

SAVING OUR SPECIES

Threatened species of far south-western NSW

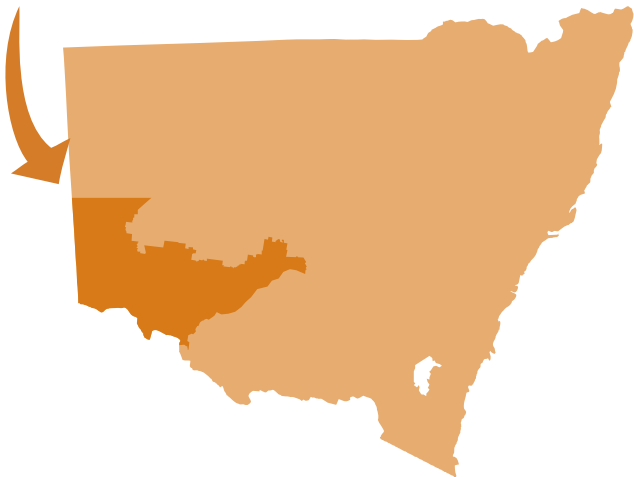
A pocket guide to their identification
and conservation



About this guide

This guide is intended to aid rapid identification of some threatened animals and plants of far south-western NSW. The information provided is introductory only.

The area covered by this guide is indicated below. Typical vegetation communities include chenopod shrublands and mallee woodlands.



Common vegetation communities

Chenopod Shrublands

In the far south-west region of NSW, chenopod shrublands provide critical habitat for threatened birds like redthroat and white-fronted chat. They typically consist of saltbush and/or bluebush species. Chenopod shrubs, like pearl bluebush (*Maireana sedifolia*), can live for over 100 years.



Chenopod shrubland dominated by pearl bluebush (*Maireana sedifolia*)

Helen P. Waudby / OEH

Mallee Woodlands

Mallee woodlands are home for many threatened species that do not live in any other type of habitat. These woodlands mostly consist of multi-branched mallee (eucalypt) trees with a sparse understorey of mixed shrubs, grasses, and/or herbs. The type of understorey plants varies greatly among different soil types, landform and fire history. Common understorey plants can include: porcupine grass or spinifex (*Triodia scariosa*), smooth wallaby-bush (*Beyeria opaca*), pituri (*Duboisia hopwoodii*), and comb spider-flower (*Grevillea huegelii*). Woody debris, leaf litter and spinifex are important habitat features for many ground-dwelling animals in these areas.



Top: Mallee woodland with spinifex understorey.

Above: Mallee woodland with shrubby understorey and woody debris.

Helen P. Waudby / OEH

Black-eared miner • *Manorina melanotis*

a **b** **c** **d** **e** **f** CE

A large (23-26 cm) dark grey honeyeater with a pale underside, a prominent black face and orange bill, and a circle around the eye. Black-eared miners require large tracts of unfragmented old-growth mallee. They superficially resemble yellow-throated miners, but have a grey rump instead of a white rump.

f Breeding with yellow-throated miners, resulting in hybridisation.



Chestnut quail-thrush • *Cinclosoma castanotum*

a **b** **c** **d** **e** V

A medium-sized (21-26 cm) ground-dwelling bird. The male is characterised by a black face, chin, throat and breast, and a distinctive white eyebrow and cheek. Females are smaller and duller in colour with a grey chin, throat and breast. Sometimes seen foraging among leaf litter in mallee in pairs. Often heard before they are seen, keen listeners may hear the high-pitched, nearly inaudible "seep" contact call.



Gilbert's whistler • *Pachycephala inornata*

a **b** **c** **e**

V

A small stocky bird (about 20 cm) with a short bill, and a distinctive orange-rufous chin and throat. Females lack the bright throat colour of males and have a pale-eye ring. Birds are often seen in pairs. Their call, which starts low and builds in volume, can be heard from up to 900 m away.

f Infestation of habitat by weeds.

f Exclusion from habitat by noisy miners.



Grey falcon • *Falco hypoleucos*

a **c** **f**

E

One of Australia's rarest raptors (bird of prey). Around 44 cm tall with a wing span of 90 cm. Mainly light grey in colour, with darker feathers on the wing tips and blackish bars on the tail. Often solitary, but sometimes seen in pairs or family groups.

f Secondary poisoning through mouse and locust control.

f Taking of eggs and young for collection and falconry.



