

# CANBERRA'S AMAZING NATURE



A guide to discovering  
Canberra's Natural Heritage



**CONSERVATION  
COUNCIL** ACT REGION

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Government

# Welcome to the journey of discovering Canberra's Amazing Nature!

From the hillslopes and valleys of Namadgi National Park, to ancient river corridors and Aboriginal rock art sites, to European homesteads and sheep stations – the Australian Capital Territory has a vast range of natural and cultural heritage to discover.

This booklet is designed to help primary school students and their families identify and protect Canberra's natural heritage. It can be used as a resource for school, as reading material at home, or as a tool to help you identify heritage when you are outside exploring.



Be sure to use the field guides in this booklet to help you identify all the amazing plants and animals that live in and visit the ACT.

**We acknowledge the traditional custodians of the land on which we live and work, and their deep and continuing connection to Country. We pay our respects to Elders past, present and emerging.**

# What is Heritage?

"Heritage" is a word we use to describe places and objects that tell us something about the past.

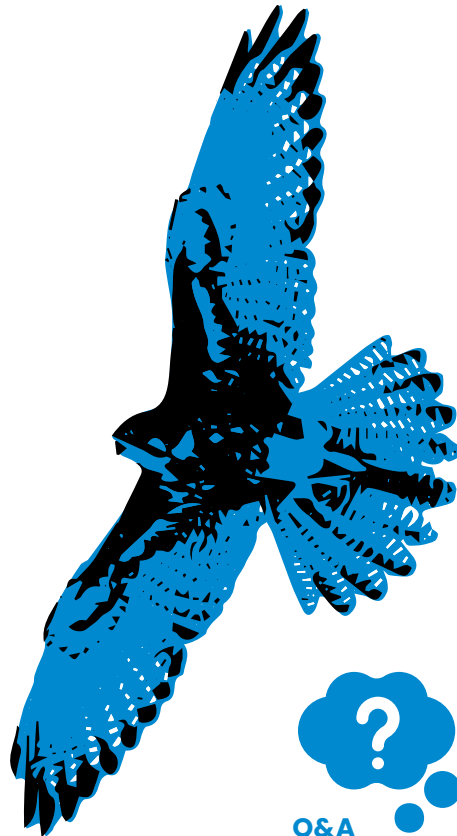
We protect special places and objects that have heritage values so that we can remember and learn from the past. This will help children today learn about the past, but also children who will be born in 100 years from now!

Places with heritage value can be important for more than one reason.

Many natural heritage areas may also have cultural heritage values.

Cultural heritage importantly includes Aboriginal heritage.

In the ACT we protect natural and cultural heritage by adding special places and objects to a list called the "Heritage Register".



## Q&A

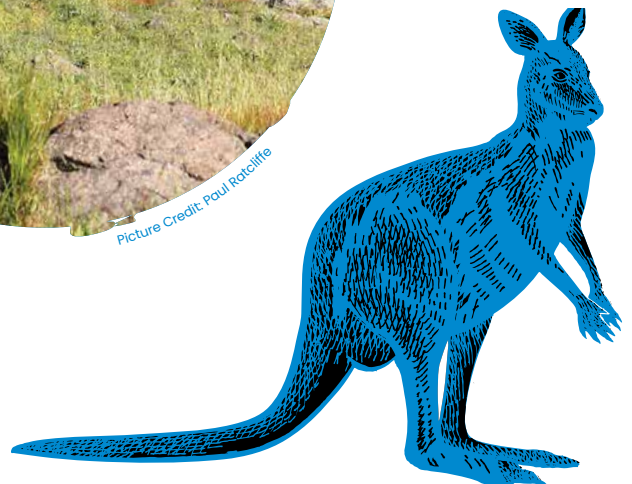
Is there something at your house that you would like to give to your children, to show them how life was for you as a child?



Picture Credit: CCACT



Picture Credit: Paul Ratcliffe



# Natural Heritage

Natural heritage places are part of our natural environment, not made by humans.

Of course, many 'natural places' have been changed by people in some way, but they still have the plants and animals that have been there for tens of thousands of years.

Natural heritage places might teach us something about our past environment, such as the animals found there before humans even existed!

Or, a place might have natural beauty or interesting features that make it unique.

Or, it could be special because it provides resources that help humans survive.

There are some places you might think are "natural places" but have in fact been significantly changed by people.

Imagine a farm with hooved animals like cows and sheep, and introduced trees like fruit trees and poplars. While you may find native species still living there, such as possums and gum trees, the environment will have been significantly altered.



## Q&A

Do you think the front lawn at your house would be a special place of natural heritage?

Does the space around your house have the same plants and animals as it would have had 2000 years ago?



Picture Credit: Esther Gallant



# Cultural Heritage

Cultural heritage places and objects tell us the story of the people who came before us.

In Australia, Aboriginal people have lived in and shaped the landscape for tens of thousands of years. The natural landscape, as well as special objects and places, are important to First Nations Australians, and reinforce their strong connection to the land.

Stone tools, charcoal, animal bones, scarred trees, grinding grooves, burials, and rock art sites are located across thousands of sites in and around Canberra.

These places and objects tell important stories about how Aboriginal people lived, and are also part of their continuing culture.



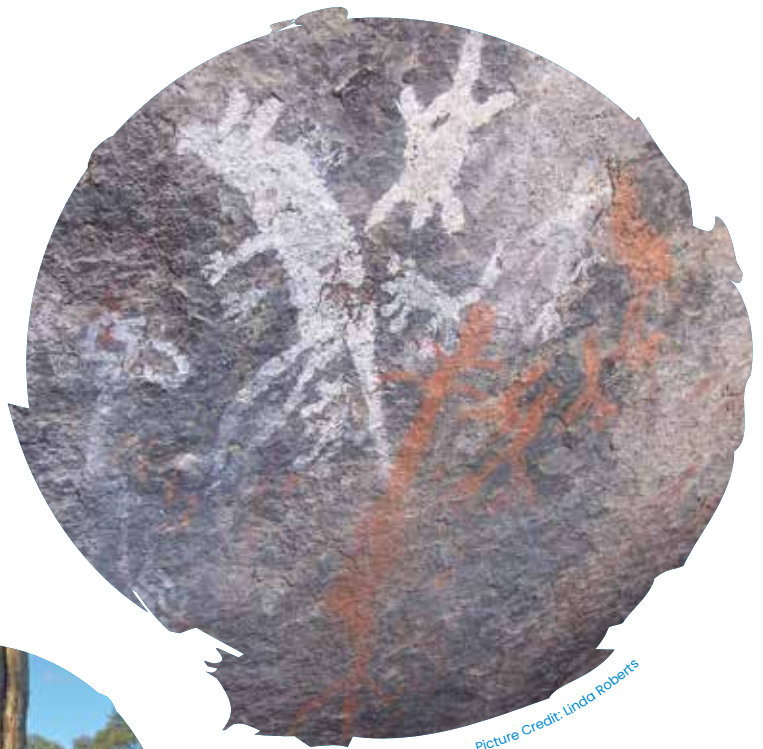
## DID YOU KNOW?

Ochre was used by Aboriginal people to communicate with one another through stories, maps and art. Ochre is a natural earth pigment that takes its colour from minerals found in the soil.

When European explorers came to Canberra, they were interested in finding limestone to build homes and other buildings.

Early British explorers called Canberra "The Limestone Plains" because of the limestone rocks, and the grasslands that covered much of the ACT.

Over the past 100 years, Canberra has changed from mainly grassy open plains to the treed suburbs that we now see.



Picture Credit: Linda Roberts



Picture Credit: ACT Government

# Everything in nature is connected

Just like us, plants and animals need food and a place to live to survive and thrive. This is called their habitat.

These habitats make up an ecosystem – a complex interconnected web of life.

Ecosystems in nature are in a dynamic balance. Plants and animals rely on each other, or play special roles in the environment.

Plants are important because they provide food for animals to eat and places for them to shelter. Plants also produce oxygen which all animals (including us) need to survive!

## Habitat

**Food + home = habitat**



## Ecosystem



**Lots of habitats make up an ecosystem**



### Q&A

Think about what you need to survive. Food? Water? Shelter? What are the things that help you thrive and grow strong? Things that give you energy? Who else do you share your home with, and how do they help you to survive and thrive? Who else lives in your community? How do they help you?

# The ACT's natural environment

The ACT has different ecosystems – forests, grasslands and grassy woodlands, wetlands and rivers.

In the ACT region, the forest on the hills connects to the woodlands below, which then connect with the grasslands and waterways in the valleys.

Animals like lizards, kangaroos, birds and insects move between different environments to search for food, water and shelter. They also need places to give birth or lay their eggs, and to raise their young.

Ecosystems are connected to each other and also have connections within them.



