Nocturnal birds

Identification booklet for owls, nightjars and owlet-nightjars of Australia

birds are in our nature

birdlife AUSTRALIA

Introduction

Nocturnal birds are elusive, mysterious and often less well understood than their day-active cousins. They are essential regulators of food webs as predators of mammals, birds, frogs and invertebrates. Adaptations to nocturnal life such as exceptional eyesight, hearing and a good sense of smell, give this special group of birds unparalleled hunting prowess. As nocturnal birds are cryptic in both plumage and behaviour, they can be difficult to detect. This guide will help you learn about and identify seventeen of our Australian nocturnal birds. This booklet includes information to identify owls, nightjars, owlet-nightjars and frogmouths found on mainland Australia, Tasmania and offshore islands, but excludes vagrants. We acknowledge that there are other nocturnal birds within Australia (e.g. Bush Stone-curlew), but these are not included here. All common names and scientific names listed in this booklet (of species and subspecies) are consistent with BirdLife Australia's Working List of Australian Birds.

BirdLife Australia recognises seventeen species of nocturnal birds. Ten of the species presented in this field guide are owls. Within the owls, there are five masked species belonging to the *Tyto* genus, and five *Ninox* or 'Hawk owl' species , distinguished by large yellow eyes. The other Australian nocturnal birds included in this field guide are split between the genus *Podargus* or 'Frogmouths', genus *Eurostopodus* and *Caprimulgus* or 'Nightjars', and the genus *Aegotheles* or 'Owlet-nightjar'.

All seventeen species of the nocturnal birds identified in this field guide are residents, however a few populations have been reported to migrate locally in response to prey fluctuations and weather changes. Nocturnal birds occur Australia-wide, and occupy a large range of habitats. Many species occur in wooded areas, as they rely on prey associated with this habitat type. Prey density and key habitat features like roosts and breeding areas determine nocturnal bird territory sizes. Sadly, fragmentation, land clearing and urban expansion is taking a toll on our night hunters, and Powerful, Sooty, Masked and Barking owls all have predicted population sizes of less than 6-3000 individuals.

Identification tips

Sometimes finding nocturnal birds requires more than your eyes. Listening for mobbing by day birds, can help you locate an often highly camouflaged owl or nightjar. You can also find nocturnal birds through the signs of their activity such as regurgitated pellets or prey remains. White wash, the paint-like areas of urates from faeces, is often typical under roosts of many nocturnal birds. To identify which species of bird you are looking at, remember to look at body size and beak shape first, and plumage characters second.

Behaviour

Nocturnal birds are often recognised as hunters by day-active birds, and are attacked or shouted at. Owls and nightjars avoid this mobbing behaviour by roosting in secluded, dark, densely canopied places in trees, tree-hollows and even caves. Some species, such as Powerful Owls, may roost in pairs during the breeding season, whilst others like Boobook Owls and Tawny Frogmouths may roost in family groups.

Habitat loss

Nocturnal bird habitat is increasingly at risk from rapidly expanding urbanisation and development pressure. Deforestation and habitat fragmentation continues to escalate in both urban and rural areas in Australia, with only 16% of Australia now forested. Many nocturnal birds such as Powerful, Rufous, Masked and Sooty Owls rely on extensive forest areas and are vulnerable to forest clearing. Nocturnal bird populations will also decline if fragmented forest areas have become too small to support them.
In urban areas, large hollow-bearing trees, which are used annually by most nocturnal birds to nest, are often removed for safety and to reduce risk to infrastructure. For many nocturnal birds these old, hollow-bearing trees take several hundred years to develop and are now critical habitat in urban environments. Whilst retaining hollow-bearing trees is essential for many owl species, understorey vegetation is important for many other night birds. Grass owls nest on the ground in open grassy areas under tussocks or sedges, whilst Nightjars often nest in scrapes on the ground amongst leaf litter.

Competition for hollows

Tree hollows are prime real estate in the bird world. Nocturnal birds compete with introduced species over nest hollows and introduced species can aggressively drive out native nesting birds. Overabundant native species can also pose a risk to nocturnal nesting birds, and have been documented killing young owlets, prior to fledging. European Bees (*Apis mellifera*) also compete for tree hollows, and are known to cause the abandonment of breeding hollows.

Pesticides

In North Queensland, populations of Barn, Masked and Grass Owls have dramatically declined as the use of pesticides to protect sugar cane crops from rodents has increased. Owls can be killed by ingesting poisoned rodents. Insectivorous nocturnal birds, such as Frogmouths and Nightjars are also highly susceptible to secondary poisoning, particularly from termiticides. To avoid secondary poisoning pest control needs to use poisons that have no secondary transfer, and that are single dose rather than multi dose.

Urbanisation

Nocturnal birds tolerate urban environments differently, with some species being more adaptable than others. The Powerful Owl is an example of an urban nocturnal bird that survives in cities along the east-coast of Australia. These owls can do well in forested urban green spaces due to a ready source of prey (e.g. possums, birds and fruit bats), however increasing rates of development pressure are threatening key habitat features like tree hollows and roosts. If we wish to keep owls and other nocturnal birds in our urban neighbourhoods, targeted management practices that work to retain or rebuild key habitat features are essential.

Collision

Collision is a major cause of death or injury for urban nocturnal birds. Whilst collisions with cars are most common, collisions with glass windows and fences are increasing There is only a small body of research looking at strike rates in Australia, but in America window strikes are thought to kill up to 1.3 billion birds per year! For car strike Injury or death, most fatal incidents occur in close proximity to breeding sites, and when fledglings are still learning how to fly. The Powerful Owl Project in Sydney estimates that 8% of the urban population of Powerful Owls is lost each year due to car-strike. The Project is actively involved in collecting data to reduce collisions and help to develop fauna-friendly roads.