Malleefowl • *Leipoa ocellata*

a **b** **c** **d** **e** **E**

Large iconic birds up to 60 cm in size and weighing around 2.5 kg. A ground-dwelling species that is a strong flier. Sometimes mistakenly considered flightless because they tend to run rather than fly from threats. Parents incubate eggs in large mounds. They rely on large areas of unfragmented mallee. Chicks are preyed on by foxes and cats.



Pied honeyeater • *Certhionyx variegatus*

a **c** **e** **V**

A small (around 20 cm) honeyeater. Males are black and white with a white wing-bar, chest, and upper tail. Males also have a distinct blue patch of bare skin below their eye. Females are greyish-brown, with a pale chest and dark-brown speckling on their wings and back. Usually silent except in the breeding season (Jul to Nov). They rely on flowering shrubs for nectar, including emu bush (*Eremophila* species) and *Grevillea* species.



Scarlet-chested parrot • *Neophema splendida*

a **b** **c**

v

A small (19-21 cm) colourful parrot that feeds on seeds and fruits of shrubs and grasses. Males have a distinctive red chest, blue face, green back, and bright yellow edges to their tail feathers. Females are duller and more green in colour, but both sexes have a cobalt blue head and yellow underbody. Nests in eucalypt tree hollows in mallee.



MT

Redthroat • *Pyrrholaemus brunneus*

a **c** **d** **f**

v

A small (11.5 cm) grey-brown bird. Males have a small rusty coloured throat patch. In females, this patch is off-white. Redthroats are usually found in pairs, fossicking for insects among shrubs. Great singers, the males can mimic the calls of other bird species.

f Poor knowledge of the species' distribution and abundance.

f Infestation of habitat by Mesquite (weed) in some areas.



MT

Red-lored whistler • *Pachycephala rufogularis*

a **b** **c** **d** **e** **CE**

This small (19-21 cm) brownish-grey bird has an orange throat and lore (the region between the eyes and nostrils), rather than red as its common name suggests. The breast is grey with muted orange underparts. Females are much paler. Feeds mainly on the ground, eating insects, berries and seeds. Cup-shaped nests are built in *Triodia* tussocks or in the fork of a mallee tree.



Shy heathwren • *Hylacola cauta*

a **b** **c** **d** **e** **V**

A small (11.5-14 cm) ground-dwelling bird that remains close to dense shrubs in mallee. Brown in colour with heavy streaks or 'striations' on the breast, and a white eyebrow. The rump and tail (above and below) covert feathers are a distinctive bright rufous-chestnut colour. Occasionally seen in pairs fossicking on the ground for insects. Builds a dome-shaped nest very close to the ground, and breeds from late winter to early summer.



Southern scrub-robin • *Drymodes brunneopygia*

a **b** **c** **d** **e** **V**

A medium (21-23 cm) bird with a loud repetitive call. A dull grey-brown colour, with a pale belly, vertical black eye marks, and doubled pale bars across its dark wings. Its long white-tipped tail flickers irregularly. Naturally curious birds that will approach still observers to investigate. Nests are built near or on the ground under shrubs, making them vulnerable to predators.



MT

White-fronted chat • *Epthianura albifrons*

a **d** **f** **V**

Small (12 cm) birds easily distinguished by their black and white feathers. The female is duller in colour than the male, and her face, head, and breast band are grey-brown rather than black. Often seen in shrublands and around the margins of lakes and saltmarshes

f Modification of river flows and floodplains, affecting habitat and food resources.



LC

Bolam's mouse • *Pseudomys bolami*

a **b** **c** **d** **f** **E**

A small (about the size of a house mouse) nocturnal rodent with greyish-brown fur, large ears, hind feet, and eyes. In NSW, usually found in mallee woodlands or chenopod shrublands. Very little is known about the species, but it appears to be most common in the months following above-average rainfall.

f Potentially competition with house mice.



Southern Ningai • *Ningai yvonneae*

a **b** **c** **d** **V**

Ningais are small (weighing 5-14 g) dasyurids (carnivorous marsupials) with a pointed muzzle and close-set eyes. Sometimes mistaken for a dunnart or mouse, this tiny marsupial has bristly fur that gives it a 'dishevelled' appearance. It preys on insects and small lizards, and can consume almost its own body mass in a single night. Ningai rely on old-growth mallee with plenty of leaf litter and spinifex.



