Backyards for Wildlife

A GUIDE TO CREATING HABITATS FOR NATIVE ANIMALS



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1 INTRODUCTION

Since Europeans first settled on the Bathurst plains in 1815, there have been drastic changes to our local environment. The grasslands and grassy woodlands were favoured for agriculture, and hence, the wildlife that existed there was the first to be displaced. Later, the river forests of she-oak and gum were removed and erosion resulted in major changes to waterways. Finally, wetlands and swampy meadows were drained, dammed or became channelised. The landscape you see in the Bathurst Region has changed much from that originally settled.

Bilbies, Eastern Quolls, rat-kangaroos, Plains Wanderers and Grassland Earless Dragons haven't been seen in the Bathurst Region for decades. We know that there has been a reduction in habitat quality and area, and a loss of the connectivity between habitat areas. The changes to the land within and outside the Bathurst Region mean that the return of many of the locally extinct species is unlikely, but we can take action to protect the animals that remain.

Despite these changes, Koalas, Platypuses, turtles, dragons, quolls, owls, falcons, treecreepers, pardalotes, pobblebonks, orb weavers and hundreds more local wildlife species still exist in the Bathurst Region:

Through the enhancement of the human environment – our homes – we can greatly improve the environment for local fauna. By creating Backyards for Wildlife, each resident can take simple steps to reduce the pressures on Bathurst Region wildlife, and ensure that those animals that share our lives are assured a future.



1.1 WHAT IS 'WILDLIFE'?

The term wildlife, or fauna, generally includes all non-domesticated animal species. It can include both native and non-native species of animal. Mostly, when someone says wildlife, we have a picture of wild animals such as kangaroos, possums and Koalas in our mind. Therefore, this booklet focuses on helping these native wild animals find food, shelter and other resources in our yards.

1.2 WHY WILDLIFE IS IMPORTANT

What does wildlife mean to you? Many people involved in conservation or wildlife preservation programmes do so because they feel that the animals have as much right to exist in our world as we do. But did you know that wildlife even in the urban environment have an important role to play?

We are all familiar with birds such as Magpies, Willie Wagtails, ducks, honeyeaters and owls, but do you really know how much they help us? Magpies eat a variety of insects, moths, spiders and grubs that can be a nuisance in our lawns or houses. Willie Wagtails eat thousands of flies and mosquitoes each year. Ducks help to cycle nutrients through our waterways, eating pest grubs and applying fertilisers through their droppings. Honeyeaters help to pollinate hundreds of plant species and owls keep down pests such as locusts, mice, rats and even snakes!



These are just a small number of reasons why urban wildlife can help make our lives easier, but in the end, many people believe that a backyard without furry, feathered (and even scaled) friends would be far less interesting.

1.3 WHAT WE ALREADY KNOW ABOUT BATHURST REGION BACKYARDS

In 2010, Bathurst Regional Council conducted a survey of residents asking what the habitat of their backyard was like. Specifically, Council was interested in facts such as the percentage of native trees compared to exotic species; how much of their yard was made up of lawn, vegetable gardens or garden beds, as well as what they have already done to attract wildlife to their yards.

Not surprisingly, for a city that was first established over 195 years ago, much of the vegetation is of European influence, though there are still significant patches of native vegetation. The survey reported around 60% of plant species in Bathurst yards is exotic, with the remaining 40% native. This means that there is a good place to start and is one of the reasons why we still see so many native bird species in the area.

Council also asked about the structure of vegetation in resident's yards. This is an important question as a range of vegetation types helps to support a range of animals, as well as creating micro-habitats so that other plants can grow. Interestingly, the structure of vegetation was evenly split across respondents with each having roughly the same proportion of trees, shrubs, understorey, ground cover and leaf litter in their yards. However, these habitats usually cover less than 25% of yards with the rest mostly made up of lawn, meaning that there is some way to go in providing the best urban habitats for our native animals.

The good news is that most of the residents surveyed said that with guidance, they would plant more native trees, improve habitat opportunities, and reduce pressures on native wildlife.

In 2011, a second survey was conducted which asked residents about what wildlife visited Bathurst Region backyards. A range of bird, mammal, reptile and frog species were identified indicating that many species still persist in the urban environment. These species are discussed in Chapter 6. If we create suitable backyard habitats, we can improve the chances of survival for these species.

1.4 WHAT IS A BACKYARD FOR WILDLIFE?

It's quite a simple answer really: a back (or front) yard for wildlife is one that provides food, shelter, protection or nest sites for wildlife.

Have you ever seen a Welcome Swallow nest in a shed, or under the eave of a building? Have you heard a possum rustling around in your roof? Though made by humans, many such structures can provide habitat for such adaptable species.

If we really want our backyards to provide a range of resources (food, water, nesting sites or material, and shelter from predators) then all we have to do is take a closer look at our yards, work with what we have, or if starting from scratch, take the time to plan the design of our new backyard.



2 CREATING YOUR BACKYARD FOR WILDLIFE

Nearly any front or back yard, court yard, balcony or farm block will be used by our local wildlife. The best way to attract wildlife is to grow plants that provide food (leaves, nectar, seeds, fruit) or attract food (insects, spiders, grubs, worms, lerps). By keeping in mind the five points below, you can be sure that over time, your yard will provide a great home for wildlife.

2.1 FIVE IMPORTANT POINTS TO REMEMBER

- 1. Use a variety of native plants that have been grown from seed or cuttings collected from your local area (e.g. waterways, plains and hills).
- 2. Provide garden structure with 5 layers including: tall trees, small trees and tall shrubs, a medium shrub layer, small shrubs and herbs, groundcovers and a litter (mulch) layer.
- 3. Use an assortment of plants that flower, fruit and seed during all seasons.
- 4. Keep your pets under control.
- 5. Use alternatives to chemicals whenever possible in the garden.

Source: SA Department of Environment and Natural Resources

http://www.backyards4wildlife.com.au/index.php?page=backyards-4-wildlife

2.2 CREATING HABITAT: THE FIVE LAYERS OF VEGETATION

As listed above, by creating five layers of vegetation, you will be providing a range of habitat necessary for all the different types of animals that inhabit our urban and urban fringe areas.

- 1. **Trees:** As well as providing food through nectar, seed and fruit, trees provide nesting habitat high above potential predators and are useful places for birds that are passing through to stop and rest. Tall trees are also used by species that keep a lookout for danger before coming down to the ground, as well as a perch for owls and falcons that prey on small reptiles and mice.
- 2. Shrubs: The most important layer as it provides food and shelter for a wide range of animal species. Shrubs (and small trees) can be used to add a feature to your garden. Selecting species that produce food throughout the year will increase the number of feathered visitors. In the corners or out of the way parts of your yard, think about planting shrubs more densely to create a mass of shelter for small birds.
- 3. **Understorey:** These include small shrubs and some of the taller grass species. The understorey is often used for animals that live on the ground, so if you are interested in looking after lizards or frogs, then patches of thick understorey where pets and children cannot access may be useful.
- 4. **Groundcover:** This continues with the protective qualities of the understorey but also provide shelter for insects, grubs and spiders. Not only does groundcover help to fill spaces between shrubs and along paths or borders, it will provide homes for small animals that become food for a range of other animals.
- 5. Mulch and litter, rocks and logs: Provide nutrients and decomposing material that attracts small invertebrates that will provide food for birds, lizards and frogs. It also reduces evaporation of moisture from your soil and reduces erosion during high rainfall events.

2.3 LEARN A LITTLE ABOUT THE FAUNA AND FLORA IN YOUR AREA

Native wildlife (fauna) may already exist in your area and these can be easy to attract by having a look at what plants (flora) and habitats they are already using. Take note of what is flowering, in seed or fruit at different times of the year so you can replicate this in your own yard. Bathurst was once open grassland surrounded by grassy woodland. Many of the grassland fauna species have disappeared but you can help the woodland animals by recreating a piece of this habitat in your yard where they will feel comfortable visiting.

Some birds like wattlebirds, kookaburras and rosellas are quite happy to travel some distance between sources of food. These birds will look for places to stop and rest – stepping stones in their travel from habitat to habitat. Other species such as wrens and wagtails will not fly very far at all, and will not risk crossing large open spaces. If these birds are in your neighbourhood, you can increase the number of plant species that may attract them, improving their habitat so that they do not have to travel.

Many mammals, though feeding on a variety of plants, generally need 'structure' in their territory. Therefore logs, rocks, stumps and artificial resources such as nestboxes can assist in attracting them to your yard.

Reptiles and frogs are attracted to thick cover: leaf litter, logs, rocks and mulch will help them adapt to your home. These species occasionally travel some distance, so have a look at where the nearest habitat is in your neighbourhood and try to create a place that acts as a stepping stone for these animals and is safe from pets and children.

Do you have a new house?

If so, we recommend you read '2.4 STARTING FROM SCRATCH'.

Do you have an existing garden? If so, we recommend you read '2.5 WORKING WITH WHAT YOU HAVE'.

2.4 STARTING FROM SCRATCH

You've made the decision to design your garden with wildlife in mind, so how do you go about it? The first thing to do is to remember the five important points listed above. Also, do some research to see what you would like to plant, build or create in your yard and decide what animals you would like to attract.

- If it is birds you are interested in, what kind? Are they attracted to nectar or seeds? Can they become aggressive? What are the birds already in your neighbourhood or nearby?
- Are you happy for lizards and frogs to come to your yard? How do you feel about possums living in your yard?
- How much area will you need for barbeques, for the children to play in or for your new vegetable garden? How much space will you need for your clothes line, waste bins and compost bins?



• What type of soils do you have? What will grow in your soil? If your soil is sandy it will easily fall apart in your hands, if it's clay-like it will be sticky and hold together. The best is a mix - a sandy loam that has good organic content without too much sand or clay. Talk to your local nursery about how to improve the condition of your soil if you need to.

Once you have thought about these types of questions, and using the information in this booklet, you can start planning your new yard.

The simplest thing to do is to use a pencil and piece of paper (graph paper may be of use) and start drawing your yard design. Use simple figures such as circles or squiggles to indicate trees, shrubs or whatever you like!

If you are yet to build your house, ask your builder to stockpile your topsoil so that it can be spread out on site when the house is completed. This will give you a great head start and means that you won't be planting into poorer soils or having to spend money to buy more topsoil.

Don't forget to include the 5 layers of vegetation (see Figure 1 and Figure 2 below), and indicate where you may want to place rocks, logs, ponds or bird baths.

Don't forget to think about how large plants will grow and how much area you want in your yard for personal use (paths, lawns, vegetable gardens).

Don't forget to be patient, learn from your failures and take time to enjoy your backyard!