Disturbance

Flash photography is becoming an increasing problem for owls breeding in urban areas, and is a known cause of nest abandonment for Powerful Owls. Whilst there is no current evidence of its negative impact on owl breeding, flash photography has the potential to depress available hunt hours, and may be associated with increased defensiveness in owls.

The Powerful Owl Project

The Powerful Owl Project is a citizen science project which commenced in 2011 to help better understand the ecology of the iconic and threatened Powerful Owls. The project came to Queensland in 2018.

The project aims are:

1. Inspire and educate the general public.
2. Train citizen scientists to conduct surveys.
3. Monitor the distribution, abundance and breeding success of owls.
4. Uncover why owls are present in areas and habitat associated with breeding success.
5. Develop species distribution models to be used as planning layers by state and council.
6. Identify management recommendations.
7. Understand the impact of vehicle strike, electrocution and other threats.
8. Inform and support land management for the conservation of Powerful Owl.

There are two ways for the public to be involved with Powerful Owl research and conservation:

1. by providing information on Powerful Owl sightings (including injured and deceased owls) and reporting this information to the project;
2. by becoming a trained volunteer to collect important ecological data at allocated breeding sites.

Other ways you can help:

- Maintaining old and large trees in your yard;
- Swap baiting of rats and mice to trapping;
- Installing a nest box for owl prey species. Many nocturnal birds use hollows to nest in, but it takes over 100 years for most trees to form hollows. Nest boxes are a great alternative providing supplementary nest spaces for owl prey and sometimes for nocturnal birds themselves, where tree hollows are absent.

Get involved in the Powerful Owl project:

https://birdlife.org.au/projects/powerful-owl-project

- Creating roost habitats by planting plant species with dense, spreading canopies, and retaining and valuing these habitats where they already exist.
- Planting gardens that feed prey species like moths and beetles, fruit bats and possums, to increase foraging area for nocturnal birds.

Threatened species status from *Environment Protection and Biodiversity Conservation Act 1999* (EPBC)(as of July 2017). In cases where a species is not EPBC listed, state legalisation listings are provided.

Legend

Distribution Maps

The maps provided here are unpublished BirdLife Australia distribution polygons. Species distribution is shaded dark blue and is considered as 'core range'.

Key to descriptions

- **Size**
- **Identification tips**
- **Habitat**
- **Eating habits**
- **Behaviour**
- **Breeding**

Powerful Owls are extremely difficult to detect, so any information or sightings are greatly appreciated. Please report information to:

Sydney: powerfulowl@birdlife.org.au

Melbourne: powerfulowl-melb@birdlife.org.au

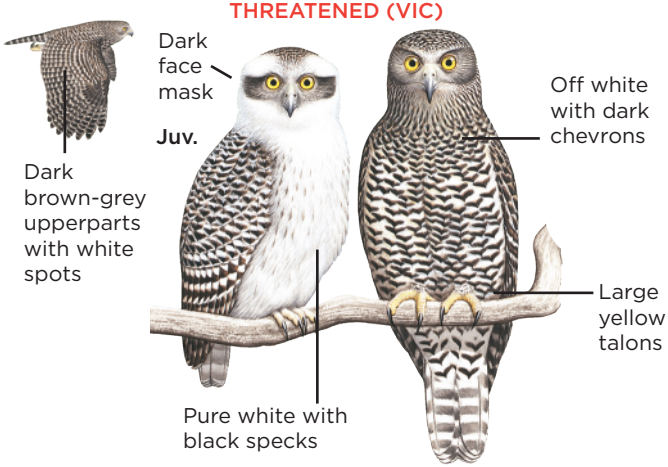
Brisbane: powerfulowl-bris@birdlife.org.au

Other cities of Australia, please email: powerfulowl@birdlife.org.au

POWERFUL OWL

Ninox strenua

VULNERABLE (NSW, QLD), ENDANGERED (SA), THREATENED (VIC)



There are no subspecies of *Ninox strenua*.

Length 50-60cm. Wingspan 110-140cm. Weight M 1.45kg; F 1.25kg.

Largest Australian nocturnal bird with rather small, rounded head and long, barred tail. Off-white underparts boast diagnostic bold dark chevrons. Dark brown to dark grey-brown upperparts off-white spotting and barring, while yellow eyes are set in a dark grey-brown facial mask, finely streaked with white. Bill is mostly dark grey, with pale grey culmen base. Massive yellow feet. Can be confused with Rufous Owl, but bigger, more elongated when alert and perched. Distinguished by dark chevrons and general lack of rufous. Female is smaller, with narrower head and more rounded crown. No seasonal variation.

Open forests and woodlands with wet, dense undergrowth along watercourses. Prefers sheltered gullies for breeding. Adversely affected by land clearing.

Medium to large arboreal mammals, mainly Common Ringtail Possums and Greater Gliders. Also roosting birds, small rodents, marsupials and the occasional beetle. Swoops down on prey from trees with its feet. Hunts mostly at night.

Larger body size with 'square' head

Smaller body size with rounded head

♂ ♀

May desert early-season nests when disturbed. Silent in flight and often adopts cryptic, frozen posture when approached. Sometimes responds to disturbance with subdued call or growl. Most easily detected by pellets below roost-sites and spontaneous nocturnal calling.

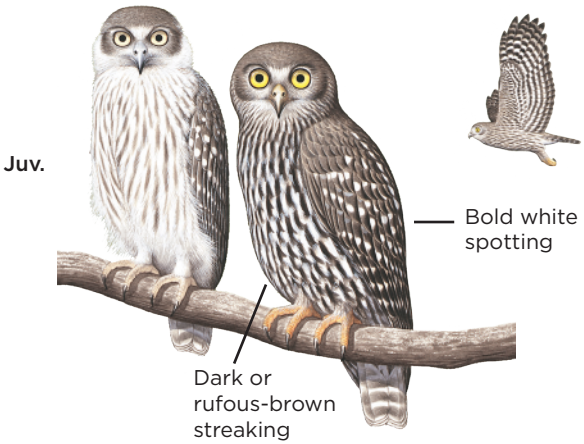
Lifelong monogamists, with bonds of 30+ years. Pairs defend an all-purpose territory year-round. Winter breeders, usually laying eggs around May-June. Males prepare nests in large vertical hollows; females incubate and brood young. Non-breeding young remain within parents' home-range for more than a year.

