babblers construct large stick nests usually in saplings or large shrubs. Their diet consists of insects and larvae found under the bark of trees or on the ground. Major threats include the lack of tree and shrub regeneration, increased isolation between groups, and predation by foxes and cats.



Bush Stone-curlew
(*Burhinus grallarius*)

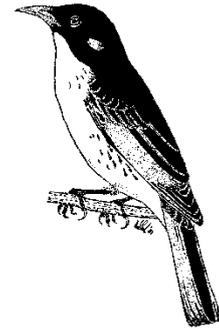
The Bush Stone-curlew is a large ground-dwelling bird, usually seen in pairs in grassy open woodlands with plenty of fallen timber. They breed between August and January, clearing a small scrape on bare ground, generally near a bush or tree. They are well camouflaged and very difficult to see when they are lying on the ground. Their diet consists of insects. A major threat to this species is the predation by foxes.



Painted Honeyeater (***Grantiella picta***)

The Painted Honeyeater is a specialist feeder on mistletoe fruit, but also consumes nectar and insects. In NSW,

Painted Honeyeaters are generally found on the inland slopes and plains. They are distinguished from other honeyeaters by their pink bill.

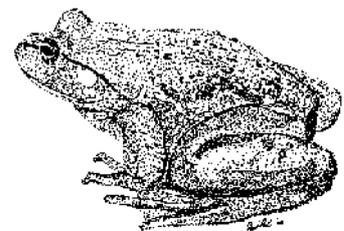


Breeding pairs generally isolate themselves from their own kind, but loose colonies of breeding birds may also be found. Outside the breeding season it is usually seen in pairs or small flocks. Painted Honeyeaters need healthy mature woodlands, such as Boree and Bulloak. Threats to this species include clearing of Boree, Brigalow and box-ironbark woodlands and the removal of trees or branches with mistletoes.

Southern Bell-frog
(*Litoria raniformis*)

The Southern Bell Frog is a large dark green to lime green frog with a body about 8 centimetres long and legs of similar length. It has raised warty brown spots on its back and usually has a stripe along its backbone. Southern Bell Frogs are found in wetlands among aquatic vegetation, within or at the edge of slow moving streams, marshes, lagoons, lakes, farm dams, and irrigation bays and channels. This species feeds mainly on invertebrates and other frogs. Threats to the Southern Bell Frog include draining wetlands, clearing or overgrazing of wetland vegetation,

river regulation, habitat fragmentation and predation by foxes and cats.



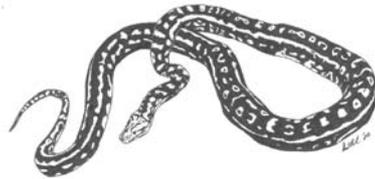
Striped Legless Lizard (*Delma impar*)

This species of lizard resembles a snake but has a longer tail and has ear openings. It is slightly thicker than a pencil and up to 30 centimetres long, light brown in colour with a series of darker brown stripes running along its back and sides. The Striped Legless Lizard is only found in grasslands and spends most of the time out of sight under rocks, in grass tussocks or in cracks in the ground. Its main threat is the establishment of pasture crops.

Carpet Python

(*Morelia spilota ssp. variegata*)

The Carpet Python is a large, non-venomous snake growing up to 3 metres



in length and has distinctive patterned pale brown blotches on dark-brown body. This species feeds mainly on small mammals and bird eggs or nestlings. These snakes are uncommon and may be found in Riverine forests and rocky outcrops. They are threatened by the loss of hollow bearing trees (for shelter and nesting), fox predation, increased isolation from other populations and poaching for the pet trade.

Squirrel Glider

(*Petaurus norfolcensis*)

The Squirrel Glider is a gliding possum similar to the Sugar Glider, except larger with a more pointed face and bushier tail. Squirrel Gliders are nocturnal, and breed and roost in tree hollows, usually with a small entrance. Its diet consists largely of insects but they also feed on sap, gum, honeydew and nectar of native plants. The presence of large wattles such as Silver Wattle, Golden Wattle and Lightwood appears to be important to provide gum for food when insect

numbers are low in winter/early spring. Major threats to Squirrel Gliders include overgrazing (of shrubs), lack of regeneration in woodland and Riverine forests and the loss of large, hollow-bearing trees.



Other threatened species occur in the region. Contact the author at Greening Australia or the NSW National Parks & Wildlife Service if you are interested in finding out about other threatened species in your area.

How can I help retain wildlife in rural areas?

Fencing

Fencing an area of habitat allows the site to be managed differently to the surrounding paddocks.

A good start is to consider developing a whole farm plan that incorporates all of the natural features and management issues on your property (refer to Chapter 3)

If you have areas of remnant vegetation on your property, consider managing, protecting or enhancing some or all of those areas for wildlife. Prolonged heavy grazing has virtually removed the shrub layer from our woodlands. Fencing native vegetation to control stock access will help natural regeneration take place and preserve or restore many essential habitat attributes.

In some dryland pastoral areas, entire paddocks may consist of good habitat (eg. grassland) and additional fencing is neither practical nor appropriate. Adopting suitable grazing management

practices is the key to maintaining habitat values (refer to Chapter 7).

Regenerating / re-seeding vegetation

This is discussed in detail in Chapter 9, Native Vegetation Establishment and Management Techniques.

Protect hollow bearing trees (dead and alive)

Hollows can take over 100 years or more to develop and are essential to many different species of wildlife. By protecting hollow-bearing trees you can continue to provide homes for many of the wildlife species that can be found on your property. Even single trees are important (particularly for bats), and planting other native trees and shrubs around them can help to increase wildlife survival.

Nest boxes can provide alternatives in the short term for hollow dependent fauna and have been effectively used for species like the Superb Parrot and Squirrel Glider.

Many hollows in agricultural land are used by feral honey bees and starlings. If hollow bearing trees are not protected, competition between introduced and native animals for this resource will increase.

Control feral animals

Introduced animals impact heavily on our native wildlife. Effective control of foxes and cats are critical to allow ground dwelling birds, such as the Bush Stone-curlew, to survive and successfully rear young. Rabbits and hares will greatly limit the success of any regeneration (natural or otherwise) where they are a problem. Undertake regular fox, rabbit, hare and feral cat control in remnants, and where possible, work in with

surrounding neighbours, Rural Land Protection Board's, State Forests and NSW National Parks & Wildlife Service.

Control weeds

Some patches of native vegetation can have a ground layer dominated by introduced plants (weeds). In some cases, the density of weeds can restrict native vegetation from regenerating through competition. It is important to control, suppress or remove weeds, particularly aggressive pasture species like Barley Grass and noxious species, in remnants.

Conserve fallen timber and rocks

Dead fallen timber is important habitat for many animals. Retain fallen sticks, logs and debris on the ground beneath trees to provide essential foraging, roosting and nesting points for wildlife. Ground-dwelling birds and reptiles are particularly susceptible to removal of this layer. Avoid 'cleaning-up' fallen timber, but if fire control is a concern remove only the small branches and twigs. Even consider moving fallen timber from cropping paddocks into more natural habitat areas.

Rocks provide essential habitat for native species of wildlife as well as native plants. If you have areas of rocky ground on your property, maintain these areas.

Be involved

Through observing and enjoying our native wildlife around you, not only will you be able to learn more about them and how to help them, but you can also encourage family members and neighbours by talking about some of the interesting things you have seen.

By joining a local Landcare group people are able to share their knowledge and experiences. There are also many groups that can provide assistance to you through

the provision of incentives for fencing and fox baiting. Combined efforts get better results.

References and further reading

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