Figure 1. Example showing a cross section view of the five layers of vegetation.



Is your house already built and is your garden already planted? Most yards in the Bathurst Region have some sort of vegetation already. You don't have to pull out your prized rose bushes, peach tree, hedge or pine tree to attract wildlife to your yard – you can use what you have already as a piece of the habitat puzzle.

We now know that a yard needs five layers of vegetation (Figure 1) to provide the best habitat for native wildlife. So have a look at what you have already and ask a few simple questions.

- What is already attracting or is used by native wildlife, and what doesn't? Are there nests in your plants or do birds use them as stepping stones? What plants would you like to keep and what can be removed?
- What type of soils do you have? What is growing in what soil? If your soil is sandy it will easily fall apart in your hands, if it's clay-like it will be sticky and hold together. The best is a mix a sandy loam that has good organic content without too much sand or clay. Talk to your local nursery about how to improve the condition of your soil if you need to.
- What grows well in your neighbourhood? Are you happy with what is attracted to your neighbour's yard?
- Can you add to the habitat by planting a few more shrubs or adding to habitat by placing logs or installing nest boxes?

Next, follow the same steps as if you were starting from scratch. Use a pencil and piece of papergraph paper may be of use, and start drawing your yard design. Use simple figures such as circles or squiggles to indicate trees, shrubs or whatever you like!

Don't forget to include the 5 layers of vegetation (see Figure 1), and indicate where you may want to place rocks, logs, ponds or bird baths.

Don't forget to think about how large plants will grow and how much area you want in your yard for personal use (lawns, vegetable gardens).

Don't forget to be patient, learn from your mistakes and take time to enjoy your backyard!

Figure 2. Example of a modern landscaped yard compared to one designed with wildlife in mind. Adapted from Dengate (1997).



3 WHAT TO INCLUDE IN YOUR BACKYARD FOR WILDLIFE

3.1 NATURAL HABITATS

A brief walk out in a natural area such as the Boundary Road Reserve or Wambool Nature Reserve at Walang, will provide you with great examples of the types of habitats that our native wildlife prefer. Fallen logs, rocks, thick clumps of grasses and shrubs, open grassy areas, hollow trees and branches, ponds and streams all provide a myriad of opportunities for animals to find shelter and food. So how can this be replicated in an urban backyard?

Have a look at your garden design. If you are starting from scratch, you may be able to plan ahead and use the opportunity to get larger stones or logs into place before your house is built. If your garden is already established, look to place logs or rocks in a range of spots. Some animals like marsupial mice may prefer their home to be hidden away underneath a thick bush whilst others like Blue Tongue Lizards may want to be able to sun themselves at their front door

Table 1 and the following information provides some guidance on where and how to best to use natural and artificial habitats in your yard.

Table 1.

The different types of habitats that will help to attract wildlife to your property

Natural Habitat Type	What it attracts
Logs, both flat	Lizards, frogs, spi
and hollow, placed	insects, grubs,
on the ground	small mammals

ards, frogs, spiders, Directly on the ground, some under bushes, sects, grubs, small mammals others out in the open

Where to place them



Example

Rocks and boulders. either flat on the around, used as borders, or in piles

insects, grubs,

Lizards, frogs, spiders, Directly on the ground, some under bushes. small mammals others out in the open



Dams and large ponds

Frogs, turtles, aquatic Away from houses lizards, ducks and as they attract snakes water fowl, snakes





3.2 ARTIFICIAL HABITATS

Frog Ponds

Recreating water habitats in your backyard is a great way to help our native frog species. To encourage frogs, create a pond with both shallow and deep areas, fringe with native rushes or reeds and provide debris such as rocks and logs.

Birds, lizards and small mammals may also be attracted so ensure that there are rocks placed in the pond so that any unlucky animal that falls in can still climb out. Unfortunately, frogs and fish usually do not mix so if you would like to have fish, you will have to keep them in a separate pond.

There are many commercially available frog ponds and great designs available on the internet. Just remember to make sure it holds water and to avoid the use of chemicals and harsh sealants.

SAFETY TIP: Ensure that your pond is safe from children and pets. Install a fence around it or place sturdy mesh over the top of it to prevent children and pets from falling in.

Nest Boxes

If you don't have natural hollows suitable for wildlife in your area, installing one or two nest boxes can give them a great start. Like us, many animal species are fussy when it comes to choosing a place to keep their family safe and warm. Therefore, it is recommended to do some research and find out the dimensions that your possum, parrot, kookaburra bat, owl or other species prefers. You will also need to know how high the nest box needs to be installed.

There are some great designs available on the web and you can also order boxes for the animals that you would like to attract. The 'Nest Box Book' has also been used for many years in Australia for those wanting to build a box to suit a certain species. For more information and links to websites, see Chapter 8: References, Useful Information and Further Reading.

NOTE: Nest boxes also attract pest species such as Starlings and Mynas. If you see these species moving in, remove their nest immediately. You can also install a 'baffle' that prevents them from accessing the box. If bees move in, it is best to consult a local apiarist on ways to remove them.

Roost Poles

For those in rural areas that have paddocks or cropping areas lacking tall vegetation, installing a roost pole can attract small falcons and owls to open areas and help reduce pests such as rats. Roost poles provide a place for birds of prey to sit and look for food. Eventually as vegetation matures, birds will be able to use the trees.

Feeding Native Wildlife

It is generally recommended that you do not provide artificial food for wildlife in your backyard. Why? If we create ideal backyard habitats, our urban wildlife will not need to look for handouts.

Here are some good reasons why we should not feed wildlife:

- Young animals do not learn to find food for themselves and may die if the food is unavailable.
- Aggressive animals such as Currawongs and Brush-tailed Possums may be attracted and frighten away other animals.
- Food can also encourage rats and mice to visit your house.
- Food we provide, including bird seed, is usually high in fat or protein and may result in unhealthy wildlife in your backyard.

TIP: You can attract birds and insects to your garden by providing a bird bath.

4 OTHER THINGS TO CONSIDER

4.1 FAUNA FRIENDLY FENCES

In addition to roads and towns, fences form one of the major barriers for wildlife movements across the landscape. Fences are usually designed to keep animals in or out, and therefore can be very effective in preventing wildlife from accessing food, shelter or mates. Fences can also result in entanglement, either by animals such as birds or bats being caught on barbed wires, or kangaroos and wallabies hooking their legs in the wires. Many cases result in a slow death of the animal involved.

A fence designed so that it is easier for wildlife to pass through or over, is called a faunaor wildlife-friendly fence. It is an idea that is starting to take hold in Australia as more and as more rural residential and lifestyle properties are established in bush areas and many new houses are required to use fauna friendly fence designs.

The design of the fence considers the type of animals that live in the area. For instance, if there are many wallabies on the property, a barbed wire fence may be removed and replaced with a section of post and rail fence that they can easily see and move through or under. The same can be done for less mobile animals such as wombats or echidnas through the removal of netting fences.

For animals such as possums and koalas that may occasionally find themself in a yard surrounded by a paling or sheet metal fence, a few simple installations can help them move in and out with ease. Koalas will climb a wooden post near a fence as long as they can climb down the other side in a similar manner - they very rarely jump from a fence. Possums can make use of similar poles or by planting trees nearby.

When using wire fences for livestock, provide at least a 30cm gap between the two top wires, and at least 15cm between the bottom wire and the ground. For wooden fences, this bottom rail can be increased to around 50cm. This reduces the likelihood of animals getting tangled or caught under the fence.

FAUNA FRIENDLY TIP: An excellent resource for fauna friendly fences is also available by entering the web link below into your internet browser.

http://www.ruralresidentialliving.com.au/fencing/resource_downloads/Fauna_ Friendly_Fencing.pdf

4.2 PETS AND WILDLIFE

As much as we love the companionship that our cats and dogs provide, they tend not to mix well with native wildlife. Even well fed and trained pets are known to kill birds, lizards and possums. The most important thing is to provide separation from pets and wildlife. This may be in the form of a lead, yard fencing or increased training and exercise to reduce the likelihood of your pet killing your new wild visitors.

Here are some more useful tips

- Dogs: Walk or exercise frequently so they do not get bored; control where they can access by using a lead or fence; remove uneaten food.
- Cats: The best option is to keep them indoors or provide outdoor access through cat castles; use bell or mirror collars; do not let them outdoors at night.
- Birds: Clean up uneaten food; protect from aggressive birds and birds of prey by using small sized mesh or shade cloth.

4.3 VEGIE GARDENS, ORGANICS, AND BACKYARD WILDLIFE

Can you identify all the insects that are in your garden or vegie patch? Do you know if they are pests or not? Even if they are classed as pests, are they really doing that much damage?

Insects are a crucial component of the ecosystem, even the micro-system of the urban backyard. Some pests control other pests and many become food for other insects and birds. If you are being swamped by a single pest species, this is usually a sign that the system is out of balance. Using organic methods may sometimes take a little while longer, but ultimately this will result in cleaner food and a healthier backyard environment.



There is too much information regarding organic gardening, to be able to cover it adequately in this booklet, but check the reference section at the rear of the booklet for further reading, or refer to well known organic or sustainable gardening websites. Here are some good points to remember in having an organic garden in your backyard for wildlife:

- Encourage birds, frogs, spiders, praying mantises and other predatory species that will help to control some pests.
- Identify and learn about species before implementing any control.
- Use compost and organic fertilisers such as fish or seaweed emulsion to improve the condition of your soil.
- Occasionally let your backyard chickens (if you have some) in to your vegie garden to control pests and dig through the soil.
- Avoid using chemical sprays and try the many natural remedies or traps that can do the same job.

- Use companion plants that improve soil nutrients and reduce pests around your vegetables.
- Rotate crops so that you do not get a build up of certain nutrients or insects in some areas.
- Use tightly strung nets, 'noisy wire' or fake falcons to discourage birds from eating vegetables or fruit crops.

FAUNA FRIENDLY TIP: If using nets to protect fruit trees or vegie crops, make sure they are pulled tight and roped or pegged down. Flying foxes, bats and birds can get tangled in loose nets and be injured or die from stress.

4.4 GROWING YOUR OWN FOOD TOO

Many people grow their own food, either in the form of vegetable gardens or fruit trees. Much of the time, there is no need to worry about creating a backyard for wildlife in the same area as your food garden as the birds, frogs and lizards that you attract will help keep pest insect and grub populations down. However, some species such as possums, flying-foxes, and some birds will take a liking to your apples, pears and tomatoes.

The best option is to use scare devices. A fake owl or falcon hung up and moved frequently to different places can help keep unwanted animals away. If that doesn't work, you may have to resort to wrapping bird netting tightly around trees to enclose your fruit – premade bags that fit over fruit are also available through some nurseries. Possums may also be put off by rubbing some blood and bone around the base of fruit (and rose) trees.

