

Native plants and animals of the Chewton Bushlands

**Karen Baker
Antoinette Birkenbeil
Hannah Nicholas**





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The Chewton Bushlands Association acknowledges the Dja Dja Wurrung, also known as the Jaara People, as the Traditional Owners and custodians of this land and recognise the Dja Dja Wurrung's ongoing connection to Country.

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Front cover: Swamp Wallaby PHOTO: ANTOINETTE BIRKENBEIL

Inside front cover: Brush-tailed Phascogale PHOTO: JESSICA LAWTON

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Acknowledgements

THIS GUIDE is for residents, visitors, family, friends and members of local environmental groups, many of whom have recorded sightings of the species that have been included. We hope that you enjoy exploring the beautiful environs of the Chewton Bushlands and surrounding area.

Although the authors have made every effort to ensure that the information in this book is correct, the authors do not claim that the book is without errors and inconsistencies. Please report any errors or additional flora and fauna sightings to the Chewton Bushlands Association contact@chewtonbushlandsassociation.org.au.

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Introduction

THIS BOOK is a guide to the local native plants and animals of the Chewton Bushlands and the immediate surrounds. Throughout this guide, this area is referred to as the Bushlands and is shown on the map on pages 8 and 9. The species recorded in this book have been observed by community members and visitors to the area. Additional species are likely to occur in the area, and where possible these have been noted.

Native fauna (animals) are grouped together based on their broad type: mammals; frogs; reptiles, and birds. Native flora (plants) are grouped together based on their form and by scientific order: creepers and climbers; herbs and ground covers; lilies; orchids; grasses, rushes and sedges; shrubs, and trees.

Whilst the natural area has been modified by dwellings and gardens, dams and some cleared areas, the Bushlands still provides protection of a valuable piece of Victoria's remaining 17% of Box-Ironbark Forest. Local residents are committed to the preservation of the environment and manage threats like pest plants and animals. A number of properties also have conservation covenants through Trust for Nature, permanently protecting the vegetation and habitat values.

There are three important public conservation reserves: the Parks Victoria managed Chewton Bushland Reserve, the Mount Alexander Shire Council conservation-managed Wallaby Crescent Reserve and the natural areas of the Chewton Cemetery. Roadsides also support



Sun-orchid

significant vegetation and provide valuable habitat.

The Bushlands consists of a series of undulating rises and low hills formed by sedimentary deposits with shallow clay soils of low fertility and water-holding capacity. These hills can be seen from the township of Chewton and rise to over 500 metres above sea level allowing the viewer on Look Out Ridge Road or Mount View Road to see Mount Franklin to the south, Mount Tarrengower to the west and Mount Alexander to the north.

The low rises support a Heathy Dry Forest vegetation community with an overstorey dominated by Red Box, Grey Box, Yellow Box, Long-leaved Box and Red Stringybark. Many of these trees are coppiced, a historical reminder that the area was used for timber harvesting during the 19th century goldrush. These trees

provide an important food source for birds and bats, and nesting hollows for a range of species including the threatened Brush-tailed Phascogale.

The understorey of these areas is rich in shrubs, grasses and herbs and includes a spring wildflower season that demonstrates the resilience of the environment to recover after the human impacts of the goldrush. Fallen trees and branches, and lichen-covered rocks provide habitat and refuge for a range of reptiles and frogs, and birds can often be seen picking through the leaf-litter feasting on a range of insects.

After heavy rains, ephemeral creeks are formed that run down to neighbouring pastureland and out to Forest Creek. The alluvial soils of these gullies support a Valley Grassy Forest vegetation community with an overstorey of Yellow Box, and a scattering of Candlebarks and River Red Gums. The shrub layer is sparse in these gullies and groundcover consists of grasses, sedges and herbs. Mobs of kangaroos, solitary Swamp Wallabies and Short-beaked Echidnas can often be seen feeding at dawn and dusk and frogs can be heard calling from the many dams.

What can we do to protect our local native flora and fauna?

1. **Control and remove pest plants** including garden escapees
2. **Retain native vegetation** and encourage natural regeneration
3. **Use indigenous plants** in your garden around your house
4. **Replant with local indigenous plants** where natural regeneration is not occurring or species are missing
5. **Preserve ground cover** of logs, fallen trees, rocks and leaf litter
6. **Retain large trees with hollows** and introduce nest boxes
7. **Make your dams more wildlife friendly** by improving habitat
8. **Control pest animals** such as foxes and rabbits
9. **Keep your pets confined** within a fenced section of your property and cats inside the house or in an enclosed cat run
10. **Do not use rodent bait** outside your home

Colourful plants for your garden

These flowering plants are easily grown in the garden and are available from native nurseries. Planting local provenance plants maintains our local species and provides important habitat for wildlife.

ORANGE AND YELLOW

Common name	Scientific name	Page
Gold-dust Wattle	<i>Acacia acinacea</i>	109
Bulbine Lily*	<i>Bulbine bulbosa</i>	91
Clustered Everlasting	<i>Chrysocephalum semipapposum</i>	77
Billy Button*	<i>Craspedia variabilis</i>	78
Hoary Sunray	<i>Leucochrysum albicans</i>	83
Wattle Mat-rush	<i>Lomandra filiformis</i>	106
Sticky Everlasting	<i>Xerochrysum viscosum</i>	90

RED AND PINK

Common name	Scientific name	Page
Downy Grevillea, Cat's-claw Grevillea	<i>Grevillea alpina</i>	118
Running Postman	<i>Kennedia prostrata</i>	72
Magenta Stork's-bill	<i>Pelargonium rodneyanum</i>	84
Pink bells	<i>Tetradlea ciliata</i>	124

WHITE

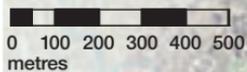
Common name	Scientific name	Page
Sweet Bursaria	<i>Bursaria spinosa</i>	113
Bushy Needlewood	<i>Hakea decurrens</i>	118

PURPLE AND BLUE

Common name	Scientific name	Page
Chocolate Lily*	<i>Arthropodium strictum</i>	91
Black-anther Flax-lily	<i>Dianella admixta</i>	92
Purple Coral-pea	<i>Hardenbergia violacea</i>	72
Austral Indigo	<i>Indigofera australis</i>	120
Digger's Speedwell	<i>Veronica perfoliata</i>	88
Tall Bluebell	<i>Wahlenbergia stricta</i>	89

*These plants will die down after seeding but will survive the hottest months of the year as underground tubers.

Chewton bushlands



3KM TO
EXPEDITION
PASS
RESERVOIR

1KM TO
CHEWTON
POST
OFFICE

CASTLEMAINE
DIGGINGS
NATIONAL
HERITAGE
PARK

CHEWTON
BUSHLAND
RESERVE

CHEWTON
CEMETERY





Symbols key

When looking through this book, please use this key

CALL TIME

J F M A M J J A S O N D

Months when male frogs are calling

IN FLOWER

J F M A M J J A S O N D

Months when plants are in flower



Butterfly attracting plant



Bird attracting plant



Hollow dependent fauna species

Where can I buy local indigenous plants?

Goldfields Revegetation

230 Tannery Lane, Mandurang Vic 3551

Open 7 days a week 9am to 5pm

Website: www.goldfieldsrevegetation.com.au

Phone: (03) 5439 5384

Email: info@goldfieldsrevegetation.com.au

Neangar Nursery

8 McClelland Drive, Eaglehawk Vic 3556

Open Monday to Friday 9am to 5pm. Closed Public Holidays

Website: www.neangarnursery.com.au

Phone: (03) 5446 9260

Email: neangarnursery@bigpond.com

Newstead Natives Nursery

4 Palmerston St, Newstead Vic 3462

Open by appointment only

Frances Cincotta

Phone: (03) 5476 2691

Email: natives@newstead.vicmail.net

Fauna



Short-beaked Echidna*Tachyglossus aculeatus*

These small egg-laying mammals (monotremes) break into ant and termite nests for food with their pointed snout and sharp claws. They use their sticky long tongues to catch their prey. Puggles (baby echidnas) live in their mother's pouch for up to three months until they become too prickly when they will move into a purpose built burrow. Echidnas enter into a torpor or state of hibernation over winter.



Koala*Phascolarctos cinereus*

These solitary marsupials feed almost entirely on eucalypt leaves including Yellow Box, River Red-gum, Yellow Gum, Red Stringybark and Long-leaved Box. Males give loud bellowing territorial calls during mating in spring and early summer. Females give birth to one joey per year that stays in the pouch for six to seven months. It then rides on the mother's back until it is too big to be carried.



Previous page: Short-beaked Echidna

PHOTO: HANNAH NICHOLAS

Black Wallaby, Swamp Wallaby

Wallabia bicolor

These shy, solitary marsupials are more active at night than during the day. They are stocky in build, dark brown on their upper surface, yellowish underside, and often have a white striped face. They feed on shrubs, ferns, grasses and underground fungi. They can breed at any time throughout the year, but mostly in winter. Joeys stay in the female's pouch for eight to nine months and continue to suckle until 15 months of age.



Eastern Grey Kangaroo

Macropus giganteus

These are the only species of kangaroo found in the area. Males are larger than females, standing up to two metres tall. When food is abundant and water is reliable they can live in large 'mobs.' They can breed at any time of the year with females often having a joey at foot and another young in her pouch. They shelter in the shade during the day – particularly during warmer weather – and graze on grasses and shrubs at dawn and dusk.



Brush-tailed Phascogale, Tuan*Phascogale tapoatafa*

These small, shy, nocturnal mammals have a conspicuous black bottle-brush shaped tail. They occur in low densities throughout the landscape and forage over a very large home-range (females 20-70 ha, males 100 ha). They feed on insects, spiders and centipedes, and occasionally eucalypt nectar both in trees and on the ground. They form nests of bark and feathers in eucalypt hollows and custom designed nest boxes. Males only live for one year and will die after mating in early winter.

**Threatened****Sugar Glider***Petaurus breviceps*

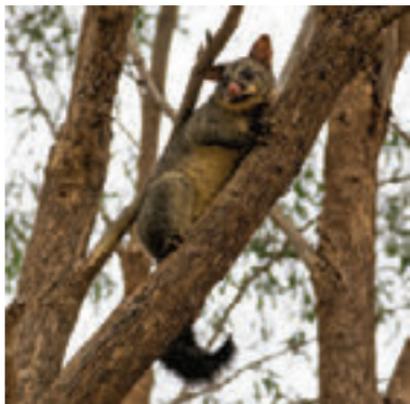
These social, nocturnal marsupials live in eucalypt trees with hollows and custom designed nest boxes in groups of up to eight, actively defending their territories. They feed at night, gliding up to 50 m between trees, and climbing in canopy foliage to feed on tree sap, nectar, pollen, and invertebrates. Breeding occurs from July to August with females commonly giving birth to twins that remain in the pouch for 70 days. Young disperse at 7-10 months old.



Common Brushtail Possum

Trichosurus vulpecula

These social, nocturnal marsupials feed mainly on plant material including leaves, flowers and fruit in trees and occasionally on the ground. They nest in hollows where they have one young generally in spring. The young stays in the female's pouch for four to five months. It then rides on the mothers back for four to eight weeks until weaned and then disperses at about 18 months of age.



Common Ringtail Possum

Pseudocheirus peregrinus

These social, nocturnal marsupials feed on leaves, flowers and fruits using their prehensile tail as a fifth limb to climb among the branches to feed. In the Bushlands they appear to build their nests in hollows rather than in foliage (dreys) like in other areas of Victoria. They breed from April to November having two young that stay in the pouch for four months. Both parents care for the young taking turns to carry the young on their backs.



The Eastern Pygmy Possum and Feathertail Glider may also be present in the Bushlands.

Yellow-footed Antechinus*Antechinus flavipes*

These small marsupials (body 9-16 cm; tail 6.5-14 cm) have a slate-grey head with warm orange-brown sides, underside, rump and feet. They have white to light grey eye-rings and a black tip at the end of the tail. These agile climbers can be seen during the day foraging with jerky movements in trees, amongst rocks and tree stumps on small vertebrates, eggs and nectar. They build their nests in tree cavities, amongst rocks or buildings.



Lesser Long-eared Bat*Nyctophilus geoffroyi*

These small (4 cm) microbats, weigh only 6 to 10 grams. They roost in hollows, fissures and under bark and at times in large groups. They feed at night on a large range of insects. They use echolocation to catch their prey during mid flight, from foliage or the ground. During winter they enter a state of torpor. Breeding generally occurs from late spring to early summer.



Little Forest Bat

Vespadelus vulturnus

These small (4 to 5 cm) agile microbats weigh only 3 to 6.8 grams. They feed at night on a range of insects. They use echolocation to catch their prey during flight or from foliage. They roost in groups in tree hollows and fissures often

in separate male and female colonies. They breed once a year, producing only one young in the summer that is sometimes carried by the mother on her back.



Gould's Wattled Bat, Chocolate Wattled Bat, Gould's Long-eared Bat, Large Forest Bat, Southern Forest Bat, White-striped Freetail Bat and Southern Freetail Bat *Mormopterus* sp. 4 are also likely to be resident or semi-regular visitors to the Bushlands.

Plains Froglet**Eastern Sign-bearing Frog***Crinia parinsignifera*

These small (less than 3 cm) ground dwelling frogs have highly varied colouring and patterns. They shelter under logs and other debris, near water or in moist depressions. They lay their eggs in ponds and dams where you will often see tadpoles. Their call is a squelching 'eeeeeeeeek' repeated every few seconds. They are almost indistinguishable in appearance to the Eastern Common Froglet but can be identified by their call.

CALL TIME

J F M A M J J A S O N D

**Eastern Common Froglet***Crinia signifera*

These small (less than 3 cm) ground dwelling frogs have highly varied colouring usually with a ridge down the back. They are usually found near water sheltering under logs, rocks and other debris. They lay their eggs in ponds and dams where you can find tadpoles from October to January. Their call is a series of pulsed repeated calls 'crick crick crick crick'. They are almost indistinguishable in appearance to the Plains Froglet but can be identified by their call.

