

# MONITORING GLOSSY BLACKS

## GLOSSY BLACK-COCKATOO BREEDING

### Background to the project

The Glossy Black-Cockatoo (*Calyptorhynchus lathamii*) is one of the rarest and most threatened of Australia's large, black cockatoos. As the population ecology of the species is so poorly understood on mainland Australia, the Glossy Black Conservancy is supporting ecological research and monitoring on the nesting ecology and breeding success of Glossy Black-Cockatoos in South-Eastern Queensland and Far North-Eastern New South Wales.



### Project aims

The project aims to locate nest sites of Glossy Black-Cockatoos and monitor annual breeding success, both at nest sites and more generally.

### How you can help

If you know of a nest site that has previously been used by Glossy Black-Cockatoos and might still be used, please contact a Conservancy partner at the contact details provided. If you are able to accurately distinguish Glossy Black-Cockatoo males from females and juveniles from adults or immature birds, please report the location and the sex and age composition of any groups of Glossy

Black-Cockatoos you see on the Conservancy website.

### Nesting ecology

Glossy Black-Cockatoos nest in a hollow limb or a hole in the trunk of a large eucalypt tree (living or dead), mostly between 10m and 20m above the ground (see photo by Holly Keddie at left of a female at a nest entrance, with a fully-grown juvenile peering out a side hole). Most nest hollows have an entrance diameter of 20 to 25cm and are in vertical or near vertical spouts, or trunk cavities exposed by the loss of a large branch. The nesting season in eastern Australia lasts from around March to September. The female lays a single egg, which she incubates 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 in the late afternoon and sometimes in the morning. The nestling fledges (leaves the nest) 84-96 days after hatching and is then fed by both parents until at least the onset of the following breeding season. During this period of dependency, the juvenile accompanies its parents at all times.

### Monitoring breeding success

The breeding success of Glossy Black-Cockatoos can be monitored in two ways. First, the activity at a nest site can be monitored each breeding season to determine: (a) whether the nest site is used; and (b) whether the pair successfully fledges a chick each year or not. Second, breeding success can be inferred from information on the ratio of adults to juveniles in groups of Glossy Black-Cockatoos in the months following the breeding season; pairs that have just bred successfully will be accompanied by a juvenile.

### Monitoring a nest

When monitoring a nest site, it is very important to not approach too closely, as the birds are sensitive to disturbance when nesting. To determine if the nest site is active, visit it every 7-14 days and sit quietly at a safe distance from the nest from an hour before sunset until it gets dark to observe whether the male visits to feed the female, or the pair visits to feed a chick. When approaching to feed the female, the male will perch in a tree near the nest and call to the female, who will then emerge and fly over to the male to be fed before returning to the nest again. In the week or two before the chick fledges, it will be heard



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begging loudly in the nest during these visits, and may start to appear at the nest hollow entrance as well. Keep a record of the date and time of each visit and what you observed.

## Recording age ratios

Juvenile Glossy Black-Cockatoos can be most reliably distinguished from adults for up to a year after fledging by yellow barring on the throat, belly and under-tail coverts (feathers covering the tail feather bases) and yellow, orange or red spots on the upper and under-wing coverts (feathers overlaying the flight feathers) and indistinct ear covert spots (on feathers covering the ear openings) (see photo below).



Within a few months of fledging, juveniles begin to moult into an immature plumage that is complete by one year old. The immature plumage is similar to the adult plumage, but some birds retain some juvenile feathers for a further year and birds may only acquire a full complement of adult tail feathers by the age of four years. To sex and age a Glossy Black-Cockatoo, a combination of features should be used, which will typically require good views of the head, wing coverts, belly and especially the

colour patterns and wear of tail feathers. Please refer to the Ageing and Sexing Glossy Black-Cockatoos fact sheet (see below) for more detailed information to help you.

## Further information on Glossy Black-Cockatoos

Further information on the identification and habits of Glossy Black-Cockatoos can be found in the following fact sheets published on the website of the [Glossy Black Conservancy](http://glossyblack.org.au/):

- How to Identify a Glossy Black-Cockatoo: [http://glossyblack.org.au/correct\\_id.html](http://glossyblack.org.au/correct_id.html) and [http://glossyblack.org.au/pdf/Glossy Black Fact Sheet 4.pdf](http://glossyblack.org.au/pdf/Glossy%20Black%20Fact%20Sheet%204.pdf)
- Ageing and Sexing Glossy Black-Cockatoos: [http://glossyblack.org.au/pdf/Glossy Black Fact Sheet 7.pdf](http://glossyblack.org.au/pdf/Glossy%20Black%20Fact%20Sheet%207.pdf)
- Glossy Black-Cockatoo Feed Tree Identification: [http://glossyblack.org.au/pdf/Glossy Black Fact Sheet 5.pdf](http://glossyblack.org.au/pdf/Glossy%20Black%20Fact%20Sheet%205.pdf)

If you have any questions regarding the project, please contact your local council Conservancy partner or one of the following partners of the Conservancy:

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## Bibliography

1. Cameron, M (2006). Nesting habitat of the Glossy Black-Cockatoo in central New South Wales. *Biological Conservation* 127: 402-410.
2. Garnett, ST, Pedler, LP and Crowley, GM (1999). The breeding biology of the Glossy Black-Cockatoo *Calyptorhynchus lathami* on Kangaroo Island, South Australia. *Emu* 99: 262-279.
3. Glossy Black Conservancy (2010). *Glossy Black-Cockatoo Conservation Guidelines for South-Eastern Queensland and Far North-Eastern New South Wales*. <http://glossyblack.org.au/>
4. Higgins, PJ (ed.) (1999). *Handbook of Australian, New Zealand and Antarctic Birds, Vol 4, Parrots to Dollarbird*. Oxford University Press, Melbourne.



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