

South-eastern Glossy Black-Cockatoo

Field Guide



This guide supports citizen scientists to collect data on South-eastern Glossy Black-Cockatoos. Glossy Black-Cockatoos (also known as “glossies”) are threatened by bushfires, droughts, land clearing, urban development, and inappropriate planned fires. Data about Glossy Black-Cockatoo flocks and feed trees are important for informing work to protect them from these threats.

This guide summarises how to:

- identify South-eastern Glossy Black-Cockatoos;
- tell the sex and approximate age of birds; and
- identify different species of she-oaks in each region and recognise evidence of Glossy Black-Cockatoos feeding on them.

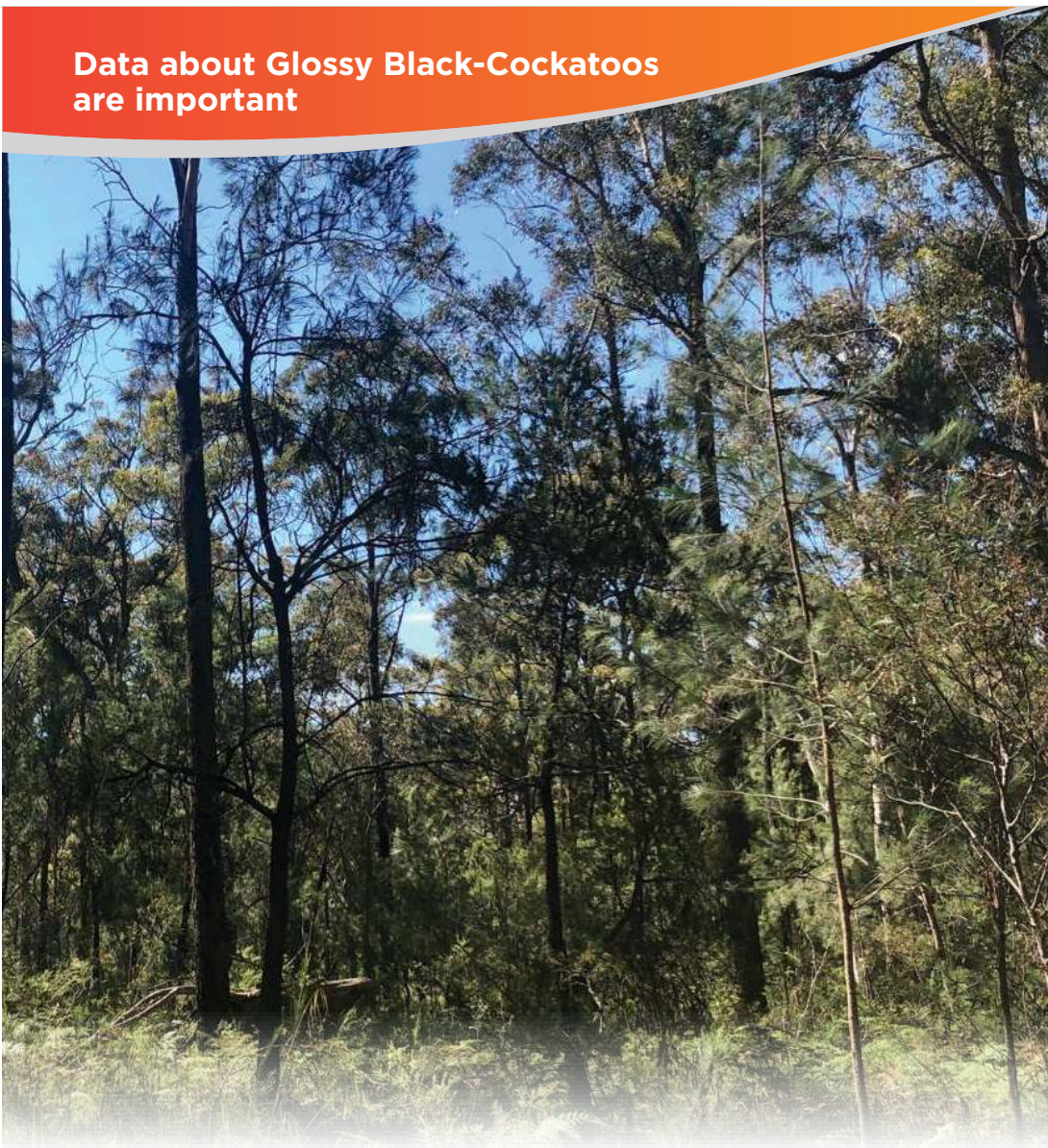
Record your data

Data on South-eastern Glossy Black-Cockatoos and their feed trees (i.e., she-oak trees with evidence of Glossy Black-Cockatoo feeding) can be recorded in the “South-eastern Glossy Black-Cockatoo” module on the Birddata website at birddata.birdlife.org.au, or using the Birddata mobile app. You can also email data to GlossyBC@birdlife.org.au.

