



Local Land
Services
Central West



Australian Government



Recognising habitat features

A guide to identifying
habitat on your property





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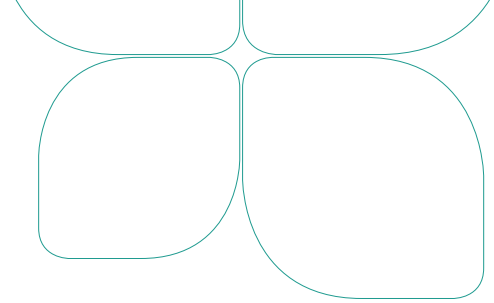
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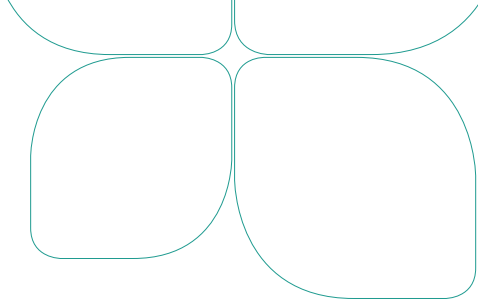
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A low-angle photograph of a large tree with white bark and green foliage against a clear blue sky. The tree's trunk is thick and textured, with some peeling bark. The branches spread out, and the leaves are dense and vibrant green. The sky is a deep, clear blue.

Introduction

This guide helps land managers to recognise landscape features that provide important habitat for wildlife. These habitat features are essential to healthy ecosystems and to the survival of native plant and animal species. By recognising their value and role, we can work together to protect and nurture critical habitats, maintaining functional natural environments for future generations.

Some simple ways that you can protect and enhance habitat for wildlife on your property are also included in this guide.



What are habitat features?

The habitat features described in this guide are parts of the environment (living or non-living) that provide native animals with food and shelter and sites for nesting, migration and social interaction. Different habitat features may be required for different stages of an animals life-cycle, with many species depending on more than one type of habitat to survive.

Different species need different habitats—a property with a greater variety of habitat features is likely to support more native animal species.



Australian painted lady butterfly

All animals, large and small, require specific habitat features to survive. Photo: Mikla Lewis.



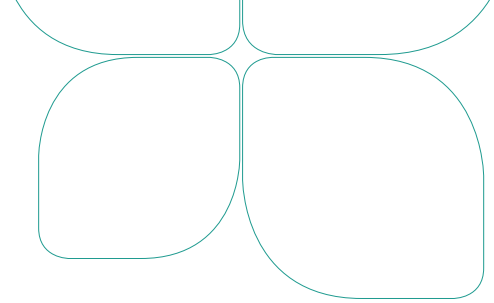
Overstorey trees with hollows provide habitat for arboreal (tree dwelling) mammals, bats, insects and birds. They also play an important role in providing other habitat features such as fallen logs and leaf litter.



Groundcover plants, logs and rocks provide habitat for ground-dwelling animals. Photo: Mikla Lewis.



Water bodies are a critical habitat feature for most animals. Photo: Mikla Lewis.



Why are habitat features important?

Wildlife is part of our natural heritage and, for many people, the presence of native fauna contributes to the quality of rural life.

The removal or modification of habitat features disrupts the local ecosystem and can have a significant effect on wildlife diversity, which may lead to local extinctions of native plants and animals.

The landscape within the Central West Local Land Services area has been significantly modified and very few, intact habitats remain.

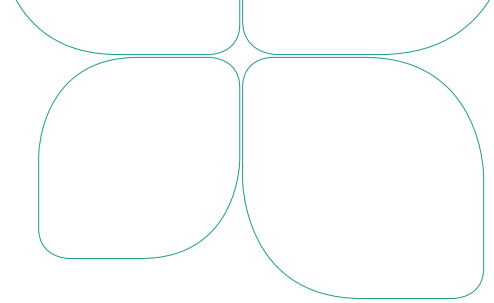
Understanding the habitat requirements of different species, being able to recognise different habitat features and taking action to preserve or restore key habitat features is critical to conserving wildlife and maintaining ecosystem function.



When you look at box woodland today you often see a park-like picture of scattered trees and low grass. Its tree cover supports some wildlife; however, with little to no shrub layer, the ecosystem is unable to support the possums and small insectivorous birds that were common in the past. This allows insect and mistletoe populations to damage the trees, causing dieback.



Restoring a shrub and groundcover layer may attract additional wildlife and help restore the natural balance. Photo: Mikla Lewis



What is a healthy habitat?



Photo: Mikla Lewis

Characteristics of a healthy habitat include:

- a diversity of native overstorey, understorey and groundcover plants, reflective of the original vegetation community. In general, the greater the diversity of plant species, the 'healthier' the habitat
- old, large trees (dead or alive) with hollows
- regenerating native trees, shrubs and groundcovers
- a ground layer dominated by native perennial plants
- areas that are largely free of weeds and introduced grasses

- healthy vegetation—there are no signs of dieback, heavy mistletoe infestations, insect attack or overgrazing
- fallen timber/ debris and leaf litter
- a diversity of native animal species are using the habitat. Again, the greater the diversity of species, the better

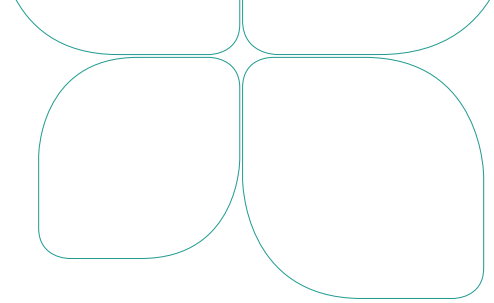


Kookaburra



Eastern water dragon

The presence of a diversity of native animals can indicate that a habitat is in moderate to good condition.



- little/ no evidence of feral animals or over-abundant macropods (kangaroos)
- little/ no evidence of land degradation impacting the habitat site
- the patch is being actively managed for habitat purposes.



Active management may involve weed control, pest animal control, grazing management, planting/ direct seeding, erosion control, retaining dead timber, excluding fertilisers and providing appropriate artificial hollows.