## DID YOU KNOW?

Some species rely on connected habitats more than others. The Scarlet Robin needs large connected woodland areas to survive. It is now threatened in the ACT because there aren't many of these areas left.



## ACTIVITY

Draw some animals that you might think live in the different parts of the forest.

## Tree canopy

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## Understorey

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## Ground cover



# Eat or be eaten

Like us, plants and animals need energy to grow.

Plants make their own food using the resources around them – air, soil, water and sunlight. They are called **producers**.

Animals cannot make their own food, and need to eat plants or other animals to get their energy. They are called **consumers**.

There are different types of consumers:

1. **Herbivores**: animals that eat plants.
2. **Carnivores**: animals that eat other animals.
3. **Omnivores**: animals that eat both plants and animals.

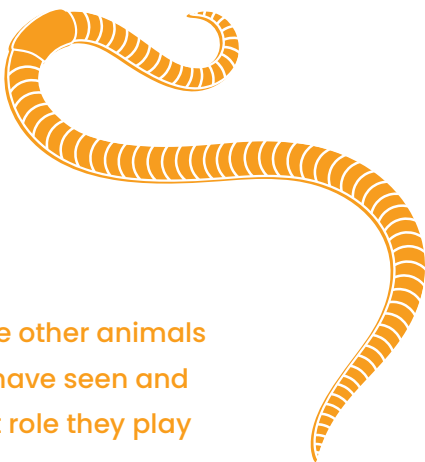
When plants and animals die, organisms such as fungi and bacteria break down the dead plant or animal, and recycle its nutrients back into the soil. The nutrients are then used by plants to grow. Fungi and bacteria are called **decomposers**.

A healthy ecosystem has plants, animals and other organisms that play all of these roles.



## ACTIVITY

Brainstorm some other animals and plants you have seen and write down what role they play in the ecosystem.



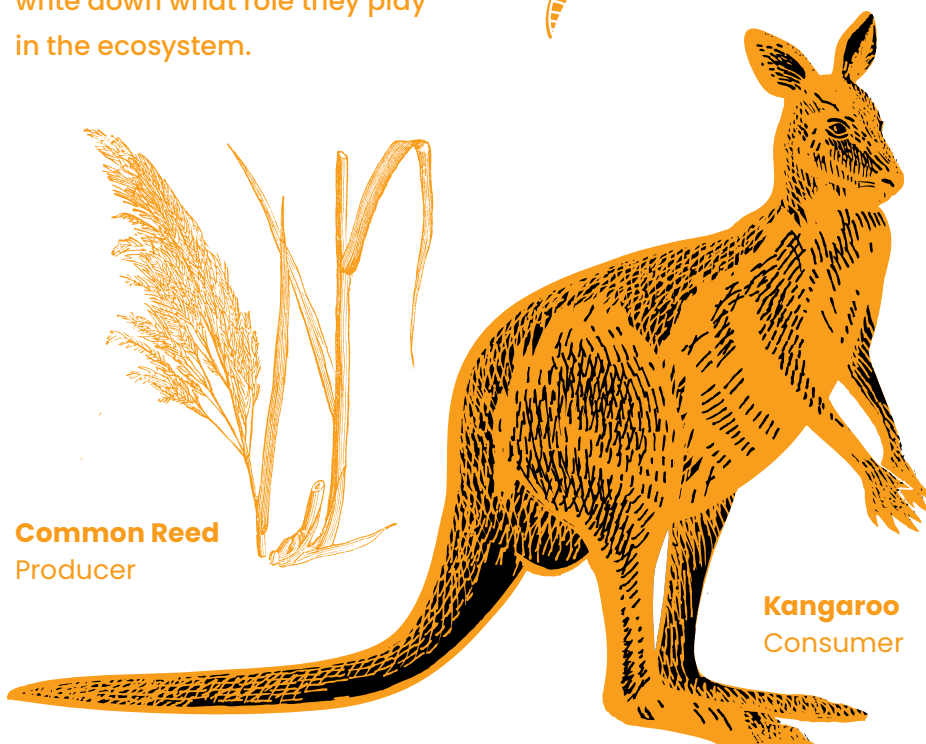
**Worm**  
Decomposer



**Mushroom / Fungi**  
Decomposer



**Common Reed**  
Producer



**Kangaroo**  
Consumer



**Echidna**  
Consumer



# Animals come in all shapes and sizes

There are two main categories of animals  
- **vertebrates** and **invertebrates**.

## Vertebrates

Vertebrates include mammals (including you!), birds, reptiles, amphibians and fish.

## Invertebrates

Invertebrates have no internal spinal column - they include worms, ants, beetles and spiders. Many invertebrates are so small that you cannot see them. However, they have very important functions - they pollinate plants, recycle nutrients in the soil and are a food source for other animals.



### DID YOU KNOW?

More than 97% of all animal species are invertebrates! Imagine how many small creatures do important jobs in ecosystems every day without us even noticing!



### Q & A

What do you think would happen if invertebrates disappeared? How would this impact on vertebrate animals like humans?



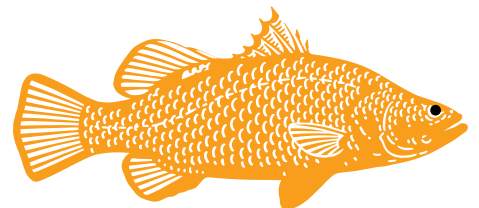
**Fly**  
Invertebrate

**Ladybird**  
Invertebrate



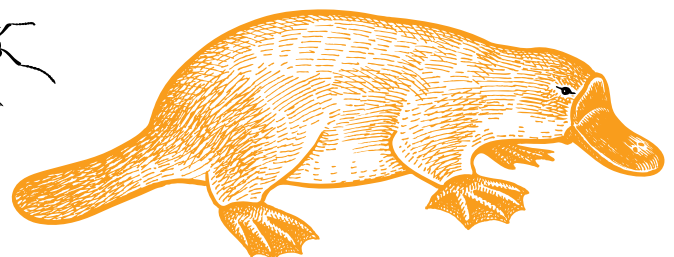
**Parrot**  
Vertebrate

**Barramundi**  
Vertebrate



**Lizard**  
Vertebrate

**Ant**  
Invertebrate



**Platypus**  
Vertebrate

## Do you have a favourite food?

Many plants and animals have favourite foods too! They can also have favourite places to shelter. These plants and animals are known as **specialists** because they are “fussy” and need particular foods and environments to survive.

The Golden Sun Moth is a specialist because it only eats the roots of native grasses like the wallaby-grasses. Golden Sun Moths are only found in native grasslands and woodlands which are now rare. Large areas of intact grassland or woodlands with lots of wallaby-grasses are important for Golden Sun Moths to breed.

Plant and animal species that are not fussy are called **generalists**. They can adapt more easily to changes in their environment and are happy to eat a range of foods. This makes it easier for them to survive.

The Brush-tailed Possum is a generalist because it can eat fruit, seeds and leaves, and can live in forests, woodlands and in our suburbs. Have you seen Brush-tailed Possums in your neighbourhood?



**Brush-tailed Possum**  
*Generalist*



**Fruit, seeds  
and leaves**



**Golden Sun Moth**  
*Specialist*

**Wallaby grass**



**DID YOU KNOW?**

Specialist plants and animals are more likely to be threatened than generalist plants and animals. Why do you think this is the case?

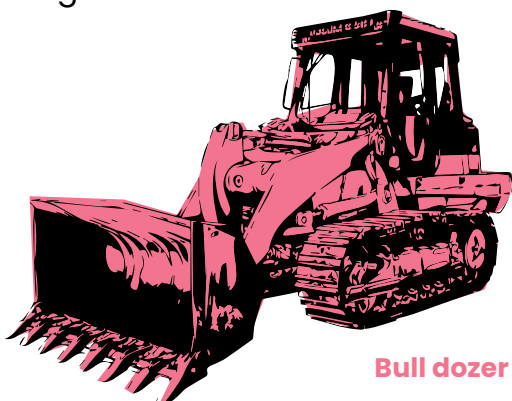
# Threats to the environment

Aboriginal people have lived sustainably in Australia for tens of thousands of years.

Unfortunately, from the time Europeans came to Australia, there have been changes that damage our environment, and threats that make it harder for plants and animals to survive.

## Nowhere to live!

The most common threat to plants and animals is the loss of their habitat. This happens when an ecosystem is broken down into smaller 'patches' or when resources like trees, shrubs and grasses are removed, such as when humans clear large areas of land to make way for buildings.