SAFETY TIP: Be very careful when using chemicals in and around your vegetables or fruit as they may be poisonous to native wildlife as well as pets. It is recommended not to use chemicals such as insecticides as poisoned insects may be eaten by native birds. If you have to use poisons, ensure that they cannot be consumed by pets or native wildlife or are safer to use near animals.

5 BACKYARDS IN FOCUS

5.1 URBAN YARDS

Most Bathurst Region residents have a 'standard' house block: one that is around 700 to 1200 square metres in size with fences on three sides. Within this area it is common to have the house, a garage or shed, some paths or paving, a clothes line and garden beds with shrubs or trees.

Though a lot of ground is used by buildings, driveway and paths, most properties have the vast majority of their yard made up with lawn. That provides you with many options to create a backyard for wildlife.

You may not want to fill your yard with trees, shrubs, logs and grasses, however, you can choose one or more places where you can create some habitats and improve the options for our urban wildlife. You may be able to use the boundaries of your yard as in Figure 2 and Figure 3(a) and create habitats along your fence, or you may choose to create little islands that help animals travel across the garden and lawn area as seen in Figure 3(b).

Figure 3. Urban Yards Adapted from Dengate (1997)

(a) A standard backyard with many of the key features of a backyard for wildlife, attracting many different species and allowing wildlife to move across the yard.

(b) The same backyard with habitat islands created to provide space for people as well as microhabitats for wildlife.



With such space, you are able to provide many different habitats and food for many different species. For instance, in one corner or space, you can create a butterfly flower garden and in another, thick shrubs can be planted for wrens and a seed forest for finches and parrots. Don't forget about frogs, lizards and small mammals that need the lower level of habitat such as thick groundcovers, logs, rocks and water.

Many residents with a standard house block also have pets such as cats and dogs. It is important to provide space for our pets in a way that will reduce the impact on our wildlife. For cats, the best method is to keep them indoors or to provide an outdoor cat 'palace'. Dogs are best kept away from areas where birds and lizards are known to frequent via a lead or fence. Remember to provide your pet with lots of stimulation and exercise which helps to reduce the likelihood that they will prey upon native wildlife.

FRONT YARDS

For residents who have only a small front yard, don't despair as you can still provide important habitat in this area too!

Front yards are often forgotten when we plan for urban wildlife habitat. In some ways they can be more important as it may be the first stop for birds and reptiles that have made the perilous dash across the road or other wide open space. With this in mind, there are a few things that can be done. Have a look at the animals that frequently use your or a neighbour's front garden. Are they large or small birds? Do lizards such as blue-tongues visit? Knowing this, you can start to think about how to create your front yard for wildlife.

Trees and shrubs that grow to 3 or more metres will help birds to cross the road without dropping down into the path of passing traffic. Planting trees with a few shrubs beneath will also provide safe places for smaller birds such as wrens, Silvereyes and thornbills. If lizards and frogs are common visitors to the area, provide some safe places for rest or even a home through the use of a frog pond and logs and leaf litter. See Figure 4(a) for ideas.

If all you want to do is to provide a stepping stone between other areas of habitat, then a few native trees may be all that is needed in your front yard such as Figure 4(b).

Figure 4. Front Yards

(a) Front yards can provide a place for wildlife to rest as they move through the environment.

(b) Providing a handful of trees to help birds move through the urban area.





Figure: BRC

SAFETY TIP: Look up and check for powerlines before planting tall trees in your yard as they can become a safety issue in the future.

PATIOS, COURTYARDS AND BALCONIES

Those who only have small spaces can still create habitats with some careful thinking. Courtyards and patio areas (Figure 5(a)) will continue to be used by people for relaxing, BBQ's and entertaining. Therefore, the areas along the edges and along walls are the best places to use.

Consider growing climbing plants that will produce flowers at different times of the year, or provide seed or fruit to passing birds. Pergolas can also provide a growing platform but remember, a plant that provides shade in summer may not be ideal for you in winter. In that respect, some ornamental deciduous plants that lose their leaves in winter can provide some habitat and shade throughout summer.

Small areas may also be useful spaces for small frog ponds as well but ensure they do not become a hazard for children. Frog ponds are commercially available from nurseries and when used in conjunction with native rushes and reeds, can provide a nice talking point in your small area, as well as providing additional habitat for native frogs.

Balconies (Figure 5(b)) can also help to provide habitat for birds and insects through careful selection of the right type of plants that can attract seed and nectar loving species. In smaller areas, it may take a little while for urban wildlife to happily use habitats so close to humans, so be patient and give them time to learn to trust you.

Figure 5 Patios, courtyards and balconies

(a) Courtyard and patio using a range of habitats to provide attractants for wildlife. (b) A balcony with pot plants to attract birds and insects.



WZZ

Figure: BRC

5.2 THE RURAL YARD

Over 15% of Bathurst Region residents who responded to the Backyards for Wildlife Survey have a rural block. This may include small acreages on the edge of the city or larger holdings such as farms or lifestyle properties.

With rural yards, there is often existing vegetation or habitat that you can utilise to increase the wildlife potential of your property. For instance, does your property have any large trees, windbreaks or standing dead timber? Is there any natural regeneration of native plants or is there thick vegetation and leaf litter? Is there any vegetation that can be or is used as stepping stones, and are there any watercourses or dams? Looking at these aspects will help you decide how you can enhance the habitat on your property.

You may be able to dedicate many parts of your property area for wildlife, whilst still maintaining paths and trails and paddocks for livestock, horse riding and other activities. In this instance you can use the different environments on your land to attract the wildlife that needs them:



- Rivers, creeks, dams and ponds will attract a range of wildlife including birds, frogs, mammals, reptiles and fish. Often these areas will thrive by reducing access from stock (use alternative watering points such as troughs) and controlling weed species. Leave fallen timber in place, and allow native reeds and rushes to grow as these will not only create habitat but also help to filter the water and reduce soil erosion.
- 2. Woodlands and forests have been cleared from much of the Bathurst Region landscape. They are very important for species such as possums, gliders, owls, eagles, quolls, wombats, echidnas and many more. Maintain these areas by controlling weeds, leaving dead timber standing or on the ground and keep grazing pressure low and watch for livestock that may ringbark or damage vegetation.
- 3. Grassy woodlands and open paddocks make up much of the Bathurst Region and are very important. Get to know your native grass species and protect lone trees or small stands of trees as they provide stepping stones across the landscape. Retain rocks and logs where possible for small mammal, frog and lizard habitat. Try to keep grazing pressure low or use rotational grazing methods to allow native grasses to set seed.
- 4. House yards and infrastructure provide habitat for magpies, swallows, wrens, frogs and reptiles. Help such species by controlling cats and dogs and be careful when using poisons to control vermin.

Follow these helpful hints to create space for wildlife on your property:

- Plant species that are already found on your property or in your area as they will be best adapted to the conditions and are more likely to attract local wildlife. If planting a windbreak or shelterbelt, use a wide range of species that grow to different heights and shapes to maximise habitat potential.
- Avoid using barbed wire where possible as it can catch birds, bats, possums and gliders and increases the likelihood of catching kangaroos in fences. Use plain wire and employ fauna friendly fences where possible. See Chapter 4 for more information.
- Avoid using chemicals where possible. Remove weeds by hand if you can and use traps to control rats and mice. If you have to use chemicals, ensure they are 'pet or frog friendly', will not result in secondary poisoning (does not poison an animal that eats what was poisoned), do not use around waterways and always follow the manufacturer's directions.
- Leave dead wood on the ground and do not cut down trees that have hollows. Investigate the use of other fuels instead of wood, or create a woodlot on your property.
- Get involved in Landcare, Land for Wildlife or contact other organisations such as the Catchment Management Authority. There is a variety of support available ranging from field days to incentive funding for landholders wanting to undertake good management activities.
- Use rainwater before installing new dams or bores to avoid reducing flows into creeks and rivers.
- Desex your cat or dog. Farm pets often breed with feral animals adding to the problem of pest predators in the bush.
- Talk to the Livestock Health and Pest Authority and your neighbours about working together to control pest plants and animals

Worried about snakes? Being in the rural landscape, you are more likely to have snakes visit your property, even before you create extra habitat. If you are concerned about snakes being around your family, there are a few ways you can reduce the likelihood of them coming close to your house area:

- Keep frog ponds and thick low vegetation well away from house, sheds, stables and garages.
- Keep an open, well mown area between paths and garden beds so that if snakes are around, you are more likely to see them.
- Ensure that pet and stock feed is kept in vermin proof containers and clean up left-over feed. Mice are attracted to such areas, and mice can attract snakes.



SAFETY TIP: Look up and check for powerlines before planting tall trees on your property as they can become a safety issue in the future.

If you would like to create habitat for wildlife without increasing the risk of a bushfire, keep a clear area around your home and other buildings. Plant in patches some distance apart, reducing the risk of fire being spread. Talk to your local Rural Fire Service if you would like to know more.

Below (Figure 6) is an example of how a common rural property can be improved through better management of natural areas, and protecting remnant vegetation and waterways.

NOTE: You may need to get approval or a permit to clear vegetation as part of bushfire control. Call you the Rural Fire Service or Bathurst Regional Council for more information.



Figure 6. Representation of a rural property incorporating good habitat and waterway protection measures, whilst maintaining agricultural values. Adapted from Hilliker, in Lindenmayer et al 2003



The key actions are:

- Exclude stock from remnant vegetation and waterways. Light grazing 1-2 times per year may be sufficient to reduce fire risks. Allow native grasses to set seed.
- Retain trees as stepping stones and linkages in the landscape. These provide habitat for owls and other birds of prey which help control mice, rats, rabbits and some pest birds such as starlings and pigeons. They are also important for providing shade for livestock and stepping stones for birds and koalas.
- Provide strips of vegetation around cropped areas to allow animals to migrate. This also reduces soil loss through water and wind erosion.
- Retain native vegetation in the roadside reserve as they are important linkages.
- Provide permanent refuges for wildlife by fencing areas and leaving 'natural', i.e. leaving fallen timber, bushrocks and vegetation in place.
- Ensure trees in paddocks that die are replaced as they will continue to provide habitat, protect the soil and provide shade for livestock for hundreds of years.

If you do not have such a large property, you can use a mix of the information above (providing connections across the landscape, protecting important patches and waterways) with those detailed in Chapter 5: Urban backyards (provide a mix of vegetation, allow for a range of species, practise responsible pet ownership) and you will guickly see the rewards as your property becomes home to native wildlife.