Stripe-faced dunnart • *Sminthopsis macroura*

a **b** **c** **d** **f** **V**

Found only rarely in the south-west, this dasyurid (carnivorous marsupial) is identified by a black stripe that extends from between the eyes to the back of the head. The tail can be used to store energy in the form of fat and can take on a carrot shape. Likely relies on woody debris (fallen timber and branches) for shelter.

f Potentially sensitive to pesticides that are used to control locusts.



Western pygmy possum • *Cercartetus concinnus*

a **b** **c** **d** **E**

Western pygmy possums are small (weighing 8-21 g) tree-dwelling marsupials. Their prehensile tail acts like a fifth limb. Their diet consists of insects, nectar and pollen from flowering *Eucalyptus*, *Banksia* and *Melaleuca* species. Old-growth mallee with plenty of flowering trees and shrubs is important habitat. Ensuring that we maintain links (connectivity) between patches of good habitat is important to help this species move around the landscape.



Western blue-tongued lizard • *Tiliqua occipitalis*

a **c** **d** **f**

V

A large (around 30 cm) skink with a yellowish-brown body covered in 4-6 dark brown bands. These skinks seek refuge in spinifex and fallen timber. They give birth to live young. Found in arid and semi-arid environments, and often in mallee-spinifex vegetation communities.

f Ripping of rabbit warrens may reduce shelter availability for this species.



Mallee worm-lizard • *Aprasia inaurita*

a **b** **c** **f**

E

A slender legless lizard (around 135 mm in length) that is snake-like in appearance. It lacks forelimbs, but has tiny hindlimb flaps. It is a pale olive-brown colour with a bright reddish-orange tail. Not much is known about the species, but it is considered fossorial (burrowing) and probably feeds on ants and their eggs. Only found in mallee woodlands and usually on red sands.

f Soil compaction from stock and machinery.



Marble-faced Delma • *Delma australis*

a **b** **c** **d**

E

A slender legless lizard with an average body length of around 9 cm. The tail is twice as long as the body. Distinctive vertical black bars cover the throat and underside. Mostly active during the day. They are keen hunters that prey on insects. Found in deep leaf litter, under rocks and logs, and in spinifex clumps. In NSW, this lizard is probably only found in mallee woodlands or chenopod shrublands.



Jewelled gecko • *Strophurus elderi*

a **b** **c** **d**

V

A small (about 45 mm long) grey or black gecko, with scattered black-edged white spots. Restricted to habitats containing spinifex on red, sandy dunes. Uses its semi-prehensile tail to climb spinifex tussocks on which it relies for shelter and refuge from predators. A nocturnal species. Individuals can sometimes be seen foraging near or between clumps of spinifex.



Bitter quandong • *Santalum murrayanum*

a **b** **c** **e** **f** **E**

A tall tree up to 5 m in height that produces inedible bitter fruit. Flowering occurs from Aug – Jan and fruits are seen from Sep – Oct. Quandongs are root-parasites that tap into the roots of other plants for water and soil nutrients. Usually grows in mallee vegetation communities.

f Lack of appropriate host species from overgrazing.

f Erosion reduces the suitability of sites.



Harrow wattle • *Acacia acanthoclada*

a **b** **c** **E**

A 0.3–1.5 m high erect or low spreading shrub. Sharp spines are present at the end of each branch, but they are still preferentially grazed by goats and sheep. Occur in areas with sandy soil, and produce small yellow flower heads from Aug to Oct. Seed pods are twisted or coiled and 3–6 cm long. Their small population size makes them very susceptible to other threats like overgrazing and clearing.



Purple-wood wattle • *Acacia carneorum*

C

V

A dark green prickly shrub or small tree that can grow up to 4 m tall. This wattle gets its name from the deep purple colour of the dense inner part of its trunk, known as the heartwood. Rarely produces seed and grows mostly from suckering. The phyllodes (spiky leaf-like structures) are rigid and have sharp points. The seed pods are around 3-5 cm long and about 1 cm wide.



GR



GR

Club spear-grass • *Austrostipa nullanulla*

C

f

E

This small spear-grass is confined to gypseous soils consisting of a specific soft white or grey mineral where few other grasses can grow. It is preferentially grazed by rabbits and stock. It flowers from Dec – Jan, mainly in response to heavy rains. Only found at a few sites in NSW.

f Confined to soil type making it naturally restricted.