Distribution and seasonal movements:
Reasonably well-known sedentary resident, endemic to E. and SE. Australia. Tends to stay within 300m of nest-site when with dependant young, and to use larger areas in non-breeding period. Home-range shifts in response to food availability.

BARKING OWL

Ninox connivens

RARE (SA), VULNERABLE (NSW), THREATENED (VIC)



There are three subspecies of *Ninox connivens*.

Length 39-44cm. Wingspan 85-120cm. Weight M 425-740g; F 380-710g.

Robust owl with dark upperparts and bold white spotting on scapulars and wing coverts. Underbody is white with coarse dark-brown or rufous-brown streaking, while irises are pale yellow to yellow. Northern populations are smaller and paler.

Occupies a variety of woodland and forest habitats. Often found at forest margins, or near waterways or wetlands. May be found in farmland or city parks.

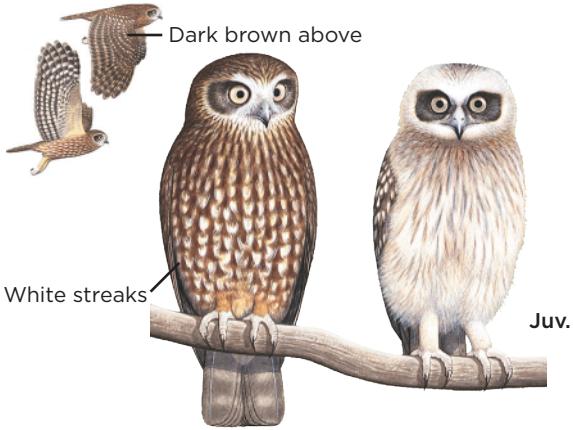
Diet consists of small to medium mammals, birds, and large insects, hunted on the wing or from a perch. Reptiles and aquatic animals may also be taken. Active hunter in the early hours of the night, and the last hours before dawn.

Roost in large, densely foliaged trees, and may become active before dark. Easily detected by distinctive barking call, often in duet between pairs.

Usually nests in hollows in tree trunks, loosely lined with sticks and other wooden debris. May occasionally nest on the ground. The female incubates a single brood in a season – mainly mid-winter to spring – with the male supplying food.

SOUTHERN BOOBOOK

Ninox boobook



There are four subspecies of *Ninox boobook*.

Length 30-35cm. Wingspan 56-82cm. Weight M 250g; F 315g.

Smallest and most common owl in Australia, with large head and otherwise compact appearance. Size and plumage may vary significantly, but typically dark chocolate-brown above and rufous-brown below, streaked and spotted with white. Distinctive 'spectacled' mask, with large yellowish eyes. Feet are grey or yellow, and bill is grey with a darker tip. Young Southern Boobooks are almost entirely buff-white below.

Most habitats with trees.

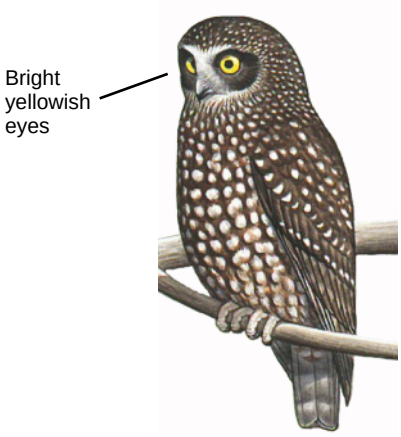
A perch-hunter, it takes insects and small birds or mammals, with the occasional invertebrate, amphibian or reptile. May forage during the day when nights are too cold.

Mainly nocturnal and crepuscular. Daylight roosting is usually solitary, sometimes in pairs. Inconspicuous, but often heard calling with distinctive '*boobook*' or rarer '*yow*'.

Monogamous. Both sexes prepare and defend nests, usually in tree hollows, and feed the young. The female alone incubates the eggs. Neighbouring fledglings sometimes found in nests.

TASMANIAN BOOBOOK

Ninox leucopsis



There are no subspecies of *Ninox leucopsis*.

Length 28-30cm. Wingspan 60-78cm. Weight M 190g; F 214g.

The smallest owl in Australia. Smaller and darker brown to Southern Boobook, much white spotting above and below, yellow to orange-yellow eyes and with a different call. Poorly developed facial disc, round wings and longish. Females larger than males.

Frequent in wooded areas, as well as more open habitat such as swamps, farmland and urban areas.

Little information. Like other boobooks, diet probably dominated by invertebrates, supplemented with small vertebrates (amphibians, reptiles, birds and mammals).

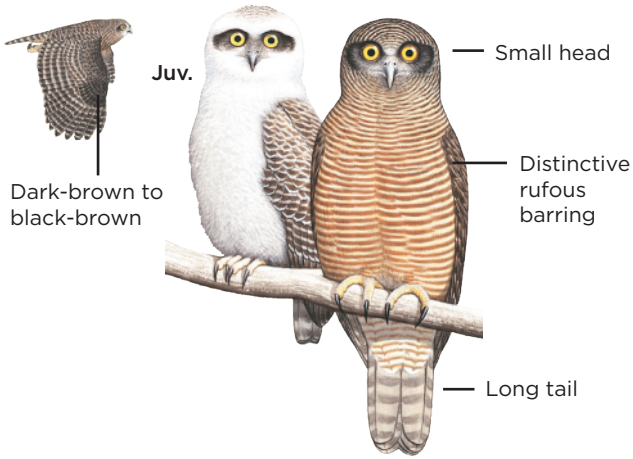
Little information. Thought to be largely resident, some individuals migrate to mainland SE Australia in autumn and winter.