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Data about Glossy Black-Cockatoos are important



The South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*) is Critically Endangered in Victoria; and Vulnerable in Queensland, New South Wales, and the Australian Capital Territory.

Glossy Black-Cockatoos feed exclusively on seeds found in the cones of she-oak trees (*Allocasuarina* and *Casuarina* species). These trees must be protected to maintain a food source for Glossy Black-Cockatoo populations and reduce the impacts of bushfires and other threats.



“Feed trees” are she-oaks that Glossy Black-Cockatoos have fed on. Within a she-oak species, some trees may never produce cones. This means that not all she-oaks are feed trees, but those with cones may have the potential to be feed trees.

Data about Glossy Black-Cockatoos and their feed trees are vital for planning bushfire recovery and conservation work. These data are used to estimate the distribution of Glossy Black-Cockatoos and identify feeding habitat, which informs priorities for habitat protection and restoration.

Glossy Black-Cockatoos and similar species

The South-eastern Glossy Black-Cockatoo

(*Calyptorhynchus lathami lathami*) is the most widely distributed subspecies of Glossy Black-Cockatoo. It can be found from central Queensland to eastern Victoria.



There are two other subspecies of Glossy Black-Cockatoo:

Northern subspecies (*Calyptorhynchus lathami erebus*) occurs in north-central Queensland.

Kangaroo Island subspecies (*Calyptorhynchus lathami halmaturinus*) occurs on Kangaroo Island in South Australia.



Glossy Black-Cockatoo



Red-tailed Black-Cockatoo



Yellow-tailed Black-Cockatoo

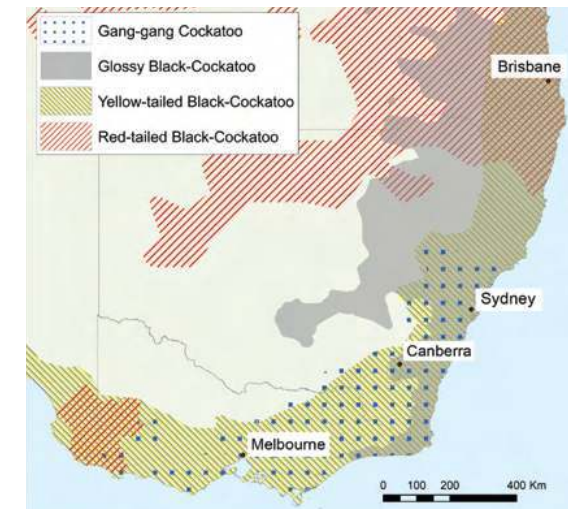


Gang-gang Cockatoo

In some areas, Glossy Black-Cockatoos can be mistaken for two other black-cockatoo species which look similar:

- Yellow-tailed Black-Cockatoo (*Calyptorhynchus funereus*)
- Red-tailed Black-Cockatoo (*Calyptorhynchus banksii*)

In the south-eastern parts of their range in New South Wales and Victoria, Glossy Black-Cockatoos can also be mistaken for Gang-gang Cockatoos (*Callocephalon fimbriatum*), which can appear to have a similar profile.



Identifying Glossy Black-Cockatoos



Glossy Black-Cockatoo



Yellow-tailed Black-Cockatoo



Red-tailed Black-Cockatoo



Scan the QR codes to hear each bird's call.