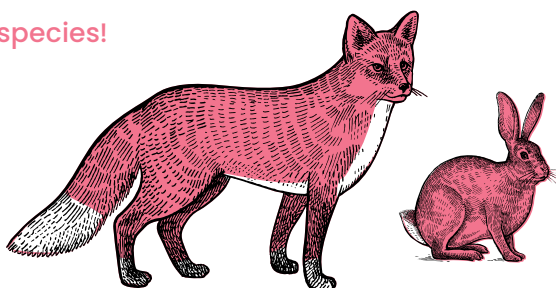


Bull dozer



## DID YOU KNOW?

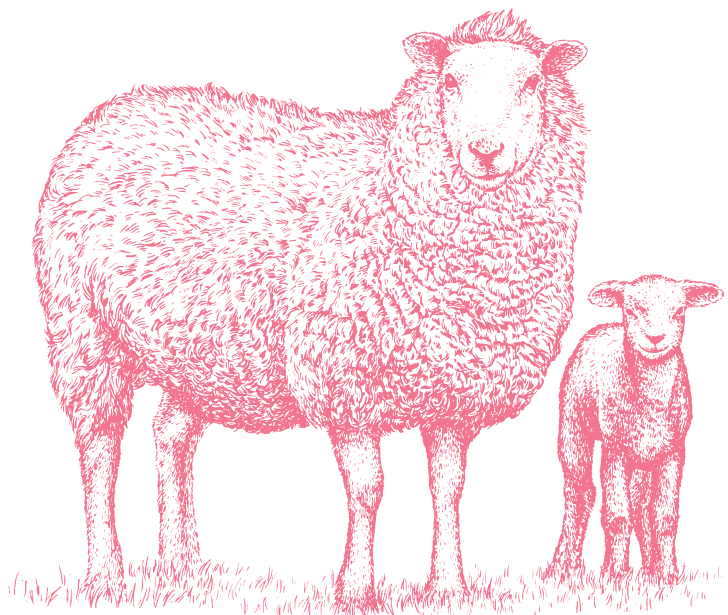
Foxes and rabbits were brought to Australia by early European settlers in the 19th century to be hunted. They are now some of our worst pest species!



Fox and Rabbit  
Pest Animals

## Humans can be noisy and messy

When humans build their homes, they often place them close to the natural places where plants and animals still live. This means that our noise, rubbish, pets and weeds can all make it harder for native animals to survive. Sheep and cows, as well as native animals like kangaroos can eat the grass down too low if they are not managed properly. This can destroy ecosystems like grasslands and reduce food for other native animals, because the plants are eaten faster than they can grow!



Sheep



**Blackberries**  
*Weeds*



### **Weeds**

A weed is any plant that is somewhere it does not belong. In nature reserves, native animals may not like to eat weeds because they are poisonous, prickly or not nutritious, so the weeds spread quickly and make it harder for native plants to find space to grow. Your parents might spend hours pulling out weeds in your garden at home, so imagine what happens when weeds escape into our nature reserves.

### **Pest animals**

Animals that are where they don't belong are called pest animals. (If your dog dug up your garden, you'd probably call him a pest!) In Canberra's nature reserves, 'pests' are rabbits, foxes and cats. Rabbits erode soil by digging, and foxes and cats eat native animals like lizards, small birds and mammals, leaving less food for native predators.

**Plastic bag**  
*Waste*



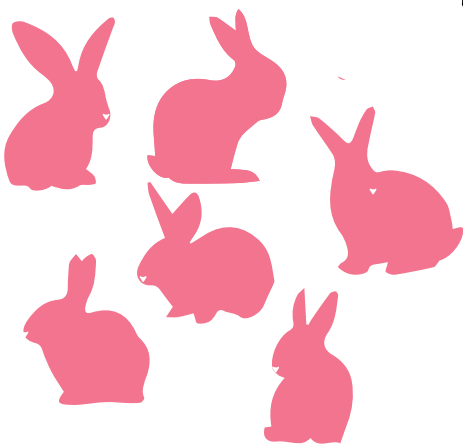
### **Our waste has impact**

Waste that ends up in our environment is known as pollution. Pollution can change the environment in a bad way, such as by making water unsafe for fish and other animals to live in. Air and soil can be polluted too, by fumes and chemicals.

### **Climate change**

As our climate changes, animals and plants may find that their habitats are too hot or too dry for them to live. This means they will need to find a new habitat. A species can become 'at risk' if they cannot find a new place to live.

**Rabbits**  
*Pest Animals*



**Coal power station**  
*Pollution*



# How do we know when a species is in danger?

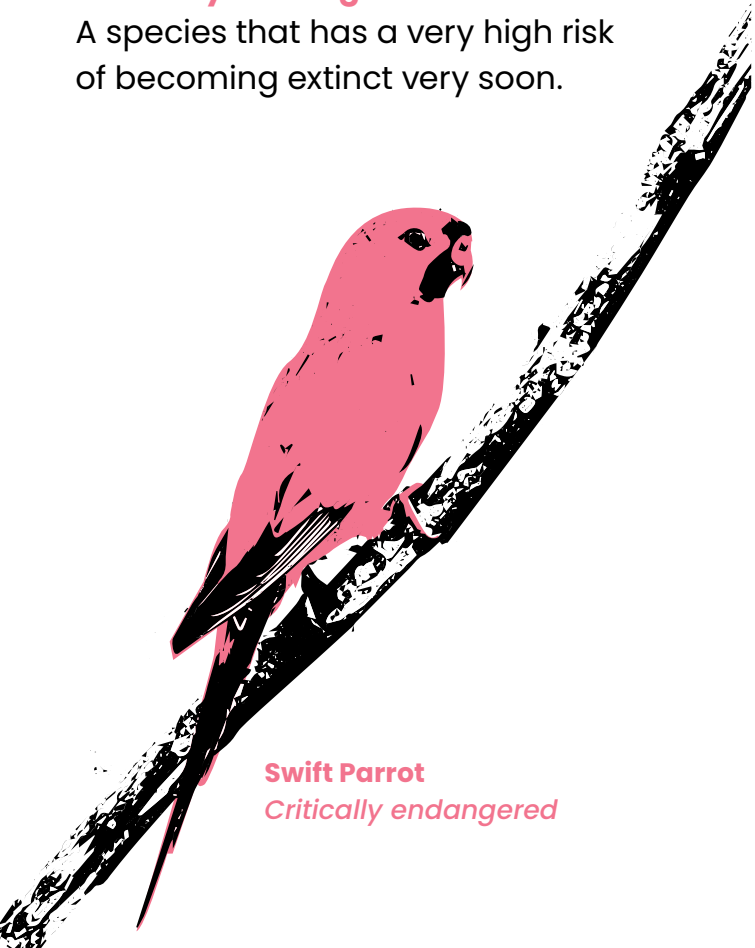
If animals and plants cannot find the resources they need to survive, they will become extinct. **Extinct** is the word we use when every individual plant or animal of that species has died – when this happens the species is gone forever.

When a species is **critically endangered**, **endangered** or **vulnerable**, this means it is in danger of becoming extinct soon – it is a **threatened species**.

**There are six main ways of describing how likely a species is to go extinct.**

## Critically endangered

A species that has a very high risk of becoming extinct very soon.



**Swift Parrot**  
*Critically endangered*

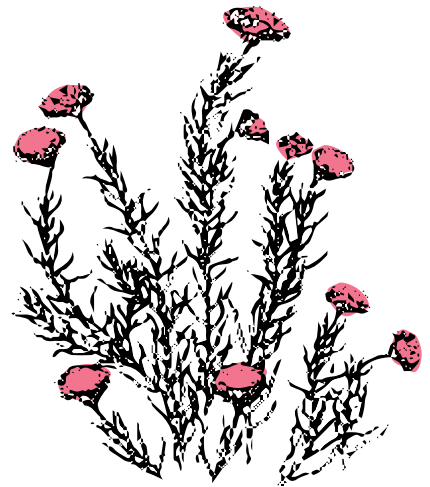


## DID YOU KNOW?

Scientists frequently discover new species. Some species can even become extinct before we discover them! It is important to look after the species that we know exist, especially those that are threatened.

## Endangered

A species that has a high risk of becoming extinct very soon.



**Button Wrinklewort**  
*Endangered*

## Vulnerable

A species that is reducing in numbers and is at risk of becoming extinct soon.



**Pink-tailed Worm-lizard**  
*Vulnerable*

In the ACT, there are **52 threatened species and three threatened ecological communities** that are in danger of becoming extinct.

Natural Temperate Grassland is one of these ecological communities. They are critically endangered, with less than 10% of this grassland community left in Australia compared to pre-European times. Yet in NSW and the ACT, only 0.6% of all Natural Temperate Grassland is protected in national parks and reserves. The Grassland Earless Dragon that lives in Natural Temperate Grassland is also a threatened species.

### Rare

A species that is not threatened but has only ever been present in small numbers. Rare species can easily become threatened because there are less of them to start with.

