

Glossy black-cockatoo

Calyptorhynchus lathami

Vulnerable (*Nature Conservation Act 1992*) |
Ecological Sciences, Queensland Herbarium

Identification

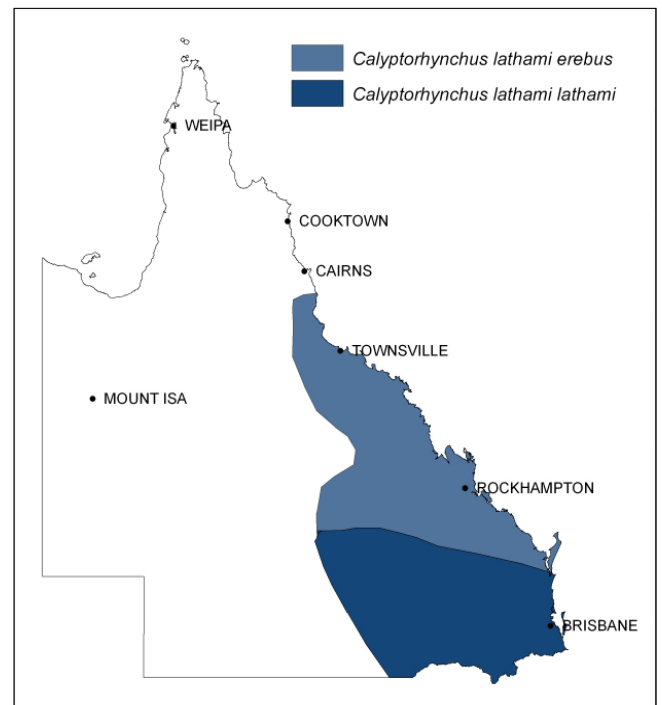
The glossy black-cockatoo is small black-brown cockatoo 46-51 cm in length, wing 34-36 cm, tail 21-23 cm, with an inconspicuous crest and broad bulbous bill (Schodde et al. 1993; Glossy Black Conservancy 2010). Adult males have solid bright red panels in the tail feathers, while females have light orange to red panels with black barring in the tail feathers. Females also have irregular patches of yellow feathers in the head and neck (Pizzey and Knight 2001). Immature individuals have irregular patches of yellow feathers on head and wing coverts, sometimes extending to flanks. Yellow barring on throat, abdomen and under tail-coverts, and tail feathers resemble those of adult females (Pizzey and Knight 2001). Tail barring in males is lost in successive moults as the panels become bright red.

May be confused with *Calyptorhynchus banksii*, red-tailed black-cockatoo, and *C. funereus*, yellow-tailed black-cockatoo where their distributions overlap (Glossy Black Conservancy 2010). The glossy black-cockatoo can be distinguished from both by its' smaller size, the dull brown tinge to the head and breast, inconspicuous crest, and subdued behaviour (Glossy Black Conservancy 2010). It has red, rather than yellow panels in the tail (as per the yellow-tailed black-cockatoo). Although female and juvenile red-tailed black-cockatoos have yellow spots on their head and breast, these are more extensive and have a more spangled appearance than the irregular spots on glossy black-cockatoos (Pizzey and Knight 2001).

Calyptorhynchus lathami lathami and *C. l. erebus* are two subspecies (Schodde et al. 1993) occurring in Queensland. An isolated population (subspecies *C. l. halmaturinus*) also occurs on Kangaroo Island, South Australia (Pizzey and Knight 2001) and has been the focus of species recovery efforts (Mooney and Pedler 2005).



Photo by Peter Bostock



Distribution

Calyptorhynchus lathami lathami has a widespread distribution, ranging from Gympie to the south-east Queensland (SEQ) border, inland to Augathella and Tambo (Schodde et al. 1993). The distribution continues south into New South Wales (NSW) spreading inland to the Central Western Plains of NSW. This subspecies also occurs in the eastern coastal Gippsland region of Victoria (Pizzey and Knight 2001; Glossy Black Conservancy 2010).

Calyptorhynchus lathami erebus occurs in the north and central east coast of Queensland. This subspecies ranges from the Dawson-Mackenzie-Isaac Rivers basin, north to the Connors-Clarke Ranges (Pierce 1984), south to Dawes and Many Peaks Ranges, and inland to the Expedition, Peak and Denham Ranges, including the Blackdown Tableland (Schodde et al. 1993).

Habitat

This species prefers woodland areas dominated by she-oak *Allocasuarina*, or open sclerophyll forests and woodlands with a stratum of *Allocasuarina* beneath *Eucalyptus*, *Corymbia* or *Angophora* (Glossy Black Conservancy 2010). Glossy black-cockatoos have also been observed in mixed *Allocasuarina*, *Casuarina*, cypress *Callitris* and brigalow *Acacia harpophylla* woodland assemblages (Glossy Black Conservancy 2010). In SEQ west of the Great Dividing Range, they have been observed feeding in remnant *Casuarina cristata* and bullock *Allocasuarina luehmannii* forests. This species is also known to utilise appropriate remnant woodlands, and individual or small pockets of *Allocasuarina* and *Casuarina* feed trees in urban areas (Glossy Black Conservancy 2010).