CALL TIME

J F M A M J J A S O N D



Pobblebonk, Eastern Banjo Frog
Limnodynastes dumerilii

These large (6 to 9 cm) burrowing frogs have a pale brown gland running from beneath the eye to the top of the front leg. They are often seen in the garden and at night after rain on the roads in the Bushlands. They lay white frothy egg masses on dams. Their call is a short musical 'bonk' repeated every few seconds, which can sound like someone plucking the string of a banjo.

CALL TIME

J F M A M J J A S O N D



Spotted Marsh Frog
Limnodynastes tasmaniensis

These medium (3 to 5 cm) frogs are usually found in waterbodies and flooded areas. During dry conditions they shelter in cracks in the ground and under large rocks. They lay their eggs in waterbodies that appear as a floating foam mass. There are two 'call' races in the area – one which makes a single 'click' call, and another that gives a 'click-click-click' call like two stones being struck together.

CALL TIME

J F M A M J J A S O N D



Southern Brown Tree Frog*Litoria ewingii*

These medium (2.5 to 4.5 cm) tree frogs are agile climbers and have horizontal pupils. They feed on insects, and are capable of leaping to catch their prey in mid-flight. They frequent wet and

**CALL TIME****J F M A M J J A S O N D**

flooded areas for breeding but can often be found calling long distances from water. Their call is a rapid pulsing 'creeeeeeeee cree cree cree cree'.

**Peron's Tree Frog
Maniacal Cackle Frog***Litoria peronii*

These medium (4.5 to 7 cm) tree climbing frogs have distinctive '+' shaped pupils and yellow and black marbled inner thighs and armpits. The adults are often found away from water on trees,

**CALL TIME****J F M A M J J A S O N D**

sheltering under bark and under fallen logs. Their call is distinctive with a long and drawn out 'cra-ah-ah-ah-ah-ah-ah-ah-ahhk' that increases in loudness.



Bibron's Toadlet*Pseudophryne bibronii*

These small (2 to 3 cm) frogs have a distinctive black and white marbled underside and orange patches on their upper arms. When threatened they will lie on their backs, not moving, playing dead. They shelter in leaf litter and fallen timber and lay their eggs in moist depressions or burrows that become inundated after rain. Their call is a short harsh 'cre-ek' repeated every few seconds.

Endangered**CALL TIME**

J F M A M J J A S O N D



Eastern Brown Snake

Pseudonaja textilis

These large (up to 2 m) quick moving, slender snakes vary from pale to dark brown in colour. They favour sparse dry sites, feeding on other reptiles, small mammals, frogs and birds. Mating occurs from spring to early summer with females laying up to 35 eggs in cracks in the soil. The eggs are not guarded after they are laid. Young emerge in late summer and are totally independent. The young have a dark patch on the top of their head.

Highly venomous



Eastern Tiger Snake

Notechis scutatus

These medium (up to 1.2 m) thick bodied snakes have dark brown and yellow bands on the upper surface, but vary in colour shades. They favour sites with fallen timber and leaf-litter, usually in damper areas, and feed on frogs, small mammals, lizards and birds. They mate in spring with females giving birth to about 20 to 30 live young in late summer to early autumn.

Highly venomous



Stumpy-tailed Lizard, Shingleback*Tiliqua rugosa*

These large (up to 41 cm) slow moving lizards have a short blunt tail and rough scales and favour areas with a high cover of leaf litter and native tussock grasses. They feed on a variety of plants and animals including flowers, fruits, fungi, soft plant foliage, arthropods and occasionally small bird eggs. They form life-long breeding pairs, with the females giving birth to one to three young in autumn.



Common Blue-tongued Lizard*Tiliqua scincoides*

These large (up to 60 cm), slow moving lizards shelter in and under fallen timber, leaf litter, vegetation and crevices, and can be seen basking on local roads during the day. When threatened they display their blue tongue. They feed on plant material (flowers, soft foliage and fruits), arthropods, small vertebrates and bird eggs. Females give birth to up to 12 live young in late summer.



Jacky Lizard*Amphibolurus muricatus*

These medium (up to 12 cm) fast moving lizards shelter in hollows, tree stumps, fallen timber, rocks and logs. They perch on tree trunks and rocks to search for prey including insects, small skinks and ants. Females lay three to eight eggs in shallow excavated burrows. The young emerge in late summer to early autumn. The sex of the young is determined by the temperature of the nest.



Large Striped Skink*Ctenotus robustus*

These medium (up to 12 cm) well camouflaged skinks feed during the day amongst debris near rocky outcrops and fallen timber for beetles, grasshoppers, spiders and cockroaches. They enter a torpid state during winter sheltering in burrows, under rocks or logs. Eggs are also laid in these shelters in late spring with young emerging in late summer.



Bougainville's Skink

Lerista bougainvillii

These small (up to 70 cm) skinks shelter under logs, rocks and leaf-litter and can easily burrow into the soil. They have a pronounced black stripe down their side from snout to the base of the tail and very short legs. The tail is speckled in adults and reddish in juveniles. They feed during the day on a variety of arthropods including spiders, beetles, termites and larvae.



Garden Skink

Lampropholis guichenoti

These small (up to 4 cm) skinks feed on a variety of small invertebrates during the day including flies, spiders, ants, cockroaches and termites. They can often be seen in people's gardens around houses, under pieces of wood or pot plants, or basking on paved areas. Females nest communally, laying two to six eggs in a clutch. During winter they enter a state of torpor.



Other species of skinks and the Eastern Bearded Dragon are likely to be resident in the Bushlands.

Common Long-necked Tortoise*Chelodina longicollis*

These tortoises are found in some dams throughout the Bushlands and can be seen with their head peering out of the water. The female lays over ten eggs in a hole dug on the bank of the waterbody she inhabits. During summer these tortoises will sometimes disperse overland across the landscape.



Marbled Gecko*Christinus marmoratus*

These nocturnal geckos feed on small invertebrates such as scorpions, insects and spiders. Like other geckos they are capable of shedding their tails when attacked. The females lay two eggs beneath bark or debris in spring that hatch in mid-summer, or are laid in summer and hatch in spring. They can often be seen around people's houses, under wood, pot plants, or rocks.



Wood Gecko*Diplodactylus vittatus*

These geckos prefer exposed sites with flat rocks and lots of fallen timber and leaf litter. They shelter during the day under rocks, logs and in burrows and hunt at night for insects and other small arthropods. Like other geckos they are capable of shedding their tail when attacked.



Thick-tailed Gecko*Underwoodisaurus milii*

These nocturnal geckos have a large head and yellowish spotted colouring. They feed at night on small vertebrates and insects, and shelter in holes in the ground and under rocks during the day, sometimes with up to six individuals. Like other geckos they are capable of shedding their tails when attacked.



Brown Quail*Cortunix ypsilophora*

These small, plump ground-dwelling birds can be variable in colour. They prefer sites with dense grasses and make well-hidden nests in thick grasses with overhanging vegetation. They feed mainly at dawn and dusk on seeds, shoots and insects. They rarely fly unless they are flushed when they fly close to the ground.



Painted Button-quail*Tumix varius*

The females of these ground-dwelling birds are larger and have a chestnut back and wings, with black and white spots. Male birds have more buff coloured wings. They are active during the night and at dawn and dusk, feeding on seeds, fruit, leaves and insects. You can sometimes see signs of their feeding with shallow depressions of bare soil about 15 cm across amongst the leaf litter.



Australian Wood Duck, Maned Duck
Chenonetta jubata

These partially aquatic ducks can be seen foraging around the Bushlands for grasses and herbs and swimming in dams. They have well-developed claws at the ends of their half-webbed feet that they use for perching on tree branches. They mate for life, nesting in tree hollows that they will return to year after year. The female lays and incubates nine to 12 eggs. The young will stay with the parents for about 50 days.



Male (left) and female (right)

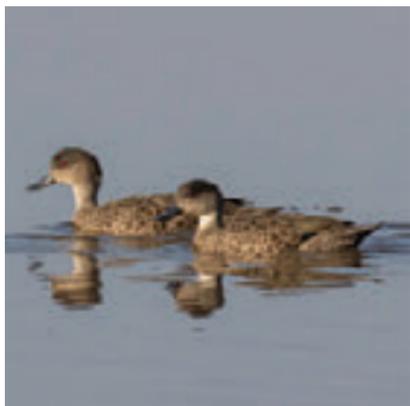
Pacific Black Duck
Anas superciliosa

These birds are seen in pairs or small mixed flocks on dams in the Bushlands. They feed on aquatic vegetation and insects by 'dabbling' upended with their head and neck in the water. Breeding occurs following good rains when there is sufficient food and water available. They build nests in either tree hollows or on the ground in grass. Females lay six to 11 eggs.



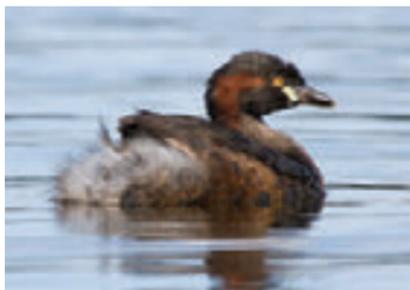
Grey Teal*Anas gracilis*

These waterbirds are almost grey-brown with the secondary wing feathers having a glossy blue teal patch. They feed on a range of plants, seeds, crustaceans and insects both on land and in the dams around the Bushlands. Their nests may be placed on the ground or in tree hollows.

**Australasian Grebe***Tachybaptus tricolor*

These small waterbirds are dark-brown above and silvery-grey below. They have a white patch of bare skin at the base of their bill. During breeding they have a black head and a chestnut facial strip.

They feed on small fish and insects in dams throughout the Bushlands that are usually caught by diving underwater. These birds can raise up to three broods in one season.



Breeding plumage

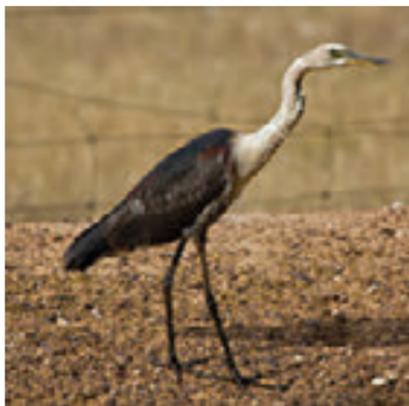


Non-breeding plumage

White-necked Heron

Ardea pacifica

These large, often solitary herons have a wing span of up to 1.6 m. They have a slate-black body and a white head and long white neck that is unmarked during breeding and black legs. They are common visitors to the Bushlands where they feed on fish, frogs, yabbies and aquatic insects in dams. They make a harsh guttural croak.



White-faced Heron

Egretta novaehollandiae

These small, often solitary herons are pale grey with a white face and yellow legs. They feed on a wide variety of fish, insects and frogs throughout the dams in the Bushlands. They are often silent but make a loud guttural, graww, call in social interactions and a long drawn out oooark repeated when flushed.



Little Pied Cormorant*Microcarbo melanoleucos*

These cormorants are visitors to the Bushlands. They feed on fish, yabbies and a variety of aquatic insects in dams in the Bushlands. They catch their prey by quickly plunging below the water's surface. They can often be seen perching on logs and branches drying their outstretched wings after fishing.



Little Black Cormorant*Phalacrocorax sulcirostris*

These relatively small, slim cormorants are totally black in colour. They feed on fish, yabbies and aquatic insects from dams in the Bushlands. After fishing they can often be seen perching on branches and logs with their wings outstretched drying. They usually forage and fly alone.



Great Cormorant

Phalacrocorax carbo

These birds are almost entirely black with a yellow chin and a small white patch on each thigh that is absent in winter. When visiting the Bushlands they feed on fish, aquatic insects and frogs from the dams, which they hunt in shallow underwater dives.



Australasian Darter, Snakebird,

Anhinga novaehollandiae

These largely solitary birds are visitors to the Bushlands. They have a wing span of up to 1.2 m which can be seen when they perch on logs in dams after fishing for fish and aquatic insects. When in the water, the darter's long thin neck and head is all that shows above the surface, giving them their alternative 'snakebird' name.



Black-shouldered Kite*Elanus axillaris*

These birds of prey can be seen hovering during the day, with their black shoulder patches clearly visible, hunting for small rodents, reptiles and insects. They form monogamous pairs. Both parents build

a shallow nest of sticks. Young birds can feed themselves seven days after fledging (being able to fly) and leave their parents within a month.



Little Eagle*Hieraerus morphnoides*

These mainly solitary eagles can be seen flying over the Bushlands and occasionally perching in a tall eucalypt surveying the area. Their plumage varies from light to dark brown. Their long tail is square tipped when closed. They feed mainly on rabbits. When these are not available they prey on birds, medium-sized reptiles, mammals and insects.



Wedge-tailed Eagle

Aquila audax

These are Australia's largest bird of prey with a wingspan of up to 2.2 m and weight of up to 5.4 kg for females and 4 kg for males. They have a long wedge shaped tail that can be seen in flight when

they are hunting for rabbits and rodents. They also eat dead carcasses such as kangaroos. They form monogamous pairs and mate for life building large nests out of sticks up to 3 m deep.



Brown Goshawk

Accipiter fasciatus

These solitary secretive raptors have a brown slate-grey head with a red-brown collar across the nape of the neck. Their undersides are finely barred. In flight they have a round-shaped tail, which can be used to distinguish them from the Collared Sparrowhawk that have a square-shaped tail. They hunt from a low, well-concealed perch for small to medium sized birds and rabbits.



Collared Sparrowhawk*Accipiter cirrocephalus*

These mainly solitary medium-sized raptors have a slate grey head, a rufous collar and a finely barred underside. In flight they have a square-shaped tail, which can be used to distinguish them from the Brown Goshawk that have a round-shaped tail. They are fast flyers, feeding in denser vegetation on small birds. Their nest is built of sticks in the fork of a tree and lined with leaves.