#### Green-comb Spider Orchid

*Rare*

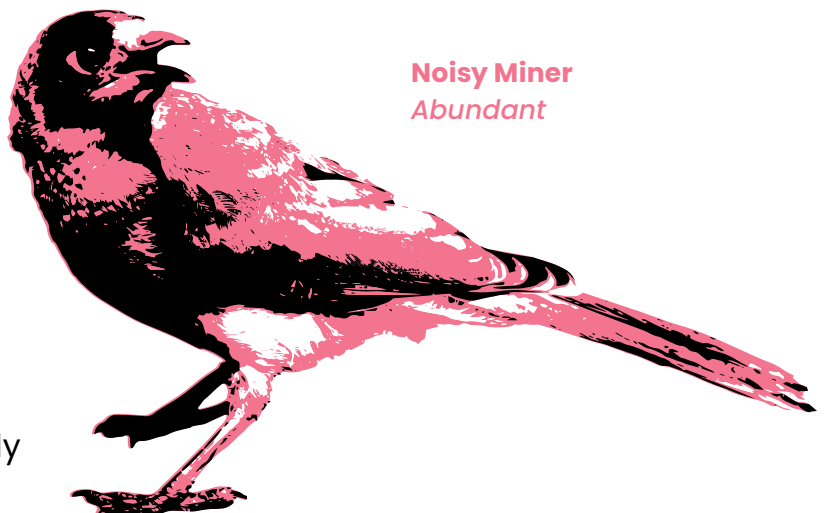


### Abundant

In some situations abundant species have become a pest, making it harder for other species to survive.

#### Noisy Miner

*Abundant*



### Common

A species that is widespread and has large and stable populations. Species may be common only in some habitats.

#### Kangaroo Grass

*Common*



# Ecosystems of the ACT

Take a journey through the special places of the ACT and discover the different plants and animals that live there. This is our natural heritage. From the forests to woodlands, to grasslands, waterways, and even our urban environment – Canberra has truly amazing nature!

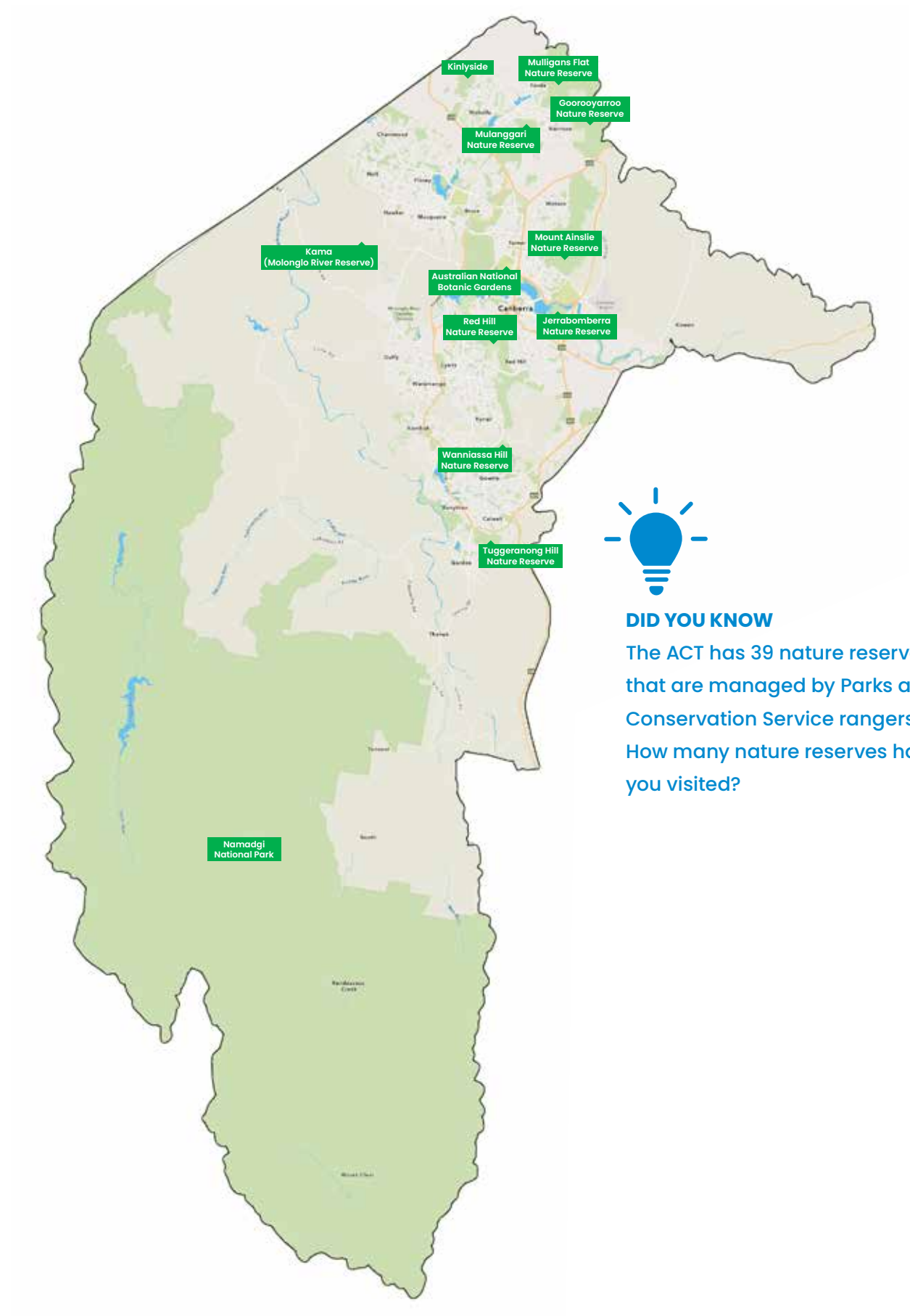


Picture Credit: Landcare ACT



Picture Credit: Jenny Bounds





#### DID YOU KNOW

The ACT has 39 nature reserves that are managed by Parks and Conservation Service rangers. How many nature reserves have you visited?

# Forest



## Special features

Forests in the ACT are known as Dry Forest. Unlike rainforests, dry forests are more open and are found mostly on hills and mountains where the earth is steep and rocky. The soil where dry forests grow can be shallow.



## Species overview

Different plants and animals rely on different layers of the forest. Taller trees protect small plants like shrubs, grasses and herbs (small flowering plants) that live on the forest floor. Birds love the tall trees to roost and nest in. Reptiles like to live in fallen dead trees and lie on sunny rocks to stay warm! You can also find Sugar Gliders and Swamp Wallabies.