Nests in tree cavities like other boobooks.

RUFOUS OWL

Ninox rufa

NEAR THREATENED (QLD) CAPE YORK SUBSPECIES ONLY



There are three subspecies of *Ninox rufa*.

Length 46-57cm. Wingspan 115cm. Weight M 1.2kg; F 1kg.

Large owl, similar to Powerful Owl but smaller. Adult dark-brown to dark rufous-brown with narrow light-brown and off-white barring, contrasting with lighter chest. Yellow eyes in prominent brown-black facial mask. Female smaller, with narrower head and more rounded crown.

Tropical rainforest and sclerophyll forests and woodlands, usually in lowlands throughout its range. Affected by cleared forest and bushfires.

Small and medium-size mammals, small to large birds and large insects. Perches at exposed limbs of trees or dead trees at night to hunt.

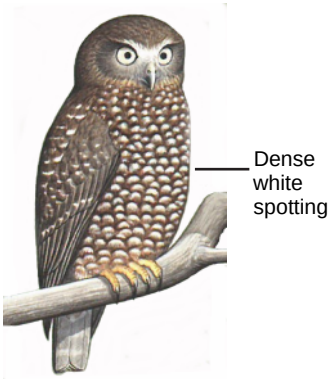
Roosts by day among dense foliage in canopy or subcanopy of trees. Usually spotted alone or in pairs. Call is a slow, low-pitched '*woo-hoo*', or a sheep-like bleating. May be aggressive in defense of nest, especially if well incubated eggs are present.

Nests in tree hollows during winter and spring. Clutch size usually two, rarely one. The male carries out the hunting, while the female remains at the nest. Both partners help to create the nest.

NORFOLK ISLAND BOOBOOK

Ninox novaeseelandiae undulata

ENDANGERED (FEDERAL)



There is one extant subspecies of *Ninox novaeseelandiae undulata* in Australia.

Length: 26–29cm
Wingspan: 60-78cm variable.
Weight: male 140–156g, female 170–216g

Similar in morphology, voice and behaviour to the Southern Boobook. Very small, with relatively round wings and long tail. Upperparts are chocolate-brown to deep rufous with white flecks. Has golden-yellow eyes. Sexes similar.

Habitat: Forest, farmland and pine plantations at lower elevations.

Food: Mainly insects; also spiders and small vertebrates such as birds, rodents, bats and lizards.

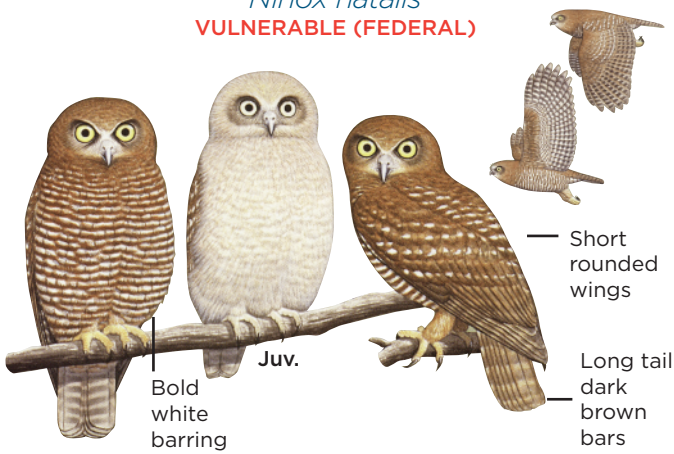
Behaviour: Common call is a repeated double hoot, ‘boo-book’. Roosts under a dense canopy.

Breeding: Eggs laid Sept–Nov, young fledge Dec–Jan. Monogamous and territorial. Nest in tree hollows.

CHRISTMAS ISLAND HAWK-OWL

Ninox natalis

VULNERABLE (FEDERAL)



There are no subspecies of *Ninox natalis*.

Length: 26–29cm
Wingspan: 61–67cm.
Weight: 120–190g (similar for male and female)

Description: A small rufous-brown owl with bold white barring and dark brown bars across tail. It has short rounded wings and a long tail. Iris and feet are bright yellow.

Habitat: A rainforest specialist; mostly occupies rainforest on the island plateau and coastal terraces, also forages in open areas including gardens.

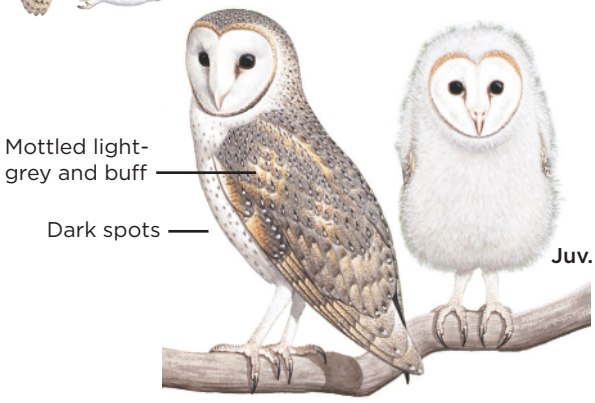
Food: Captures insects and small reptiles from foliage and the ground.

Behaviour: Contact call is very similar to the Southern Boobook, also has a croaking ‘karr’ and cricket-like trills. Roosts low beneath dense canopy with its mate and offspring. This species is confined to Christmas Island and is the only owl species on the island.

Breeding: Little known. Extended breeding season, with fledglings reported in April, May and Aug–Dec. Socially monogamous and territorial. Nests in tree hollows from 18–26m above ground.

EASTERN BARN OWL

Tyto alba delicatula



This is the only subspecies of *Tyto alba* in Australia.

Length 29-38cm. Wingspan 70-100cm. Weight 310-360g.