Whistling Kite*Haliastur sphenurus*

These light brown medium-sized birds of prey have a wingspan of up to 1.5 m. They can be seen flying over the Bushlands and occasionally near larger dams circling for prey including mammals, birds, fish and insects. They form monogamous breeding pairs and nest in large old trees, building a platform of sticks.



Brown Falcon

Falco berigora

These medium-sized raptors range in colour from very dark brown to light brown and off-white below. They are usually seen alone in open or lightly treed areas, sitting on perches searching for small mammals, insects, reptiles and occasionally small birds. They move around locally in response to changes in food availability. These raptors use old nests of another bird or build a nest out of sticks.



Laughing Kookaburra

Dacelo novaeguineae

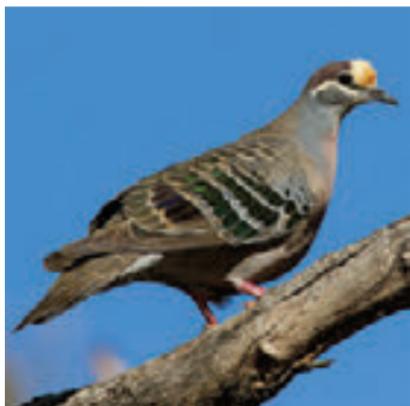
These kingfishers feed from a perch on small prey including insects, worms, crustaceans, small mammals, frogs, birds and reptiles. They pair for life and build their nests in tree hollows in spring and summer. Both parents incubate the eggs and care for the chicks, with the help of offspring from previous years. Their familiar chuckling call can be heard throughout the year in the Bushlands.



The Sacred Kingfisher is likely to be a spring and summer migratory visitor to the Bushlands.

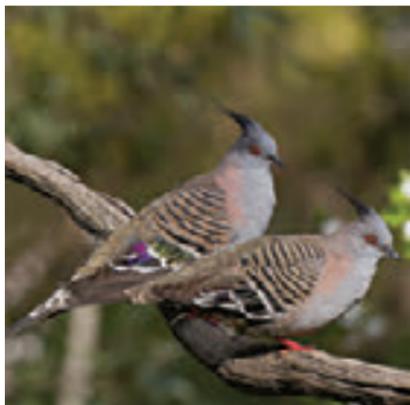
Common Bronzewing*Phaps chalcoptera*

These heavily built pigeons have a characteristic metallic coloured wing patch. When startled they fly away keeping low to the ground. They feed on seeds and other vegetable material. Both parents incubate the eggs in an untidy nest that they build out of sticks and twigs. The parents secrete a milk-like substance from their crop (throat pouch), which they feed to the young chicks.



Crested Pigeon*Ocyphaps lophotes*

These stocky pigeons are thought to be new arrivals to the Bushlands and have a conspicuous thin black crest on the top of their head. They are mainly grey-brown with a pinkish underside. Their wings are barred with glossy green and purple patches. They feed in small to large groups mostly on seeds and sometimes leaves and insects.



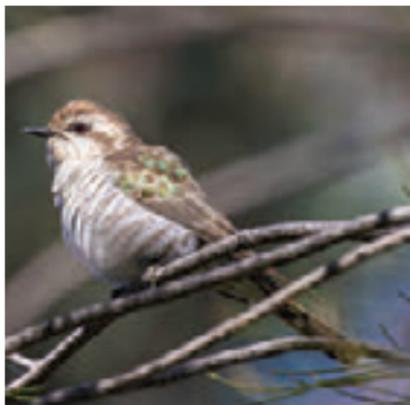
Pallid Cuckoo*Cacomantis pallidus*

These migratory birds feed on a range of insects and larvae when they start arriving in the Bushlands from mid-August. They tend to be found in more open areas of the Bushlands than other cuckoos. The female cuckoo lays her eggs in the nest of other bird species. She removes one of the other bird's eggs and replaces it with her own. The early hatching cuckoo chick pushes the other eggs or chicks out of the nest and is raised by the other birds.



Horsefield's Bronze-cuckoo*Chalcites basalis*

These olive-brown birds have a bronze to green sheen on their back and upper tail. They can be easily overlooked when they are not calling. They forage on the ground and in trees feeding mainly on insects and their larvae but will eat plant matter. They are migratory visitors to the Bushlands arriving from mid-August and staying for the warmer months.



The Shining Cuckoo and Fan-tailed Cuckoo are likely to be migratory visitors to the area.

Barn Owl*Tyto delicatula*

These nocturnal owls feed on small mammals, birds, insects, frogs and lizards. They rely on hollows for breeding which takes place often twice a year in response to food availability. They have exceptional hearing that they use in flight to hunt for mice and rats. At night they can appear in flight as a brilliant white colour.



Southern Boobook*Ninox boobook*

These are the smallest and most common owls in Australia. They have dark chocolate-brown plumage above with a heavily streaked rufous-brown and white underside. Their bill is grey and they have yellowish eyes. They feed at night on insects and small mammals like the introduced house mouse which they hunt from a tall perch. They are smaller than the Barking Owl but have similar colouring.



Powerful Owl

Ninox strenua

These birds are the largest of all Australian nocturnal birds (males 67 cm, females 58 cm). They are dark grey to dark grey-brown above with dark V-shaped barring on an off-white underside, and have yellow eyes. They feed on mammals, including possums, Sugar Gliders, birds and rabbits. These owls mate for life and rely on tree hollows for breeding. They can be confused with the smaller Barking Owl.



Threatened



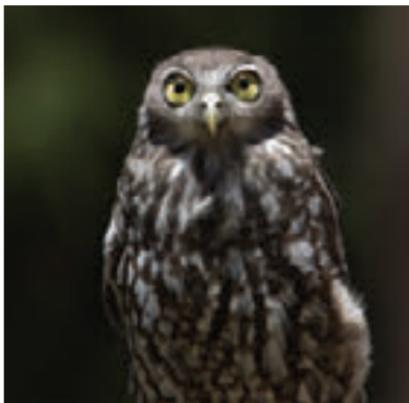
Barking Owl

Ninox connivens

These uncommon visitors to the area are grey-brown above with heavily streaked whitish and grey-brown underside and large yellow eyes. They feed on a variety of small mammals, birds, reptiles and insects. These owls are often identified by their distinctive 'wook wook' call that sounds like a dog barking. They rely on hollows for breeding and can be confused with the Powerful Owl. Only 50 pairs are believed to be remaining in Victoria.



Endangered



Tawny Frogmouth*Podargus strigoides*

These birds feed at night on insects, worms, small mammals, reptiles, frogs and birds. They mainly feed from a perch but can also catch food such as moths during flight. During the day they roost on tree branches, where they are well camouflaged, looking like a broken branch. Both parents incubate the eggs in a platform nest made of sticks.



Australian Owlet-nightjar*Aegotheles cristatus*

These small nocturnal birds live in hollows. They can sometimes be seen during the day perching at the entrance to their hollows basking in the sun. Pairs form permanent bonds and occupy the same territory throughout the year feeding on a variety of insects and spiders. Both parents incubate the eggs and care for the chicks.



Yellow-tailed Black-Cockatoo

Calyptorhynchus funereus

These large cockatoos are easily identified by their black plumage and yellow-edged tail. They feed in noisy flocks on seeds of native trees and pinecones. Both sexes will construct a nest in a large tree hollow. The female will incubate one to two eggs while the male feeds her. Usually only one chick survives and will stay with the parents for six months.



Galah

Eolophus roseicapilla

These birds often occur in large noisy flocks feeding on seeds mainly on the ground. They mate for life and rely on tree hollows for nesting. Breeding occurs from July to December. Both parents incubate the eggs and care for the young.



Long-billed Corella

Cacatua tenuirostris

These medium-sized white cockatoos have a short crest that is not always visible, a short tail and a long upper mandible to their bill. The rose patch of their chest is larger than the Little Corella. They feed mainly on grass seeds, corns, bulbs, roots and insects. They breed from July to November, forming monogamous pairs. Both parents will build a nest, incubate the eggs and feed the chicks. They rely on hollows for breeding.



Little Corella

Cacatua sanguinea

These cockatoos are mostly white, with a blue eye-ring and pale rose patch between the eye and beak. They like to play and feed in large noisy flocks on grass seeds, grains, bulbs and fruit. They are thought to mate for life and rely on tree hollows for breeding. They return to the same hollow for multiple years. This species is similar to the Long-billed Corella.



Sulphur-crested Cockatoo*Cacatua galerita*

These gregarious white cockatoos have a distinctive yellow crest. They feed in groups where one or more members will watch for danger from a nearby perch while the others feed on berries, seeds, nuts and roots. The chicks will remain with the parents all year round and family groups will stay together indefinitely. They rely on hollows for breeding.



Musk Lorikeet*Glossopsitta concinna*

These medium-sized lorikeets are often in mixed noisy flocks with other parrots and birds. They follow the flowering and fruiting patterns of trees that they feed on and can travel large distances for food. They rely on hollows for breeding where the female incubates the eggs. This species is in decline.

**Crimson Rosella***Platycercus elegans*

These birds have crimson plumage with bright blue cheeks. Juveniles are green and sub-adults have a mottled plumage. They feed in small flocks on seeds, insects, fruit, tree blossoms, shrubs and grasses. They rely on tree hollows for nesting

during September to January. The female incubates the eggs and both parents care for the young. The chicks remain dependent on their parents for about 35 days after hatching.



Sub-adult



Adult

Brown Treecreeper

Climacteris picumnus

These treecreepers forage arboreally and on the ground, favouring areas with woody debris where they glean insects such as ants and beetles from leaf litter. They will climb up tree trunks and branches probing into cavities and under loose bark with their bill for insects and larvae. Both parents build a nest in tree hollows and occasionally in stumps, sometimes with other birds that will assist in feeding the chicks.



Near threatened



White-throated Treecreeper

Cormobates leucophaea

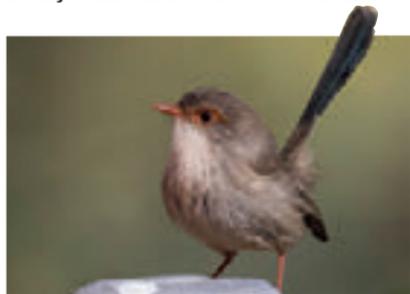
These treecreepers have a distinctive white throat and chest and are often heard by their piping call. They can be seen foraging in trees, probing fissures in the bark for ants and other invertebrates as well as nectar. Rarely will they forage on the ground like Brown Treecreepers. Females build the nest in a hollow and incubate the eggs. Both parents care for the young.



Superb Fairy-wren*Malurus cyaneus*

These striking birds forage in small groups mostly on the ground, feeding on insects and other small arthropods. Females are mainly brown and lack the blue colouring of the males, but can be distinguished from juvenile males and sub-adult males

by the brown around their eyes. Females build a well-hidden dome-shaped nest in low bushes and incubate the eggs. Both parents feed the chicks with other members of the group also helping.



Female

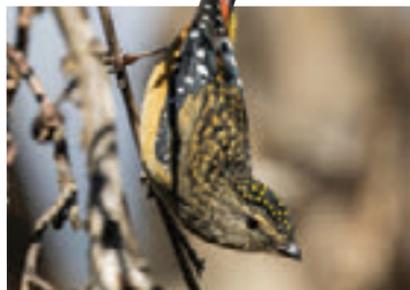


Male

Spotted Pardalote*Pardalotus punctatus*

These small multi-coloured birds can sometimes be seen, but are usually heard with their two-note 'dee dee' call, high in the eucalypt canopy foraging for insects, especially psyllids (lerps)

on leaves. They build their nests at the end of narrow tunnels, excavated in the ground. Both parents build the nest, incubate the eggs and feed the chicks.



Female



Male

Striated Pardalote*Pardalotus striatus*

These birds forage in small groups in foliage in the tops of eucalypt trees for insects and their larvae. Their two-note call is a sharper 'chip chip' than the Spotted Pardalote. These birds form breeding pairs or small breeding groups. They build nests in hollows or tunnels in the ground. Parents share in the incubation of the eggs and care for the chicks, sometimes with assistance from the breeding group.



White-browed Scrubwren*Sericornis frontalis*

These birds forage mainly in pairs or small groups on the ground amongst leaf litter and logs for insects and other small arthropods. They prefer habitat with denser shrubs and other midstorey plants. They built a cup-shaped nest with an entrance tunnel close to the ground in thick vegetation. These birds can be confused with the Brown Thornbill who use similar habitats.



Weebill*Smicrornis brevirostris*

These are Australia's smallest bird. They have a short pale bill, a pale cream iris and a pale line above the eye. They feed in noisy active flocks in the outer tree canopy on small scale insects. Their call sounds like 'I'm a wee-bill.' Breeding occurs between September and December. The female incubates the eggs in a neatly woven dome-shaped nest. They are often in flocks with Yellow and Striated Thornbills and pardalotes.



Brown Thornbill*Acanthiza pusilla*

These small thornbills have a dark red eye, streaked underparts, scalloping on the top of their head and a brown rump. They feed mainly on insects but occasionally on seeds, fruit and nectar in wetter areas of the Bushlands. Pairs remain bonded for many years and will actively defend their breeding territories. Outside of breeding season they are often in mixed flocks with other thornbills, robins and treecreepers.



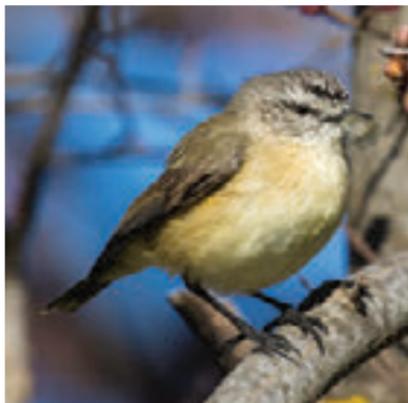
Buff-rumped Thornbill*Acanthiza reguloides*

These thornbills are olive-brown to olive on their upper side and mostly cream-buff to yellow on their underside, with a caramel-buff rump (top of tail). They have a pale iris. They forage in flocks on the ground and in small shrubs for insects and seeds. They live communally with a breeding pair being assisted by other birds to build the nest and feed the young.