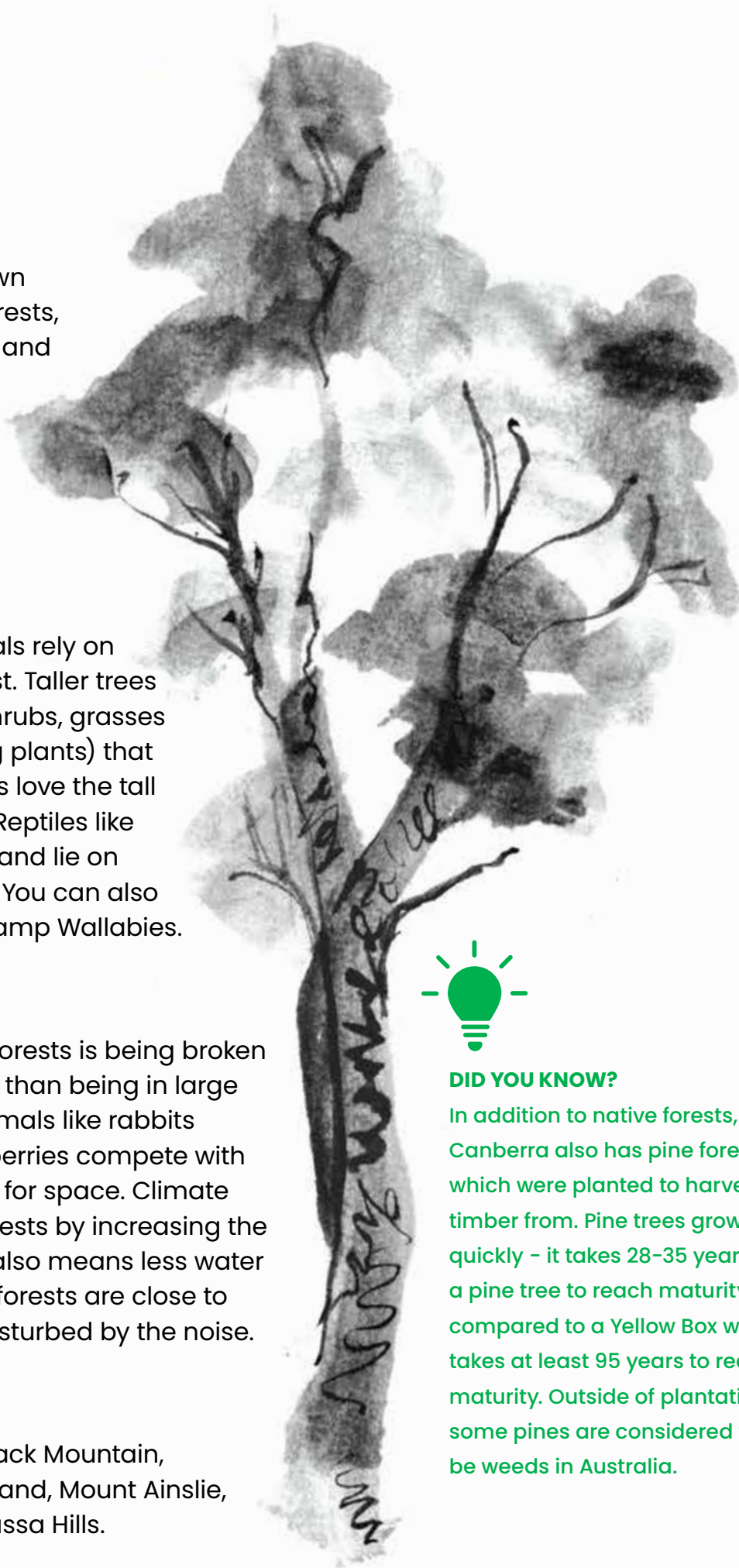
## Threats

A major threat to the Dry Forests is being broken up into small areas, rather than being in large connected areas. Pest animals like rabbits and plants such as blackberries compete with native animals and plants for space. Climate change may affect dry forests by increasing the risk of bushfires. Less rain also means less water for native animals. Where forests are close to houses, animals can be disturbed by the noise.



## Locations

Dry forests are found at Black Mountain, Bruce Ridge, Aranda Bushland, Mount Ainslie, Mount Majura and Wanniassa Hills.



## DID YOU KNOW?

In addition to native forests, Canberra also has pine forests, which were planted to harvest timber from. Pine trees grow quickly - it takes 28-35 years for a pine tree to reach maturity, compared to a Yellow Box which takes at least 95 years to reach maturity. Outside of plantations, some pines are considered to be weeds in Australia.

## Forest Field Guide

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### **Scribbly Gum**

The Scribbly Gum is a large tree with 'scribbles' on its smooth whitish bark, made by the caterpillar of a tiny moth. The Scribbly Gum has 'wrinkled armpits' where its branches grow out from the trunk. Old Scribbly Gums have hollows which are important nesting sites for animals including bats.

Picture Credit: Aaron Clausen



### **Green-comb Spider Orchid**

#### ***Very rare***

This spider orchid has long petals that look like spider's legs. Spider orchids produce the same smell that a female Thynnid wasp makes, to trick the male wasps to fertilise the plant.

Picture Credit: Matthew Frawley



### **Southern Boobook**

#### ***Common***

The Southern Boobook owl is hard to find, but you can hear it at night making its 'mopoke' calls. Owls love to eat mice, and large insects like beetles. They need tree hollows to nest in.

Picture Credit: Julie Lindner



### **Brittle Gum**

The Brittle Gum is a large tree with fuzzy white flowers that attract birds, bees and other insects. It has smooth white bark covered in white powder, which you can see when you rub your hand on its trunk.

Picture Credit: ACT Parks and Conservation Service



### **Sugar Glider**

#### ***Common***

This small possum has special skin between its feet that allows it to glide between trees. You can sometimes hear its unusual 'yapping' call at night.

Picture Credit: Sam Good



### **Gang-gang Cockatoo**

#### ***Common***

This creaky-voiced cockatoo spends summer in the mountain forests where they breed, and visits Canberra during the winter. The females are all grey with pale red markings, while males are grey with a bright red head and crest. They are the symbol on our Parks and Conservation rangers' hats!

Picture Credit: Geoffrey Dabb



# Woodland



## Special features

Woodlands have fewer trees than forests and wider spaces between the trees. Woodlands are found on the lower slopes of mountains and hills, or where the soils are deeper. The ground layer is made up of native grasses and many types of herbs called 'forbs' or 'wildflowers', which include daisies, orchids, lilies and peas.



## Species overview

ACT woodlands have Yellow Box trees and Blakely's Red Gums, which is why they are called Yellow Box-Blakely's Red Gum Grassy Woodlands. You can call them Box Gum Woodlands for short! Old woodland trees have hollows that provide shelter and nesting places for birds and mammals. It can take more than 100 years for a tree hollow to become a good home so it's important to protect old trees. The Superb Parrot and Brown Treecreeper need healthy woodlands to survive.



## Threats

Not all woodland areas are protected in the ACT – some are still under threat from development. Even protected woodlands face risks from pest animals, weeds and urban edge effects. Climate change can affect rainfall, and reduce the water available for animals that live in woodlands. The woodland trees are also at risk of disease known as 'die-back', which is when they slowly begin to die as a result of insect attack and other stresses.



## Locations

Woodlands are found in many reserves across Canberra, including Mulligans Flat, Goorooyarroo, Wanniassa Hills, Aranda and Cooleman Ridge Nature Reserves, and on the lower slopes of Mount Majura and Mount Ainslie Reserves.



## DID YOU KNOW?

Another name for a Yellow Box is "Honey Box". This is because Yellow Box trees are one of the best eucalypts for bees to produce sweet, golden honey.





## Woodland Field Guide

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### **Blakely's Red Gum**

This eucalypt tree sheds its bark every year, giving the trunk new smooth grey and reddish bark.

Picture Credit: ACT Parks and Conservation Service



### **Yellow Box**

This eucalypt tree has rough bark on its trunk and smooth yellowish-grey bark on its limbs. It has sweet-smelling flowers and small leaves.

Picture Credit: Jacky Fogerty



### **Eastern Rosella**

**Common**

This small colourful parrot is often seen feeding on the ground. Eastern Rosella stay with the same mate for life.



### **Hooded Robin**

**Vulnerable**

This small shy bird is often seen in pairs. The black and white males look like they are wearing a black hood. Hooded Robins 'perch and pounce' to get food - they perch on a stump or a branch until they spot something to eat, then they dart down to catch it!

Picture Credit: David Cook



### **Short-beaked Echidna**

**Common**

The Short-beaked Echidna is covered in dark hair and long whitish spines. When threatened, echidnas curl into a small ball. They have strong claws for digging and long tongues with sticky saliva to collect ants. Delicious!

Picture Credit: Kurt Luthi



### **Eastern Grey Kangaroo**

**Very common**

You will find this large kangaroo resting under shady trees in woodlands and urban areas during the day when it's hot. A group of kangaroos is called a "mob". The mob moves out into open areas in the mornings and afternoons to feed on grasses.

Picture Credit: Deb Ralph

# Grassland



## Special features

Native grasslands are very different from lawns, ovals and parks! The native grassland found on lower hillslopes and the valleys around Canberra is called Natural Temperate Grassland. Natural Temperate Grassland is made up of many different native species including grasses, lilies, orchids, daisies and other flowering plants. Some ACT grasslands are protected in reserves, but others are still not protected.



## Species overview

Grasslands are home to species including native grasses like Kangaroo Grass and wallaby-grasses, plants such as ferns, orchids and rushes, as well as mammals, reptiles, frogs, invertebrates and birds. Threatened species like the Grassland Earless Dragon, Striped Legless Lizard, Canberra Raspy Cricket and Perunga Grasshopper are only found in grasslands.



## Threats

In the past, Natural Temperate Grassland was often used as grassy paddocks, and large areas were cleared for crops, roads, houses and other buildings. These grasslands are now critically endangered. Weeds also cause problems in grasslands when they take hold, pushing out native grasses.



## Locations

Natural Temperate Grassland is found at Majura Valley, Jerrabomberra, Crace, Lawson, Dunlop, Jerrabomberra West, Gungaharra and Mulanggari Nature Reserves.



## DID YOU KNOW?

In winter, the temperature on the grassland floor in the early morning can be as low as -15 degrees celcius. That is as cold as your freezer! Although many species wouldn't be able to survive this, grassland species are very resilient and have adapted to the cold.



## Grassland Field Guide

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**Kangaroo Grass**  
*Common*

Kangaroo Grass has seed heads on its tips. It provides a home for snakes and lizards, and food for insects and kangaroos. Parrots and finches love to eat its seeds.

Picture Credit: Jane Roberts



**Wallaby-grasses**  
*Common*

Wallaby-grasses have fluffy white seed heads. The Golden Sun Moth's larva (caterpillar) eats the roots of wallaby-grasses, and kangaroos and wallabies eat the leaves.

Picture Credit: Waltraud Pix



**Common Wombat**  
*Common*

The Common Wombat has big powerful legs and sharp claws to help them dig burrows to rest in during the day. It emerges from its burrow at night to find different grasses and roots to eat.

Picture Credit: Deb Ralph



**Ginninderra Peppergrass**  
*Endangered*

This small plant, with ferny leaves and tiny greenish-coloured flowers, has only ever been found in the ACT. A real local hero!