	Glossy Black-Cockatoo	Yellow-tailed Black-Cockatoo	Red-tailed Black-Cockatoo
Head	Dull brown-black with most females having irregular patches of yellow feathers on face. Males generally have no yellow on face. Juveniles have small, distinct yellow spots on face and body.	Black with one solid yellow patch on each cheek behind the eye. Males have pinkish-red eye rings while female eye rings are grey.	Black. Females and juveniles have small, distinct yellow spots on face and crest. Crest is large compared to Glossy and Yellow-tailed Black-Cockatoos.
Body	All black (dull). Fledglings, juveniles and subadults may have small, pale yellow spots or barring on belly, chest, and wings.	All black. Females may have soft, yellow scalloping on chest.	All black. Females have small, distinct yellow spots on neck and wings and have pale yellow/orange barring on belly and chest.
Tail	Black, with: Females - red/orange/yellow panels with black barring. Males - red panels. Juvenile and subadult males - red panels with black barring. May have combination of bars/no bars.	Black, with large, pale yellow panels with variable black spotting. This is the only black-cockatoo species with large yellow tail panels.	Black, with red or orange-yellow panels. Females and juveniles have black barring.
Call	A drawn-out, wheezing and grating kee-aiirrk or airrk.	A loud, distinctive wailing wee yu or wy-la, or a loud, harsh screech kee-ow... kee-ow. Often noisy in flight.	A raucous, metallic, far-carrying, drawn out karraak or airrk (like a 'rusty windmill'). Also a husky or squeaky, whistling kreeeeeik.
Behaviour	Feeds exclusively on she oak trees (<i>Allocasuarina/Casuarina</i>) species. If you see a black-cockatoo feeding on a tree or shrub that is something other than a she-oak, it is unlikely that bird is a Glossy Black-Cockatoo. Mostly solitary or in small groups of 2 - 3 birds, however they can come together in large flocks.	Often found in large groups. Distribution overlaps with South-eastern Glossy Black-Cockatoo in QLD, NSW, ACT, and VIC (see map on page 7).	Noisy and often found in large groups. Distribution overlaps with South-eastern Glossy Black-Cockatoo in some parts of QLD and northern NSW only (see map on page 7).

Glossy Black-Cockatoo sex and age

Male and female Glossy Black-Cockatoos can usually be told apart by their appearance. Without disturbing the birds, use the following information to identify their sex and approximate age (if possible). Note: It is difficult to tell the sex of fledglings and the age of young females - these data do not need to be collected.

	Adult males	Adult females
Head	Dull brown-black. Usually no yellow feathers.	Dull brown-black. Often irregular patches of yellow facial feathers. The pattern of yellow facial feathers is unique to each individual. Some females have a large amount of yellow while others have very little.
Body	Dull black.	Dull black. May have some yellow spots on the shoulders.
Tail	Black with solid red tail panels; no black barring, no yellow. Red tail panels (with no yellow) will often identify males.	Black with orange-yellow panels, often with black barring. Orange-yellow tail panels observed with yellow facial feathers can help identify females. Barring fades as females become older.
Behaviour	When in pairs, likely a breeding pair (one male and one female).	When in pairs, likely a breeding pair (one male and one female).

Images: Jan Wegener

Juvenile and subadult males

Appearance

Similar to adult males but with black barring in the red tail. May have a combination of both barred and solid red tail feathers.

Tail panels in young birds may have some orange/yellow.

Behaviour

Juvenile and subadult male birds often gather in "bachelor" flocks which can include many birds.



Fledglings

Appearance

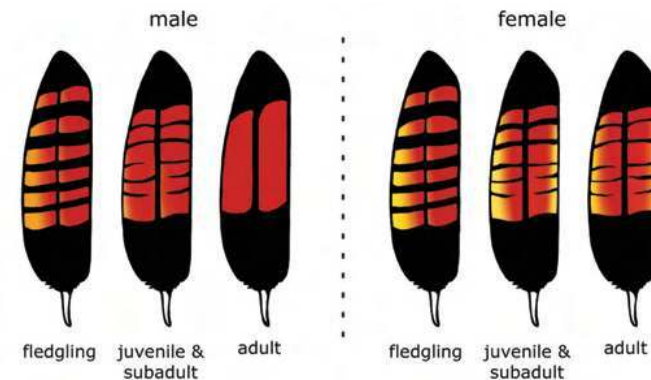
Pale yellow scalloping across chest or belly. Small, pale yellow spots on cheeks, shoulders, and chest.

Behaviour

Fledglings stay close to their parents and are dependent on their parents to feed them.

They can often be heard begging for food.

Note: It is difficult to tell the sex of fledglings, these data do not need to be collected.