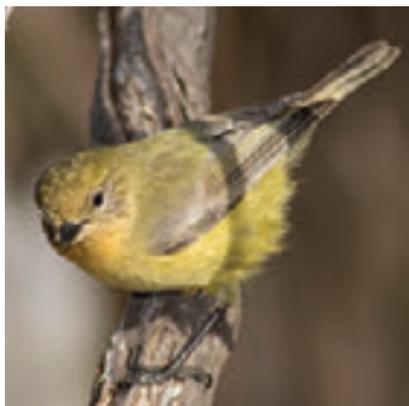
Yellow-rumped Thornbill, Butterbum*Acanthiza chrysorrhoa*

These thornbills have a striking yellow rump. The top of their head is black with white spots. They have a dark iris and lack streaking on their underside. They feed on insects and seeds on the ground in open areas in small mixed flocks. They can breed cooperatively with group members assisting in feeding the young.



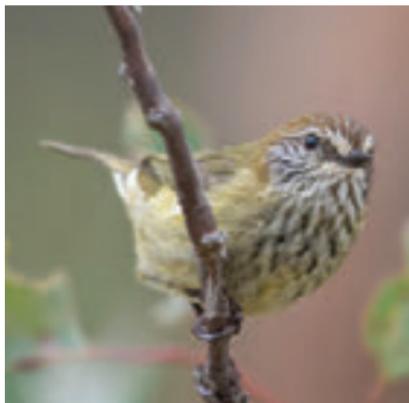
Yellow Thornbill*Acanthiza nana*

These birds lack distinctive markings. They have a dark eye and fine streaking on the ear coverts. They feed amongst tree foliage on insects and some seeds. The female incubates the eggs alone, and both parents feed the young, sometimes with the assistance of other members of the cooperative breeding group.



Striated Thornbill*Acanthiza lineata*

These thornbills have greenish upperparts, an orange-brown crown streaked with white. They have a streaked underside and a dark iris. They feed in mixed flocks in the tree canopy, mainly on insects but also seeds, nectar and fruit. They can breed cooperatively and have a 'zzzt-zzzt' call. The female incubates the eggs and both parents feed the young with the assistance of other members of the breeding group.



Eastern Spinebill*Acanthorhynchus tenuirostris*

These birds have a long, fine, downward curved beak. They feed on nectar and insects while perching or hovering in flight. The female builds a cup-shaped nest from various materials and incubates the eggs. Both parents feed the young. Some individuals are present year-round with numbers bolstered by winter visitors from moist upland areas of eucalypt forest.



New Holland Honeyeater*Phylidonyris novaehollandiae*

These birds are mostly black and white with a large yellow wing patch, yellow tail sides and a small white ear patch. They feed on nectar and occasionally fruit, insects and spiders around people's homes. Breeding occurs from July to January with the female laying 2 to 3 eggs in a small cup-shaped nest. Both parents feed the chicks.



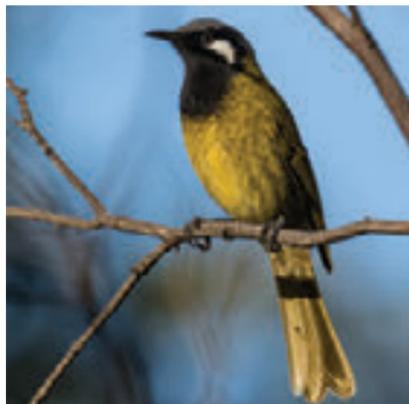
White-naped Honeyeater*Melithreptus lunatus*

These small honeyeaters are olive-green above, with a black cap and white band across the back of their neck. They use their slender bill to feed on nectar, insects and insect products like lerps. They breed communally with both parents caring for the young. Their call is a distinctive 'pew-pew' call.



White-eared Honeyeater*Nesoptilotis leucotis*

These medium-sized honeyeaters have a distinctive white ear-patch. They are usually seen in pairs or small family groups, where they are quite noisy and conspicuous. They forage under strips of bark or tree crevices for insects but also feed on fruit and nectar. They breed from August to December building a thick-walled, cup-shaped nest lined with animal fur and hair.



Little Wattlebird

Anthochaera chrysoptera

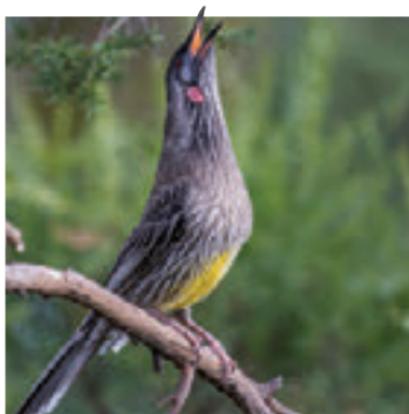
These are the smallest of the wattlebirds. They are brown-grey above with a heavily streaked grey underside, a rufous coloured patch on their wings and have bluey-grey pupils. They feed on nectar with their long probing tongue and also on insects at dawn and dusk. The female constructs a cup-shaped nest where she lays and incubates her eggs.



Red Wattlebird

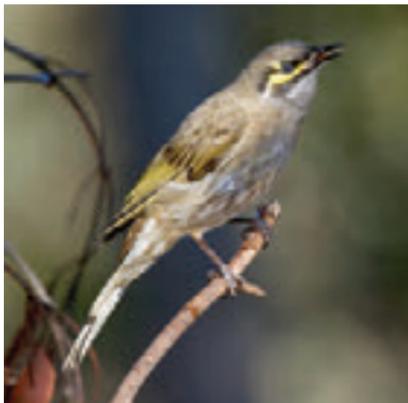
Anthochaera carunculata

These are large, noisy and aggressive nectar-feeding birds. They have a fleshy reddish skin fold on the side of their neck. They feed on nectar in eucalypt trees and garden plantings, together with insects and insect products like lerps and honeydew. They breed July to November laying two to three eggs in an untidy saucer-shaped nest. The female will usually incubate the eggs and both parents feed the young.



Yellow-faced Honeyeater*Caligavis chrysops*

These predominantly olive/grey-brown honeyeaters have a yellow face-stripe, bordered with black. They feed in the foliage of trees and shrubs on pollen, nectar, fruit, seeds, insects and their products. Pairs defend their territories during breeding season (July to January). Some birds are present year-round, but numbers are bolstered by migrants arriving in autumn and winter.



White-plumed Honeyeater*Ptilotula penicillata*

These medium-sized honeyeaters have a yellowish head and a distinctive white neck plume. They can be seen actively moving amongst the trees feeding on nectar, fruit, seeds and insects, particularly along waterways with River Red Gums. During breeding season (July to January), males will undertake 'song flights' above the treetops. Females incubate the eggs and both parents feed the young.



The Brown-headed Honeyeater, Yellow-tufted Honeyeater and Fuscous Honeyeater are likely to be resident or semi-regular visitors to the Bushlands.

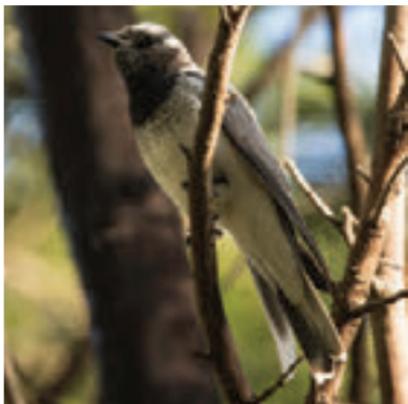
Black-faced Cuckoo-shrike*Coracina novaehollandiae*

These birds feed on insects, other invertebrates, some fruits and seeds. Some individuals mate with the same partner each year, building a shallow nest of sticks and bark bound together with cobwebs. Some pairs will also use the same territories year after year. Small numbers of birds may be present year-round in the Bushlands, but they are most common in spring and summer.



White-bellied Cuckoo-shrike*Coracina papuensis*

These birds are mainly grey with a black band between the eye and beak. They are often solitary or in pairs foraging in the treetops for invertebrates, fruit, nectar and seeds. They build a shallow cup-shaped nest in the fork of a tree. Small numbers of birds may be present year-round, but they are most common in spring and summer.



Golden Whistler*Pachycephala pectoralis*

These birds can be seen in the canopy and tall understorey foraging for insects, spiders and other small arthropods. Their beautiful melodious song can be heard carrying through the Bushlands. Small numbers may be present year-round, but they are most common in autumn and winter with migrants arriving. Breeding occurs from September to January but would be uncommon in the Bushlands. These birds can be confused with the Rufous Whistler.



Rufous Whistler*Pachycephala rufiventris*

These birds are found mainly in tree canopies foraging for insects. They form monogamous breeding pairs. Their melodious far-carrying song can be heard through the Bushlands. Small numbers may be present year-round, but they are most common in spring and summer with migrants arriving. These birds can be confused with the Golden Whistler.



Grey Shrike-thrush*Colluricincla harmonica*

These birds hunt for insects, spiders, frogs, lizards and small birds on the ground amongst logs and also on trees. Fruits and seeds are also eaten. These birds pair for life, inhabiting the same territory of up to 10 ha. They build a cup-shaped nest often close to houses and both parents incubate the eggs and care for young. Their beautiful song can be heard throughout the Bushlands.

**Olive-backed Oriole***Oriolus sagittatus*

These birds have an olive-green head and back, and a cream streaked underside. They forage alone or in pairs in canopy trees for insects and fruit. The female builds a cup-shaped nest and incubates the eggs. Both parents feed the chicks. These birds have a distinctive 'ori-ori-oriole' call but also mimic other bird calls. Small resident populations are increased by migrants over spring and summer.



Magpie-lark

Grallina cyanoleuca

These black and white birds forage mainly on the ground in gullies and lower slopes for a variety of insects, larvae and earthworms. They breed from August to December, with both parents building a bowl-shaped nest out of mud. Both parents share in egg incubation and caring for the young. They have a distinctive piping call.



The Crested Shrike-tit, Varied Sittella and Rufous Songlark are likely to be residents or regular visitors to the Bushlands

Australian Magpie*Cracticus tibicen*

These intelligent birds often live in groups, actively defending their territories for feeding, roosting and nesting. They can be seen foraging on the ground for insects, larvae and frogs in the Bushlands. Breeding pairs mate for life. They construct a platform nest of sticks and twigs high in the tree canopy. Their familiar call can be heard carolling through the bush.



Pied Currawong*Strepera graculina*

These mainly winter visitors to the Bushlands are usually seen in flocks. They move along the ground and through trees foraging for small lizards, insects, caterpillars and berries. Breeding is uncommon in the area but can occur, with the female building a nest out of sticks. The male will feed the female while she incubates the eggs. These birds can be confused with the Grey Currawong.



Grey Currawong*Strepera versicolor*

These birds can be seen year round singly or in pairs. They are omnivores, foraging mainly in trees and sometimes on the ground for small birds, rodents, frogs, eggs, insects and fruit. They build large shallow bowl-shaped nests. The female incubates the eggs and both parents feed the chicks. These birds can be confused visually with the Pied Currawong, but have quite different calls.



Little Raven*Corvus mellori*

These resident open woodland birds are entirely black with a white eye. They are smaller than the Australian Raven and prefer more open areas for foraging in pairs or small flocks. They feed on insects, small birds, eggs, and occasionally seeds and fruit. Can be confused with the Australian Raven but have a different 'aark-aark-aark-aaark' call.



Australian Raven

Corvus coronoides

These resident large black birds feed on insects, small animals, grains, fruits, and eggs in pairs or in small family groups. Males and females both construct a large messy nest that looks like a platform or bowl of sticks. Their familiar 'aar-aaar-aaaaah' call can often be heard. These birds can be confused with the Little Raven.



White-winged Chough

Corcorax melanorhamphos

These birds have a red eye and white wing patch. They are seen in highly social family groups raking through grass and leaf litter for insects and seeds. They live communally with all birds assisting in building a mud nest for the breeding pair. Incubation of eggs and feeding of the chicks is also shared amongst the family group. From a distance these birds can be confused with the Australian Raven.



The Dusky Woodswallow is likely to be resident or a regular visitor to the Bushlands. The White-browed and Masked Woodswallows are likely to be migratory visitors in the warmer months.

Willie Wagtail*Rhipidura leucophrys*

These characteristic black and white birds can be seen in pairs actively darting for insects on the ground while wagging their tails from side to side. Their cup-shaped nests are normally built in a horizontal tree branch. Parents can raise up to two successive clutches in a good breeding season.



Grey Fantail*Rhipidura albiscapa*

These birds are grey above, with white eyebrow, throat and tail edges. They feed on flying insects mainly in the canopy. Both parents build a cup-shaped nest in a tree fork during breeding from July to December. They also share in the incubation of the eggs and feeding of the chicks. Some birds are resident year-round, but their populations are bolstered by migrants arriving from Tasmania in colder months.



Eastern Yellow Robin*Eopsaltria australis*

These inquisitive robins feed on insects, spiders and other arthropods, which they hunt from a low perch in damper areas or recently disturbed ground. Females build a well camouflaged woven cup-shaped nest with moss and lichen. Females can lay up to three clutches of eggs during breeding season (June to December). When sitting on the nest only her grey-black colouring shows. Both parents will care for the chicks.



Jacky Winter*Microcea fascinans*

These small plain grey-brown flycatchers have a dark tail with white edges. They can be seen singly or in pairs perching on low exposed branches swinging their tail from side to side while waiting to pounce on flying insects. Their loud melodious call sounds like 'peter-peter-peter' and can be heard during spring when they breed.



Rose Robin*Petroica rosea*

Males are dark grey above with a white patch above the bill and a rosey-pink coloured breast. Females are mainly brown-grey above and off-white below and sometimes have a pale pink wash across the breast. These slender birds feed in the upper and mid-canopy and on the ground for insects. They breed in wetter elevated areas during spring and summer and migrate to the Bushlands in winter.