Note: These characteristics typically relate to vegetation communities with an overstorey layer. When considering the condition of native grasslands and shrublands, some of these features may not naturally be present.

If your site has nearly all of these features then it is in great condition and is likely to support a diversity of wildlife. Protect and manage these areas to prevent future degradation.

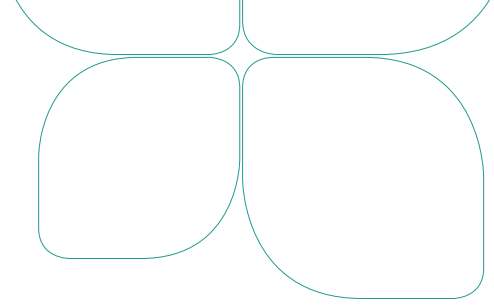


*This habitat is in good condition.
Photo: Mikla Lewis.*

If your site has some of these features, it is likely that it has had a moderate amount of disturbance in the past. Action is required to prevent further deterioration. Remove the degrading influences first. If the site shows no signs of recovery, some treatment to promote regeneration of the vegetation may be required.



This habitat is in moderate condition.



If your site has very few of these features, it is likely that it has had a high level of disturbance in the past and has very few habitat features remaining. However, these habitat features may be critical to some animals so it is still important to preserve them. The site cannot be easily regenerated but this may be preferable to revegetating a totally cleared site. It is more important, economical and effective to protect and enhance existing habitats than to create new ones.



*This habitat is in poor condition.
Photo: Mikla Lewis.*

The following habitat features are not necessarily indicators of a healthy habitat but do place a greater value and priority on preserving an area. If they are present on your site, consider them a bonus!

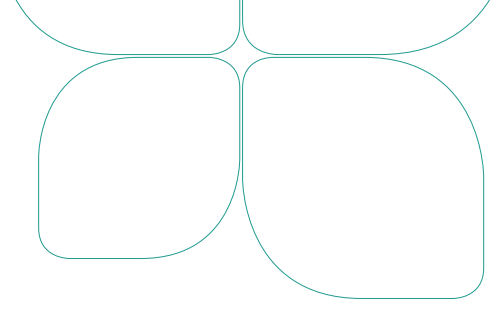
- Rocks, caves and/ or cliffs.
- Features that support threatened species.
- Remnants of threatened ecological communities.
- A water source (river, creek dam or wetland).



A photograph of a vast field of tall, golden-brown grasses, likely a prairie or savanna, under a clear, bright blue sky. The grasses are in the foreground and middle ground, creating a textured, layered appearance. In the distance, a line of dark green trees is visible against the horizon. The overall scene is bright and open.

Habitat features

Take a look around your property and see how many of the following habitat features you can find. You will probably be surprised by how many features are present on your property, even if the landscape has been highly modified. Not all landscapes will have all of these features so it is important to consider what habitat features would have been on your property originally.



The overstorey (large trees)

Trees attract wildlife and provide places for many animals to feed, shelter and breed. Having a good range of tree species of various ages and size will provide a diversity of habitat features for wildlife.

Large, healthy, mature habitat trees are particularly important as they provide more food resources and nesting opportunities and produce more nectar, foliage and fruits than a developing tree.

The deep roots of mature trees are able to tap into deep-seated nutrients and recycle them at the soil surface as litter, pollen, sap and other material. Mature habitat trees also contribute significantly to the litter layer and fallen timber in patches of native vegetation.

Hollows

Large, old trees often contain hollows that provide critical habitat for many native species such as owls, cockatoos, parrots, possums, bats and ducks.

The clearing of mature trees and competition for the remaining hollows from introduced species such as the European honeybee means there are fewer hollows available for native wildlife.

The process of hollow formation takes a long time. Small hollows with narrow entrances (less than 5cm) suitable for small animals such as the brush-tailed phascogale take around 100 years to fully form. Hollows of a medium size (5-15cm) suitable for animals such as parrots may take up to 200 years to fully form, and the larger (greater than 15cm), deeper hollows occupied by animals such as the powerful owl can take even longer.



Tree hollows like this one may take around 200 years to form so it is important to preserve any trees with hollows as they take a long time to replace!



Tree hollows form as a result of natural events such as fires, windstorms and lightning that damage the trunk or branches. Termites, fungi and bacteria then invade the 'wound site' and promote the decay of wood.

Habitat for the..... Powerful owl

Powerful owls inhabit a variety of vegetation types, mostly in the north-western part of the Central West region.

They hunt in open areas as well as denser woodland and forests, preying on medium-sized marsupials such as possums and gliders. Powerful owls nest in large tree hollows in old eucalypts located in large remnants of dense forest.

What can you do?

- Protect large remnants of vegetation containing existing or future hollow-bearing eucalypts and encourage natural regeneration in these areas.
- It is unlikely that powerful owls would ever use revegetation sites for nesting (unless they are done on a large scale) so focus revegetation efforts on supporting prey species. Plant hollow-forming trees and have a diverse understorey containing wattles.
- Do not disturb known nesting sites as powerful owls are very sensitive during breeding.



Powerful owl

Photo: Rosie Nicolai

Habitat for the..... Superb parrot

The superb parrot breeds in the southern part of the Central West region from September through December then travels north for autumn and winter. Superb parrots nest in hollows in river red gum and box-gum woodlands. They eat a variety of seeds (including spilt grain), fruits, nectar and herbs, foraging on the ground and also in the canopy of eucalypt and myall woodlands.

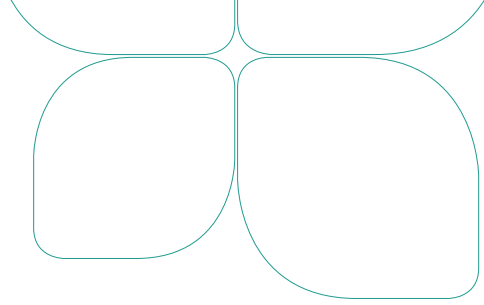
What can you do?

