# MONITORING GLOSSY BLACKS

# FEATHER COLLECTION PROTOCOL

# Background to the project

Glossy Black-Cockatoo (*Calyptorhynchus lathami*) 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 movement patterns and dispersal between breeding populations of Glossy Black-Cockatoos in South-Eastern Queensland and Far North-Eastern New South Wales.

Traditional techniques of monitoring movement through capturing birds and attaching radio or satellite transmitters or other markings are both invasive and costly. The use of data derived from feathers provides a non-invasive alternative to infer the extent of regional movement on the basis of genetic and/or feather isotope analysis.

### **Project aims**

The Glossy Black Conservancy is co-ordinating a research project to collect discarded (i.e. naturally moulted) feathers of Glossy Black-Cockatoo. The aim of the project is to accumulate a collection of feathers that may be used for research projects to: (a) examine population genetic structure across the range of the species using genetic material that can be extracted from feather shafts; and/or (b) use isotope analysis of feather material to examine how widely individuals move during the growth stage of individual feathers given that the isotopic signatures of their foods (subsequently laid down in the feather during growth) can be expected to vary regionally.

### Permission to collect feathers

The Glossy Black Conservancy has obtained a scientific purposes permit from the Queensland Department of Environment and Heritage Protection to collect naturally moulted feathers of Glossy Black-Cockatoo in Queensland. If you wish to collect naturally moulted feathers of Glossy Black-Cockatoo to contribute to the research project, you will be issued an endorsed copy of the permit that will allow you to collect feathers. Currently, the permit allows for the collection of naturally moulted feathers on privately-owned lands (subject to landowner consent) and a number of State-managed

protected areas (see Attachment 1 list). Should you wish to collect feathers in a protected area not included in the list, please contact the Conservancy and we can apply to include the protected area in the permit.



Male Glossy Black-Cockatoo aged between 1 and 3 years, showing a mixture of old, worn juvenile (barred black, more pointed with shaft extending beyond the tip) and newer immature (barred to partially barred) or adult (unbarred) tail feathers (Photo © Bobbi Marchini).

#### Where to look for moulted feathers

Places where moulted feathers of Glossy Black-Cockatoo are likely to be found include:

- the vicinity of regular drinking sites (the birds typically perch and preen themselves around drinking sites in the late afternoon);
- under she-oak trees where the birds have spent some time feeding and resting;
- under known roosting trees; and
- in the vicinity of known nest sites, where birds may regularly perch (but be very careful not to disturb nesting birds).

The most distinctive feathers of Glossy Black-Cockatoos are their tail feathers (see photo above), most of which have vivid red panels that may also have yellow edging. The amount of yellow edging and black barring across the red panels varies with age and between males and females.



The Glossy Black Conservancy is a not for profit consortium that seeks to increase awareness and promote a collaborative conservation management approach for Glossy Black-Cockatoos across SEQ and north-east NSW, through a partnership between government, private enterprise, researchers and the wider community. Information included in this fact sheet does not necessarily express the views of all Conservancy partners.

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## What to do if you find moulted feathers

If you are lucky enough to find naturally moulted feathers of Glossy Black-Cockatoo, please collect them and place them in a zip-loc bag, accompanied with locality details, date of collection and name and contact details of the collector. Please post the feathers to the following address:

The Glossy Black Conservancy c/o BAAM Pty Ltd P.O. Box 1376 Cleveland, QLD 4163

Glossy Black-Cockatoo feathers collected for this project will be submitted to the Queensland Museum for curation until such time as there is a sufficient sample of feathers for a relevant research project.

## 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:

- How to Identify a Glossy Black-Cockatoo: <u>http://glossyblack.org.au/correct\_id.html</u> and <u>http://glossyblack.org.au/pdf/Glossy</u> <u>Black Fact Sheet 4.pdf</u>
- Ageing and Sexing Glossy Black-Cockatoos: <a href="http://glossyblack.org.au/pdf/Glossy Black">http://glossyblack.org.au/pdf/Glossy Black</a>
  <a href="fact-sheet-7.pdf">Fact Sheet 7.pdf</a>
- Glossy Black-Cockatoo Feed Tree Identification: <a href="http://glossyblack.org.au/pdf/Glossy-Black-Fact-Sheet-5.pdf">http://glossyblack.org.au/pdf/Glossy-Black-Fact-Sheet-5.pdf</a>

If you have any questions regarding the project, please don't hesitate to either one of the following partner contacts of the Conservancy.

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# Attachment 1: State-managed protected areas included in the permit

Beerburrum State Forest Blackdown Tableland National Park Buccan Regional Park Carnarvon National Park Conondale National Park D'Aguilar National Park Daisy Hill Regional Park Dularcha National Park Glass House Mountains National Park Kroombit Tops National Park Main Range National Park Mt Barney National Park Nerang National Park Noosa National Park Plunkett Regional Park Springbrook National Park Tamborine National Park Western Creek State Forest Wondul Range National Park