The Hooded Robin, Red-capped Robin and Diamond Firetail are possible visitors to the Bushlands.

Flame Robin*Petroica phoenicea*

Males have a bright orange breast and throat, and are white on the lower belly and underneath the tail. Females are mostly grey-brown. They feed on insects, spiders and other small arthropods which they hunt from a perch. These birds can be confused with the Scarlet Robin,

but the red colour on the chest extends much further down the belly area than the Scarlet Robin. They migrate to the Bushlands in the winter after breeding in wetter elevated areas during spring and summer.



Female

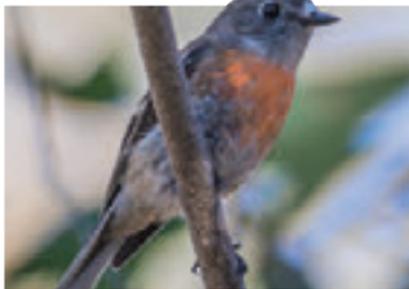


Male

Scarlet Robin*Petroica boodang*

Males have a white frontal patch above the bill, are black above with a scarlet breast. Females have a whitish frontal patch, are brown above with an orange-red breast. These birds feed mainly on insects, which

they catch from a perch or foraging on the ground. They form permanent monogamous pairs that maintain territories year round. Most birds are resident year-round, but the population is bolstered by migrants arriving in winter months.



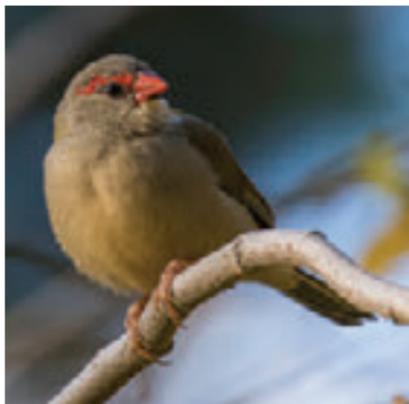
Female



Male

Red-browed Finch, Red-browed Firetail*Neochmia temporalis*

The adult birds have a conspicuous red eyebrow, beak, and rump. Juvenile birds lack the red eyebrow and beak. They are often seen in small flocks feeding on the ground in open grassy areas on seeds and insects, and often near ephemeral creeklines. Both sexes build a large dome-shaped nest with a tunnel entrance on the side out of twigs and grass. Both parents incubate the eggs and feed the young.



Silvereye*Zosterops lateralis*

These small birds have a conspicuous ring of white feathers around the eye. They feed on insects and large amounts of nectar and fruit. Both sexes construct a neat woven cup-shaped nest made of grasses, hair and other vegetation that is bound together with spider web. Some birds are resident year-round, but the population is boosted by migrants from Tasmania arriving in winter months.



Mistletoebird*Dicaeum hirundinaceum*

These swift flying birds are usually high in the canopy feeding on mistletoe berries and insects. The mistletoe berries pass whole through the bird's digestive system. The Mistletoebird excretes the sticky seeds on to tree branches where new mistletoe plants will grow. Females build a silk, pear-shaped nest that is suspended from a twig where she will incubate the eggs. Both sexes feed the young.



Welcome Swallow

Hirundo neoxena

These acrobatic birds can be seen flying in pairs or small groups above the canopy or over dams foraging on a variety of insects. They are metallic blue-black above, light grey below and have rust on their forehead, throat and upper breast. Mud nests are often built under the eaves of houses and sheds. They also build their mud nests in tree hollows.



The Tree Martin is likely to be a regular visitor or inhabitant of the Bushlands.

Fairy Martin

Petrochelidon ariel

These small birds have dark wings and a pinkish-red head. They can be distinguished from the Welcome Swallow by their white rump and shorter tail that looks slightly forked when closed and nearly square when spread. They are usually seen in small groups, and sometimes larger flocks with Welcome Swallows, agilely catching insects around waterways and dams. They are mainly a breeding summer visitor to the Bushlands where they build bottle-shaped mud nests on walls and similar surfaces.



Flora



Purple Coral-pea*Hardenbergia violacea*

This hardy creeper is common in the Bushlands. Climbing or prostrate, this abundantly flowering perennial has dark green leathery leaves and purple bunches of pea flowers. Early European settlers used the roots to make a substitute for sarsaparilla, hence it is sometimes called False Sarsaparilla. It regrows from its roots after fire and its seeds are dispersed by ants.

IN FLOWER

J F M A M J J A S O N D

**Running Postman***Kennedia prostrata*

This prostrate trailing woody plant has bright red pea flowers with a yellow blotch in the centre. The dark green rounded leaves have slightly wavy edges and are arranged in groups of three.

IN FLOWER

J F M A M J J A S O N D



Previous page: Sticky Everlasting

PHOTO: HANNAH NICHOLAS

Twining Fringe-lily
Thysanotus patersonii

This small, delicate, twining perennial herb has green tendrils. The small purple flowers have six petals, each with a darker stripe from the centre to the tip. The three larger petals are strikingly fringed.



IN FLOWER

J F M A M J J A S O N D

After seeding the plant disappears, reappearing in late autumn.



Rock Fern*Cheilanthes* spp.

Rock ferns are perennial, less than 20 cm tall and look like miniature Bracken ferns. They grow on upper slopes between rocks where some moisture is retained, and in damper grassy woodlands and

forest areas. Green Rock-fern (*Cheilanthes austrotenuifolia*) and Narrow Rock-fern (*C. sieberi*) are the two local species. The fronds are divided into segments which are further divided into leaflets.



After seeding, many herbs and groundcovers disappear for the hottest months of the year, reappearing in winter.

Sheep's burr

Acaena spp.

There are two local species of Sheep's Burr, both rosette forming creeping perennial herbs with prostrate branches and serrated leaves. The flowers cluster along the top part of stems which average 30 cm in length. Sticky burrs result from hooked spines on each seed. Hairy Sheep's-burr (*Acaena agnipila*) has leaves that are sparsely hairy on top and densely hairy underneath. Sheep's Burr (*A. echinata*) has hairless leaves.

IN FLOWER

J F M A M J J A S O N D



Australian Sheep's-burr (*Acaena ovina*) may also occur in the Bushlands.

Bidgee-widgee

Acaena novae-zelandiae

This perennial herb favours damper sites such as along creek banks, forming thick mats. The plant has ball-shaped pale green and cream flower clusters. The leaves are shiny on top and hairy underneath. The seeds are narrowly triangular and each has four hooked red spines that stick to animals and clothing.

IN FLOWER

J F M A M J J A S O N D



Blue Pincushion*Brunonia australis*

This rosette forming herb appears in late winter in crowded groups of plants that have soft, hairy leaves. The small beautiful 'cornflower' blue flowers form a hemispherical cluster at the end of each short slender stalk.

IN FLOWER

J F M A M J J A S **O** N D**Pointed Centrolepis***Centrolepis aristata*

This annual herb is a small plant only a few centimetres high that commonly grows in damper areas. It has distinguishing flattened flowering stems which are usually longer than the leaves. Two long bracts extend upwards, surrounding the yellowish to brown flowers.

IN FLOWER

J F M A M J J A S **O** N D

Clustered Everlasting*Chrysocephalum semipapposum*

This perennial herb has multiple stems up to 50 cm long growing from a central base. Each stem terminates in a small bright yellow flower head up to 7 mm across, comprising tiny florets clustered in a central disc. New foliage has long, narrow leaves that are grey-green or silvery and often looks quite different from earlier growth.

IN FLOWER

J F M A M J J A S O N D

**Button Everlasting***Coronidium scorpioides*

This perennial herb has a basal rosette of pale green somewhat hairy leaves and plants can grow in crowded, almost suckering groups up to 1 m across. Each plant has one simple cottony stem with similar stem leaves which bears a single, golden yellow flower head 2 to 3 cm across. The central disc of tiny florets is almost as wide as the flower head.

IN FLOWER

J F M A M J J A S O N D



Billy Buttons*Craspedia variabilis*

This perennial plant has hairy basal leaves and a single flowering stalk to 50 cm tall that arises from the middle of the rosette. There are slender leaves along the stalk and the large yellow flower head is initially hemispherical and can become spherical with maturity. It consists of multiple tiny florets and the seeds are scattered by wind. It can flower prolifically after fire.

IN FLOWER

J F M A M J J A **S** O N D**Australian Carrot***Daucus glochidiatus*

This annual herb varies greatly in height from 3 to 60 cm but is often only 10 to 20 cm tall. It has many fern-like stems growing from the base and much divided leaves up the stem. The branched clusters of small flowers vary from white to pink or red and are followed by distinctive spiny-looking fruit and spiky seeds. The taproot is edible and the plant is often referred to as 'wild carrot'.

IN FLOWER

J F M A M J J A **S** O N D

Scented Sundew

Drosera aberrans,
formerly known as *Drosera whittakeri*

This small colony-forming carnivorous plant has gland-tipped hairs growing on the leaves that produce a sticky fluid to catch and digest insects attracted by the scent. The leaves lie flat on the soil surface in a basal rosette which can be green, orange or red. The large white flowers have five wedge-shaped petals and only open in fine/sunny weather.

IN FLOWER

J F M A M **J J A S** O N D



Tall Sundew

Drosera auriculata

This is a delicate carnivorous herb up to 30 cm tall, often occurring in broad colonies. The small cup-shaped leaves, the upper surfaces of which are covered

IN FLOWER

J F M A M J J **A S** O N D

with long sticky, gland-tipped hairs, are attached at the base of, and along erect stems. The flowers are white to pink.



Climbing Sundew (*Drosera macrantha*) and Pale Sundew (*D. peltata*) may also occur in the Bushlands.

Nodding Saltbush

Einadia nutans

This sprawling prostrate herb has branches growing from a single stem and small narrow A-shaped light green leaves that are usually lobed at the base. It is common on disturbed ground and can



IN FLOWER

J F M A M J J A S O N D

grow at the base of eucalypts. The flowers are insignificant but small yellow to red berries appear in summer.



Geraniums

Geranium spp.

These perennial groundcovers have long slender rough stems. The round green leaves are deeply divided into narrow lobes, each being further divided into smaller lobes. The small flowers have five pink or white petals and the fruit has a tapering

IN FLOWER

J F M A M J J A S O N D

beak that looks like the head and bill of a crane. Geraniums vary considerably. Three local native species are Austral Crane's-bill (*Geranium solanderi*), Soft Crane's-bill (*G. potentilloides*) and Rough Crane's-bill (*G. gardneri*).



Common Raspwort*Gonocarpus tetragynus*

This is a widespread small, wiry bushland and native grassland plant, growing to about 20 cm tall with rough stems. The leaves are in opposite pairs and have small teeth and stiff hairs, making them rough to touch. The green or red flowers are tiny and inconspicuous, giving the clumps a reddish tinge.

IN FLOWER

J F M A M J J A S O N D

**Primrose Goodenia***Goodenia blackiana*

This is a small perennial plant that is common in the Bushlands, often growing on bare ground. The elongated basal leaves are shiny and green on the top and paler green and hairy underneath with

IN FLOWER

J F M A M J J A S O N D

bluntly toothed edges. The bright yellow flowers have two smaller petals and three larger ones. Each petal has a central thickened section surrounded by thin wrinkled wings.



**Large-leaf Pennywort,
Stinking Pennywort**
Hydrocotyle laxiflora

This small creeping ground cover has ball-shaped flower heads made up of many greenish florets that have an unpleasant smell. The round indented leaves are about the size of a 20 cent coin and are slightly hairy and shallowly divided into five or more broad lobes.

IN FLOWER

J F M A M J J A S O N D



Small St John's Wort
Hypericum gramineum

This perennial plant averages 20 cm in height. The small dull green hairless leaves have edges that curl under and grow in pairs up the stems. The golden yellow

IN FLOWER

J F M A M J J A S O N D

flowers at the ends of the stems have five conspicuous yellow stamens and five petals shaped so that it appears the flower could rotate or turn in the breeze.



Scaly Buttons

Leptorhynchos squamatus

This perennial plant grows to about 20 cm. It has green leaves which are cottony underneath, usually more crowded at the base of the stem, and become shorter and fewer up the stem. Each plant has several



IN FLOWER

J F M A M J J A **S** O N D

unbranched brown stems which end in a distinctive bright yellow button-shaped flower.



Hoary Sunray

Leucochrysum albicans

This short-lived perennial plant, approximately 20 cm by 20 cm in size, is found in sunny situations. It has crowded narrow woolly grey-green leaves and large yellow or white 'daisy' flowers. The



IN FLOWER

J F M A M J J A **S** O N D

central button consists of small tubular florets and the surrounding overlapping rows of bracts form most of the flower head. Each stalk has a single flower.



Yam Daisy

Microseris walteri, formerly known as *Microseris lanceolata*

An erect perennial herb, this plant has a few narrow, toothed basal leaves. The large nodding yellow 'dandelion' flower head is at the end of a slender stem which

IN FLOWER

J F M A M J J A **S** **O** N D

averages 30 cm in length. The petals are irregular in length and the centre of the flower is yellow.

**Magenta Stork's-bill**

Pelargonium rodneyanum

This small perennial plant is common in bushland and grows to about 15 cm. It has striking magenta flowers with oblong petals, the upper two being larger than the lower three. The glossy green leaves

IN FLOWER

J **F** **M** A M J J A S O N D

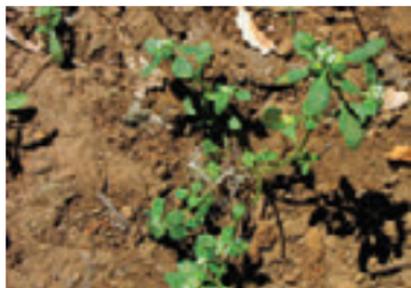
are slightly hairy and lobed and grow from the base of the plant. *Pelargonium* comes from the Greek word *pelargos* (a stork). The fruit of this plant resemble a stork's bill.