Picture Credit: Patrick Harvey



**Grassland Earless Dragon**  
*Endangered*

This little lizard lives only in grasslands and loves to eat small invertebrates like ants. As their name says, it has no ears! So how do you think they find out when danger is near?

Picture Credit: Emma Cook



**Eastern Brown Snake**  
*Common*

This long, pale brown snake has a bullet-shaped head and eats small animals like baby birds and frogs. Although they are usually quite shy, it is best to stand still or slowly back away if you see one so that it doesn't get scared and give you a venomous bite!

Picture Credit: Tim Leach

# Waterways



## Special features

Waterways include rivers, streams, wetlands and ponds. When it rains, some water is absorbed into the earth, but most water runs quickly across surfaces into stormwater drains and then into waterways. We need to be careful with what we wash down the stormwater drain, as waterways provide important habitats for wetland species.



## Species overview

Many different animals live in or visit waterways, including frogs, birds, reptiles and mammals such as the unique Platypus. Common native plants like the River She-oak and Common Reed are found along waterways in the ACT. Some waterways, such as wetlands, have native aquatic plants such as Duckweed floating on the surface.



## Threats

Waterways face risks from climate change, pollution, weeds, and pest species like the European Carp. Climate change is affecting when and how much it rains, with the potential for increased droughts and less predictable rainfall events in the future. Dammed waterways also reduce the natural flooding which allows many types of birds and fish to breed.



## Locations

Rivers, creeks, lakes and wetlands can be found right across the ACT. Can you think of a waterway that is near you? Do you swim there or paddle in a boat?



## DID YOU KNOW?

Canberra is part of the Murray–Darling Basin. All streams in the ACT flow into the Murrumbidgee River, the third longest river in Australia. There are only two native mammals that live in freshwater ecosystems like the Murrumbidgee – the Platypus and Rakali (Water-rat).





## Waterways Field Guide

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### **River She-oak** **Common**

This droopy tree looks like a pine tree, with very fine needle-like stems. Platypus and Macquarie Perch love to use their strong roots to shelter in. She-oaks also provide food for Yellow-tailed Black Cockatoos.

Picture Credit: Michael Bedingfield



### **Wedge-tailed Eagle** **Common**

The largest bird of prey in Australia, this eagle gets its name from its wedge-shaped tail. "Wedgies", as they are often called, love to eat small kangaroos, rabbits and "carrion" – dead animals like road-killed kangaroos and foxes.

Picture Credit: Geoffrey Dab



### **Platypus** **Common, but declining**

This mammal lives in rivers and digs a waterside burrow to nest and sleep in. When the Platypus was first discovered, scientists did not believe they were real because of how unusual they look, with their duck's bill, webbed feet and beaver's tail!

Picture Credit: Sandra Henderson



### **Macquarie Perch** **Endangered**

This is a small silvery fish that lives in freshwater pools. A female can produce between 50,000 and 110,000 eggs when she is breeding!

Picture Credit: ACT Government



### **Common Reed** **Common**

The Common Reed is a tall plant that grows in water and produces big feathery flowers. Reeds add oxygen to the water. Aboriginal people once used the hollow stems of the reed as snorkels.

Picture Credit: Mike Sim



### **Latham's Snipe** **Common, migrant**

This bird has brown stripy feathers that allow it to camouflage in the reeds, making it very hard to spot. The Latham's Snipe migrates from Japan to the ACT in the warmer months.

Picture Credit: Matthew Frawley



# Urban



## Special features

Urban environments are where most people live. Urban environments can be very different to the natural environment, with buildings such as houses, schools, shopping centres and office blocks.



## Species overview

Urban environments often have many introduced plants and animals, including deciduous trees (eg. conifers and oaks), native trees (eg. white box eucalypts and bottlebrushes), ornamental shrubs (roses) and lawn grass species, as well as rats, cats and dogs. Animals that live in urban environments have usually been able to adapt to the changes that humans have made. You may have seen Brush-tailed Possums, who often use the roof space in houses for shelter, or Sulphur-crested Cockatoos and Australian Magpies, who commonly forage on open grassy areas for food.



## Threats

Species that have adapted to the urban environment aren't under threat from humans, but there are ways we can make the urban environment more welcoming to other species. Planting small and large native trees creates places for animals and birds to live. Domestic animals like cats and dogs should be kept at home or on a lead to stop them from roaming into surrounding nature parks and disturbing wildlife. Planting weeds that can spread to nearby bushland should be avoided, and humans should never dump rubbish in nature parks!



## Locations

Urban Canberra extends from Gungahlin and Belconnen in the north, to Tuggeranong in the south. If you live in a suburb in Canberra, you most likely live in an urban environment.



### DID YOU KNOW?

The hills around Canberra have not been built on, leaving woodlands and forests relatively intact. This is unusual for a city and is why Canberra is called the 'Bush Capital'. When Walter Burley Griffin planned Canberra in 1911, he wanted the city to sit within the natural landscape.



## Urban Field Guide

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**Tarengo Leek Orchid**  
*Endangered*

This native orchid has narrow onion-like leaves and greenish flowers with pink stripes. In the ACT it is only found at Hall Cemetery.

Picture Credit: Tobias Hayashi



**Australian Magpie**  
*Very common*

Magpies are black and white birds with strong beaks. Magpies are very protective and will often swoop people or other animals that come too close to their babies. Magpies are so smart – they will remember your face for years, so it is a good idea to be kind to them!

Picture Credit: Matthew Frawley



**Brush-tailed Possum**  
*Common*

The Brush-tailed Possum has dark fur and a thick, fluffy black tail. They come out at night to feed on leaves, berries and flowers. They often get sick because they also feed on human food like bread.

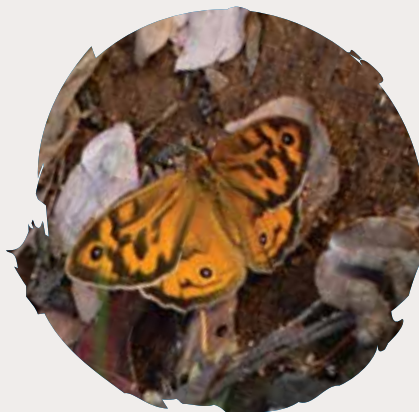
Picture Credit: David Cook



**Little Forest Bat**  
*Common*

This very small bat hangs upside down when resting or sleeping. It has special skin between its back legs that allows it to easily catch insects to eat.

Picture Credit: EACT



**Common Brown Butterfly**  
*Common*

This butterfly feeds on both native and introduced grasses, and can often be seen floating from flower to flower in backyards.

Picture Credit: Tom Tyrrell



**Blue-banded Bee**  
*Common*

This is no regular honey bee! This native bee has unique blue and black bands on its back. If you're lucky, you may find its nest burrows in clay soil.