- Protect remnants of box-gum woodlands, river red gum forests and myall woodlands and encourage regeneration of these areas.
- Retain existing and future hollow-bearing box or gum trees, even if they are only isolated paddock trees.
- Revegetation sites should mimic open woodlands with overstorey species such as white box, yellow box, Blakely's red gum, grey box, fuzzy box, apple box, red box, river red gum.
- Encourage perennial native groundcover.



Superb parrots

Photo: Weyers



Leaves, flowers, fruits, seeds and sap

Leaves provide a source of food for a wide range of animals from large mammals (like koalas) to insects (that are eaten by birds and mammals). Foliage also provides shelter from the elements for many nesting or roosting animals as well as a place for smaller wildlife to hide from predators.



White box buds



White box

Flowering trees are a major source of pollen and nectar with big, old trees providing substantially more than smaller, younger trees.

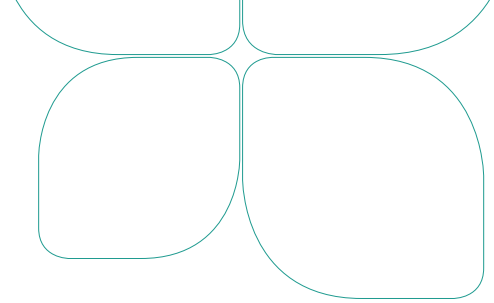


Belah

Fruits and seeds that are produced by native trees form part of the diet of many native animals. For example, the glossy black-cockatoo feeds primarily on the seeds of belah and she-oak trees.



Large trees are also a valuable source of sap for species such as squirrel gliders. Photo (bottom): Mikla Lewis.



Habitat for the.... Koala

Koalas occur across the Central West region in small populations. They spend the majority of their time in trees, feeding on preferred eucalypt trees.

What can you do?

- Retain suitable habitat and/ or revegetate using suitable eucalypt tree species, which include river red gum, fuzzy box, Dwyer's red gum, red box, grey box, bimble box, black box, apple box, white box, Blakely's red gum, yellow box and gum-barked coolibah.



Photo: John Turbill/ OEH

Habitat for the.... Glossy black-cockatoo

The glossy black-cockatoo is found throughout the Central West region mainly in woodlands and forests containing species of Casuarina and Allocasuarina tree species such as river she-oak, drooping she-oak and belah. Glossy black-cockatoos feed almost exclusively on the large seeds of these trees. They also require suitably sized tree hollows, usually found in eucalypt tree species, for nesting.

What can you do?

- Retain any she-oak or belah trees.
- Protect existing and future hollow-bearing trees.
- Encourage natural regeneration of Casuarina and Allocasuarina species in remnant sites.
- Include local species of Casuarina and Allocasuarina trees in revegetation sites.

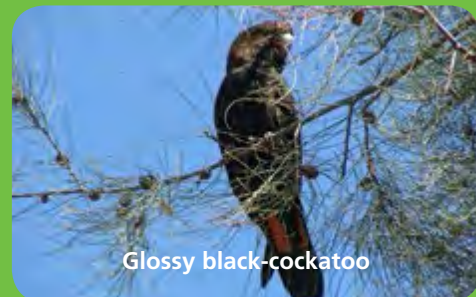
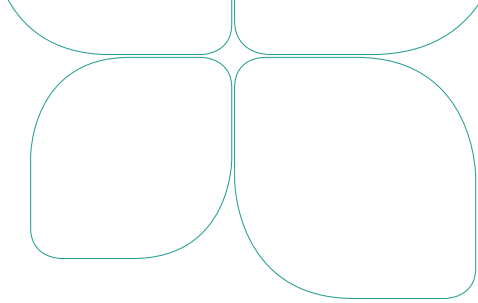


Photo: J. Lemon/ OEH



Branches and bark

Tree branches provide structure for animals to roost and build nests on. The bark of trees, whether it be deeply fissured like that of an ironbark or shedding in long ribbons as found on species such as yellow box and ribbon gum, provides shelter, nesting material and hunting grounds for many reptiles, birds, bats and insects.



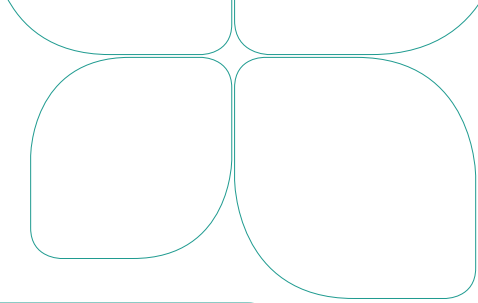
Mistletoe

Mistletoes are native, parasitic plants that, when found in low numbers in the canopy and understorey, play a valuable role in a healthy woodland ecosystem.

They provide additional food and shelter for wildlife as their foliage is often more nutritious and palatable than the host species.

Possums, gliders, parrots, honeyeaters, mistletoebirds and some species of butterflies are particularly fond of mistletoe plants.



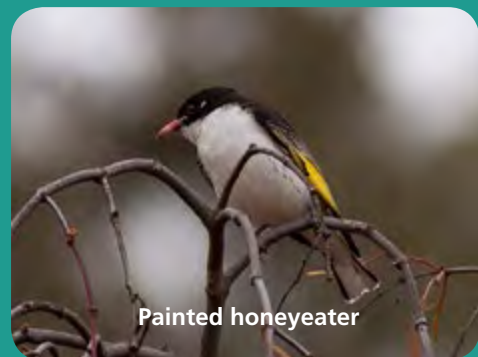


Habitat for the..... Painted honeyeater

Painted honeyeaters are found throughout the Central West region in eucalypt, brigalow or myall woodlands and forests with abundant mistletoe. They are almost completely dependent on mistletoe for their food supply, especially during their breeding season.

What can you do?

- Protect existing eucalypt, myall and brigalow woodland remnant vegetation and encourage regeneration within these sites.
- Retain trees with mistletoes in them. If mistletoe infestations are heavy and it is affecting the health of trees, encourage native animals such as possums and parrots, which can help keep mistletoe infestations in check.
- Tree species to target for revegetation sites include weeping myall, brigalow, box eucalypts and ironbarks.