6 AN INTRODUCTION TO WILDLIFE OF THE BATHURST REGION

Though the environment has changed greatly since Europeans first settled in the Bathurst Region, we as residents are lucky to have many different species of animals that still live in the area.

The following are a few of the more common species with information on how you can attract them to your backyard for wildlife.

6.1 MAMMALS

6.1.1 Possums & Gliders

There are two species of possum found in the Bathurst Region: the Brush-tailed Possum and the Ringtail Possum. Their close relative, the Sugar Glider is also a resident of the region.

Brush-tailed Possums grow to around 3kg, identifiable by their soft grey coat, black bushy tail and are probably the most common marsupial found in urban environments.



Brush-tailed Possum

Ringtail Possum

They are extremely adaptable and feed on a variety of foods including leaves, buds, flowers and fruits. In the wild they need hollow trees for nesting but are often found in the roofs of houses and sheds. In the urban environment, they are also known to raid pet food, compost and rubbish bins.

Ringtail Possums are much smaller and shyer than their larger cousins. They have a white chest and a thin prehensile tail which has a white tip and can be used to hold onto branches. They rarely venture onto the ground and are usually only spotted when branches move in trees.

Sugar Gliders are only around 15cm long, are grey in colour with a black stripe that extends along their back. They nest in hollows, usually in family groups and feed upon acacia gum, insects, lerps, nectar and fruits. They glide from tree to tree using a flap of skin that extends between the fore and hind legs.

As possums come to the ground in search of food, mates or new territory, they often fall victim to domestic cats and dogs so it is a good idea control your pets if you want to attract possums to your yard.

FAST FACTS:

- Where do we live? Hollow branches or trunks for Brush-tailed Possums and Gliders and thick trees for Ring-tail Possums.
- What do we eat? Fruit, flowers, lerps, sap, and insects.
- What don't we like? Cats and dogs keep them inside or secured at night!
- Extra ways to attract us? Install a suitably sized nest box in a tall tree.

6.1.2 Kangaroos & Wallabies

Not an animal that you may see often in the Bathurst city (though the odd one may accidentally venture into the city limits), various kangaroo species are still commonly seen on the outskirts of Bathurst or near properties that border woodland and open farmland. Four species of kangaroo (also known as macropods) may be seen near Bathurst Region yards.



Eastern Grey Kangaroo Joey Swamp Wallabies

Eastern Grey Kangaroos are the most commonly seen, and inhabit much of south-eastern Australia. Growing up to 1.6m tall and 40kg, these kangaroos range over wide areas but need wooded areas for shelter and large grassy areas for feeding.

Wallaroos are a sturdy, robust macropod often found in hilly, timbered country of the Bathurst Region. Males are large and dark, whilst females are a silvery grey in colour. Wallaroos are rarely seen close to urban areas, and due to being solitary, are not sighted as frequently as the kangaroos.

Red-necked Wallabies are the smallest of the macropods in the Bathurst Region. Usually found in areas of forest and woodland, they are solitary and only venture onto grassland under the cover of darkness. They are distinguished from other wallabies by the red tinge on the back of their necks.

Swamp Wallabies are found in a variety of habitats ranging from stream banks to woodland to high forests. Dark in colour they often have tan markings on their head. Their long dark tail is held straight out behind them when they hop.

Other kangaroo relatives such as bettongs once lived in the Bathurst Region, but as they rely on thick grass cover for shelter and food much of their habitat disappeared long ago, and when foxes were introduced, these rat-kangaroos had nowhere to hide. It has been many decades since they were last seen in the area.

FAST FACTS:

- Where do we live? Open woodland adjoining open pastures.
- What do we eat? Mostly grasses and herbs but occasionally shrubs and small trees.
- What don't we like? Dogs, loud noises, barbed-wire fences and cars.
- Extra ways to attract us? Keep an area set aside on your large block where dogs are not allowed and where you can watch from a distance.

6.1.3 Wombats & Echidnas

The Common Wombat is still found in higher rainfall areas in the Bathurst Region. If you live near forested country, you may be lucky enough to have a wombat visit your backyard. Wombats live in large burrows dug into soft ground. Eating roots, tubers and grasses, wombats are also known to treat themselves to vegie gardens and farmer's crops. Wombats are still relatively common, though due to their high mobility, often fall victim to vehicles.



Common Wombat

Echidna

Echidnas are an unusual mammal species known as Monotremes and are unique in the fact that they lay eggs, a trait they share with the Platypus. Echidnas are still quite common in open woodland and forest and are occasionally found on the edge of the city, with their tell-tale diggings into ant nests or termite mounds often the only evidence of their visit.

FAST FACTS:

- Where do we live? In and around woodland and forest.
- What do we eat? Wombats graze on grasses and sedges whilst echidnas feed on ants and termites.
- What don't we like? Dogs, cars, bush fires and netting fences.
- Extra ways to attract us? Keep an area of your property 'natural' with undergrowth, fallen logs and plenty of habitat.

6.1.4 Koalas

The Koala is one of the iconic species that inhabits the Bathurst Region, feeding upon a variety of eucalypt tree leaves. Though larger populations may be found in intact woodlands and forests, smaller patches or even single isolated trees are important in helping young koalas move across the landscape.

Koalas are greatly impacted by the loss of habitat through development or tree clearing and are predicted to be impacted by climate change. Providing linkages with local eucalypt species across the landscape is therefore very important.



As there are many houses built in areas that are home to Koalas, it is important for people who live near bush areas to keep dogs fenced or on a lead, especially at night time as they often kill or harass Koalas moving through the area.

FAST FACTS:

- Where do we live? In tall trees in woodland and forest.
- What do we eat? Eucalypts, especially White Box and Ribbon Gum.
- What don't we like? Dogs, pools and fast moving cars.
- Extra ways to help us? If you have a pool, place a length of rope in it so they can climb out; slow down when you see koala signs and plant tree species they like!

Bats & Flying Foxes

There are a variety of small and large bat species found in the Bathurst Region. This includes the microbats such as the Chocolate and Gould's Wattle Bats, Eastern and White-striped Freetail Bats and Large and Little Forest Bats. These bats feed predominantly whilst flying, preying upon insects they seek out with their echolocation (like sonar). Though their voice is at a level inaudible to humans, the White-striped Freetail Bat's 'ting ting' echolocation can be heard as it searches for insects, often around street lights.



Grey-headed Flying Foxes

Chocolate Wattle

Two main species of flying fox visit the Bathurst Region. The Grey-headed and Little Red Flying Fox are seasonal visitors to the area and may not be seen for several years at a time. They are attracted by the flowering of eucalypts and other trees. Their roosts can range in size from a few individuals up to tens of thousands.

Grey-headed Flying Foxes are a listed threatened species and tend to gather in large congregations. In 2010, one such roost along the Macquarie River grew into tens of thousands in size - their noise could be heard from a great distance and their evening departure to search for food became an interesting event. Little Red Flying Foxes are not listed as threatened and tend to form in smaller groups in the area.

FAST FACTS:

- Where do we live? In woodland, forest and open pasture as well as utilising small dark spaces in buildings.
- What do we eat? Flying foxes feed on nectar and fruits, whilst the micro bats hunt insects on the wing.
- What don't we like? Powerlines, barbed wire fences, loose netting on fruit trees, insecticides.
- Extra ways to attract us? Grow plant species that will provide the right flowers or fruit, or attract nocturnal insects.

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6.1.5 Marsupial meat eaters

The native marsupial meat eaters, or carnivores, are some of the more shy species found in Australia. Most are nocturnal and often no larger than a mouse or rat, though the largest found in the Bathurst Region, the Spotted-tailed Quoll grows bigger than a domestic cat.



Quoll

The Spotted-tailed Quoll, also known as the native cat or tiger quoll, has a reddish coat, body and tail which is covered in white spots. Males grow up to one metre in total length and weigh up to around 6kg.

Spotted-tailed Yellow Footed Antechinus

These large carnivores usually prey upon birds and small mammals but are known to also eat rabbits and possums. The smaller cousin, the fawn coloured Eastern Quoll, has not been seen in the Bathurst Region for several decades and they are now considered extinct in NSW

The smaller carnivores are known as marsupial mice, and include the Dunnarts and Antechinus. Several species are found in the Bathurst Region and are identified by their pointy faces, sharp teeth and relatively short tails (compared to most mice). They usually live in hollow logs or branches, under rocks, in burrows or under leaf litter and feed on insects, spiders, bird's eggs, and small reptiles.

FAST FACTS:

- Where do we live? In thick undergrowth and fallen logs of the woodlands and forests.
- What do we eat? Insects, spiders, frogs, mice, small birds and rabbits.
- What don't we like? Dogs, cats and foxes, poison used for rabbits and foxes.
- Extra ways to attract us? Keep an area of your property 'natural' with undergrowth, fallen logs and plenty of habitat.

6.1.6 Introduced mammals

There are many introduced species of mammal in Australia, most of which are of agricultural origin such as sheep, goats and pigs. Species most relevant to Bathurst Region yards include the feral animals such as foxes, feral cats, rabbits, rats and mice. Foxes and feral or stray cats can have a huge impact on the wildlife in the Bathurst Region. Both are very smart predators and are known to take a range of birds, mammals, reptiles and frogs. It is important when planning your backyard for wildlife to ensure that you provide shelter from foxes and cats.



European Fox

European Rabbit

Rabbits, rats and mice have adapted well to Australian conditions and are often seen near or in Bathurst Region yards. Rabbits are attracted to areas of green grass near thick cover, but can live in a variety of habitats. If you have a cat or dog in your yard, it is unlikely rabbits will come into the area. Rats and mice are attracted to areas that provide shelter, nest sites and food. Therefore, if you have a shed that has boxes, old clothes, rags, or hay, food sources from caged bird and chicken feed, as well as dog or cat food, your yard is an ideal environment for rats and mice.

Pigs and goats can also be an issue in some parts of the Bathurst Region. Talk to your local Livestock Health and Pest Authority to find out how you can help manage these pests on your property.

FAST FACTS:

- Where do we live? Most places where humans live.
- What do we eat? Foxes and cats eat a huge range of insects, fruit and animals. Rabbits eat grass, bark on plants and roots. Rats and mice feed on a range of grains, vegetation and seed as well as unprotected pet food.
- What don't we like? Healthy environments that have many native species to compete with.
- Extra ways to keep us away? Report and control pest animals with the help of neighbouring landholders and the Livestock Health and Pest Authority.