Small owl with pale, heart-shaped facial disk. Mottled light-grey and buff above, while underparts may be white or cream, speckled with dark spots and indistinct barring. Long, slender, finely feathered legs, and delicate feet.

Mostly open grasslands, or grassy, open woodlands. May be found in farmland or suburbs.

Mainly a nocturnal and occasionally crepuscular hunter, and often hunts from the ground. Diet is mainly small mammals, particularly rodents. May also take insects, birds, and reptiles.

Female will leave the nest and fly-away if disturbed. Male may attack with silent swooping low from behind and screech to discourage observers.

Usually takes place in spring, although may be year-round. Nest loosely constructed from rotted wood, usually in deep tree hollows, or occasionally in caves. Clutch is usually three to six eggs, with food supplied exclusively by the male in the first 2-3 weeks, then both adults thereafter.

AUSTRALIAN EASTERN GRASS OWL

Tyto longimembris longimembris

VULNERABLE (NSW)

This is the only subspecies of *Tyto longimembris* in Australia.

Length 30-38cm. Wingspan 100-115cm. Weight M 265-310g; F 310-480g.

Upper parts are a rich yellow-buff mottled with charcoal, and flecked with pale spots. Underparts and facial disk may be white to buff, with females often darker and larger than males. Legs are long, sparsely feathered, and extend beyond tail when in flight. Narrow teardrop below each eye and outlined by narrow pale ruff. Dark, broad barring on tail.

Prefers dense, low vegetation such as grasslands, sedgelands, or crops. Often found close to water.

Usually a nocturnal hunter, taking mostly small mammals, particularly rodents. May also take insects and birds.

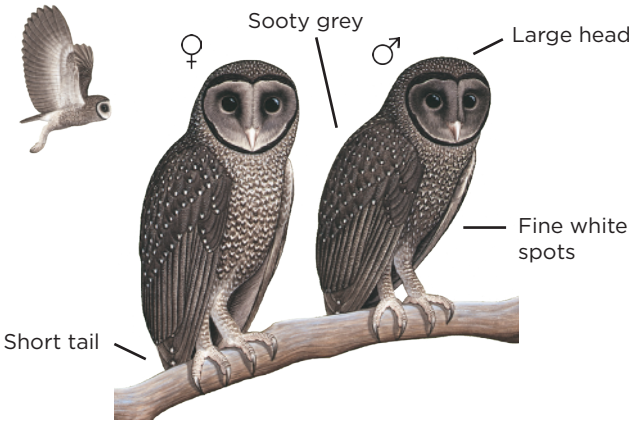
Hunts over dense vegetation. If disturbed at rest, bursts out before re-settling nearby. Call is a hissing screech, or cricket-like trill.

Any time of year if conditions are favourable. Nests in dense grass or sedges, on a platform of trampled vegetation. The female incubates the eggs. Hunting is carried out exclusively by the male in the first 4-5 weeks, after which both adults take turns to provision the young.

AUSTRALIAN GREATER SOOTY OWL

Tyto tenebricosa tenebricosa

VULNERABLE (NSW), THREATENED (VIC)



This is the only subspecies of *Tyto tenebricosa.* in Australia.

Length M 33-36cm; F 38-43cm. Wingspan M 82-100cm; F 101-118cm. Weight M 490g; F 890g.

Medium to large robust and very dark forest owl. Female usually much larger than male, with larger feet. Could be confused with Lesser Sooty Owl if in the same range. Greater Sooty Owls are larger and darker with less white spots. Home range estimates between <300-3000ha but more likely 500-1000ha.

Often in tall old-growth forests, including temperate and subtropical rainforest with preference to gullies over ridges.

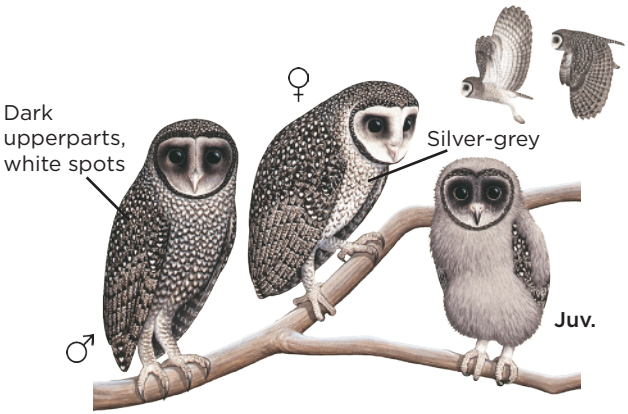
Nocturnal. Mostly arboreal marsupials and less often birds, reptiles, insects or terrestrial mammals.

Descending Bomb-whistle diagnostic call, but can also screech and trill. Often roosts solitarily near the entrance of tree hollows.

Nest in hollows in trunks of tall emergent trees, mainly *Eucalyptus*. Breeding season varies. Female usually lays between Jan.-June but records of birds laying later in the year. Clutch-size usually two, sometimes one. Female broods and male hunts.

LESSER SOOTY OWL

Tyto multipunctata



There are no subspecies of *Tyto multipunctata.*

Length M 32cm; F 36cm. Wing M 79cm; F 90cm. Weight M 370g; F 560g.

Small- to medium-sized forest owl with a pale facial disk. Noticeably smaller and with more delicate feet than the Sooty Owl. Dark silver-black with dense white spotting above, while underparts are silvery grey with narrow dark chevrons from foreneck to belly. Female larger than male.

Tropical rainforests with tall emergent stands of Eucalyptus.

Mainly small mammals, insects and some birds.