Small Poranthera

Poranthera microphylla

This small annual leafy herb is often only a few centimetres high. It has white flowers in clusters at the tips of small branches. The sap is milky and the spoon-



IN FLOWER

J F M A M J J A S O N D

shaped leaves are soft textured, often slightly fleshy, and sometimes have the margins curved under.



Fireweeds and Groundsels

Senecio spp.

There are eleven native species of *Senecio* in the Castlemaine area. The most common of these are Cotton Fireweed (*Senecio quadridentatis*) and Slender Groundsel (*S. phelleus*). Erect stems branch out from the base and long thin grey or green leaves grow up the stem. The leaves are more or less hairy underneath but only sparsely hairy on top. The yellow flowers are clustered in cylindrical heads with the tiny yellow petals protruding past the green floral leaves.

IN FLOWER

J F M A M J J A S O N D



Small Wrinklewort*Siloxerus multiflorus*

These tiny annual herbs are only a few centimetres high. The small white flower head at the end of each short branch is made up of a cluster of tiny flowers surrounded by small linear leaves.

IN FLOWERJ F M A M J J A **S** O N D**Creamy Candles***Stackhousia monogyne*

Tiny cream-coloured star-shaped tubular flowers are clustered along the upper part of the green stems of this slender suckering herb. The stems are typically about 30 cm tall with small green leaves

IN FLOWERJ F M A M J J A **S** O N D

scattered along them and the whole shape is reminiscent of a candle. The flowers are most sweetly scented at night to attract moths.



Prickly Starwort *Stellaria pungens*

This herb is a scrambling prostrate perennial with small narrow prickly leaves. The solitary small white flowers



IN FLOWER

J F M A M J J A S O N D

have many petals and green centres. The stems are hairy and spiky when dry.



Trigger Plant *Stylidium spp.*

These plants have individual flowers opening progressively up the stems. They are white to pink, have four 'petals', and the fused stamen and style form a trigger that springs forward when touched by an insect to attach or remove pollen. There



IN FLOWER

J F M A M J J A S O N D

are two species, the difference being in the leaf width. Common Trigger-plant (*Stylidium armeria*) has leaves 4-8 mm wide and Grass Trigger Plant (*S. graminifolium*) has leaves less than 3 mm wide.



Spur Velleia*Velleia paradoxa*

This perennial herb is related to the Goodenias having similarly-shaped yellow flowers. The leaves form a rosette at ground level and the flower stalks are branched with a pair of leaves at the base of each branch. Spur Velleia flowers differ from Goodenias by having a spur at the base of the flower.

IN FLOWER

J F M A M J J A S O N D

**Digger's Speedwell***Veronica perfoliata*

This slender herb grows to about 50 cm in height with spikes of blue flowers clustered around the top half of the stems. The flowers have four petals and two yellow stamens. The leaves are grey-green and are arranged in opposite pairs, joining at the base around the purple stem. It is often found on hard, dry, rocky sites.

IN FLOWER

J F M A M J J A S O N D



Trailing Speedwell

Veronica plebeia

This small trailing perennial herb has smooth toothed triangular leaves. The flowers are pale lavender or blue and have four distinct almost circular petals. They grow in short sprays from the base of the leaves. The seed pods are heart-shaped.

IN FLOWER

J F M A M J J A S **O** N D



Bluebells

Wahlenbergia spp.

There are five species of Bluebell growing in the Castlemaine district. The most common are Tall Bluebell (*Wahlenbergia stricta*) and Annual Bluebell (*W. gracilentia*). The flowers are nearly always blue, but very occasionally white, with

IN FLOWER

J F M A M J J A **S** O N D

five slightly pointed petals joined at the base into a tube. The narrow leaves may be crinkled, usually growing in pairs at the base and up the lower part of the stems.



Sticky Everlasting*Xerochrysum viscosum*

This widespread herb has multiple green stems about 50 cm long that have many sticky narrow leaves with minute stiff hairs. The flower head is made up of dark yellow florets surrounded by shiny yellow straw-like bracts. These do not die off

IN FLOWER

J F M A M J J A S O N D

rapidly and hence the name 'everlasting'. The dry stems often remain until the new sticky growth springs from the base of the plant.



After seeding many lilies disappear, surviving underground as bulbs and reappearing in winter.

Chocolate Lily

Arthropodium strictum

This tufted perennial grows abundantly in the Bushlands. It has shiny grass-like bright green leaves to about 40 cm in



IN FLOWER

J F M A M J J A S **O** N D

length. The sprays of lightly chocolate-perfumed mauve to purple flowers are on long, fine, usually branched stalks.



Bulbine Lily

Bulbine bulbosa

This is a tufted perennial herb to 50 cm tall with narrow grey-green grass-like leaves. The yellow flowers have six petals and six obvious stamens. They are in a conical cluster at the end of an erect stem and open progressively towards the tip. It often grows in colonies.

IN FLOWER

J F M A M J J A S **O** N D



Milkmaids*Burchardia umbellata*

This is a perennial to approximately 30 cm tall. The star-shaped white flowers have six petals and grow on the top of the main stalk in a cluster of 2 to 9 radiating like the spokes of an umbrella. The paired leaves are long and narrow.

IN FLOWER

J F M A M J J A S **O** N D**Black-anther Flax-lily***Dianella revoluta*.

This is a robust tussocky perennial which spreads by rhizomes, forming dense clumps in the bush. The blue flowers are

IN FLOWER

J F M A M J J A S **O** N D

on branching stems to about 50 cm tall, and are followed by purple berries.



Yellow Stars

Hypoxis spp

These are small, fine perennials up to 15 cm tall growing on damper soils. The starry yellow flowers are single on a smooth stalk and have six petals. Two



IN FLOWER

J F M A M J J A **S** O N D

local species are similar: Yellow Star (*Hypoxis vaginata*) has a pair of narrow leaves and Tiny Star (*H. glabella*) has a single leaf.



Yellow Rush-lily

Tricoryne elatior

This is a fine, weak perennial. It has a few narrow leaves at the base of slender, wiry branched stems that grow up to 40 cm



IN FLOWER

J F M A M J J A S O N D

long. The yellow star-shaped flowers have six petals, six yellow stamens, and grow at the ends of the branches.



Early Nancy*Wurmbea dioica*

This is a small tufted perennial and is one of the earliest spring wildflowers. The white flowers are star-shaped with six petals. It is easily identifiable from the usually clear purple ring on the petals around the centre of the flower, though this is sometimes faint.

IN FLOWERJ F M A M J J **A** S O N D

Pink Fingers*Caladenia carnea*

This orchid grows to about 15 cm tall, with a single erect, slender leaf at the base of a sparsely hairy stem bearing 1 to 5 pink or white, fan-shaped flowers. The upper petal is more or less erect, and the four lower petals spread forwards and downwards in a fan-like arrangement.

IN FLOWER

J F M A M J J A **S** O N D

After flowering terrestrial orchids disappear, surviving underground as tubers.

Castlemaine Spider-orchid

Caladenia clavescens, formerly included in *Caladenia concolor* (Crimson Spider-orchid).

This orchid grows to 30 cm tall, with a single narrow hairy leaf at the base of a hairy stem bearing one large dark red (occasionally cream or cream and red), spider flower. The petals are long and slender tapering to fine points.

IN FLOWER

J F M A M J J A **S** O N D

Threatened

Hooded Caladenia*Caladenia cucullata*

This orchid is similar in size and habit to Musky Caladenia though can be a little taller. The flowers are white inside and pale brown or pale green and hairy outside. The upper petal is arched forwards and hood-like; the four lower petals spread forwards and upwards; the tongue has a dark purple tip.

IN FLOWER

J F M A M J J A S O N D

**Musky Caladenia**

Caladenia moschata,
formerly known as *C. gracilis*

This orchid is very similar to the Hooded Caladenia, but they seldom occur in the same site. An area of bush generally has one species or the other. The Musky Caladenia is musk scented, has more or less white petals, the upper petal being more erect, and the tongue is only tinged with purple.

IN FLOWER

J F M A M J J A S O N D



Brown-clubbed Spider-orchid*Caladenia phaeoclavia*

This orchid is up to 25 cm tall, with a single narrow, very hairy leaf at the base of a hairy stem bearing a large pale yellow-green, red-brown and white spider flower. Three of the petals taper to thickened elongated brown club-like tips.

IN FLOWERJ F M A M J J A S **O** N D**Purple Beard-orchid***Calochilus robertsonii*

This orchid has a fleshy basal leaf and a slender hairless stem that is usually about 25 cm in height. This may bear from 2 to 9 greenish flowers, each with a distinctive dense 'beard' of glistening purple hairs.

IN FLOWERJ F M A M J J A S **O** N D

Blue Fingers*Cyanicula caerulea*

This orchid has a single, narrow, erect leaf at the base of a hairy stem to 15 cm tall bearing a single, fan-shaped flower, about the same size as that of Pink Fingers, which is usually an intense blue. The upper petal is more or less erect and the four lower petals spread forwards and downwards.

IN FLOWER

J F M A M J J A **S** O N D**Golden Moths***Diuris chryseopsis*

These orchids have 1 to 4 large, yellow flowers on an erect hairless stem growing from a tuft of 3 to 9 leaves. The flower sometimes has a few brown stripes. The two lower narrow petals are brown-green and pointed downwards and slightly spreading.

IN FLOWER

J F M A M J J A **S** O N D

Rosy Hyacinth-orchid*Dipodium roseum*

This is a robust, leafless orchid with 15 to 50 pink flowers along an erect, purple, hairless stem which may be up to 1 m long. The stout flower stalk appears in summer. The petals have dark blotches or spots, which are often hard to see, and the flowers open sequentially towards the top of the stem.

IN FLOWER

J F M A M J J A S O N D

**Leopard Orchid***Diuris pardina*

This orchid has 1 to 8 large flowers on erect hairless stems to 30 cm tall. The flowers are yellow with variable red-brown spots and blotches. The two upper petals are rounded, upright and spread like 'ears'. They are usually clear yellow on the front and have blotches on the back. The leaves are grass-like in a tuft at the base of the stem.

IN FLOWER

J F M A M J J A S O N D



Tiger Orchid, Hornet Orchid,
Diuris sulphurea

This orchid has 1 to 5 large flowers on erect hairless stems to 40 cm tall. The bright, more or less plain yellow flowers have some small dark brown markings. The narrow leaves are in a tuft at the base of the stem. Similar to the Leopard Orchid but it flowers much later in the year.

IN FLOWER

J F M A M J J A S O N D



Waxlip Orchid
Glossodia major

This is an abundant orchid in the Bushlands growing from a single short broad leaf at the base of the plant. The purple to blue flowers are large with a conspicuous white patch in the centre, a long erect upper petal and four lower ones. The stem is up to 30 cm tall, slender and hairy and bears 1 to 3 flowers.

IN FLOWER

J F M A M J J A S O N D



Onion Orchid*Microtis spp.*

These orchids appear as a single round green onion-like leaf from within which a single stem grows bearing up to 100 very tiny green orchid flowers. These open progressively upwards. Two species are locally known that are difficult to distinguish: Common Onion-orchid (*Microtis unifolia*) and Slender Onion-orchid (*M. parviflora*).

IN FLOWER

J F M A M J J A S O N D



**Scented Leek-orchid,
Fragrant Leek-orchid,
*Prasophyllum sp.affin. odoratum***

This is a spectacular orchid with 10 to 40 sweetly scented flowers arranged in an open, moderately crowded spike about 40 cm tall. The individual flowers have green and white petals with wrinkled margins. The single green leaf is long, erect, fleshy, round and reddish at the base.

IN FLOWER

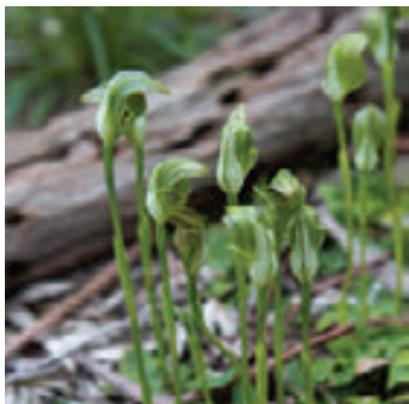
J F M A M J J A S O N D



Blunt Greenhood*Pterostylis curta*

This orchid is about 25 cm tall with a basal rosette of leaves and 2 or 3 leaves encircling the stem. It has a single, large, green and white striped flower with the hood blunter than most other greenhoods. The two lower petals are joined at the base then separate, pointing upwards and backwards behind the hood.

IN FLOWER

J F M A M J J **A** **S** O N D**Tall Greenhood***Pterostylis melagramma*formerly known as *P. longifolia*

This is a many-flowered orchid which varies in height from about 20 cm to 50 cm. It has several narrow, pointed leaves encircling an erect stem bearing green, hood-like and gaping flowers. The hood is almost horizontal, often with indistinct white stripes, and the tongue is brownish or brownish green. This orchid traps insects during pollination before releasing them again.

IN FLOWER

J F M A M J J **A** **S** O N D

Dwarf Greenhood*Pterostylis nana*

This orchid is small with leaves in a basal rosette. It usually has only a single green and white striped flower with an upright hood which bends horizontally at the tip. The two lower petals are vertical, joined at the base, then separating into two fine erect points which point upwards and backwards, well past the top of the hood.

IN FLOWER

J F M A M J J **A** S O N D**Nodding Greenhood***Pterostylis nutans*

This orchid grows from a basal rosette of leaves, the stem being generally about 15 cm tall. It has a single large green hood-like flower with pale white stripes. This is curved over in a nodding position with the front of the flower facing downwards.

IN FLOWER

J F M A M J J **A** S O N D

Sun Orchids*Thelymitra* spp.

There are three species of Sun Orchid in the local area. The Slender Sun-orchid (*Thelymitra pauciflora*) has small generally pale blue flowers with 2 to 12 on a stem. The flowers need full sun for the petals to open. There is a single leaf which is stout, green and often reddish

IN FLOWER

J F M A M J J A S O N D

near the base. The Scented Sun-orchid (*T. megalyptra*) has much larger and more numerous (2 to 25) dark blue flowers. The Salmon Sun-orchid (*T. rubra*) has 1 to 5 large salmon-pink flowers on a reddish stem.