Left: Diagrammatic representation of the tail feather plumage phases of the Glossy Black-Cockatoo. Changes in the male and female cockatoo are shown. (Image by the Glossy Black Conservancy, simplified from Courtney 1986)

Glossy Black-Cockatoo sex and age (continued)



Above: A single family group of Glossy Black-Cockatoos.

From top to bottom: An **adult male** (solid red tail feathers, dull, brown-black head with no yellow); a **fledgling** (yellow scalloping on chest, reliant on parents, and clumsily learning how to hold and eat a cone); and an **adult female** (yellow patches on head).



Patchy yellow feathers on face indicates these birds are likely **female**.

The pattern and amount of yellow feathers is different for each bird.



Yellow facial feathers and yellow in the tail indicate this is a **female** bird. Lack of spots and scalloping on the chest and belly suggest it is an **adult**.



Dull, brown-black head with no yellow and solid red tail panels indicate this bird is an **adult male**.



Red tail feathers suggest this bird is a **male**. It has a combination of both barred and unbarred tail feathers. Since it has bars, this should be recorded as "**juvenile or subadult**" in the Birddata module.

Behaviour

Understanding Glossy Black-Cockatoo behaviour and how they spend time can be useful for detecting them. Just make sure to avoid disrupting their natural behaviour when collecting data.

Glossy Black-Cockatoos are usually found feeding or flying in pairs, trios, or small groups. They rarely form large flocks like Red-tailed or Yellow-tailed Black-Cockatoos. However, they can be found in large groups, for example when birds gather at drinking sites before heading off to roost.

They are typically quiet and inconspicuous when feeding, but can be noisy at times, especially around drinking sites, and when breeding, fighting, or flying.

While Glossy Black-Cockatoos are feeding, you may hear them make soft contact calls, or hear fledglings begging for food. You may also hear the soft clicking of their bills and the sound of chewed she-oak cones landing on the ground. The discarded, chewed cones and fragments of cones (“chewings”) are good indicators of bird presence, even after birds have left the area (see “Chewings” section on page 18).

Glossy Black-Cockatoo activities often follow this daily schedule:

- Sunrise: Perch, preen, call, fly around roosting site, and then fly off to feed.
- Morning: Early morning is the main feeding time; listen for chewing sounds.
- Midday: Birds usually stop feeding to perch, rest and/or preen around midday. They are usually quiet, but may occasionally call out to each other.
- Afternoon: Feeding time again; listen for chewing sounds.
- Sunset: Around 1 hour before sunset, birds usually call to each other before flying off to gather at a drinking site.



Breeding

Glossy Black-Cockatoos are monogamous, and each adult bird pairs with a partner for life.

Female Glossy Black-Cockatoos, also known as “flossies”, may lay a single egg every 1 – 2 years. In some cases where the egg is lost early, a second egg may be laid.

The egg is incubated by the female for around 30 days until it hatches. While the female is incubating, or brooding the young chick, the male feeds her near the nest each day.

The chick fledges (leaves the nest) after it reaches around 3 months of age. These “fledglings” are dependent on and fed by both parents for another 3 – 4 months after leaving the nest. After this period of dependency, the young birds (“juveniles”) start feeding themselves, but may stay with their parents until the next breeding season.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
						Typical peak breeding				Possible breeding	

Nesting habitat

Like other cockatoos, Glossy Black-Cockatoos require tree hollows for nesting.

Nesting hollows are typically in old, large, eucalypt trees (living or dead), with an entrance 20 – 25 cm wide and located 10 – 20 metres above the ground.

Glossy Black-Cockatoos often choose nesting hollows close to a drinking site, and usually return to the same nesting hollow over successive seasons.



Glossy Black-Cockatoos are specialist feeders, feeding exclusively on seeds in the cones of she-oak trees (*Allocasuarina* and *Casuarina* species). Their large and bulbous bills have evolved to allow them to process she-oak cones to extract the seeds, and so they are most often found in woodlands and open forests dominated by she-oaks.

She-oaks are native, evergreen trees with long, needle-like foliage. Their seeds are contained in woody cones about the size of an olive but with a rough texture.

Feed trees

“Feed trees” are she-oaks with cones that Glossy Black-Cockatoos feed on or have fed on. Within a she-oak species, some trees (e.g., male trees) never produce cones, which means not all she-oaks are feed trees. She-oaks with cones have the potential to be feed trees but Glossy Black-Cockatoos may not choose to feed on them.