Painted honeyeater

Photo: Ron Knight

Dead standing timber

Even after death, a tree will provide habitat for many years to come. Dead timber provides shelter (hollows, cracks and crevices in the trunks and limbs) and perching sites for wildlife. This is particularly important for social interactions, such as mating and territorial displays, and for predators such as raptors, which use the clear lines of sight for observation.

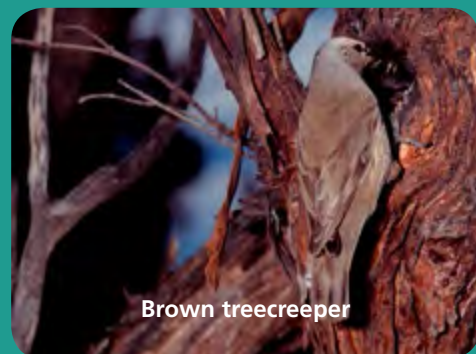


Habitat for the..... Brown treecreeper (eastern sub-species)

Brown treecreepers (eastern sub-species) occupy open forests and woodlands across most of the Central West region, except the far western areas. Brown treecreepers often nest in hollows in standing dead timber and tree stumps. They feed on insects that eat decaying wood so are often found foraging on trees with rough bark, along branches and fallen timber and on the ground amongst leaf litter.

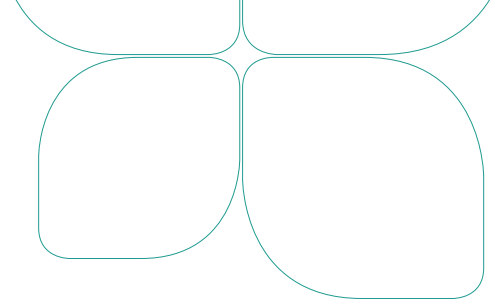
What can you do?

- Protect existing open woodlands and forests with a grassy understorey and encourage regeneration of these areas.
- Preserve standing dead timber, tree stumps and fallen timber—avoid 'tidying' up and firewood collection.
- Brown treecreepers do not like dense or shrubby understoreys so revegetation efforts for this species should aim to create an open, grassy woodland, with tree species such as box eucalypts or other rough-barked eucalypts.



Brown treecreeper

Photo: Ken Stepnell/ OEH



The understorey (small trees and shrubs)

Complementing the canopy layer, understorey trees and shrubs add unique habitat features and resources. The understorey also helps to stabilise the soil, provide wind protection and prevent the loss of leaf litter.

Some plant species, such as wattles, also help fix nitrogen and accelerate the growth of other plants.



The dense and sometimes spiny foliage of understorey shrubs provides shelter for many smaller birds and mammals to build nests in and hide from predators and aggressor species such as noisy miners. Photo (top): Mikla Lewis.



Showy parrot-pea

The loss of the understorey in many woodland areas has contributed to the widespread reduction of small woodland birds such as robins, thornbills, finches and wrens. Photo (top): Mikla Lewis.



Noisy miners



Variegated fairy-wren (female)



Showy Indigo



Wyalong wattle

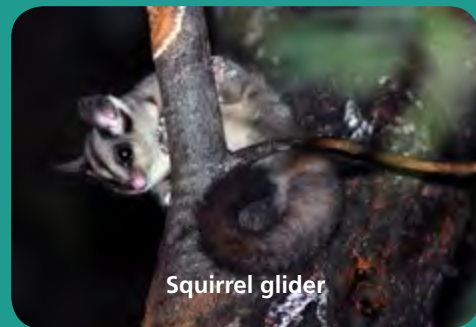
Diversity in the understorey plant species also contributes to a variety of food sources in the woodland. Foliage, seeds, fruits, pollen and nectar of plants such as wattles, pittosporum, saltbushes, emu bushes, wild lemon, wild orange and warrior bush are a seasonally important food source for wildlife. Photo (top): Mikla Lewis.

Habitat for the..... Squirrel glider

Squirrel gliders are found across the Central West region, except the far north-west corner, in dry eucalypt forests and woodlands. They depend on an abundance of large trees with a variety of hollows for nesting as they frequently change hollows. They feed on sap, gum, pollen and nectar as well as insects, with wattles being particularly important during winter.

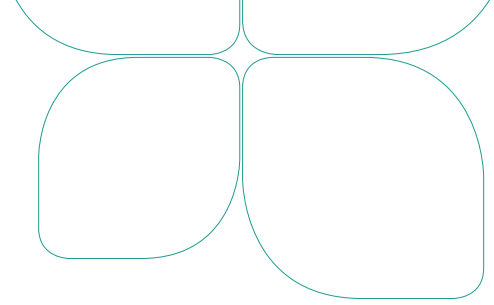
What can you do?

- Protect woodlands where there is a combination of hollow-bearing trees, regenerating eucalypts and an understorey of wattles.
- Protect existing and future hollow-bearing trees.
- Encourage natural regeneration of wattles in remnant sites.
- Species to use for revegetation projects include river red gum, ironbarks, box trees and wattles. Make sure you include a good range of understorey plants.
- Use plain wire for the top of fences around habitat areas as gliders often get caught in barbed wire and die.



Squirrel glider

Photo: Jeff Betteridge/ OEH



Regeneration

Plant regeneration (new plant growth) is an essential part of a healthy woodland community, to replace mature canopy and understorey plants as they die.

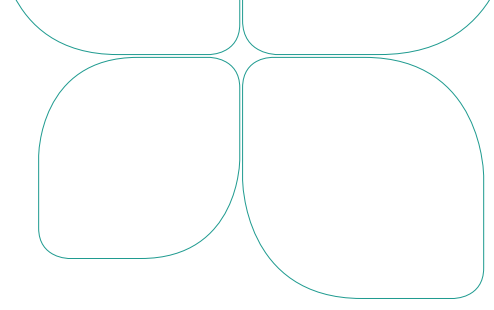
Ideally, regeneration should be occurring across all plant species in the woodland and should only be a minor component of the canopy and understorey layers.