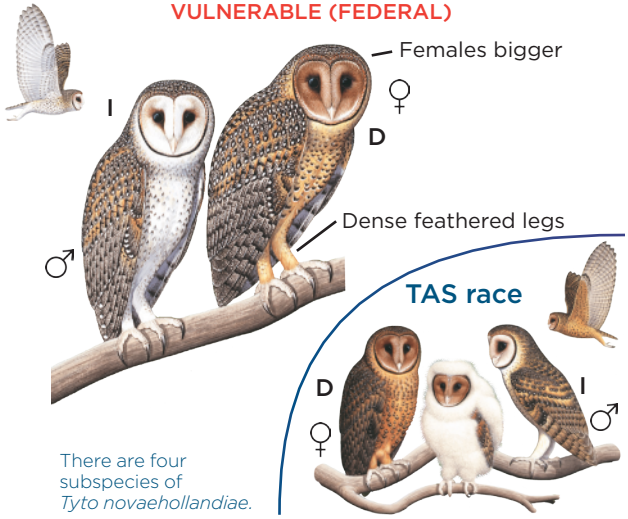
Roosts in tree hollows, caves and trees. Roosting sites may be occupied over several generations. May become active during dusk. Long, descending bomb whistle call diagnostic, along with trills, chirrups and clicks. Pairs may be heard in duet.

Female usually lays March-May, typically in a tree hollows, but occasionally in roots of strangler fig.

MASKED OWL

Tyto novaehollandiae

VULNERABLE (FEDERAL)



There are four subspecies of *Tyto novaehollandiae*.

Length M 33-41cm; F 39-50cm. Wingspan M 90-110cm; F 96-128cm. Weight M 240-800g; F 545-1260g.

Large, robust owl with well-defined facial disk and densely feathered legs. Plumage varies greatly depending on colour variant: light (L), intermediate (I) or dark (D).

Diverse range of open and wooded habitats, where dense and mature trees provide suitable hollows. Often recorded in the margins between open areas and woodland, or along roads.

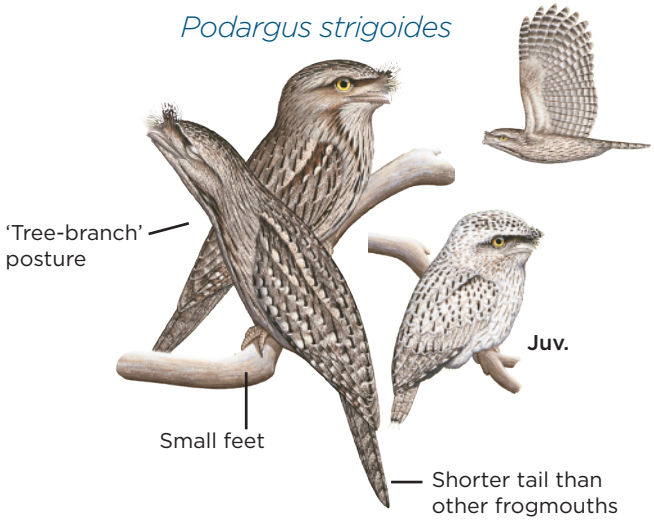
Nocturnal and opportunistic. Mostly takes small- to medium-size terrestrial mammals, such as rodents, rabbits, possums and bandicoots. May also take reptiles, birds and insects.

Strictly nocturnal. Usual call is a drawn-out hissing screech. Breeding males may perform a high-circling display flights accompanied by a rhythmical cackle.

Nests in large tree hollows, laying one to four eggs. Hunting is carried out exclusively by the male in the first 2-3 weeks, after which both adults take turns to provision the young. May breed seasonally, especially in TAS.

TAWNY FROGMOUTH

Podargus strigoides



There are three subspecies of *Podargus strigoides*.

Length 35-50cm. Wingspan 75-95cm. Weight M 350g; F 280g.

Familiar medium-sized frogmouth, with broad head, short tail, and heavy bill. Plumage varies, and may be silver-grey, rufous, or chestnut on upperparts. Slightly paler below, with black and rufous streaking/mottling. Wide, heavy bill is olive-grey to blackish. Pale yellow/orange irises.

Found in most treed habitats across Australia and Tasmania, particularly where open ground or clearings. Often found in urban parks, gardens and street trees.

Nocturnal predator, feeding mainly on large insects, and occasionally on small mammals, reptiles, frogs and birds.

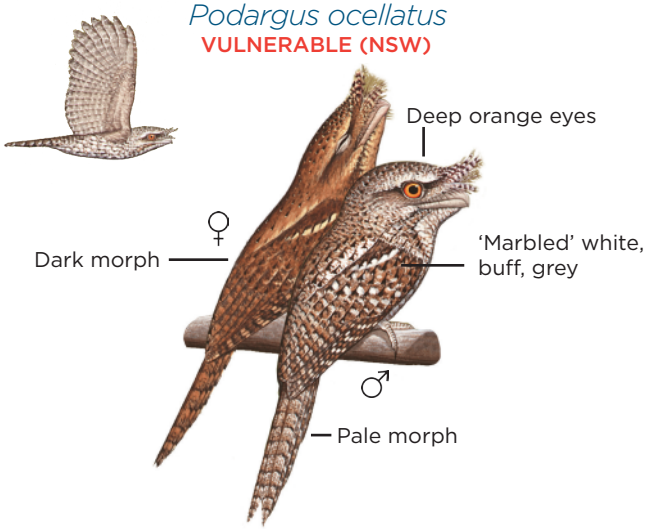
Usually seen perched and camouflaged against branches. Narrows eyes to slits and adopts characteristic stiff, sleek posture at an angle to the supporting branch when disturbed. May hiss or snap at intruders. Flight is slow and direct, and call is a low, swelling, ‘*oom-oom-oom*’.

Breeds throughout range, mainly Aug-Dec. Nests are flimsy platforms of dry sticks, where both sexes incubate the young.

MARBLED FROGMOUTH

Podargus ocellatus

VULNERABLE (NSW)



There are two subspecies of *Podargus ocellatus*.

Length 30-45cm. Wingspan 62-75cm. Weight 130-290g.