Glossy Black-Cockatoos are highly selective about the trees and cones they choose to feed on. They often return to the same trees to feed on while ignoring nearby trees with cones.



Open Broombush She-oak cones (left) and seeds (right).



Which she-oak species do Glossy Black-Cockatoos feed on?

Glossy Black-Cockatoos feed on different species of she-oak, depending on the region. In some areas, birds may feed on only a single she-oak species.

See the “She-oak identification” section on page 20 for the she-oak species in your state which Glossy Black-Cockatoos may be more likely to feed on.

Chewings

When Glossy Black-Cockatoos feed on the seeds in she-oak cones, they leave behind chewed cones or fragments of cones, known as “chewings”, or “orts”.

Glossy Black-Cockatoos will chew a cone from top to bottom, usually leaving behind many disc-shaped fragments of cone. When other parrot species (e.g., rosellas, corellas, and galahs) feed on she-oak cones, they usually leave behind chewed cones shaped like apple cores.



Black She-oak cones and chewings.



A carpet of Black She-oak chewings.



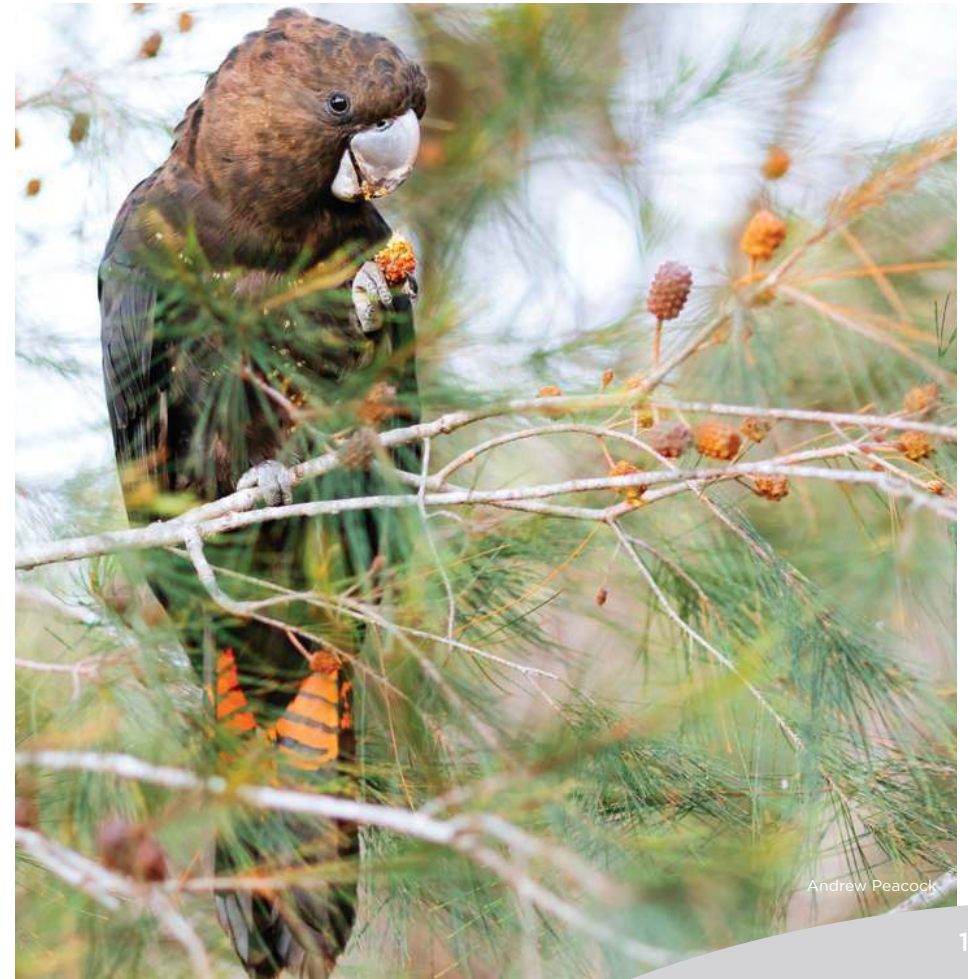
Chewings arranged from oldest (left) to youngest (right).