6.2 Birds

We are lucky in the Bathurst Region to have a range of bird life including several threatened species such as the Regent Honeyeater, Brown Treecreeper and Gang Gang Cockatoo. Some bird species are seasonal visitors, arriving when their mountain homes are too cold or when native plants start to flower or set seed. Many bird species are adaptable and those listed below are commonly found in and around the city as well as in the rural landscape. Though generally favouring native vegetation, they often make use of artificial habitats such as buildings.

A list of the common birds of the Bathurst Region is found in Table 2 which also details their favoured food type and whether they use hollows or nest boxes.

6.2.1 Honeyeaters







Red Wattle Bird

Friar Bird

White-plumed Honeyeater

Honeyeater

Yellow-faced

FAST FACTS:

- Where do we live? From tall trees to small shrubs, though prefer thick vegetation for nesting.
- What do we eat? Nectar producing flowers from a wide range of native species.
- What don't we like? Flowers that are showy but don't produce a lot of nectar; cats and loss of native plants.
- Extra ways to attract us? Plant a range of local flora species that will provide nectar all year round and have a variety of colours (avoid using just red as this can attract more aggressive species).

6.2.2 Parrots









Eastern Rosella

Cockatoo

Red-rumped Parrot

FAST FACTS:

- Where do we live? In tall trees near grasslands or woodlands, and those that have suitable hollows for nesting (older than 100 years).
- What do we eat? Mostly seeds, but will also eat some flowers, fruit and grubs when available.
- What don't we like? When nesting hollows are cut down and used for firewood; cats and dogs; loss of native trees such as eucalypt and she-oak.
- Extra ways to attract us? Grow plants that produce seeds, install nest boxes.

6.2.3 Seed eaters









Crested Pigeon

Zebra Finch Red-browed Finch

Diamond Firetail

FAST FACTS:

- Where do we live? Grasslands, grassy woodlands and vegetation bordering open paddocks or fields. Pigeons are often found in urban environments near sporting fields. Finches tend to prefer less disturbed areas of grass with dense vegetation nearby for roosting and nesting.
- What do we eat? Predominantly grass seeds that are available throughout the year.
- What don't we like? Areas that are frequently mown so they cannot set seed; cats and doas.
- Extra ways to attract us? Plant clumps of different species of native grass and let them set seed each year before pruning or cutting. Grow thick shrubs for nesting finches.

6.2.4 Insect eaters









Willie Wagtail

Superb Blue Wren

Welcome Swallow

Australian Magpie

FAST FACTS:

- Where do we live? In many environments from grasslands to woodlands, though like some variation in habitat.
- What do we eat? Insects and other invertebrates the bigger the insect the bigger the bird.
- What don't we like? Lack of different habitat types which insects and grubs need; chemical insecticides; cats and dogs and loss of nesting sites.
- Extra ways to attract us? Grow plants that attract a variety of insects and avoid using chemical pesticides which can kill our food and poison us!

6.2.5 Birds of Prey









Brown Falcon

Nankeen Kestrel

Boobook Owl

Tawny Frogmouth

FAST FACTS:

- Where do we live? In woodland or vegetation near open grasslands and paddocks.
- What do we eat? A huge variety of prey including insects, lizards, mice and rats, frogs, rabbits and other birds.
- What don't we like? Loss of habitat; poisons used to kill mice and rabbits; cars and people who shoot at us.
- Extra ways to attract us? Avoid using poisons to control pests, provide nesting hollows or perch poles where habitat does not exist.

6.2.6 Introduced birds







Sparrow

Common Starling Indian Myna

European Blackbird

Feral Pigeon

FAST FACTS:

- Where do we live? In and around buildings and most places modified by people. Many species will nest in ceilings or sheds as well as nest boxes that have been designed for native animals.
- What do we eat? Starlings, Mynas and Blackbirds eat a variety of foods but are fond of insects and grubs, though will also eat bird, cat and dog food if available. Sparrows and pigeons are seed and grass eaters and will also eat other bird food and scraps.
- What don't we like? People who remove our nests, native plant species.
- Extra ways to keep us away? Make sure that artificial food such as bird and pet food is not left out for feral birds to access. Install gutter guards to prevent them nesting in roof spaces and install 'myna blocks' on nest boxes which minimises their use. In areas of high feral bird populations, it may be useful to talk to your local pest controller about ways of removing them.



Table 2. Common birds of the Bathurst Region

H= Will use hollows and nest boxes for nesting. Source: 2011 Bathurst Region Backyard Wildlife Survey. Feeding information source: http://birdsinbackyards.net/

Common Name	Feeds On
Australian Magpie	Insects, larvae, worms and spiders
Crow (Australian Raven)	Insects, larvae and spiders, small reptiles, birds and mammals, carrion
Pied Currawong	Insects, larvae and spiders, small reptiles, birds and mammals, berries
White-winged Chough	Insects and seeds
Spurwing Plover (Masked Lapwing)	Insects and spiders, snails and slugs
Peewee (Magpie Lark)	Insects, larvae, worms
Crested Pigeon (Top-notch)	Seeds. Occasionally leaves and insects
Red Wattle Bird	Nectar. Occasionally insects
Noisy Friar Bird	Nectar, fruit, insects and spiders Occasionally small birds or mammals
Grey Butcherbird	Small birds, lizards and mammals, insects and some fruit and seeds
White-plumed Honeyeater	Nectar, insects, lerps, fruit and some seeds
Yellow-faced Honeyeater	Nectar, pollen, insects, fruit and seeds
Noisy Miner	Nectar, fruit and insects
Crimson Rosella ^H	Native seeds. Some insects and flowers
Eastern Rosella ^H	Seeds, insects, flowers and nectar
King Parrot ^H	Seeds and fruit
Red-rumped Parrot (Grass Parrot) ^H	Seeds and leaves of grasses Also seeds, fruit and flowers of trees
Galah ^H	Seeds of grasses (and crops)
Gang Gang Cockatoo ^H	Seeds. Also fruit, nuts, insects and larvae
Sulphur Crested Cockatoo (White Cockatoo) ^H	Seeds, berries, nuts and roots
Yellow-tailed Black Cockatoo ^H	Seeds and pinecones. Occasionally feeds on insects and seeds on the ground
Cuckoo	Caterpillars and other insects and larvae
Black-faced Cuckoo-shrike	Insects. Some fruit and seeds
Boobook Owl ^H	Insects and small mammals
Tawny Frogmouth	Nocturnal insects and small mammals Also grubs, reptiles and small birds
Kookaburra ^H	Insects and grubs. Also small mammals, birds, frogs and reptiles including snakes
Brown Treecreeper ^H	Insects (mostly ants) and larvae

White-throated Treecreeper ^H	Insects (mostly ants) and larvae and nectar
Blue Wren (Superb Fairy Wren)	Insects and other small invertebrates
Jacky Winter	Flying insects
Willie Wagtail	Insects
Grey Fantail	Flying insects
Striated Pardalote ^H	Insects and Iarvae
Yellow-rumped Thornbill	Insects on the ground. Occasionally seeds
Rufous Whistler	Insects in trees. Occasionally fruit, seeds and leaves
Dusky Woodswallow ^H	Flying insects. Fruit and nectar
Red-browed Finch	Seeds and insects on the ground and on grasses
Diamond Firetail	Seeds on the ground. Occasionally insects and larvae
Welcome Swallow	Flying insects
Silvereye	Insects, fruit and nectar
Brown Falcon	Small mammals, insects and reptiles
Nankeen (Australian) Kestrel	Small mammals, reptiles, small birds and insects
Pacific Black Duck ^H	Aquatic plants and some crustaceans, molluscs and insects
Wood Duck ^H	Grasses, clover and herbs. Occasionally insects
White Ibis	Insects, crayfish and mussels. Occasionally rubbish



6.3 REPTILES AND AMPHIBIANS

While many people feel squeamish when they see or touch frogs, snakes or lizards, they are also an essential part of the environment eating an enormous number of pest species that would otherwise get out of control. Therefore it is wise to allow space for such species in your backyard.

6.3.1 Lizards









Garden Skink

Blue Tongue

Photo: A&J Little

Skink Photo: S Wakefield

Bearded

Dragon

Skink Photo: A&J Little



Golden Water

Eastern Water Dragon

FAST FACTS:

Jacky Lizard

- Where do we live? Under logs, rocks and leaf litter as well as in thick vegetation and under piles of timber or other building material.
- What do we eat? Snails and slugs, worms, ants, crickets and other insects, grubs.
- What don't we like? Cats and dogs, removal of habitat, snail baits.

Skink

• Extra ways to attract us? Maintain layers of leaf litter to attract insects and other food sources and place small logs and rocks in your garden to increase the habitat and protection (from pets and children) available.

6.3.2 Snakes





Photo: I Moodie Photo: DJM Australia Photograph





Brown Snake

Tiger Snake

Copperhead

Red-bellied Black Snake

FAST FACTS:

- Where do we live? Rivers and creeks, dams and wetlands, native bushland. Snakes may also hibernate under piles of timber or sheet iron during winter. Very few snakes in the Bathurst Region are found in urban or suburban areas.
- What do we eat? Birds, rats, mice, lizards and frogs.
- What don't we like? Human activity, cars, habitat loss, dogs, falcons and eagles.
- Extra ways to attract us? Probably best not to try and attract snakes to your yard!

6.3.3 Turtles





Long-necked Turtle

Murray Turtle

FAST FACTS:

- Where do we live? Rivers, creeks, dams and wetlands.
- What do we eat? Tadpoles, fish, algae and aquatic vegetation.
- What don't we like? Roads and cars, fences, poisons that kill our food, dogs and removal of vegetation and debris from waterways.
- Extra ways to attract us? Place logs and rocks in and around dams or wetlands.

6.3.4 Frogs





Banjo Frog (Pobblebonk)



Striped Marsh Frog

Spotted Marsh Frog

Eastern Froglet

Peron's Tree Frog







Bibron's Toadlet

Beeping Froglet

Southern Bell Frog

FAST FACTS:

- Where do we live? In a range of habitats from ponds, creeks, dams and wetlands. Also found in and around garden vegetation and under logs and rocks during drier times. Some frogs also burrow into the ground to hibernate.
- What do we eat? Insects, grubs, larvae, worms, slugs, woodlice, other frogs and tadpoles and sometimes even skinks and small snakes!
- What don't we like? Chemicals, surfactants (from detergents and farm chemicals), dogs and cats, cars, loss of habitat.
- Extra ways to attract us? Install a frog pond, place leaf litter, ground covers, logs and rocks in your garden and protect their habitat from pets and children.

6.4 INSECTS AND SPIDERS

People often try and eradicate all the insects from their backyard through outdoor sprays, bug zappers and traps. However, these methods of control kill both bad and good insects. Most species of insects and spider are actually beneficial or do not harm us, our pets or plants and provide food for a range of wildlife that visit our backyards. Many are important as they help to control pests, help to pollinate flowers or are just nice to look at. If you do need to control pest insects, read Chapter 4: Organic gardening for more information.