Photo: Mikla Lewis



Photo: Mikla Lewis

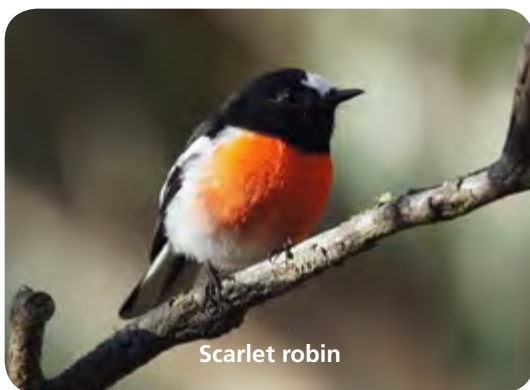


Groundcover (low shrubs, grasses, herbs and plant litter)

Perennial tussock grasses

Tall, dense tussock grasses provide shelter and nesting sites for many birds, reptiles, carnivorous marsupials and insects. Very few natural grasslands and grassy woodlands remain intact and the remnants are among the most threatened ecosystems in Australia.

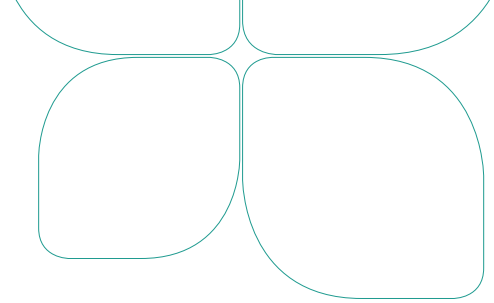
Several threatened bird species within the Central West rely heavily on the cover and food sources provided by native grasses.



Scarlet robin

Kangaroo grass

Photo: David Cook



Habitat for the..... Diamond firetail

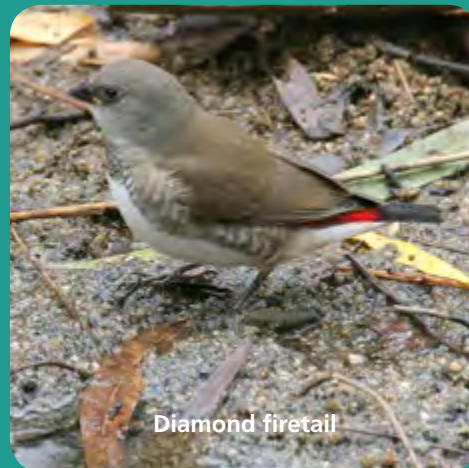
The diamond firetail is found across the Central West region inhabiting open woodland and derived grasslands. They feed exclusively on the ground on native grass and herb seeds and leaves, and on insects (especially in the breeding season). They build their nests for roosting and breeding in shrubby understorey or smaller trees.

What can you do?

- Preserve areas of native grassland or grassy woodland for foraging sites.
- Diamond firetails also need sheltered, shrubby areas to nest and hide from predators and aggressor species such as the pied currawong and noisy miner. Therefore, it is important to preserve these areas too, particularly if they are adjacent to open grasslands.
- Encourage regeneration of native, perennial groundcover (grasses and forbs) by managing weed invasions, taking care if burning and by controlling grazing,

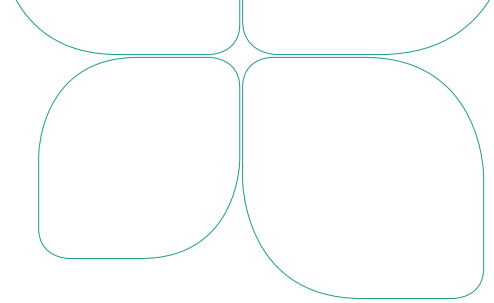
especially during flowering and seed set (generally spring through summer).

- Retain fallen timber in grassy areas. Finches often use the timber to perch on while foraging.
- Use revegetation to re-connect woodland areas. Make sure you encourage native grasses and forbs to grow in these areas by controlling weeds. If you have an existing area of native grassland, you may like to revegetate alongside it (rather than through it). Finches are often seen ducking out of treelines, where they have been sheltering, to forage on the adjacent ground.



Diamond firetail

Photo: Weyers



Herbs, forbs and low shrubs

The foliage, flowers, fruit and tubers of these inconspicuous plants are very important resources for wildlife, providing yet another layer for shelter, nesting sites and food.



Photo: Pip Job



Photo: Mikla Lewis



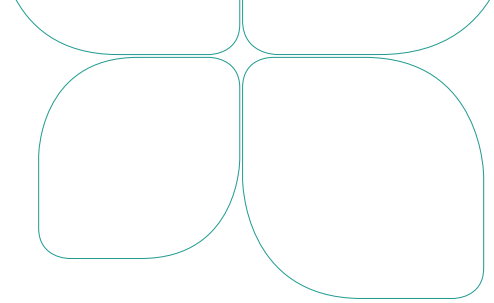
Photo: Mikla Lewis



Reptiles, such as goannas, shinglebacks and blue tongues, and birds such as the mallee ring-neck, are frequent users of the flowers and fruit provided by the ground layer.



Spring time, when plants flower, is a great time to see the diversity of this vegetation layer.



Other living organisms

Colonies of bacteria, mosses, fungi, algae, liverworts and lichens that form on surfaces such as soil, rocks and logs all perform important habitat roles. They can form biotic soil crusts, binding soil particles together and helping to make the soil surface more conducive to seed germination and water infiltration. This benefits the reproduction and growth of plants.

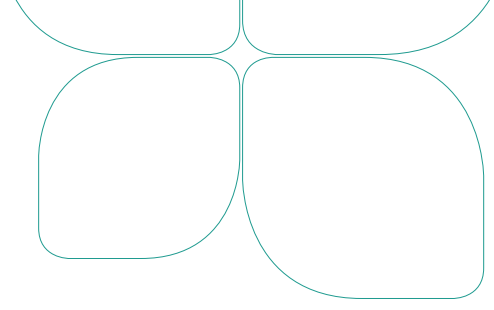
Mycorrhizal fungi, such as the common puffball, develop complex relationships with many woodland plants and can enhance the root systems of other plants. Other soil fungi and bacteria help to 'fix' atmospheric nitrogen, making it available for plants to use.