Smaller and slimmer than Tawny Frogmouth. Varies from light grey to dark brown or dark rufous-brown. Densely speckled with black-brown cream and rich brown above; slightly paler below. Females slightly smaller than males in general size and bill size.

Tropical and subtropical rainforest. Usually seen on understorey and lower canopy, and rarely seen outside this habitat.

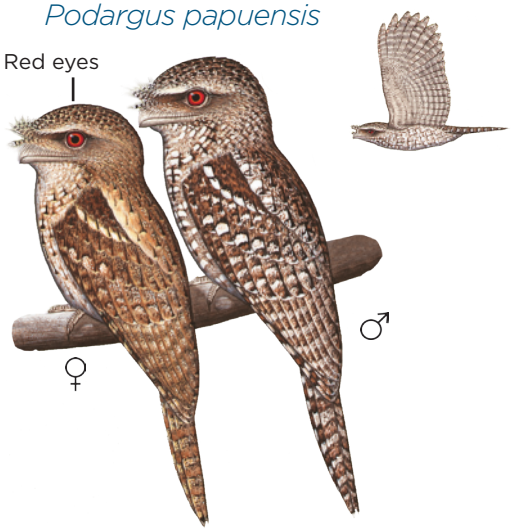
Mainly large nocturnal insects taken from trees, scrubs or ground level.

Shy and difficult to spot. Usually solitary, but occasionally seen in family groups. Roosts high in the canopy, or in dense cover closer to the ground.

Breeds from late winter to early summer. Small, cup-like nest platform is usually built on horizontal branches, but occasionally on the ground. Both sexes incubate and brood their clutch, normally of 1-2 young.

PAPUAN FROGMOUTH

Podargus papuensis



There are two subspecies of *Podargus papuensis* in Australia

Length 50-60cm. Wingspan 87-96cm. Weight M 410g; F 340g.

Very large frogmouth with massive broad bill and long graduated tail. Bigger and bulkier than Tawny Frogmouth. Marbled grey, rufous, to dark brown above, and somewhat paler below. Upper body heavily blotched white in males, and more finely in females. Females slightly smaller than males in general size and bill size. Distinctive red iris.

Margins of Eucalyptus or *Melaleuca* woodland, or of rainforests including gallery forest and vine forest. May also be found in mangroves, swamp, or occasionally suburban areas.

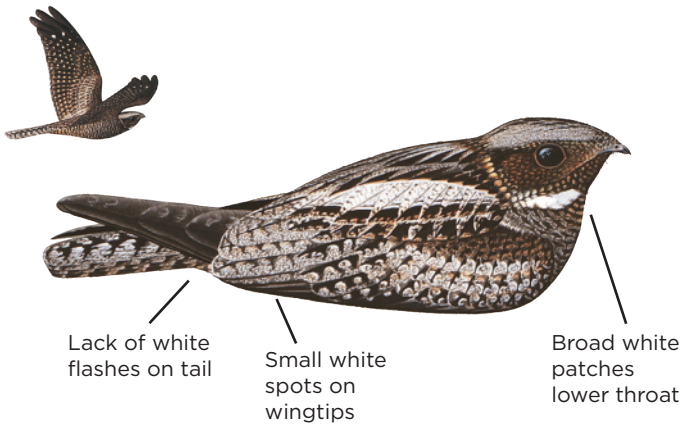
Mostly large nocturnal invertebrates, but also small vertebrates taken mainly from the ground. It also hunts in flight and from foliage.

Habits are similar to Tawny Frogmouth. Roosts by day, sometimes in pairs or family groups. Said to be the most aggressive frogmouth. If disturbed, may call (a resonant '*oo-oom*') and fly away.

Usually nests on horizontal branches. Breeds during the late winter, and through the spring. Clutch-size usually one, sometimes two. Both sexes incubate and brood young.

WHITE-THROATED NIGHTJAR

Eurostopodus mystacalis



There are no subspecies of *Eurostopodus mystacalis*.

Length 30-35cm. Wingspan 68-77cm. Weight 100-160g.

The largest and darkest Australasian nightjar. Distinguished from other nightjars by small white spots in wingtips, and lack of white flashes on tail. . Adults mainly grey and black, sparsely and finely marked above, with a pair of broad white patches on lower throat

Usually in dry to moist open Eucalypt forest and woodlands with sparse understorey and abundant leaf-litter. Preference for ridges and slopes.

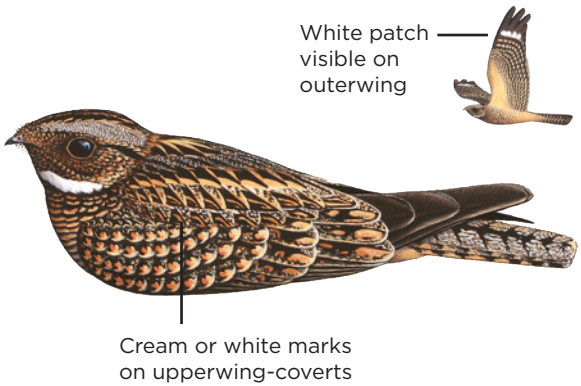
Nocturnal flying insects, mainly beetles, moths, crickets, grasshoppers and winged ants.

Crepuscular and nocturnal. Roosts on ground during the day. Migratory in NSW and VIC, where it breeds in spring and summer, and moves to QLD through winter.

Nests on ground, among leaf-litter in forest clearings or woodland on stony ridges. Breeds from late winter throughout the summer. Eggs may be laid onto bare rock. Both sexes incubate and brood a single young per year.

SPOTTED NIGHTJAR

Eurostopodus argus



There are no subspecies of *Eurostopodus argus*.

Length 27-35cm. Wingspan 60-72cm. Weight 90-105g.

Mostly grey, black and buff nightjar; Cream or white marks on upperwing-coverts, and white patch visible on outerwing in flight, but no white on tail. Slightly smaller than White-throated Nightjar, with proportionately longer tail and shorter wings.