The presence of chewings can show us where Glossy Black-Cockatoos have been feeding, even when birds are no longer present. The colour of chewings can provide a good indication of when birds have visited the area:

- whitish-green chewings were chewed days ago;
- orange-red chewings were chewed weeks ago; and
- brown-grey chewings were chewed months ago.

The number of chewings found under a tree can also indicate preference for that particular tree; if there are only one or two half-eaten chewings under a tree, a Glossy Black-Cockatoo has likely had a taste-test then decided to move on. Preferred trees often have a carpet of chewings underneath them.



She-oak identification

Identifying she-oaks that Glossy Black-Cockatoos feed on can help us learn about their feeding behaviour and protect important feed tree stands.

She-oak species that South-eastern Glossy Black-Cockatoos may feed on include:

- Belah
- Black She-oak
- Broombush She-oak
- Buloke
- Coastal She-oak
- Drooping She-oak
- Forest She-oak
- Mallee She-oak
- Scrub She-oak
- Stringybark She-oak

She-oak species in your state

QLD

- Belah*
- Black She-oak*
- Buloke
- Coastal She-oak*
- Forest She-oak*
- Stringybark She oak

NSW

- Belah*
- Black She-oak*
- Broombush She oak*
- Buloke
- Coastal She-oak
- Drooping She-oak






ACT
















- Belah
- Black She-oak
- Buloke
- Coastal She-oak
- Drooping She oak*
- Forest She-oak
















VIC
















- Black She-oak*
- Drooping She-oak
- Forest She-oak
- Mallee She-oak*
- Scrub She-oak*
- Stringybark She oak

* More likely to be feed trees, but this depends on what other she-oak species are also available in the area.

	Belah <i>Casuarina cristata</i>	
Height	10 - 20 m	
Glossies more likely to feed on this species in:	QLD, NSW	
Occurrence	Grows on clayey heavier soils or sandy calcareous soils.	
Cones	Rusty-coloured. Softly hairy when young, nearly hairless when mature. Small and oblong with sharp protruding points. 13-18 (occasionally to 25) mm length, 10-16 mm diam.	
Bark	Grey-brown to almost black in colour. Texture is finely fissured or scaly, regular pattern.	
Foliage	Drooping branchlets, with coarse, dark-green branchlets.	

	Black She-oak <i>Allocasuarina littoralis</i>		Broombush She-oak <i>Allocasuarina diminuta</i>		Buloke <i>Allocasuarina luehmannii</i>	
Height	5 - 15 m		1 - 5 m		5 - 15 m	
Glossies more likely to feed on this species in:	QLD, NSW, VIC		NSW			
Occurrence	Grows on sandy or low nutrient soils predominantly near the coast.		Grows in low-nutrient sandy or rocky soils derived from sandstone.		Scattered in woodland in non-calcareous soils.	
Cones	Woody, grey-brown (unopened cones); grey (old cones). Ovoid to cylindrical in shape. 10 - 30 mm (rarely to 45 mm) in length, 8-12 mm in diameter.		Cylindrical in shape. 5 - 20 mm in length, 5 - 12 mm in diameter.		Cylindrical in shape, broader than long. 5 - 12 mm in length, 8 - 14 mm in diameter.	
Bark	Dark grey and deeply furrowed (fissured). Younger trees may have smoother bark.		Smooth.		Rough.	
Foliage	Fine; only Forest She-oak has similar foliage.		Ascending branchlets.		Ascending branchlets.	

	Coastal She-oak <i>Casuarina equisetifolia</i>		Drooping she-oak <i>Allocasuarina verticillata</i>		Forest She-oak <i>Allocasuarina torulosa</i>	
Height	6-35 m		4-10 m		5-20 m	
Glossies more likely to feed on this species in:	QLD		ACT		QLD	
Occurrence	Grows on rocky headlands, coastal sand dunes, and low, rocky sea-coasts.		Grows in usually grassy woodland, rocky sea-coasts, and dry, rocky hills and ridges inland.		Grows on coastal hills, tall open forests, in a wide range of soils.	
Cones	Small and circular with large protruding valves. 10 – 24 mm in length, 9 – 13 mm in diameter.		Cylindrical to barrel-shaped. 20 – 50 mm in length, 17 – 30 mm diameter.		“Warty”; unripe cones are furry and orange. Ovoid to globular in shape. 15 – 33 mm in length, 12 – 25 mm in diameter.	
Bark	Scaly, grey-brown to black. May be smooth on young trees but rough, thick, and flaking in older trees.		Dark grey; hard and fissured.		Light orange and “corky” in texture.	
Foliage	Coarse, grey-green foliage.		Grey-green, drooping branchlets.		Fine; only Black She-oak has similar foliage. Drooping branchlets.	