Photo: Mikla Lewis



Photo: Mikla Lewis



Leaf litter, fallen timber and other plant debris

Leaf litter, fallen timber and other plant debris provide a range of habitat functions. Many reptiles, frogs and mammals utilise hollow logs as breeding and sheltering sites. Bird species such as the bush stone-curlew shelter and make their nests in areas with many logs, fallen branches and leaf litter, where they are well camouflaged. Logs also make useful sites for reptiles to bask on and hibernate in, and for birds to perch on and call from.



Photo: Mikla Lewis



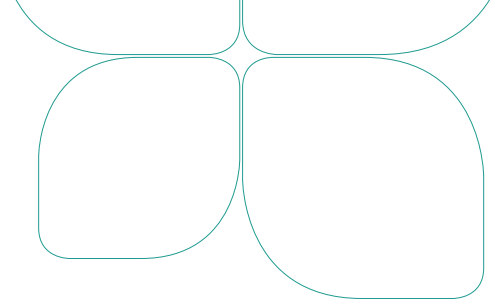
Photo: Mikla Lewis

Leaf litter and other plant debris provide important foraging sites for insects and insect-eaters such as echidnas, antechinus and the brown treecreeper.

Plant debris is the main source of food for many soil-forming organisms such as cockroaches, termites and worms, and also provides sites on which plants and fungi can germinate and grow. The decomposition of plant debris provides important nutrients and improves soil properties, accelerating the growth of living plants.



The untidy nature of fallen timber is often at odds with our desire to manicure and maintain landscapes and heightens our fear of bushfires. However we perceive it, leaf litter, fallen timber and plant debris are crucial to ecosystem health.



Habitat for the..... Bush stone-curlew

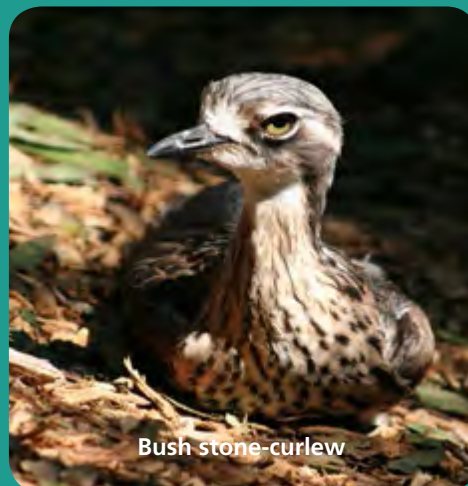
The bush stone-curlew occurs across the Central West region in woodland areas, with a sparse understorey and ground layer. Bush stone-curlews nest on bare ground amongst fallen timber and debris, placing them at risk of predation and trampling by other animals. They mainly feed on insects and small invertebrates found on the ground.

What can you do?

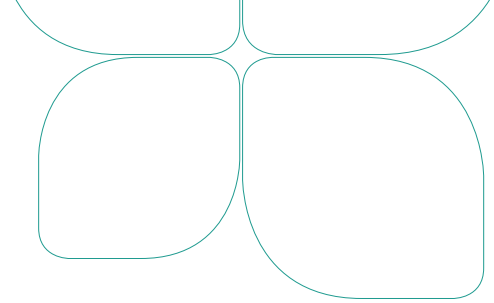
- Retain fallen logs, coarse debris, leaf litter and ground layer of vegetation within woodland areas. Avoid 'tidying up', firewood collection and manage hazard reduction burns carefully.
- Control predators such as foxes, pigs, dogs and cats, and grazing animals such as goats, sheep and cattle, especially around known breeding sites.
- Preserve woodland areas and encourage regeneration within these sites. A native groundcover should be encouraged; however, bush stone-curlews prefer a short ground layer. This can be achieved

through strategic grazing. Fencing off nesting sites can help you to manage predators and grazing in these areas.

- Revegetation efforts are best aimed at expanding or creating a buffer around existing remnants, or to replace mature trees within remnant areas if regeneration is not successful. Use canopy species such as box eucalypts, stringybarks, belah, and myall and a scattering of shrub species. Be sure to incorporate a few fallen logs into new block plantings.



Bush stone-curlew



Rocks and soil

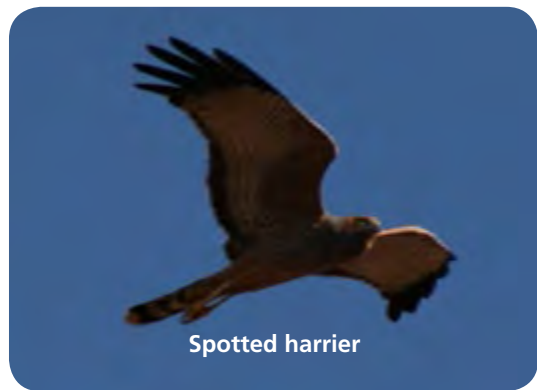
Bush rocks

Bush rocks are naturally occurring rock features ranging from small rocks to large boulders and outcrops. Bush rock is used by many animals for shelter, nesting, to find food (hunting and gathering sites), and to avoid extreme weather conditions and bushfires. Reptiles regularly use bush rock for egg-laying and basking.



Caves and cliffs

Caves offer shelter and nesting sites, particularly for birds and bats, and provide shelter from extreme events such as bushfire. Cliffs and rock ledges are also used as shelter and nesting sites by birds, reptiles, mammals and insects. They are valued habitats of birds of prey as they offer an open view of the surrounding landscape.