6.4.1 Important Insects



Damsel Fly

Orchard Swallowtail Butterfly

Praying Mantis

Blue-banded Bee

FAST FACTS:

- Where do we live? Everywhere, but insects such as flies, butterflies, moths and bees are attracted to flowering or edible plants; wasps and praying mantises feed on spiders and insects so are found in many places; and, dragonflies, damsel flies and many other insects are attracted to water.
- What do we eat? Everything from nectar to vegetation and other insects. Some adult insects do not eat but only live to find a mate.
- What don't we like? Insecticides, lack of variety in plants.
- Extra ways to attract us? Plant a range of native plants that will provide flowers of different colours throughout the year. Provide different heights of closed vegetation as well as open areas.

6.4.2 Important Spiders







Huntsman

Wolf Spider Golden Orb

Spider

Garden Orb Spider

Spiders are an important part of the backyard ecosystem. Most species, such as those shown above, are not considered dangerous and rarely bite, so it is recommended that you leave them alone to feed on the insects in your backyard.

FAST FACTS:

- Where do we live? In a variety of places from leaf litter, under bark, under eaves and indoors as well as in webs between vegetation.
- What do we eat? Mostly insects including flies, mosquitoes, moths and other spiders but also occasionally spiders will eat grubs, ants and even small lizards and frogs.
- What don't we like? Insecticides such as fly spray and garden chemicals.
- Extra ways to attract us? Provide a range of habitats (see Chapter 2 regarding five layers of vegetation) and if you are happy for a few non-dangerous spiders around your garden, then leave their webs in place.



7 LOCAL FLORA FOR FAUNA

Check with your local nursery about the availability of native species. Some species may only be available as seed or through specialist indigenous nurseries. Others may only be available as a cutting or by separating and planting out. The best advice is to ring around to find who can best meet your needs. Do not forget, if you cannot find it locally or get it ordered in, there are several online nurseries that may be able to ship plants to you. Remember that such plants may not be adapted to the Bathurst environment and may need extra care for the first few years.

7.1 PLANTING YOUR FLORA FOR FAUNA

There are some very useful books, magazines, websites and television shows that provide helpful information on how to best plant your new grass, tree or shrub and where to place them. It is best to read the label on the pot, talk to your local stockists and if in doubt, do a little more research to be sure. Taking a few more minutes in preparation will help your new backyard plant thrive for many years to come.

HELPFUL TIPS:

- Check that the plant is suitable for the Bathurst Region climate. Remember that it may experience heavy frosts as well as hot days or dry spells. Some protection from frosts and extra watering when young may be needed. Coastal or tropical species may not fare so well.
- Where will you be able to put the plant and what size plant will fit there? Check the size guide for the plant and also think about shading of other plants, lawn or your house. Also be aware that leaves may fall on roofs blocking gutters or cars and affect paint work. Tall trees may also grow up into power lines.
- Ensure that the hole is prepared adequately. A good guide is to dig a hole twice as wide as and a little deeper than the pot. Break up the sides of the hole to allow growing roots to penetrate.
- Check to see the type of soil you have. There are a range of soils in the Bathurst Region, even in different parts of your yard. Check the pH levels to see if the plant will like your soils. Talk to your nursery about improving the pH and drainage of your soil.
- Give your young plant a good soak. New plants need more attention for the first few weeks so that they do not dry out.
- Protect from frost in the early years. Protect from heavy wind or frost or dry spells, especially young plants. They are usually hardier when they get older, but each species of plant will differ.

The following are lists of local flora species that have been selected due to their suitability for use in a backyard for wildlife. Check to see what they are, how big they may grow, when they flower or set seed, and what species in particular may be attracted.

Table 3 provides information about the habitat qualities of the local tree, shrub, groundcover, grass, wildflower and wetland plant species. Table 4 through to Table 8 list these local plants. Species marked with a tick (\checkmark) can be purchased from local nurseries and markets subject to seasonal availability. Other species may be available from specialist nurseries in the Central West or propagated from seed. For information about non-native plants suitable for the Bathurst Region, refer to the reference section at the rear of the book.

Table 3. Guide to habitat qualities for local flora for fauna.

Habitat Why it is attractive to animals Quality

Produces lots of flowers that will attract Nectar nectar feeding animals



Example

Honey Flowers produce a lot of nectar so can be especially good for native bees and honeyeaters, sugar gliders or flying foxes

Produces edible seeds Seeds



Produces edible fruit Fruit











Sap Produces a sap or gum that will attract some kinds of animals



- Hollows Important for animals that need hollows to nest or roost in. Note that most hollows take over 100 years to form so nest boxes may need to be installed first
- Protective The growth form of this plant will provide strong, spiky or protective habitats and are attractive as nesting sites for a range of animals
- Nest The growth of this plant provides thick areas for small animals to nest in



Key to flora lists (following pages)

Common name = local name for the species

Species name = listed alphabetically, the scientific name for the species

Size = listed in metres for height times the width ($h \times w$), this is the estimate of maximum mature growth though sizes may vary depending upon local conditions

Flowers = colour of flower and range of flowering season expected for local area. Season may vary due to local conditions

Seed (fruit) = it produces seed at a certain time. Those listed in brackets () indicate that the seed is contained in a fruit that may also attract wildlife

Habitat qualities = what animals will be attracted – see Table 2 above for descriptions of the habitat type

Attracts = excellent at attracting a certain type of animal, but will still attract a range of other species. See Chapter 6 for details on wildlife and their preferred food





Table 4 Local tree species with good fauna attributes

	Common Name	Species Name	Size m (h x w)	Environment	Flowers (colour & season)	Seed (fruit)	Habitat Qualities	Attracts
	The Eucaly	pts						
\checkmark	White Box	Eucalyptus albens	15x6	Well drained – dry soils	White Autumn - Winter	Year Round	Nectar, seeds, hollows	Koalas
\checkmark	Blakely's Red Gum	Eucalyptus blakelyi	15x8	Moist, well drained – dry soils. Frost tolerant	Cream Spring - Summer	Late Summer - Autumn	Nectar, seeds, lerps, hollows	Sugar Gliders
\checkmark	Apple Box	Eucalyptus bridgesiana	20x10	Moist, well drained – dry soils. Frost tolerant	White, Mid - Late Summer	Summer	Nectar, seeds, lerps hollows	Sugar Gliders
\checkmark	Mountain Gum	Eucalyptus dalrympleana	30x10	Moist, well drained Frost tolerant	White Summer	Year Round	Nectar, seeds, hollows	
\checkmark	Broad-leaved Peppermint	Eucalyptus dives	10x4	Moist, well drained soils	Cream Winter - Spring	Year Round	Nectar, seeds, hollows	
\checkmark	Red Stringybark	Eucalyptus macrorhyncha	20x10	Moist, well drained – dry soils. Light frost	Cream Spring - Summer	Year Round	Nectar, honey, seeds, hollows	
√	Yellow Box	Eucalyptus melliodora	25x15	Moist, well drained – dry soils. Frost tolerant	Cream Spring - Summer	Year Round Nectar, lerps honey, seeds, hollows		
√	Red Box	Eucalyptus polyanthemos	20x10	Moist, well drained – dry soils. Frost tolerant	Cream Spring	Year Round	Nectar, honey, seeds, hollows	
\checkmark	Ribbon Gum	Eucalyptus viminalis	30x10	Moist, well drained – wet soils. Frost tolerant	Cream Summer – Autumn	Year Round	Nectar, seeds, lerps hollows	Koalas

The Wattles

\checkmark	Silver Wattle	Acacia dealbata	10x5	Moist, well drained – dry soils. Frost tolerant	Yellow Winter - Spring	Late Spring/ Early Summer	Seeds, sap	
~	Hickory Wattle	Acacia implexa	10x5	Moist, well drained – dry soils. Frost tolerant	Cream Autumn - Spring	Summer	Seeds, sap	
√	Black Wattle	Acacia mearnsii	15x8	Moist, well drained – dry soils. Frost tolerant	Pale Yellow Spring	Early Summer	Seeds, sap	Sugar Gliders
√	Blackwood	Acacia melanoxylon	18x8	Moist, well drained soils. Frost tolerant	Pale Yellow Winter- Spring	Summer	Seeds, sap	



Other local tree species

\checkmark	Dwarf She-oak	Allocasuarina diminuta	3x1	Moist, well drained – dry soils. Frost tolerant	Rusty red Autumn – Winter	Year Round	Seeds	Cockatoos
\checkmark	Black She-oak	Allocasuarina littoralis	8x3	Moist, well drained – dry soils. Light frosts	Reddish gold Autumn	Year Round	Seeds	Cockatoos
\checkmark	Drooping She-oak	Allocasuarina verticillata	10x4	Moist, well drained - dry soils. Frost tolerant	Bronze golden Autumn	Year Round	Seeds	Cockatoos
\checkmark	Rough-barked Apple	Angophora floribunda	18x8	Moist, well drained – dry soils. Light frosts	Massed cream Spring	Winter - Spring	Nectar	
\checkmark	Kurrajong	Brachychiton populneus	10x5	Moist, well drained – dry, dry limy soils. Frost tolerant	Cream – pink Spring - Summer	Winter – mid Summer	Nectar Seeds	
\checkmark	Black Cypress Pine	Callitris endlicheri	10x3	Moist, well drained – dry soils. Frost tolerant	-	Summer – mid Winter	Seeds	
\checkmark	White Cypress Pine	Callitris glaucophylla	15x4	Moist, well drained – dry soils. Frost tolerant	-	Summer - Autumn	Seeds	
✓	River She-oak	Casuarina cunninghamiana	20x10	Moist, well drained – wet soils. Frost tolerant	Brownish red Summer	Year Round	Seeds	











Eucalyptus blakelyi buds

Eucalyptus melliodora

Allocasuarina littoralis seed capsule

Brachychiton populneus

Callitris glaucophylla

Table 5 Local shrub species with good fauna attributes

	Common Name	Species Name	Size m (h x w)	Environment	Flowers (colour & season)	Seed (fruit)	Habitat Qualities	Attracts
\checkmark	Box-leaf Wattle	Acacia buxifolia	3x1.5	Moist, well drained – dry soils. Frost tolerant	Bright Yellow Early Spring	Mid Summer	Seeds	
√	Farly Wattle	Acacia genistifolia	3x2	Moist, well drained – dry soils. Frost tolerant	Golden, 2 x Summer - Winter	Late Spring/ Early Summer	Seeds	
	Honeypots	Acrotriche serrulata	0.3x1	Moist, well drained – dry soils. Frost tolerant	Yellow- green Winter- Spring	(Summer – Early Autumn)	Nectar, fruit	Insects
√	Daphne Heath	Brachyloma daphnoides	1x1	Moist, well drained – dry soils. Frost tolerant	Cream Spring	-	Nectar	Butterflies