**Slender Sun-orchid****Scented Sun-orchid****Salmon Sun-orchid****Salmon Sun-orchid**

Spear Grass

Austrostipa spp.

These winter growing grass species form medium-sized slender tussocks with foliage reaching 30 cm. The flowering stems can be 50 cm tall but these vary in form according to the species. They have sharp pointed seeds with long awns. Two species found in the Bushlands include Supple Spear Grass (*Austrostipa mollis*) and Rough Spear Grass (*A. scabra*). *A. mollis* has densely clustered flowers, and when dry the awn in twice bent. *A. scabra* is smaller, has an open spray of flowers that have a purple colouration, and a distinctive sickle-shaped awn on the seed.



IN FLOWER

J F M A M J J A S O N D



Thatch Saw-sedge

Gahnia radula

This large tufted perennial sedge has long, flat, dark green leaf blades with grey-brown sheathes and sharp edges. It produces erect dark brown flower spikes that weep with age and forms dark brown

IN FLOWER

J F M A M J J A S O N D

to black nuts. This plant is very difficult to propagate or establish.



Variable Sword-sedge*Lepidosperma laterale*

This tufted, perennial sedge has hairless, smooth, flat leaves that are typically 30 to 50 cm long. The erect flower stems are also smooth and flattened and the flower spikes are reddish-brown.

IN FLOWER

J F M A M J J A S O N D

**Wattle Mat-rush***Lomandra filiformis*

This hardy, rush-like perennial plant is 10 to 20 cm tall. The flat leaves have blunt tips and often have a bluish colour. They are strong, stiff and tough with a suckering habit. It produces dull cream to yellow flowers that differ in appearance between male and female plants

IN FLOWER

J F M A M J J A S O N D



Common Wood-rush

Luzula meridionalis

This small perennial rush grows to 20 cm tall. It has long green flat leaves with fine, long silky hairs. The flowers are light to dark brown with several clusters at the end of each strong stem. The plant is not visible all year, disappearing during the hottest months.

IN FLOWER

J F M A M J J A S O N D



Tussock Grasses

Poa spp.

These winter growing dense tussock-forming grasses have beautiful fine foliage. They provide valuable habitat for birds, lizards, snakes and insects. Birds also feed on the seeds. The three species found in the Bushlands are Common

IN FLOWER

J F M A M J J A S O N D

Tussock-grass (*Poa labillardierei*). Grey
Tussock-grass (*P. sieberiana*) and Soft
Tussock-grass (*P. morrisii*).



Wallaby Grasses*Rytidosperma* spp.

These tussock-forming grasses are erect tufted perennials with fine leaves that remain green throughout the year. They are variable in form between the species and in response to changes in the environment. The seedheads vary considerably but commonly have attractive white fluffy seeds. Some species found in the Bushlands include Common Wallaby-grass (*Rytidosperma caespitosum*), Brown-back Wallaby-grass (*R. duttonianum*), Red-anther Wallaby-grass (*R. pallidum*), Clustered Wallaby-grass (*R. racemosum*) and Bristly Wallaby-grass (*R. setaceum*).

**IN FLOWER**

J F M A M J J A S O N D



Common Wallaby-grass



Red-anther Wallaby-grass

Kangaroo Grass*Themeda triandra*

This summer growing grass produces beautiful rusty-bronze coloured branched flower heads in spring and summer. The stems average 40 cm long and its tussock forming growth habit makes it



ideal habitat for lizards, birds and insects. The whole plant has a rusty look after seeding.

**IN FLOWER**

J F M A M J J A S O N D



Gold-dust Wattle

Acacia acinacea

This is a widespread, hardy suckering shrub, usually about 50 cm tall. It is very common in the Bushlands often growing in large patches. The small leaves are



IN FLOWER

J F M A M J J A **S** O N D

almost round and the flowers are bright yellow. They form on short stalks singly or in pairs, and produce distinctive spiral seed pods after flowering.



Spreading Wattle

Acacia genistifolia

This is a widespread long-flowering open shrub with each narrow needle-shaped 'leaf' tough and spiky. The cream to pale yellow flower balls grow on a short stalk from the leaf base, either singly or in



IN FLOWER

J F M **A** **M** J J **A** S O N D

pairs. The seed pods are up to 10 cm long and are often gently curved with little constriction between seeds. It is the first of the local wattles to flower.



Ploughshare Wattle*Acacia gunnii*

This wattle is a small shrub with spiky grey-green distinctly 'ploughshare'-shaped hard leaves. The flowers are pale yellow balls growing singly on a short stalk from the leaf base. The seed pods are about 4 cm long and strongly constricted between the seeds.

IN FLOWER

J F M A M **J J A S** O N D**Hedge Wattle***Acacia paradoxa*

This shrub usually grows to a height of over 1 m and has globular bright yellow flowers that grow on short stalks from the leaf bases. A pair of sharp thorns also grows from each leaf base. The seed pods are almost straight, are up to 3 cm long and velvety. This shrub provides safe nesting sites for small birds such as wrens.



IN FLOWER

J F M A M J J A **S** O N D

Inland Wirilda

Acacia provincialis,
formerly known as *Acacia retinodes*

This is a dense, erect, very hardy large shrub which may grow to 4 m in height on a range of sites. The thin pointed leaves are bluish green, usually straight and smooth and angled upwards. The branches are reddish-brown, softer and often hanging when young. The small pale yellow flowers are in sprays and the seed pods are more or less straight and up to 16 cm long.

IN FLOWER

J F M A M J J A **S** O N D

**Golden Wattle**

Acacia pycnantha

This is a slender shrub, 2 to 3 m tall, with broad green leathery leaves. The bright golden flowers are clustered into dense sprays resulting in a spectacular show in late winter and early spring. The long seed pods are gently curved and not constricted between the seeds. Golden Wattle is Australia's floral emblem.

**IN FLOWER**

J F M A M J J **A** S O N D

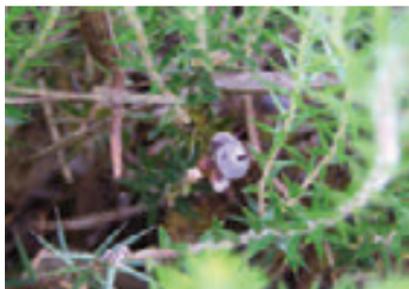


Honey-pots*Acrotriche serrulata*

This is a slow-growing woody ground cover with dense small spiky narrow leaves. The white to pale green tubular flowers are hidden low down on the branches where they are pollinated by ants. They are nectar-rich and bird-

**IN FLOWER**J F M A M **J J A S O N D**

attracting. When not in flower Honey-pots can be confused with Cranberry Heath (*Astroloma humifusum*) and Matted Bush-pea (*Pultenaea pedunculata*).

**Cranberry Heath***Astroloma humifusum*

This is a prostrate mat-forming hardy plant. It has distinctive easily recognisable red, tubular flowers. It is lower growing than Honey-pots and

**IN FLOWER**J F M A M **J J A S O N D**

the small stiff sharp densely crowded blue-green leaves are wider. Green fleshy edible fruit follows flowering.



Daphne Heath*Brachyloma daphnoides*

This is an upright small to medium shrub with small white tubular flowers. The flower is like that of a Daphne with a similar sweet smell, hence the name. The leaves are almost circular, hairless, stiff, and arranged in dense clusters along small branches.

IN FLOWER

J F M A M J J A S O N D

**Sweet Bursaria***Bursaria spinosa*

This is a woody shrub up to 2 m high with open clusters of white aromatic flowers that attract butterflies. The small leaves grow along the spiny stems and the seed pods are flat capsules that resemble an old-fashioned shepherd's purse. Bursarias are important fodder plants for the Eltham Copper Butterfly caterpillars and other invertebrates.

IN FLOWER

J F M A M J J A S O N D



Drooping Cassinia, Coffee Bush*Cassinia arcuata*

This is a bushy shrub which is widespread and abundant, being one of the first plants to colonise disturbed land. It has very small fine pale green leaves on drooping branches and a distinctive, easily recognisable smell. Small coffee-coloured flowers cluster densely on the ends of the branches.

IN FLOWER

J F M A M J J A S O N D

**Common Correa***Correa reflexa*

This is a small, open shrub with long hanging bell-shaped green flowers. These produce nectar, attracting birds such as honeyeaters, including the Eastern Spinebill. The long oval-shaped leaves are rough.



IN FLOWER

J F M A M J J A S O N D



Narrow-leaf Bitter-pea*Daviesia leptophylla*

This is a multi-stemmed plant which is open in form and has stems up to 1 m or more in length. The small dark yellow and maroon pea-shaped flowers form in clusters from the leaf bases. The long narrow, hairless leaves grow along the branches and have a bitter taste. The distinctive triangular seed pods are almost flat.

IN FLOWER

J F M A M J J **A** S O N D**Gorse Bitter-pea***Daviesia ulicifolia*

This erect prickly shrub is widespread. It grows up to 1 m tall with stiff, flat leaves tapering to a spiny tip. The small deep yellow pea flowers are dark red near the centre and are in shortly-stalked clusters growing from the leaf bases. The seed pods are flat and triangular.

IN FLOWER

J F M A M J J **A** S O N D

Grey Parrot-pea*Dillwynia cinerascens*

This is a broad open shrub to about 80 cm tall. Along the hairy stems, it has clusters of small, very narrow grey-green leaves which are curved back at the tips. The vividly coloured orange and red pea flowers are crowded into heads at the branch tips.

IN FLOWERJ F M A M J J A **S** O N D**Showy Parrot-pea***Dillwynia sericea*

This is the most common local Parrot-pea. It is an open rounded bush with downy stems and orange and red pea flowers crowded among the leaves on the upper part of the stem. The leaves

IN FLOWERJ F M A M J J A **S** O N D

are more or less straight, usually slightly warty, and about 1 cm long. The edges are rolled tightly upwards making a groove on the upper surface.



Sticky Hop-bush*Dodonaea viscosa*

This is a medium to tall shrub which grows on rocky outcrops or along rocky creek beds. It has small brown-green flowers and narrow glossy leaves about 5 cm long. The attractive and distinctive red-brown seed capsules have conspicuous papery wings.

IN FLOWER

J F M A M J J A **S** O N D**Common Wedge-pea***Gompholobium huegelii*

This is a small, open, erect shrub with single bright yellow large pea flowers on the ends of the stems. The backs of the petals are a dull, darkish yellow-green. The dark green leaves are divided into three very narrow leaflets which have the edges rolled under.

IN FLOWER

J F M A M J J A S **O** N D

Downy Grevillea, Cat's-claw Grevillea
Grevillea alpina

This shrub grows to about 1 m tall on stony ground in open bush. The green leaves are short and stiff and the stems, leaves and flowers are densely hairy. The curved, tubular flowers are red and white

IN FLOWER

J F M A M J J A S O N D

or apricot and white, and have the typical grevillea 'spider-flower' shape.



Bushy Needlewood
Hakea decurrens

This tall, narrow prickly shrub has stiff needle-like leaves and is sometimes confused with Spreading Wattle (*Acacia genistifolia*) when not in flower. The clusters of white to pink spider flowers are highly fragrant. The woody seed pods are walnut-sized, dark brown or grey with

IN FLOWER

J F M A M J J A S O N D

pale warty spots. They can remain on the shrub for many years, and are often useful in correctly identifying the plant.



Guinea Flower

Hibbertia spp.

The yellow flowers of these shrubs have five slightly overlapping petals. Narrow leaves alternate along the stems. There are two local species: Spiky Guinea-



Spiky Guinea-flower

IN FLOWER

J F M A M J J A **S** O N D

flower (*Hibbertia exutiacies*) is more or less prostrate with flowers the size of a 5 cent coin; Erect Guinea-flower (*H. riparia*) is taller with larger flowers.



Erect Guinea-flower

Common Hovea

Hovea heterophylla

This is a small shrub, often comprising only a few short upright woody stems averaging 20 cm in length. This plant is common in the Bushlands. The pale purple pea flowers have a small yellow blotch at the centre and alternate on the stem, growing from the leaf bases. The leaves are long and narrow.

IN FLOWER

J F M A M J J **A** **S** O N D



Austral Indigo*Indigofera australis*

A member of the Pea family, this is a tall open shrub with sprays of pale purple to pink flowers. The foliage is feathery with small green leaflets openly placed in opposite pairs on flexible stems. After the short spikes of purple flowers have finished, they are replaced by shiny green pods which turn brown and split on ripening.

IN FLOWER

J F M A M J J A **S** O N D**Common Beard-heath***Leucopogon virgatus*

This is a low neat multi-stemmed shrub with narrow, hairless, stiff leaves. The tiny white flowers are densely clustered together and cover the plant. Each flower comprises five petals the insides of which are furry, making them look fringed or bearded. The ripe berries can be eaten.

IN FLOWER

J F M A M J J A **S** O N D

Urn Heath*Melichrus urceolatus*

This is a low spreading shrub to about 50 cm tall with small, stiff prickly leaves that taper to a sharp, hard point. The cream tubular flowers have five triangular petals and are surrounded at the base by pink bracts. They grow from the leaf bases, are distinctly urn-shaped, and are clustered along small branches.

IN FLOWERJ F M A M J J **A** S O N D**Grey Everlasting***Ozothamnus obcordatus*

This plant is common and widespread in the Bushlands. It grows to 1 m tall, with erect woody stems. The small oval leaves are glossy green on top and pale grey underneath due to a covering of cottony hairs. The numerous small yellow button flower heads which cluster at the top of the branches turn grey as they mature.

IN FLOWERJ F M A M J J A S **O** N D

Fairy Wax-flower

Philotheca verrucosa, formerly known as *Eriostemon verrucosus*

This shrub is 30 cm to 1 m tall. It is small and rounded, sprawling or upright and widespread and common. The aromatic leaves are thick and curved upwards.