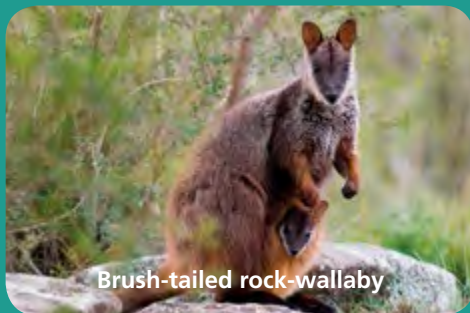


Habitat for the..... Brush-tailed rock-wallaby

Found mainly in small colonies in the north-eastern part of the Central West region, the brush-tailed rock-wallaby inhabits rocky escarpments, outcrops and cliffs with a preference for caves and ledges, often facing north. Brush-tailed rock-wallabies browse young, tender grasses and forbs as well as the foliage and fruits of shrubs. They can survive for long periods without water.

What can you do?

- Help to reduce populations of predators such as wild dogs, foxes and cats, and other feral animals that compete for food and shelter such as goats and pigs.
- In areas where there are known colonies, retain any rocky habitats on your property.
- If you live in an area where there are known populations of brush-tailed rock-wallabies, you may be able to help connect these colonies by protecting existing remnant vegetation or by planting wildlife corridors.



Brush-tailed rock-wallaby

Photo: Michael Van Ewijk/ OEH

Soil

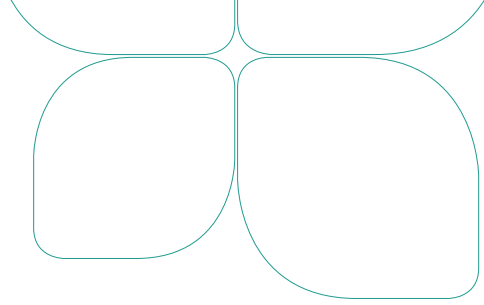
Soil is perhaps the most critical physical habitat feature. It provides the medium in which most plants survive, as well as a platform for animals to move and rest upon. It also provides the feeding grounds for many animals living above the surface. The sub-soil provides important sheltering and breeding habitat for burrowing species of mammals, frogs, reptiles and invertebrates. Soil habitats and the animals that live in them are often destroyed through actions such as ploughing.



Soil cracks, which occur mainly in heavier soil types, provide habitat for reptiles, small marsupials, native rodents and insects, sheltering them from the heat of the summer sun. During floods, large cracks can provide aquatic habitat for frogs and invertebrates such as shield shrimp.



Soil is often overlooked as a habitat feature but it provides a home for many invertebrates such as spiders. Photo: Mikla Lewis



Watercourses, wetlands and dams

An essential habitat feature for many animals is water. Some animals only require access to water for drinking while others are heavily dependent on particular aquatic habitat for breeding and foraging.

Within the water itself animals such as fish, frogs, turtles, platypus, water rats and aquatic invertebrate live, breed and feed. Fallen logs, instream rocks and substrate provide places to hide, rest and nest. Plants floating on or growing in the water such as reeds also provide

important breeding, feeding and sheltering areas for waterbirds such as pied cormorants and frogs.

Streambanks and the landscape adjacent to water bodies (referred to as the riparian zone) also provide important habitat for many birds, frogs and mammals, with some species such as platypus requiring specific riparian conditions throughout their life-cycles.

Riparian habitats often support a greater variety and abundance of wildlife because they are a transitional environment for aquatic and terrestrial animals. Also, the vegetation is usually taller, denser and more complex due to the proximity to water.



Platypus

Photo: Jeff Hobbs



Photo: Pip Job



Pied cormorant



Photo: Mikla Lewis

Habitat for the.... Brolga

Brolgas are occasionally seen near open permanent and intermittent wetlands, irrigated cropland and on grassland plains mainly in the western half of the Central West region. They feed on roots, tubers, large insects, crustaceans, molluscs and frogs often found in grassland, claypans, gilgais and ploughed paddocks.

They are dependent on wetlands too, especially shallow swamps, where they will forage with their head entirely submerged. Brolgas build their nests on islands or in the water of wetlands and lakes.

What can you do?

- Maintain natural water flows across your property and landscape features such as wetlands.
- Control stock access to wetlands to protect them from grazing and trampling.
- Protect and restore native grassland areas.



Photo: John Turbill/ OEH

Habitat for the.... Booroolong frog

The Booroolong frog occurs in the eastern part of the Central West region. They live along permanent streams with some riparian vegetation cover.

What can you do?

- Retain riparian native vegetation.
- Minimise the use of herbicides and pesticides adjacent to streams.
- Protect streams and riparian vegetation from disturbance by stock.
- Control weeds, particularly willows, and rehabilitate streamside habitats.



Photo: S. Alton/ OEH



Critical habitats in the Central West

Within the Central West Local Land Services region, there are several key habitats that are particularly important. They are a priority for conservation efforts as they form part of a threatened ecological community, containing unique habitat features.

Threatened ecological communities

Ecological communities are complex groups of plants and animals that occur together in a particular area. Within the Central West, nine ecological communities have been identified as threatened (at risk of extinction). Many threatened ecological communities have been cleared or degraded to such an extent that less than 10 per cent remains and only a small amount of this area resembles or functions in its natural state.

It is still important to conserve and rehabilitate these degraded areas, even if only single paddock trees remain. They may provide habitat that is critical to the survival of native plants and animals, including threatened species.



This degraded white box community may support threatened species so it is still worthwhile protecting.

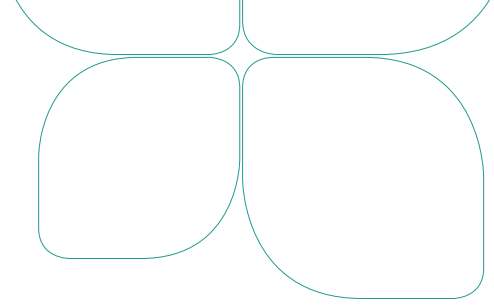
Many small fragments of threatened ecological communities primarily occur on private property. It is important for land managers to be able to recognise the features of these vegetation communities so that they can be protected.

Threatened ecological communities in the Central West include:

- Semi-evergreen vine thicket
- Artesian springs ecological community (between Dubbo and Bourke)
- Brigalow



Photo: Adam Henderson/ OEH



- Coolibah-black box



- Inland grey box woodland



- Fuzzy box woodland on alluvial soils



- Myall woodland



- Mallee and mallee-broombush dominated woodland and shrubland (lacking Triodia)



- White box, yellow box, Blakely's red gum woodland.