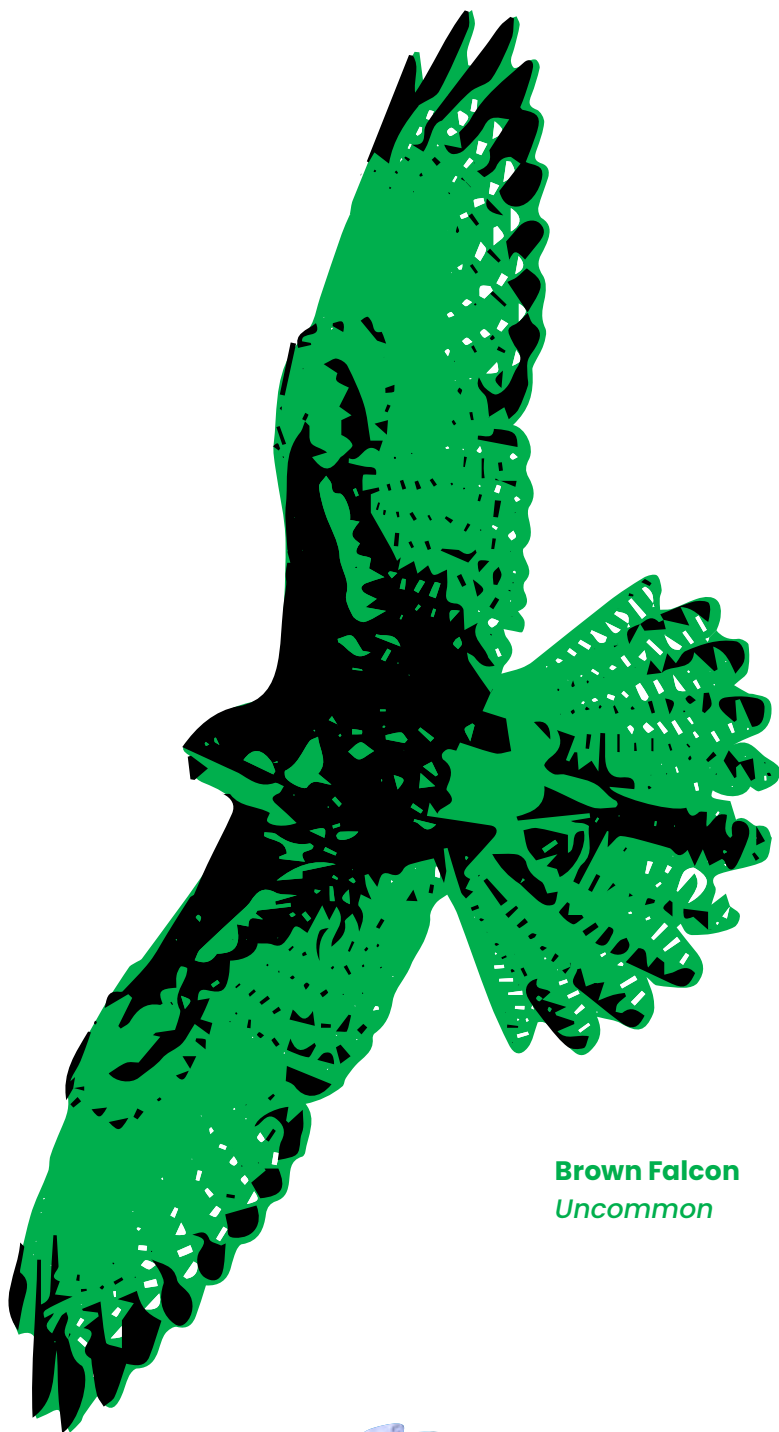
Picture Credit: Janet Russell

## Discover Kama

Kama is part of the newly-established Molonglo River Reserve and is home to some of the ACT's most endangered species, including Yellow Box-Blakely's Red Gum Grassy Woodlands and Natural Temperate Grassland. It is one of the last remaining places in the ACT where you can see large areas of healthy woodlands and grasslands together.

The ground is covered with native plants and grasses of all kinds. At certain times of the year you will see Chocolate lilies, Vanilla lilies, Sticky Everlastings and many other native wildflowers. If you are quiet you may even hear the rustles of the shy Pink-tailed Worm-lizard.

Amongst the 90 species of birds at Kama are Red-rumped Parrot, Grey Fantail, Red-browed Finch, and birds of prey like the Brown Falcon and Nankeen Kestrel.



**Brown Falcon**  
*Uncommon*



**Pink-tailed Worm-lizard**  
*Vulnerable*



Picture Credit: CCACT

## Heritage at Kama

Aboriginal people have strong connections to Kama, which provides important access to the Molonglo River and is part of a network of pathways called 'songlines' that were used by Aboriginal people to navigate the landscape. Many important artefacts have been found here.

From 1923, Kama was part of a large block leased to Oswald Dixon. Oswald and his family lived on the block and cleared trees to make space for sheep grazing. You can still see the evidence of this tree clearing today.

In 2012, Kama was officially listed on the ACT Heritage Register because of its special natural values. In particular, it was recognised as an **ecotone** – a natural boundary between two ecological communities – Natural Temperate Grassland and Yellow Box-Blakely's Red Gum Grassy Woodland. It is also important because it connects the Molonglo River Reserve to the south Belconnen Hills (The Pinnacle).



### DID YOU KNOW?

Nature reserves are protected areas where human activity is limited. Park rangers look after the reserves, and scientists monitor the animals and plants that live there to make sure they are healthy. Community Park Care groups help care for reserves by clearing weeds and planting trees, shrubs, grasses and wildflowers.



Picture Credit: CCACT



## A Natural Secret at Hall Cemetery

Hall Cemetery is the only known home of the Tarengo Leek Orchid in the ACT. Each year, between 20 and 60 flowering plants emerge in the areas surrounding the graves.

The cemetery is also home to other rare species, like the Key's Matchstick Grasshopper. This most unusual grasshopper cannot fly and, unlike other grasshoppers, is most active during winter.



**It is best to stick to the paths when visiting Hall Cemetery as walking through it could damage the Tarengo Leek Orchids. If they are damaged or removed, then they may become extinct in the ACT.**



Picture Credit: Maddie Clegg

**Tarengo Leek Orchid**  
*Endangered*



Picture Credit: Tobias Hayashi



1883

A small block of land was set aside for a cemetery in Hall.



**DID YOU KNOW?**

Although cemeteries can be sad places for us, they are often sanctuaries for different plants and animals. Because cemeteries have been fenced off from threats like large grazing animals and rabbits for a long time, they can often be the best examples of high quality habitats.

1907

A section of land was cleared and fenced off for the first burials. The grass in the cemetery was burnt nearly every year and grazing animals (cows and sheep) and rabbits were kept out.

1976

New managers began to mow the grass at least three times a year.

1988

The cemetery became a public cemetery and was mown regularly.

1991

The Tarengo Leek Orchid was discovered in the cemetery for the first time.

1994

A special mowing plan was put in place to protect Tarengo Leek Orchids from being damaged and becoming extinct.

**Key's Matchstick Grasshopper**  
*Rare*



## Visit Jerrabomberra Wetlands

One of Canberra's most valuable waterways can be found only four kilometres from Canberra's city centre at Jerrabomberra Wetlands, a reserve in the Canberra Nature Park.

The wetlands were originally part of the floodplain of the Molonglo River, but when the River was dammed and filled to create Lake Burley Griffin in 1964, the amount of water and where it flowed changed, and the Jerrabomberra Wetlands were created.

Jerrabomberra is an especially important place for birdlife. Over 200 species of birds live or visit there - from ground-dwelling birds like Purple Swamphen to birds of prey like the Whistling Kite!

Other animals that call Jerrabomberra home include the Platypus, Rakali and Eastern Long-necked Turtle.



Picture Credit: Deborah Ralph



**Purple Swamphen**  
*Very common*



#### DID YOU KNOW?

One of the most iconic species at the wetlands is the Latham's Snipe. This fascinating bird travels 8000 kilometers every year from Japan to Jerrabomberra just for the summer. That's quite some air miles!



Picture Credit: Deborah Ralph

### Jerrabomberra's Heritage

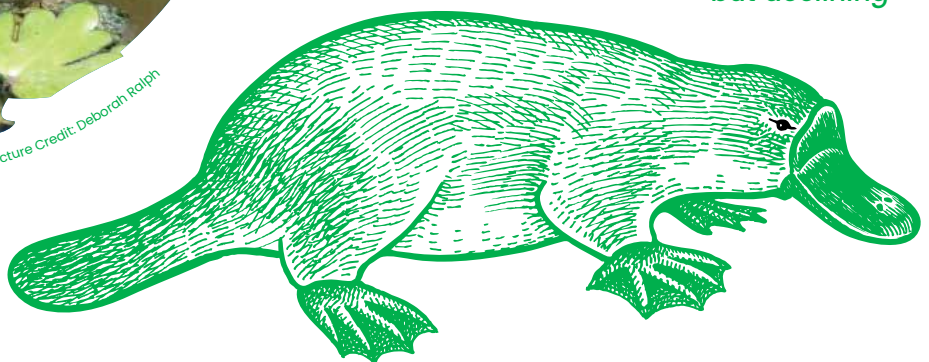
The Pialligo region, where Jerrabomberra is located, is a very important landscape for Aboriginal people, especially the Ngunnawal people, as it once provided food, water, medicine and resources for their ancestors.

Large groups of Aboriginal people would travel from inland and the coast to gather here for ceremonies and to trade.

After Europeans arrived, they used the area for agriculture - to grow crops and keep dairy cows to make milk, butter and cheese. In some parts of the wetlands you can still see evidence of old fence-posts above the waterline.

Jerrabomberra is recognised on the ACT Heritage Register as a place of refuge for birdlife and other mammals, invertebrates, reptiles and fish.

**Platypus**  
*Common,  
but declining*



# What can you do to protect our special places?

## Things you can do at home

### Plant native

Plant native flowers, shrubs and trees in your garden. Make sure to plant lots of different types of plants to attract different kinds of insects and birds.

### Water for wildlife

Leave clean water outside in a bird bath, pond or container for native wildlife on hot days. Make sure small animals have a way to get out of water containers so they don't drown. Don't leave plastic containers in the sun too long though - they can break up into small pieces and end up as litter.