Dry, open woodlands and shrublands, open mallee or mulga. Often on stony or sandy ridges or escarpments.

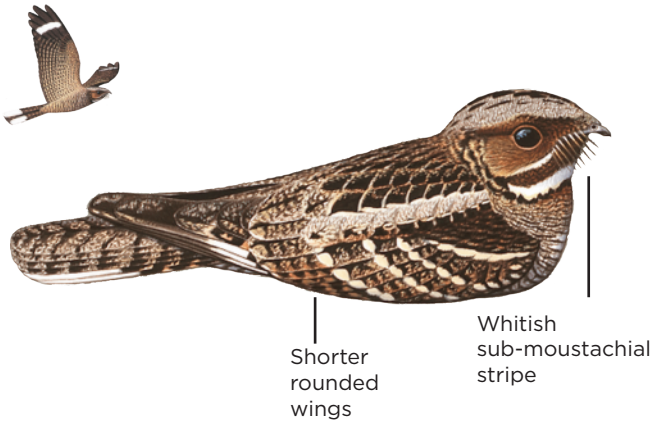
Nocturnal insects, mainly beetles and moths, but also crickets, grasshoppers and mantises.

Crepuscular and nocturnal. During the day, it roosts on bare ground among rocks, in open grassy clearings, beside tracks, or among tall shrubs or trees. Call is a rich, increasing laugh, finishing with a metallic gurgle.

Nests on bare ground, among leaf-litter, twigs and bark, often near prominent stones. Breeds from late winter throughout the summer. Both sexes incubate and brood a single young per year.

AUSTRALASIAN LARGE-TAILED NIGHTJAR

Caprimulgus macrurus schlegelii



This is the only subspecies of *Caprimulgus macrurus*.

Length 25-18cm. Wingspan 53-56cm. Weight 65-70g.

Much smaller and compact than White-throated and Spotted Nightjars, with shorter and more rounded wings. Distinctive pale patches in both outerwing and tail, paler in females. Tawny face underlined with whitish sub-moustachial stripe.

Found at the margins of tropical and subtropical rainforest, monsoon forest and vine forest. Usually seen at road edges, or at ecotones with surrounding open forest and woodlands. Also found around wetlands, including swamps and mangroves.

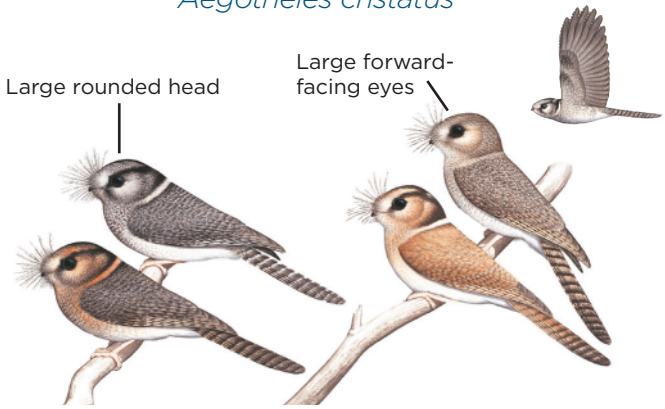
Nocturnal insects, taken during flight.

Crepuscular and nocturnal. Not seen during the day, when it rests among leaf-litter in shady areas, next to fallen trees or big tree roots. Often found at night in open areas, such as creeks, tracks and roads. Call is a distinctive hollow chop, like an axe striking wood.

Nests on ground, among leaf-litter. Eggs may be laid onto bare rock. Breeds from late winter throughout the summer. Both sexes incubate and brood two youngsters per year.

AUSTRALIAN OWLET-NIGHTJAR

Aegotheles cristatus



Morphs left to right: rufous-grey; light-grey; rufous; and pale rufous-grey (usually darker and greyer in humid areas, more rufous in arid areas).

There are two subspecies of *Aegotheles cristatus*.

Length 19-25cm. Wingspan 34-50cm. Weight 45g.

Small, delicately-built nightbird. Short, flat bill is surrounded by long bristles, tail is long and rounded. Distinctive head-pattern of three dark stripes over crown and dark bars on rear upper crown and neck.

Mostly in dry, open forest and woodland, preferring lowland forests with tall understoreys.

Nocturnal hunters of a variety of insects. Birds will readily take flying prey, or will pounce on prey either on the ground or in trees. Hunting takes place within a territory and normally in pairs. The Owlet-nightjars watch for food while in flight, or by sitting and searching from a suitable perch.

Alert, but rather shy, and easily disturbed when roosting. Some are briefly inquisitive of human approach, while others flush readily when tree is tapped or impending presence is sensed. Distinctive high-pitched '*chirr-chirr-chirr*'.

Usually one brood per season, incubated cared for by females and males. Nest is a bed of green leaves, placed in a suitable tree hollow or rock crevice, and often repurposed for many seasons. Breeding takes place Aug-Jan.

Taxonomy within booklet

This booklet includes owls, nightjars, owlet-nightjars and frogmouths found on mainland Australia, Tasmania and offshore islands, but excludes vagrants. We acknowledge that there are other nocturnal birds within Australia (e.g. Bush Stone-curlew), but these are not included here. All common names and scientific names listed in this booklet (of species and subspecies) are consistent with BirdLife Australia's *Working List of Australian Birds.*

Learn more at:
https://birdlife.org.au/projects/powerful-owl-project

Record your bird sightings at:
https://birdata.birdlife.org.au/

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This Identification booklet for nocturnal birds of Australia has been compiled by BirdLife Australia's Nick Bradsworth, with text production by Beth Mott, Marlenne Rodriguez and Sarah Hegarty. Edits Caroline Wilson, Holly Parsons, Monica Awasthy and Janelle Thomas. Artwork production and revisions Pam Bradsworth.

For more information or if you are interested in volunteering visit birdlife.org.au or call 1300 730 075.

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