Glossy black-cockatoos feed almost exclusively on the seeds of nine species of *Allocasuarina* and *Casuarina* species throughout their range, yet within an area feeding is often restricted to one or two species (Clout 1989; Pepper et al. 2000; Chapman 2007). This species also shows a strong fidelity to particular feed trees, returning to selected trees over consecutive years (Cameron 2005; Cameron and Cunningham 2006), and can fly more than 10 km from roosting or nesting sites to feeding areas (Glossy Black Conservancy 2010). Birds feed within the tree and drop the chewed remains of seed cones, twigs and leaves beneath as they feed (Cleland and Sims 1968).

An obligate hollow nester, glossy black-cockatoos require large old trees (living or dead), usually eucalypts, for breeding (Garnett et al. 1999; Cameron 2006). As such, nesting sites are mainly in areas containing large old trees. Hollows used for nests are usually between 10-20 m above ground, in vertical or near vertical branches, stems, and spouts, or in trunk cavities (Garnett et al. 1999; Cameron 2006; Glossy Black Conservancy 2010). The same nest will be used in successive seasons and they will often nest in close proximity to nests of other breeding pairs (Garnett et al. 1999).

Glossy black-cockatoos are quiet and unobtrusive birds, and calls are infrequent. They are usually seen in pairs or small numbers whilst feeding, but will gather in flocks when coming into drinking sites. Outside the breeding season, they will roost communally in groups of up to 40 individuals in the upper branches of live trees (Clout 1989).

As with many species, glossy black-cockatoos require a combination of resources across the landscape (e.g. feeding trees, nesting sites, roosting areas, water etc.). The loss of any one of these requirements could compromise the ability of this species to persist in the landscape.

Seasonal and timing considerations

Present throughout the year in many regions and surveys for this species can be carried out at any time of the year. However, seasonal movements may be more prevalent in areas where resources (feeding and breeding requirements) are more dispersed, or in response to dry conditions. The peak breeding season occurs from March to August in SEQ and north-eastern NSW (Glossy Black Conservancy 2010). As nesting hollows may be a limiting resource (Cameron 2006), surveys may need to be repeated between March and August to determine whether birds are nesting within the project area, particularly if large hollow bearing eucalypts are present.

Recommended survey approach

A combination of the following survey techniques is recommended:

Diurnal bird surveys

Surveys for this species can be conducted on foot by walking transects throughout the project area, particularly in (but not solely restricted to) areas with *Allocasuarina* trees, water bodies suitable for drinking sites, and large hollow bearing eucalypts (during the breeding season). Birds are most active during the first or last two hours of daylight (Glossy Black Conservancy 2010), so surveys should encompass a dawn or dusk period. Evening surveys can be concentrated around creeks or waterbodies, where birds might be expected to fly in to drink before they return to roost sites.

Feeding birds can often be located by sight, listening for their calls, and the sound of cracking seed cones and falling debris as they feed. This species has a soft, feeble and drawn out trumpet sound “tarr-red” (Glossy Black Conservancy 2010). Birds feed in small groups and will sit still and silent when approached, making them easily overlooked by observers. However this also allows observers to approach birds closely enough to obtain information on group demographics.

Search for foraging and nesting signs

Glossy black-cockatoo presence can be reliably indicated from foraging signs. Discarded, chewed she-oak seed cones (termed chewing’s or ‘orts’) have a characteristic appearance and litter the ground beneath *Allocasuarina* trees (Glossy Black Conservancy 2010). Orts can be detected through searches or walking transects through areas with *Allocasuarina* trees within the project area.

The density of orts can be used to assess the relative use of certain habitats and even particular trees in areas. Repeat surveys should be undertaken to track the ongoing use of these habitats to determine their relative importance compared to other areas, but this requires that other potential sites nearby are also surveyed.

Orts are persistent within the environment, lasting six months or more before decomposing, and can be aged based on their colouration. Fresh orts less than 24 hours old are pale green to white, cream within a week and orange-brown within six weeks. Brown or grey chewed cones may be up to a year old (Glossy Black Conservancy 2010). The presence of orts also provides a means of determining which trees glossy black-cockatoos feed in without having to observe the birds directly (Clout 1989), and can indicate which trees are preferred over others.

During the breeding season, areas with large hollow bearing trees should also be surveyed for the presence of nesting birds within the project area. Nests may be found by following breeding birds from water points or by listening for the calls of begging females and young (Cameron 2006).

Survey effort guide

We recommend a level of survey effort similar to that outlined for the Kangaroo Is. subspecies *C. l. halmaturinus* in the Commonwealth Government's "Survey Guidelines for Australia's Threatened Birds" (DEWHA 2010). This is the minimum effort required to detect the species' presence in a project area.

Other survey objectives (e.g. monitoring population trends, recruitment, importance of the project area for the species, etc.) should be specifically stated and would require further survey effort.

Per 50 ha of project area		
Survey technique	Minimum Effort	Minimum number of days
Diurnal bird survey	5 hours	1
Search for foraging and nesting signs	20 hours	4
e.g. 4 hours of searching per day for a minimum of 4 days.		

Ethical and handling considerations

- This species is generally quite approachable; however, avoid extremely close range inspection of birds during breeding and feeding.
- Every effort should be made to minimise disturbance of nesting sites.
- These survey methods do not involve handling or trapping of birds and therefore have a minimal direct impact on the species.

Acknowledgements

These guidelines were prepared by Clare Hourigan in August 2012. Advice and comments on drafts for glossy black-cockatoo were provided by Guy Castley.

Citation

Hourigan, C. 2012. Glossy black-cockatoo, *Calyptorhynchus lathami*. Targeted species survey guidelines. Queensland Herbarium, Department of Environment and Science, Brisbane.

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