	Mallee She-oak <i>Allocasuarina gymnanthera</i>		Scrub She-oak <i>Allocasuarina distyla</i>		Stringybark She-oak <i>Allocasuarina inophloia</i>	
Height	2 – 5 m		1 – 3 m		3 – 10 m	
Glossies more likely to feed on this species in:	NSW		NSW			
Occurrence	Grows in low open woodland in sandy soil on sandstone ridges.		Grows in tall heath on sandstone ridge tops.		Grows in woodland on sandstone or laterite ridges.	
Cones	Cylindrical in shape. 14 – 40 mm in length, 9 – 12 mm in diameter.		Cylindrical in shape. 13 – 35 (rarely to 50) mm in length, 11 – 22 mm in diameter.		Cylindrical in shape. 10 – 20 mm in length, 9 – 12 mm in diameter.	
Bark	Smooth or fissured.		Mainly smooth.		Ribbony-fibrous bark.	
Foliage	Ascending branchlets.		Dark green.		Branches drooping or ascending.	

How you can help Glossy Black-Cockatoos



There are many ways you can support the recovery and conservation of South-eastern Glossy Black-Cockatoos:

- Record data on the location of Glossy Black-Cockatoos and their feed trees (i.e., she-oaks with chewings).
- Take part in Glossy Black-Cockatoo counting events.
- Protect large, hollow-bearing trees that may provide nesting sites.
- Plant she-oak species which are commonly fed on by Glossy Black-Cockatoos in your area to provide future feed trees.

Record data

You can record Glossy Black-Cockatoo data on the Birddata website (birddata.birdlife.org.au) or on the Birddata mobile app through the “South-eastern Glossy Black-Cockatoo” module. You can also email your data to GlossyBC@birdlife.org.au.

You can record data for:

- Glossy Black-Cockatoos
- Feed trees (she-oak trees)

Take part in counting events

Citizen scientists collect valuable data which allow researchers and conservation organisations to track Glossy Black-Cockatoo populations and protect feeding and breeding habitat.

By participating in Glossy Black-Cockatoo counts, as well as collecting data outside of these events, you can support the recovery and protection of Glossy Black-Cockatoos.

Keep an eye out for events via:

BirdLife: birdlife.org.au/events

Glossy Black Conservancy: glossyblack.org.au

Or contact GlossyBC@birdlife.org.au for more information.

Protect nesting habitat

Large trees with hollows provide important nesting habitat for Glossy Black-Cockatoos and other native wildlife.

You can help Glossy Black-Cockatoos by keeping suitable trees (dead or alive) with large hollows, if it is safe to do so. Glossy Black-Cockatoos require old, large eucalypt trees that are suitable for nesting (i.e., containing hollows with 20 – 25 cm openings, 10 – 20 metres above ground).

Provide future feed trees

If you live in an area where Glossy Black-Cockatoos are found, plant she-oak trees on your property.

Depending on the species, she-oaks may take at least 5 years from planting, and up to 15 years after fire, to produce food for Glossy Black-Cockatoos. Planting suitable feed trees now can help ensure birds have enough food in the future.

The type of she-oak species best suited to your area will depend on location. Contact your local bird conservation group, landcare group, or council for advice.





Useful resources

BirdLife Australia

www.birdlife.org.au

Glossy Black Conservancy

www.glossyblack.org.au

Birdata

birdata.birdlife.org.au

Identifying South-eastern Black-Cockatoos

<https://bit.ly/SEblackcockatoolD>

Photo: Andrew Peacock

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¹ photos from the Glossy Black Conservancy's fact sheets

² photos from iNaturalist.org or Flickr.com and used in accordance with their listed licenses (<https://bit.ly/SEGBCbookletphotos2022>)

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BirdLife Australia

Suite 2-05, 60 Leicester Street, Carlton VIC 3053

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ABN 75 149 124 774

Glossy Black Conservancy

Based in Queensland, Australia

info@glossyblack.org.au

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