### Don't feed wildlife

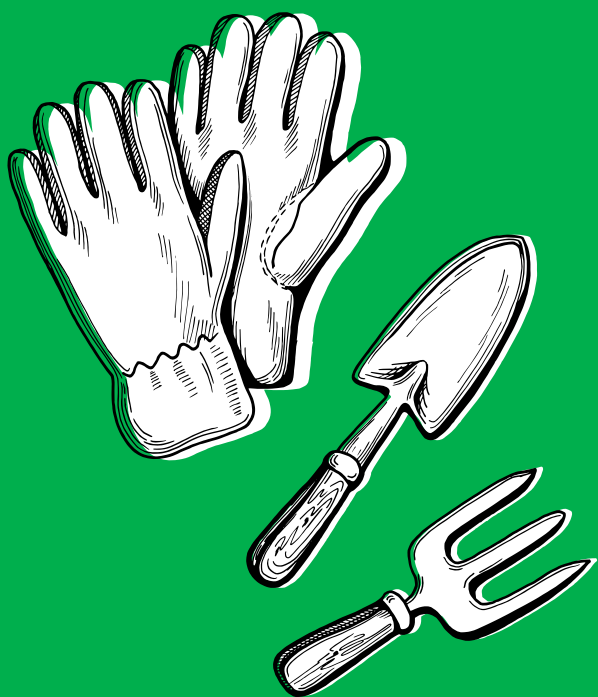
Feeding native animals human food like bread can make them very sick. It also means they learn to rely on humans.

### Contain your cat

If you own cats, always keep them contained in your house or garden, perhaps in a cat run, so they can't get out and hunt native animals. This also keeps your cats safe!

### Research

Research an ACT park or reserve, or research a local threatened species.





## Things you can do at school

### Plant native trees

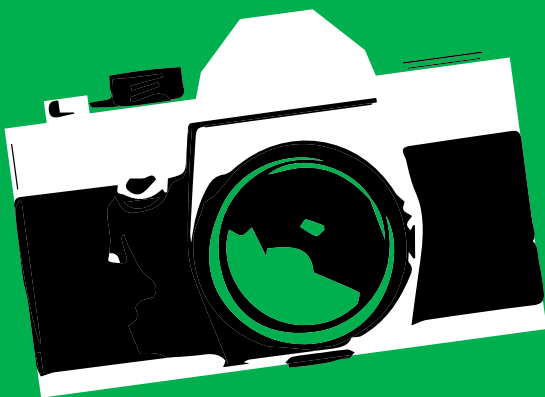
Ask your school to set up a project to plant trees and shrubs for birds, insects and other wildlife. Your teacher could help you plan your project.

### Share knowledge

Arrange for a local ecologist to visit your school and talk about a threatened species, or share a book with your friends about a special plant or animal you have seen.

### Arrange a trip

Ask your school to arrange an excursion to a local park or reserve. Your teacher could arrange for an ecologist, ACT Parks and Conservation ranger, Aboriginal elder or Park Care group member to provide a guided walk.



## Things you can do walking

### Download Canberra Nature Map app

Take photos of any interesting plants or animals you see and add them to the Canberra Nature Map. The map collects thousands of sightings from citizen scientists (just like you!) and has helped scientists make many important discoveries.

### Walk your dog on a lead

Use a lead whenever you walk your dog to keep them safe and prevent them from chasing or attacking native animals.

### Leave nature in nature

When you are walking in nature reserves or national parks, don't take anything home with you (such as flowers, rocks or wood).

### Leave only footprints behind

Take all your rubbish (like food scraps and containers) home with you and recycle or compost where possible.

### Capture the moment

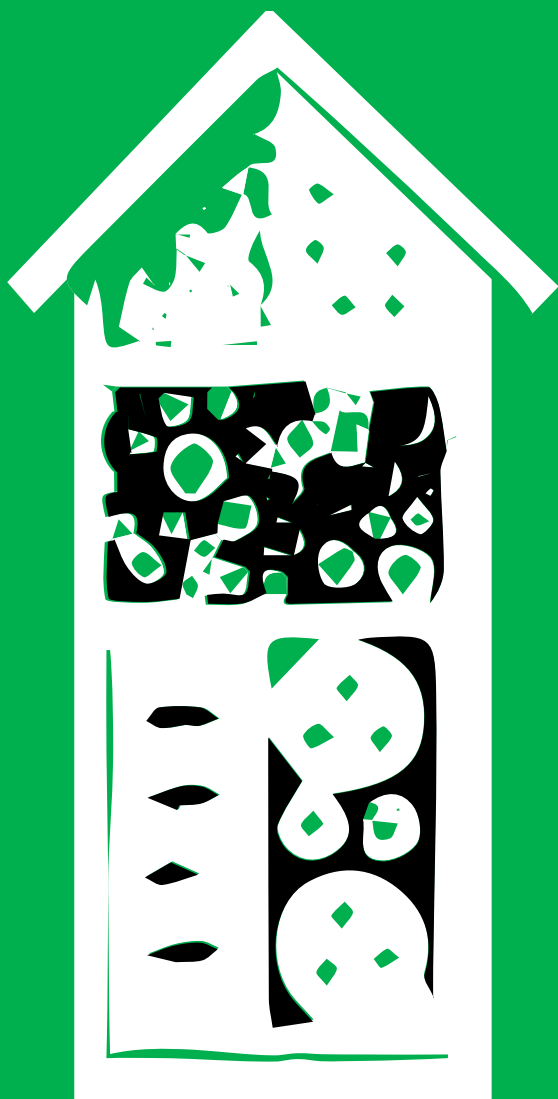
Take photos to share with your family and friends of the nature reserves that you have visited.



# Get creative in your backyard

## Create a bee hotel

Bees are busy creatures, constantly on the move collecting nectar and pollen, and building nests. Our native bees, like the Blue-banded Bee, build nests in hollows, logs and soft soil. We can create new places for them to nest by making a bee hotel.



**You can search online to find out more about how to complete these projects.**

## Build and install a nest box



Nest boxes create homes for many different animals, including possums, birds and sugar gliders. You can make a nest box as big or small as you want, depending on what animal you would like to attract. Try to use recycled materials like shredded paper, bark or wood shavings to make the inside comfortable, and install it up high, away from predators like cats!

## Create a lizard lounge



Lizards can often be seen basking among rocks and logs, feeding on the insects that live amongst them. Sadly lizards, beetles and many other insects lose their homes when people collect wood to burn in their fireplaces. You can help to protect them by building a lizard lounge out of rocks, hollow logs and old pots.

## Make a frog pond



A frog pond is a wonderful addition to your backyard because it will collect rainwater during storms, provide water for native wildlife on hot days and provide a home for local frogs! An added bonus is that frogs that live in your pond at home will eat those pesky mosquitos that buzz around your home at night.

## How much can you remember? Take the quiz!

- Q1. What is ochre?**
- Q2. Name two things that threaten our local native plants and animals.**
- Q3. What type of grassland is found in Canberra?**
- Q4. How far does the Latham's Snipe travel to get to Jerrabomberra Wetlands? Can you remember which country it travels from?**
- Q5. Name two actions you could take to protect the local environment.**
- Q6. How long does it take for a pine tree to reach maturity?**
- Q7. Name two threats to waterways in the ACT.**
- Q8. What is the difference between a forest and a woodland?**
- Q9. Why is Canberra commonly referred to as the 'Bush Capital'?**
- Q10. What is the other name given to a Yellow Box? Why is it called this?**

**You might like to test your parents and see how they go!**

## Local environment groups

The ACT has many local environment groups that work to protect our natural places and the species that live there. You could join ones of these groups or encourage your parents or friends to join up with you. You could even start your own group!

### **ACT for Bees**

**[actforbees.org](http://actforbees.org)**

### **Australian Native Plant Society Canberra**

**[nativeplantscbr.com.au](http://nativeplantscbr.com.au)**

### **Canberra**

#### **Ornithologists Group**

**[canberrabirds.org.au](http://canberrabirds.org.au)**

### **Friends of Grasslands**

**[fog.org.au](http://fog.org.au)**

### **Ginninderra**

#### **Catchment Group**

**[ginninderralandcare.org.au](http://ginninderralandcare.org.au)**

### **Greening Australia**

**[greeningaustralia.org.au](http://greeningaustralia.org.au)**

### **Landcare ACT**

**[landcareact.org.au](http://landcareact.org.au)**

### **Molonglo**

#### **Conservation Group**

**[molonglo.org.au](http://molonglo.org.au)**

### **National Parks Association**

**[npaact.org.au](http://npaact.org.au)**

### **Southern ACT**

#### **Catchment Group**

**[sactcg.org.au](http://sactcg.org.au)**

### **Southern Tablelands**

#### **Ecosystem Park**

**[step.asn.au](http://step.asn.au)**

### **Woodlands and**

#### **Wetlands Trust**

**[woodlandsandwetlands.org.au](http://woodlandsandwetlands.org.au)**



**Check if you have a local  
Park Care group nearby.**



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**Disclaimer:** Every effort has been made to ensure the information in this guide is accurate at the time of printing and that original sources have been adequately acknowledged. The conservation status of species listed in the Field Guides are indicative of their ACT listing only. Some have been adapted from other sources where ACT listings were unavailable.



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