**IN FLOWER**

J F M A M J J **A S O N** D

The stems are warty, as are the leaves, making them rough to touch. The white star-shaped flowers open from pink buds and have five waxy petals.

**Rice Flower**

Pimelea spp.

These small shrubs grow to 30 cm, many woody stems springing erectly from the base of the plant. The leaves are pale green and soft. The white tubular flowers grow in clusters at the branch tips. There are two local species. Just below the flowers, the Common Rice-flower or Dwarf Rice-flower (*Pimelea humilis*) has stalks with silky hairs, while the Slender Rice-flower (*P. linifolia*) has smooth, hairless stalks.

IN FLOWER

J F M A M J J **A S O N** D



Prostrate Flat-pea, Hill Flat-pea
Platylobium montanum

This slender more or less trailing plant has large heart-shaped leaves with a sharp point at the end and a network of surface veins. The yellow pea flowers are on slender stalks and have small red markings in the centre. They are spaced out along the stems.

IN FLOWER

J F M A M J J A **S** O N D



Matted Bush-pea
Pultenaea pedunculata

This is a prostrate shrub which forms a dense mat. The small narrow leaves taper to a sharp point and grow thickly along the hairy small branches. The pea flowers are yellow with red centres and are on slender stalks rising from the leaf bases.

IN FLOWER

J F M A M J J A **S** O N D



White Marianth*Rhytidosporum procumbens*

This is a small, prostrate shrub about 30 cm tall. The small leaves taper to a sharp point and are crowded along the

**IN FLOWER**J F M A M J J A **S** O N D

branches. The many small white flowers appear among the upper leaves.

**Pink Bells***Tetralthea ciliata*

This is a common and showy small spreading shrub in the Bushlands. It has multiple slender hairy erect stems with small circular leaves commonly in whorls of three along them. The perfumed pink flowers, which are either single or in groups of up to three, have four petals and are attached by drooping hairy stalks at the base of the upper leaves.

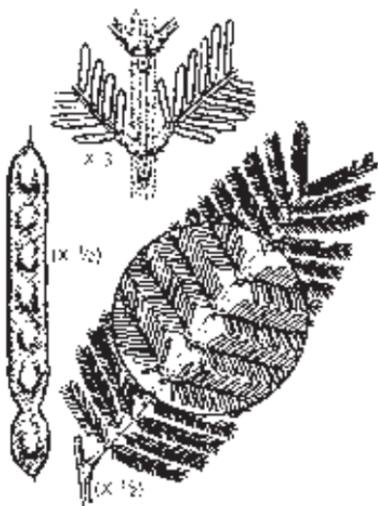
IN FLOWERJ F M A M J J A **S** O N D

Silver Wattle*Acacia dealbata*

This is a small to medium tree with 'feathery' blue-green leaves. The trunk often has silvery-grey patches. It spreads from seeds as well as suckering profusely. The perfumed, ball-shaped, bright yellow flowers grow in sprays at the end of branches and the seed pods are mainly straight. There are small glands regularly spaced along the central vein of the leaf. It can be confused with Black Wattle (*Acacia mearnsii*).

**IN FLOWER**

J F M A M J J A S O N D

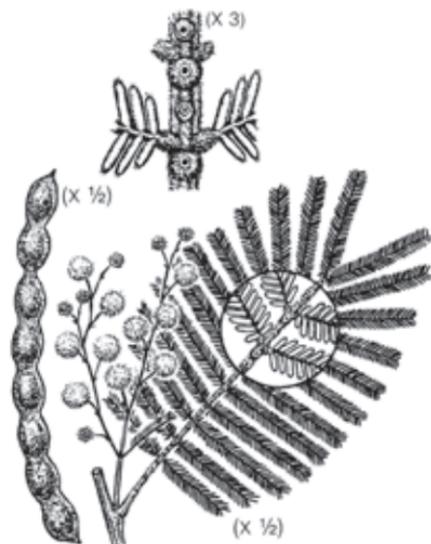


Black Wattle, Late Black-wattle
Acacia mearnsii

This is a small to medium green tree with dark bark, often exuding gum. The leaves are feathery and the pale yellow sprays of flowers appear in early summer. The brown seed pods are strongly constricted between the seeds. The leaflets are longer than those of Silver Wattle (*Acacia dealbata*) and it does not spread by suckering. The small glands on the central vein of the leaf are irregularly spaced.

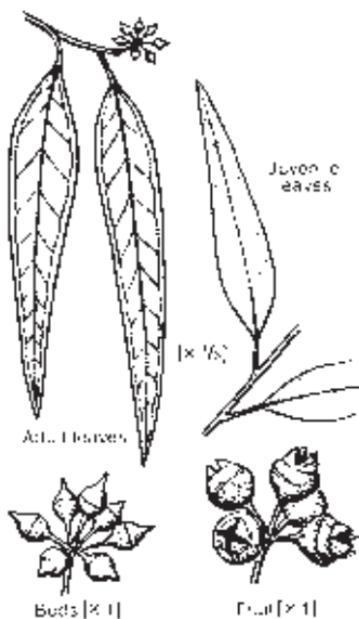


IN FLOWER
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River Red-gum*Eucalyptus camaldulensis*

This is a large tree, often with twisting branches and a spreading crown, but those in the Bushlands have more of a tall upright growth habit. The cream flowers are often in clusters of seven. They grow along creeks and on low-lying areas where they are seasonally inundated. The fruit is round, dome-like with strong projecting valves. The smooth bark is patchy and dull pale grey to white. The leaves are dull grey-green and variable in length.

**IN FLOWER**J F M **A M** J J A S O N D

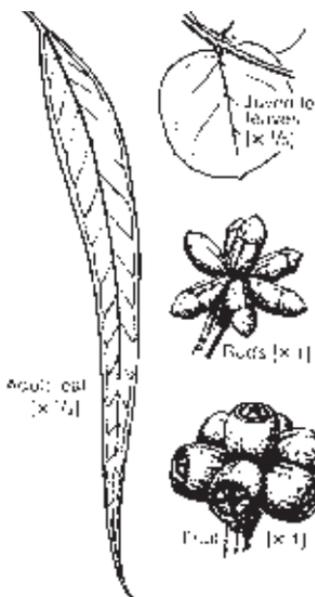
Eucalypts may not flower, and therefore seed, every year.

Long-leaved Box, Bundy*Eucalyptus gonicalyx*

This is a medium-sized tree with greyish, rough box bark. It is characteristically untidy with a short crooked trunk and large crown and is often wider than it is tall. The blue-green juvenile leaves are clearly round, paired and stalkless. The adult leaves are alternate, long, dark green and spear-shaped. Buds are usually in clusters of up to 7 and somewhat cylindrical. The fruit is cup-shaped with the valves slightly above the rim.

**IN FLOWER**

J F M A M J J A S O N D



Red Stringybark

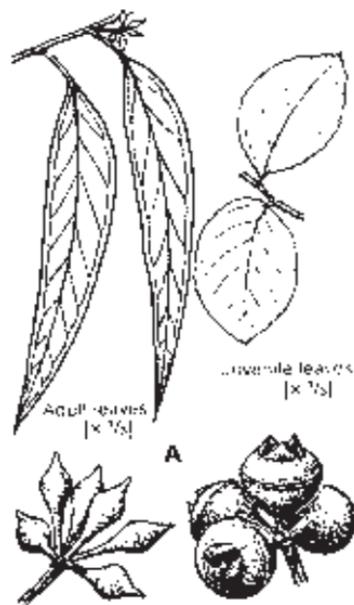
Eucalyptus macrorhyncha

This tree favours drier, well-drained hill sites and is the most common eucalypt on the skeletal soils of the Bushlands. It is a small to medium tree, with a sparse spreading crown. It is characterised by its vertically stringy and fibrous bark which is red-brown inside and grey outside, twisting around the trunk and extending to all of the branches. The juvenile leaves are rough and bristly and the adult leaves are thick and dark green. The buds are usually in clusters of 7 to 11 and the fruit is large with a broad domed top and projecting sharp valves.



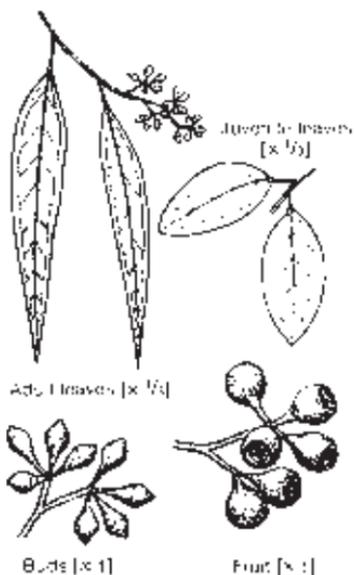
IN FLOWER

J F M A M J J A S O N D



Yellow Box*Eucalyptus melliodora*

This is a medium to tall broad-crowned, often stately tree preferring better quality soils on lower slopes. The bark is brown and rough from the base to varying heights on the trunk, while the upper trunk and limbs are smooth and pale. The juvenile leaves are small, almost oval and pale grey-green. The adult leaves are thin and generally smaller than those of other eucalypts. The small buds, in clusters of 3 to 7, grow from the leaf-base and have a short cap. The fruits are roundly wineglass-shaped with the valves recessed below the rim.

**IN FLOWER****J F M A M J J A S O N D**

Grey Box*Eucalyptus microcarpa*

This is a medium upright tree, often with the trunk typically dividing in a Y-shape. The bark is grey and rough on the trunk and large branches, smoother and pale grey-brown on the upper limbs. The juvenile leaves are larger and generally wider than adult leaves which are longer, tapered at both ends and usually rather thick and firm, green or grey-green. The buds are in clusters of 4 to 8 and are pointed at both ends. The fruits are generally cup-shaped with the valves opening below the rim.

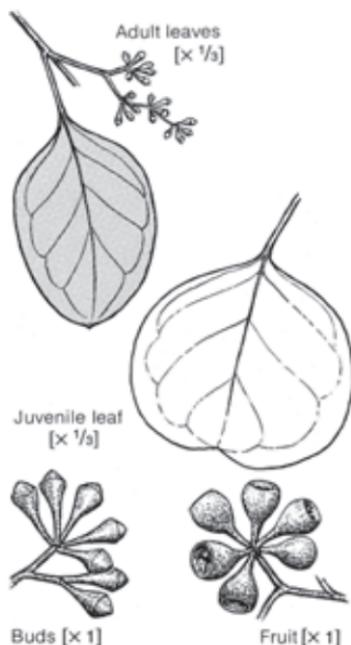
**IN FLOWER**

J F M A M J J A S O N D



Red Box*Eucalyptus polyanthemos*

This is a medium tree and a common companion of Red Stringybark (*Eucalyptus macrorhyncha*). It has a rather dense crown of grey-green leaves. In the Bushlands the box-type bark is generally rough on the trunk and all branches except the smallest. The grey-green, stalked, juvenile leaves are round, often with a heart-shaped dint in the end. Adult leaves are not as round with long and slender leaf stalks. This is the only eucalypt with rounded adult leaves. The small buds are in clusters of 3 to 7 with short conical caps and the fruits are goblet-shaped with the valves below the rim.

**IN FLOWER**J F M A M J J A **S** O N D

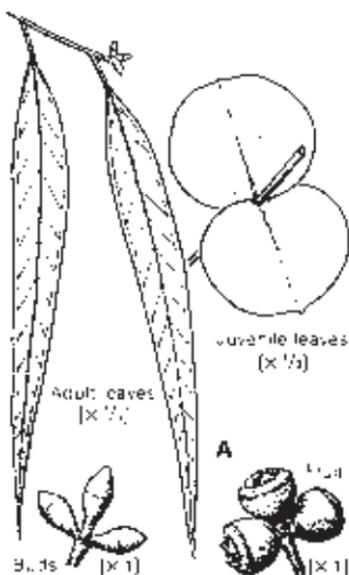
Candlebark*Eucalyptus rubida*

This erect tall tree has a white smooth trunk except for the base where rough bark is present and strips of bark gather. They occur in damper areas and can be seen on Sparks Road near the Chewton Cemetery. The juvenile grey-blue leaves are opposite and round. Adult leaves are long, thin and dark green. Buds are in threes with conical caps. Fruit are in threes and have a cross formation with raised valves.



IN FLOWER

J F M A M J J A S O N D



Cherry Ballart*Exocarpos cupressiformis*

This is a small virtually leafless tree resembling a green-foliaged cypress. It grows in association with other trees, its roots attaching to nearby roots. The tiny, yellow flowers are about 1 mm wide and it has small stony fruit attached to

IN FLOWER

J F M A M J J A S O N D

the plant by a swollen stalk. This stalk becomes swollen and red as the fruit ripens, resembling a cherry, with the seed outside, hence *Exocarpos*.



Box Mistletoe*Amyema miquelii*

This is a local native plant that grows in hanging clumps on Red Stringybark and the boxes in the Bushlands. The sticky seeds are dispersed by birds, particularly the Mistletoebird, and germinate on contact with the tree branch, penetrating the vascular system of the tree. The mistletoe then obtains water and mineral nutrients from the host, usually living

IN FLOWER

J F M A M J J A S O N D

with it for many years. Mistletoe is very important for many native fauna, notably possums. It provides nesting sites for small birds and is a food source for butterflies and insects.



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Additional resources

- | | |
|---|--|
| Castlemaine Field Naturalists Club | castlemainefnc.wordpress.com |
| Connecting Country | connectingcountry.org.au |
| DELWP | environment.vic.gov.au |
| Flora of Victoria | vicflora.rbg.vic.gov.au |
| Friends of the Box-Ironbark Forests (FOBIF) | fobif.org.au |
| Mount Alexander Shire Council | mountalexander.vic.gov.au |
| Natural Newstead | geoffpark.wordpress.com |
| North Central CMA | nccma.vic.gov.au |
| Trust for Nature | trustfornature.org.au |
| Vic Veg Online | vicveg.net.au |

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