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√	Blackthorn	Bursaria spinosa	3x2	Moist, well drained – dry – dry limy soils Frost tolerant.	Creamy white . Summer	Late Summer – Early spring	Nectar, protective, seeds	Purple Copper Butterfly
√	Crimson Bottlebrush	Callistemon citrinus	2x2	Moist, well drained – wet soils. Light frosts	Bright red Spring – Summer	Year Round	Nectar	
√	River Bottlebrush	Callistemon sieberi	2x1	Moist, well drained – wet soils. Frost tolerant	Pale Lemon Summer	Year Round	Nectar	
\checkmark	Common Fringe -myrtle	Calytrix tetragona	1x1	Moist, well drained – dry soils. Frost tolerant	White –pink Spring – early Summer	Spring – Early Autumn	Nectar, nest	Butterflies
\checkmark	Sifton Bush arcuata	Cassinia	1.5x1.5	Moist, well drained – dry soils Frost tolerant	White, Summer - Autumn	-	Nest	Small birds
\checkmark	Shiny Cassinia	Cassinia Iongifolia	2x1.5	Moist, well drained – dry soils. Frost tolerant	White, Summer - Autumn	-	Nest	Small birds
\checkmark	Native Currant	Coprosma quadrifida	2x2	Moist, well drained – wet soils. Light frosts	Small Spring	(Late Summer)	Fruit	
\checkmark	Common Correa	Correa reflexa	2x2	Moist, well drained – dry soils. Light frosts	Red & Yellow Autumn -Spring	Summer	Nectar	
\checkmark	Broad -leaved Bitter Pea	Daviesia latifolia	2x1	Moist, well drained – dry soils. Frost tolerant	Red & Yellow Spring – Early Summer	Mid Summer	Nectar, nest	Insects, small birds
	Prickly Parrot Pea	Dillwynia juniperina	1x1	Moist, well drained – dry soils. Light frosts	Red & Yellow Spring	Early - Mid Summer	Nectar, protective	Insects
\checkmark	Showy Parrot Pea	Dillwynia sericea	1x1	Moist, well drained – dry soils. Light frosts	Massed Red & Yellow Spring	Early - Mid Summer	Nectar	Butterflies Insects, Bees
\checkmark	Sticky Hop-bush	Dodonaea viscosa	3x1.5	Moist, well drained – dry soils. Frost tolerant	Small, Winter	Large, Winter - Spring	Seeds	
\checkmark	Seven Dwarfs Grevillea	Grevillea floribunda	1x1	Moist, well drained – dry soils. Light frosts	Golden Winter – Early Summer	Summer - Autumn	Nectar	
\checkmark	Finger Hakea	Hakea dactyloides	3x1	Moist, well drained – dry soils. Light frost	White Spring	Year Round	Nectar, seed, galls	Parrots
	Erect Guinea Flower	Hibbertia riparia	1x1	Moist, well drained – dry soils. Light frosts	Yellow Spring- early Summer	Mid Summer	Nectar	
\checkmark	Tick Indigo	Indigofera adesmiifolia	1.5x1	Moist, well drained – dry soils. Light frosts	Pink - Purple Late Winter - Spring	Early Summer	Nectar	Butterflies Insects
\checkmark	Austral Indigo	Indigofera australis	2x2	Moist, well drained – dry soils. Frost tolerant	Pink - Purple Late Winter - Spring	Early Summer	Nectar	Butterflies Insects
\checkmark	Wooly Teatree	Leptospermum grandifolium	3x2	Moist, well drained – wet soils.	White Summer	Year Round	Nectar, nest, protective	Small birds

Light Frosts

√	Myrtle Teatree	Leptospermum myrtifolium	1.5x1.5	Moist, well drained – wet soils. Frost tolerant	White Late Summer	Year Round	Nectar, nest, protective	Small birds
\checkmark	Lance -leaved Beard Heath	Leucopogon lanceolatus	1x1	Moist, well drained – dry soils. Frost tolerant	White Spring	(Summer)	Nectar, fruit, seed	
	Long-leaf Lomatia	Lomatia myricoides	2.5x1	Moist, well drained soils. Light frosts	Cream Summer	Mid Winter	Nectar, seeds	
	Urn-heath	Melichrus urceolatus	1x0.8	Moist, well drained – dry soils. Frost tolerant	Green-white Autumn - Spring		Nectar	
	Tree Violet	Melicytus dentatus	3x2	Moist, well drained – wet soils. Frost tolerant	Yellow Spring	(Mid Summer)	Nectar, fruit, seed	
	Western Boobialla	Myoporum montanum	2.5x2	Moist, well drained – wet soils. Frost tolerant	White Winter-Spring	(Late Summer)	Nectar, fruit, seed	
	Sticky Daisy-bush	Olearia elliptica	2x2	Moist, well drained – dry soils. Light frosts	White Summer–Autumn	Winter	Nectar	Butterflies Beetles
\checkmark	Twiggy Daisy-bush	Olearia ramulosa	1x1.5	Moist, well drained – dry soils. Light frosts	White-Blue Spring	Mid Summer	Nectar	Butterflies Beetles
\checkmark	Narrow-leaf Geebung	Persoonia linearis	3x2	Moist, well drained – dry soils. Light frosts	Yellow Summer	(Late Summer)	Nectar, fruit, seed	Possums
√	Hairy Geebung	Persoonia rigida	2x1.5	Moist, well drained – dry soils. Light frosts	Yellow Summer	(Late Summer)	Nectar, fruit, seed	Possums
\checkmark	Plum leaf Pomaderris	Pomaderris prunifolia	2x2	Moist, well drained soils. Light frosts	Pale Yellow Spring	Early Summer	Nectar	Insects, beetles
	Bracken Fern	Pteridium esculentum	1x1	Moist, well drained soils. Light frosts	All Year	All Year	Rhizomes Protective	Wombats
~	Heathy Bush Pea	Pultenaea procumbens	1.5x1.5	Moist, well drained – dry soils. Light frosts	Red & Yellow Spring	Early Summer	Nectar	Butterflies Insects
\checkmark	Pink Five-corners	Styphelia triflora	1.5x1	Moist, well drained soils. Light frosts	Pink & Yellow Winter-Spring	Early Summer	Nectar	











Dillwynia sericea

Acacia genistifolia

Bursaria spinosa

Dodonaea viscosa

Indigofera australis



Table 6. Local groundcover species with good fauna attributes

	Common Name	Species Name	Size m (h x w)	Environment	Flowers (colour & season)	Seed (fruit)	Habitat Qualities	Attracts
~	Ploughshare Wattle	Acacia gunnii	0.5x2	Moist, well drained – dry soils. Frost tolerant	Yellow Winter-Spring	Early Summer	Seeds protective	
	Bidgee -widgee*	Acaena novae- zelandia	0.1x1	Moist, well drained. Frost tolerant	Reddish-Bronze Spring	Spring-Early Summer	Seeds	
	Australian Sheeps Burr	Acaena ovina	0.4x1	Moist, well drained. Shady. Frost tolerant	Small White Spring	Spring-Early Summer	Seeds	
1	Common Maidenhair Fern	Asplenium flabellifolium	0.1x0.5	Moist, well drained. Frost tolerant	Brown Spores	-	Protective	
~	Daphne Heath	Brachyloma daphnoides	1x1	Moist, well drained – dry soils. Frost tolerant	Cream Spring	-	Nectar	Butterflies
~	Small-leaf Parrot Pea	Dillwynia phylicoides	0.5x1	Moist, well drained – dry soils. Light frosts	Red & Yellow Spring	Early Summer	Nectar, protective	Insects, Lizards
~	Saltbush	Einadia polygonoides	0.2x1	Moist, well drained – dry soils. Frost tolerant	Small Summer-Autumn	(Autumn)	Fruit, seeds protective	Lizards
~	False Sarsaparilla	Hardenbergia violacea	0.5x2 Also climbs	Moist, well drained – dry soils. Frost tolerant	Deep purple Winter-Spring	Early December	Nectar, seeds protective	
~	Cushion Bush/Knawel	Scleranthus biflorus	0.1x0.8	Moist, well drained. Frost tolerant	Tiny Cream Summer	-	Seeds, protective	Small birds
√	Smooth Darling Pea	Swainsona galegifolia	0.8x0.8	Moist, well drained – dry soils. Light frost	Pink Spring	Summer	Nectar, seeds protective	









Acacia gunnii Asplenium Hardenbergia flabellifolium violacea

rgia a

biflorus

Swainsona galegifolia



Table 7. Local grass and grass-like species with good fauna attributes

	Common Name	Species Name	Size m (h x w)	Environment	Flowers (colour & season)	Seed (fruit)	Habitat Qualities	Attracts
\checkmark	Wire Grass	Aristida spp.	1x0.5	Moist, well drained – dry soils. Frost tolerant	Spring-Summer	Autumn	Protective, feed, seed	Finches
\checkmark	Wallaby Grass	Austrodanthonia spp.	0.5x0.2	Moist, well drained – dry soils. Frost tolerant	Late Spring	Early Summer	Feed, seed	Grass parrots
	Spear Grass	Austrostipa spp.	>50x0.2	Moist, well drained – dry soils. Frost tolerant	Spring -Summer	Spring -Summer	Feed, seed	
	Red-leg Grass	Bothriochloa macra	0.5x0.2	Moist, well drained – dry soils. Frost tolerant	Summer	Summer	Feed, seed	Finches, Grass parrots
\checkmark	Windmill Grass	Chloris truncata	0.4x0.2	Moist, well drained – dry soils. Frost tolerant	Summer	Summer- Early Autumn	Feed, seed	Finches, Grass parrots
\checkmark	Blue Flax Lily	Dianella revoluta	0.6x0.4	Moist, well drained soils. Frost tolerant	Late Spring - Early Summer	Mid Summer	Protective, fruit	
\checkmark	Tasman Flax-lily	Dianella tasmanica	0.8x0.6	Moist, well drained soils. Frost tolerant	Early - mid Summer	Late Summer	Protective, fruit	
	Silvertop Wallaby	Joycea pallida	0.5x0.5	Moist, well drained – dry soils. Frost tolerant	Later Spring - Summer	Later Summer	Protective, feed, seed	Finches
√	Wattle Mat Rush	Lomandra filiformis	0.3x0.3	Moist, well drained - dry soils. Light frosts	Small Yellow September	(Late Spring -Early Summer)	Protective, fruit, seed	
\checkmark	Spiny -headed Mat Rush	Lomandra longifolia	0.8×0.8	Moist, well drained - dry soils. Light frosts	Small Cream Spring	(Late Spring -Early Summer)	Protective, fruit, seed	
\checkmark	Many -flowered Mat Rush	Lomandra multiflora	0.5x0.5	Moist, well drained - dry soils. Light frosts	Small Cream Spring	(Late Spring -Early Summer	Protective, fruit, seed	
\checkmark	Weeping Rice Grass	Microlaena stipoides	0.2x0.3	Moist, well drained - dry soils. Light frosts	Spring -Summer	Summer -Early Autumn	Feed, seed	Finches, Grass parrots
\checkmark	Poa Tussock Grass	Poa sieberiana	0.8x0.6	Moist, well drained – dry soils. Frost tolerant	Spring -Summer	Spring -Summer	Protective, feed, seed	Finches