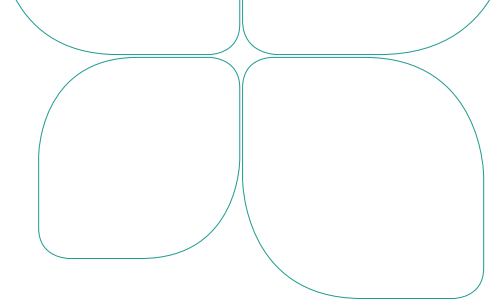




Protecting and enhancing habitat on your property

There are some simple ways that you can protect and enhance habitat for wildlife on your property that may even improve the productivity and value of your property.

You may not be able to make all of these habitat improvements on your property, but even by doing a few of the actions, you will help to protect and enhance critical habitat on your property.

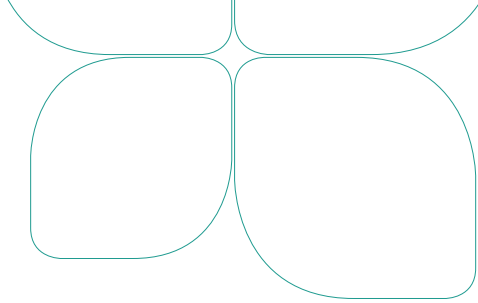


Ways to protect and enhance habitat on your property

- Preserve any existing native vegetation, dead or alive, especially large trees with hollows.
- Avoid firewood collection or at least restrict it. If it is necessary to 'tidy up' fallen timber, relocate it to other parts of your property such as revegetated areas.
- Avoid high-intensity fires. If hazard reduction burning is required, low-intensity patch burns that are limited in size and frequency will have less impact on native vegetation and habitat than high-intensity fires.
- Encourage natural regeneration by controlling grazing pressure in habitat areas. Temporary or permanent fencing may help to achieve this. Only graze areas for short periods after native plants have flowered and set seed so they can reproduce.



Large patches of vegetation are good but even corridors and single paddock trees can provide important habitat.



Chocolate lily



Rock fern



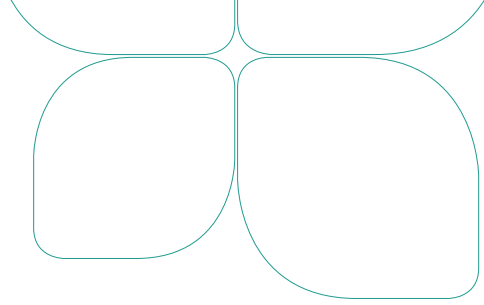
Sundew

Once you control grazing pressure you may start to see some interesting native plants return to your site. Photos (centre and bottom): Mikla Lewis

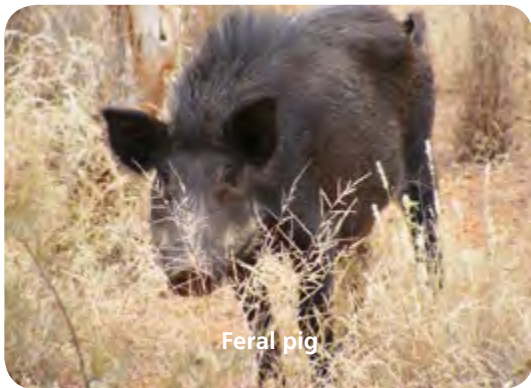
- Don't use fertilisers in regenerating areas, as phosphorus can kill perennial native grasses and forbs, allowing weeds to invade. Avoid overuse of chemicals as well.
- Supplement natural regeneration with revegetation, where necessary. Strategically revegetate cleared areas or enhance components of existing remnant vegetation, such as the understorey layer. Try to mimic the original vegetation type and restore as many original habitat components as possible.
- Consider planting 'corridors' to link larger remnant areas, allowing wildlife movement across the landscape.



Wildlife corridors can be planted to link patches of remnant vegetation. Photo (top): Mikla Lewis



- Control invasive plants and animals and over-abundant kangaroo populations.



- Introduce artificial habitat, such as nest boxes, which can be used to re-create habitat. Nest boxes must be carefully designed to meet the specific needs of native species and to discourage pest species from inhabiting them.



Photo: Mikla Lewis

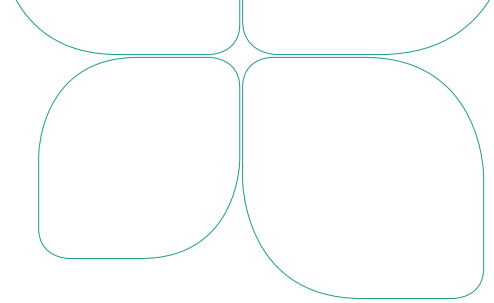
- Carefully manage natural waterbodies and riparian areas. Control stock access to these areas, establish 'buffer zones' of vegetation around them and don't alter natural water-flows.



- Develop a property plan that sets aside some areas for habitat conservation while leaving others for production. Try to connect habitat areas on your property and look for opportunities where conservation and production can coincide.
- Consider habitat when planning agricultural activities such as grazing, ploughing, spraying and burning so that not all of the property is disturbed at once.
- Learn more about wildlife and their habitat requirements by following the references at the back of this guide.
- Ask your Local Land Services Officer to help you to assess habitat and plan management activities. They may also know of project funding that can help you to protect and enhance habitat on your property.



Appendix



References and further reading

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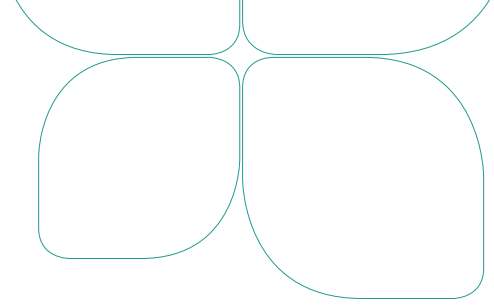
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Photo: Mikla Lewis





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