MT



MT

Fleshy minuria • *Kippistia suaedifolia*

d

E

An aromatic small (up to 60 cm in height) shrub that bears flowers with tiny yellow petals and yellow centres. Flowers from Aug to Oct. Seeds are tiny – less than 1 mm. The older stems have many branches and the older woody stems are sometimes gnarled. Highly restricted and only recorded from one area in NSW.



Desert hopbush • *Dodonaea stenozyga*

b c f

CE

A rounded shrub up to about 2 m in height. The leaflets are sticky project from leaves that are 1 to 3.8 cm long. Produces flowers and 4-winged fruit from spring to early summer. Very few records in NSW. Occurs in semi-arid mallee shrublands or eucalypt woodlands on sandy soil.

f Lack of knowledge of the species' ecology in NSW and small population size making it susceptible to sudden disruptions.



Bluebush daisy • *Cratystylis conocephala*

b **c**

E

A silver-grey or blue-grey shrub that is 1 m or more in height and diameter. Very restricted in occurrence in NSW. It resembles the more common pearl bluebush (*Maireana sedifolia*). Flowers have green bases with white spikey heads and no petals. The flowers produce a sickly-sweet scent that is attractive to pollinators. Individual shrubs have been recorded with up to 500 flowers.



Silky swainson-pea • *Swainsona sericea*

a **c** **f**

V

A small short-lived perennial plant that grows up to 10 cm in height. Stems and leaves are covered in a thick layer of hairs. The species flowers in spring producing purple pea-shaped flowers clustered in groups of up to 8 flowers on each stem. Sometimes found growing with cypress pines (*Callitris* species).

f Competition with weeds in some areas.



Key threats and guide to symbols

a Clearing of native vegetation

Historical and ongoing clearing of native vegetation is a major threat to many species and biodiversity in Australia.

b Altered fire regimes

High frequency and intensity fire resulting in the disruption of the life-cycle of plants and animals, and loss of vegetation structure and composition.

c Reduced habitat condition from livestock

The combined pressure of goats, European rabbits, macropods, and livestock (total grazing pressure) has a detrimental effect on native vegetation and animals that rely on it. Overgrazing prevents the regeneration of woody plants and the survival of small shrubs and ground-layer plants. Trampling by hooved animals and burrowing by rabbits alters soil structure and function (e.g. compaction; nutrients; water permeability) and increases soil erosion. Overgrazing and trampling change the biological and physical structure of the environment, making habitat unsuitable for native animals and increasing the risk of predation.

d Predation by feral cats and foxes

Cats and foxes are implicated in the extinction and decline of many mammal, reptile, and bird species.

e Fragmentation and loss of connectivity

Over time many landscapes have been divided into smaller, isolated habitat fragments, and the vegetated connections between them lost. Fragmentation reduces the amount of habitat available for species to live in, makes small patches more vulnerable to disturbances like fire and overgrazing, and reduces the movement of animals between populations (stopping the flow of genes among populations).

f Other

Refer to additional species-specific threats detailed under the descriptions of certain species.

Help save our threatened species

You can contribute to the conservation of threatened species by reporting wildlife and plant sightings.

1. **Familiarise yourself** with the plants and animals in your area. Refer to websites, books, and mobile phone applications that can help you identify these species.
2. **Observe and record** species you see in the wild by taking photographs and writing down their name, date and location details. Avoid disturbing native plants and animals when taking observations.
3. **Report your sightings:**
 - Atlas of NSW Wildlife www.bionet.nsw.gov.au
 - Office of Environment and Heritage Environment Line 1300 361 967 or email info@environment.nsw.gov.au
 - Atlas of Living Australia www.ala.org.au

Take action

Manage pest animals

Many methods are available for controlling cats, foxes, rabbits and goats. Your Local Land Services can provide advice on dealing with declared pest species.



Feral goats drinking from a dam (L) and European rabbit (R)
Helen P. Waudby / OEH

Look after habitat

- Control access to active water points and close unused water points.
- Leave fallen logs and debris as many small animals rely on these structures for survival.
- Retain large areas of intact habitat, including old-growth mallee, which is critical for many threatened species.
- Manage total grazing pressure to ensure that understorey and groundlayer vegetation is kept in good condition and plants can regenerate.

Find out more about your environment at:

environment.nsw.gov.au/sos

For more information on threatened species in NSW, visit the following link and type in the species' name

www.environment.nsw.gov.au/threatenedSpeciesApp/

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