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	Nodding Blue-lily	Stypandra glauca	1x1	Moist, well drained – dry soils. Frost tolerant	Blue & Yellow Spring -Summer	Summer	Nectar, seeds protective	
~	Kangaroo Grass	Themeda australis	1x0.8	Moist, well drained – dry soils. Frost tolerant	Spring -Summer	Summer	Protective, feed, seed	Finches
	Photo: A&J Little		Photo: L. Oliver	Photo: A&L effic		Photo: J. D.vereen	Fhoto: L Oliver	

Austrodanthonia Dianella Lomandra species longifolia revoluta

Microlaena stipoides

Themeda australis

Table 8. Local wildflower species with good fauna attributes

	Common Name	Species Name	Size m (h x w)	Environment	Flowers (colour & season)	Seed (fruit)	Habitat Qualities	Attracts
/	Cut-leaf Daisy	Brachyscome multifida	0.4x0.6	Moist, well drained – dry soils. Frost tolerant	Pink Spring - Summer	Summer	Protective, nectar	
	Cut-leaved Burr-daisy	Calotis anthemoides	0.2x1	Moist, well drained soils. Frost tolerant	White Spring	Summer	Protective, nectar	
	Purple Burr-daisy	Calotis cuneifolia	0.6x0.8	Moist, well drained soils. Frost tolerant	White/lilac Spring	Summer	Protective, nectar	
/	Common Everlasting	Chrysocephalum apiculatum	0.3x0.6	Moist, well drained – dry soils. Frost tolerant	Yellow Late Winter - Spring	Summer	Nectar	
/	Clustered Everlasting	Chrysocephalum semipapposum	0.3x1.5	Moist, well drained – dry soils. Frost tolerant	Yellow Spring - Autumn	Summer - Autumn	Protective,	
/	Headache Vine	Clematis glycinoides	Climber 2x0.6	Moist, well drained soils. Light frost	White Spring	Late Spring	Protective nest, nectar	
/	Nodding Chocolate Lily	Dichopogon fimbriatus	0.4x0.2	Moist, well drained – dry soils. Light frost	Mauve Spring	Early Summer	Nectar	
/	Forest Goodenia	Goodenia hederacea	0.3x0.4	Moist, well drained – dry soils. Frost tolerant	Yellow Spring - Summer	Summer	Nectar	
/	False Sarsaparilla	Hardenbergia violacea	Climber 0.5x2	Moist, well drained – dry soils. Frost tolerant	Deep purple Winter - Spring	Early December	Nectar, seeds protective	
/	Curved Rice Flower	Pimelea curviflora	0.3x0.2	Moist, well drained – dry soils. Light frost	Cream yellow Spring -Early Summer	Summer	Nectar	Butterflies
/	Common Buttercup	Ranunculus Iappaceus	0.4x0.3	Moist, well drained soils. Light frost	Early Spring -Early Summer	Yellow Summer - Winter	Nectar, seeds protective	

	Nodding Blue-lily	Stypandra glauca	1x1	Moist, well drained – dry soils. Frost tolerant	Blue & Yellow Spring -Summer	Summer	Nectar, seeds protective
V	Native Violet	Viola betonicifolia	0.2x0.2	Moist, well drained soils. Frost tolerant	Purple Spring-Autumn	Summer - Autumn	Nectar
	Fuzzweed	Vittadinia cuneata	0.3x0.6	Moist, well drained – dry soils. Light frost	Pale Blue Spring - Summer	Summer	Protective, seeds
	Wooly New Holland Daisy	Vittadinia gracilis	0.3x0.6	Moist, well drained – dry soils. Light frost	Mauve Spring -Summer	Summer	Nectar, seeds
\checkmark	Bluebell	Wahlenbergia luteola	0.3x0.3	Moist, well drained – dry soils. Light frost	Blue Spring - Summer	Late Summer - Autumn	Nectar, seeds
\checkmark	Tall Bluebell	Wahlenbergia stricta	0.6x0.6	Moist, well drained – dry soils. Light frost	Light Blue Spring - Summer	Late Spring - Summer	Nectar, seeds
			-				0









Chrysocephalum apiculatum Goodenia hederacea

Pimelea curviflora Clematis glycinoides

Wahlenbergia luteola Viola betonicifolia

Table 9. Local wetland and riparian species with good fauna attributes

	Common Name	Species Name	Size m (h x w)	Environment	Flowers (colour & season)	Seed (fruit)	Habitat Qualities	Attracts
\checkmark	Sedge	Carex Appressa	0.8x0.8	Moist, well drained soils. Frost tolerant	Yellow-Green Spring-Autumn	Summer seeds	Protective,	Nesting birds, frogs
\checkmark	Slender Flat-sedge	Cyperus gracilis	0.4x0.4	Moist, well drained soils. Frost tolerant	Green Spring -Early Summer	Mid – late Summer	Protective	Frogs
\checkmark	Rough Saw Sedge	Gahnia aspera	0.7x0.6	Moist, well drained soils. Light frost	Brown - Black Early Spring – Late Summer	Autumn	Protective, seeds	Birds, lizards, frogs
\checkmark	Austral Rush	Juncus australis	0.6x0.6	Moist – wet, well drained soils. Frost tolerant	Green Spring – Summer	Summer – Autumn	Protective, seeds	Nesting birds, frogs
\checkmark	Common Rush	Juncus usitatus	1x1	Moist – wet, well drained soils. Frost tolerant	Green Spring – Summer	Summer – Autumn	Protective, seeds	Nesting birds, frogs
\checkmark	Variable Sword Sedge	Lepidosperma laterale	1x1	Moist, well drained – dry soils. Light frost	Brown Spring – Autumn	Late Winter	Protective	Nesting birds, frogs, lizards
\checkmark	Common Reed	Phragmites australis	3x2.5	Wet soils and water. Light frosts	Cream – grey Spring	Autumn – Winter	Protective	Nesting birds, frogs, turtles
	Cumbungi	Typha domingensis	2x1.5	Wet soils and water. Light frosts.	Brown Spring – Autumn	Summer – Autumn	Protective	Nesting birds, frogs, turtles



Carex Gahnia Juncus Phragmites Appressa aspera australis dor

domingensis

NOTE: Care should be taken to not over-water your garden, as this can bring salt to the surface. If creating a pond area, prevent loss of water by using a water-proof lining or planting inside a sealed pond. If white salt marks are already appearing on buildings it is wise to not install a high water use garden.

7.2 WEEDS

There are many weed species found in the Bathurst Region, and it is outside the scope of this book to deal with them in any detail. There are some great resources of weed information available on the internet. One such site is the Weeds Australia website at www.weeds.org.au. A list of plants that may invade gardens can also be found at the WWF Australia website www.wwf.org.au and there is a useful identification tool found at www.weeds.gov.au.

When controlling weeds in a Backyard for Wildlife, it is recommended that you avoid the use of chemicals, and where possible remove by hand, or cover with mulch or thick native groundcovers. Talk to your local nursery about what may be best for your situation.

8 REFERENCES, USEFUL INFORMATION AND FURTHER READING

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8.2 WEBSITES

Bathurst Regional Council http://www.bathurst.nsw.gov.au/environment

Australian Museum, Animal Information http://australianmuseum.net.au/animals

Australian Government. Australian National Botanic Gardens http://www.anbg.gov.au/

South Australian Government. Backyards for Wildlife http://www.backyards4wildlife.com.au/index.php?page=backyards-4-wildlife

Birds Australia. **Birds in Backyards** http://www.birdsinbackyards.net/

Greening Bathurst. Greening Bathurst http://www.greeningbathurst.org.au/index.php

Gould League, Flora for Fauna http://www.floraforfauna.com.au/

Ipswich City Council, Habitat Nest Box designs. http://www.ipswich.qld.gov.au/about_ipswich/environment/wildlife/habitat_nest_boxes/

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8.3 USEFUL CONTACTS

Bathurst Regional Council 158 Russell Street PMB 17 Bathurst NSW 2795 Switchboard: 02 6333 6111 Environmental, Planning & Building Services: 02 6333 6511

Catchment Management Authorities

Central West CMA	Lachlan CMA
140 William Street	PO Box 510
PO Box 1480	Cowra NSW 2794
Bathurst NSW 2580	Phone: 02 6341 1600
Phone: 02 6339 4905	www.lachlan.cma.nsw.gov.au
www.cw.cma.nsw.gov.au	

NSW Office of Environment and Heritage

National Parks & Wildlife Service: 02 6332 7640 Natural Resources: 02 6363 8700 Office of Water: 1800 353 104 Environment Line: 131 555 www.environment.nsw.gov.au Wildlife Refuge Information: http://www.environment.nsw.gov.au/cpp/WildlifeRefuges.htm

Tablelands Livestock Health and Pest Authority
66 Corporation AveRural Fire Service
Fires: 000PO Box 20 Bathurst NSW 2795Enquiries: 1800 679 737Phone: 02 6331 1377Bathurst Fire Control CentreAfter Hours Senior Vet: 0428 224 5467 Lee Street Kelso NSW 2795After Hours Senior Ranger: 0428 484 674Phone: 02) 6333 1333

Community Groups in Bathurst Regional Council Area

Central Tablelands Landcare Group: 0429 979 780 Ben Chifley Catchment Landcare Group: 0427 375 505 Boundary Road Reserve Landcare Group: 0418 238 091 Greening Bathurst info@greeningbathurst.org.au WIRES Central West: 02 6331 1066 Rahamim Ecological Learning Centre: contact@rahamim.org.au Land for Wildlife: 02 4349 4756 http://www.cen.org.au/landforwildlife/ http://www.environment.nsw.gov.au/cpp/LandForWildlife.htm

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