

Meet the *Gang-gang*



Gang-gang Cockatoos are beloved denizens of the Australian bush—but surprisingly, these charismatic cuties are the least studied member of the cockatoo family. BirdLife Australia's *Tanya Loos* uncovers some of their closely held secrets.

Gang-gangs are not as conspicuous as other members of the cockatoo family. It is often the sound of their distinctive creaking calls, a contented growling as they chew, or the gentle patter of half-eaten gumnuts falling from high in the tree canopy that reveals their presence in the cool mountainous forests and woodlands of south-east Australia.

These quiet little cockies have long posed a dilemma for researchers—they were originally thought to be an early offshoot of black-cockatoos, then later believed to be more closely related to white cockatoos, specifically the corellas. Genetic studies now show that Galahs and Gang-gangs are side by side on the cockatoo evolutionary tree. They belong in the cacatuine lineage, which includes all manner of cocky colours and genera—white, pink, grey and black cockatoos. The Gang-gang then is a bush Galah. Or we could just as easily describe the Galah as an open-country Gang-gang.

Although cockatoo bills look broadly similar, there are actually two different kinds. Some cockatoos, such as the Galah and corellas, have a 'psittacid-type' bill—a Swiss Army knife multifunctional bill, perfect for open-country foraging, as the bird can pick up seeds and shell them intra-orally (within their bills) aided by a fleshy and dexterous tongue. Gang-gangs and all the black-cockatoos have a different bill—the 'calyptorhynchid-type', which is also multifunctional but with reduced mobility of the mandibles, which means these birds require the assistance of their foot while eating.

We can see that the cockies with the psittacid-type bill are doing very well indeed thanks to their adaptability to the agricultural landscape and new food sources such as onion weed, which is dug up with relish by corellas in massive flocks. The calyptorhynchid-type cockatoos, on the other hand, rely on natural bush habitat that is flowering and seeding abundantly, supplemented with insect larvae. Our bush cockatoos are vulnerable to habitat clearance and food shortages—as we can see with Carnaby's Black-Cockatoos in Western Australia, the Glossy Black-Cockatoos of Kangaroo Island and the east coast, and now sadly with our Gang-gangs.

Food shortages caused by habitat clearance could well be one of the reasons why Gang-gangs appear to be disappearing across their range. Number crunching by the BirdLife Australia monitoring team shows that the number of Gang-gangs detected in 500-metre-radius area searches has declined by 69 per cent between 1999 and 2019. However, the decline in reporting rates from 20-minute 2-hectare surveys across the same period was only 15 per cent.

Despite this discrepancy, the Black Summer mega-fires have pushed any hesitancy about the species conservation status aside.

Like other wet forest species such as Superb Lyrebirds and Pilotbirds, the extent of the bushfires correlates closely with the Gang-gangs' range. The Gang-gang Cockatoo had 23 per cent of its core habitat burnt—much of it severely, and it's estimated that ten per cent of the entire population was killed in the fires.

Gang-gang Cockatoos are monogamous, and pairs like this one mate for life. Photo by Pat Tomkins



4.



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This tragedy has prompted a nomination to upgrade the Gang-gang's IUCN conservation status to Vulnerable. The landscape-scale fires also represent loss of foraging and breeding habitat for the survivors—a big problem for these hollow-nesting, bush-feeding specialists.

It's not just fires that are making nesting hollows hard to find for Gang-gangs. In the Blue Mountains, Carol Proberts and other members of the Blue Mountains Bird Observers have been keeping records of the local birdlife since 1992, and they noted flocks of 50 or more Gang-gangs in the early 90s. Their data shows a steep decline in the number of Gang-gangs reported in the past 25 years, and these days, flocks of 8–10 birds are the norm.

Carol surmises that perhaps competition for nesting hollows is causing the decline. Sulphur-crested cockatoo numbers have increased locally in the past quarter century. In her 1985 diary she carefully noted, “Three Sulphur-crested Cockatoos at Katoomba.” Fast forward to 2020 and Carol laughs wryly, “The Sulphur-crested Cockatoo is now one of the first birds you see when you visit the Blue Mountains!” While Sulphur-crested Cockies are not officially listed as Gang-gang nest competitors in the *Action Plan for Australian Birds*, possums and bees are certainly recorded as vying with the cockies for precious nesting space.

Further south, in Canberra, Chris Davey and the Canberra Ornithologists Group (COG), along with David Mulvaney from the ACT government, have led a nest-site monitoring project since 2014, releasing two detailed reports on breeding behaviour in Gang-gangs.

These reports confirm the age of fledging at approximately 12 weeks from the start of incubation, and the fact the species appears to nest in loose colonies. They do not start breeding until four years of age, and usually raise just one or two young.

Can you name these birds without looking at the captions below? It might be easy when they're posing for a picture, but when they're just a flash of black in the bush, it could be another story!

From bottom left:

1. Female Gang-gang Cockatoo.
Photo by Pat Tomkins

2. Male Gang-gang Cockatoo.
Photo by Jan Wegener

3. Female Glossy Black-Cockatoo.
Photo by Jan Wegener

4. Male Glossy Black-Cockatoo.
Photo by Jan Wegener

5. Female Yellow-tailed Black-Cockatoo.
Photo by Susan Flashman

6. Male Yellow-tailed Black-Cockatoo.
Photo by Jan Wegener

7. Female Red-tailed Black-Cockatoo.
Photo by Rob Drummond

8. Male Red-tailed Black-Cockatoo.
Photo by Rob Drummond



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“Nesting sites tended to be close to each other and several observers recorded peaceful and what seemed to be helpful interactions between nearby nesting Gang-gang pairs, such as neighbouring Gang-gangs driving off another bird species from an unattended hollow, nesting pairs calling to each other and flying off together, or nesting pairs visiting each other’s hollows.”

Although COG monitoring has detected no downward trend for the species, Chris is concerned. He feels that as a cool climate species, the Gang-gang is important as a benchmark for the effects of climate change.

COG’s most recent report has documented a possible effect of extreme heat on nestlings. The nest monitoring was carried out during the bushfire crisis in January, with many volunteers monitoring nests in heatwave conditions, compounded by smoke.

The team observed a total of four chicks leaving or attempting to leave their hollow prematurely. One female chick was stuck halfway in and out of particularly small hollow entrance, and three chicks were found helpless on the ground. Chris isn’t sure whether the chicks’ behaviour was due to the heatwave conditions at the time.

“This is new,” Chris says, concerned about this early fledging, “and could be related to very hot and very dry conditions.”

Indeed, the researchers putting together the updated *Action Plan for Australian Birds*, Stephen Garnett and Sarah Legge, have named temperature extremes as the highest category of risk, and the highest research priority for Gang-gangs.

Rising temperatures, habitat destruction, hollow competition—these threats are pervasive and disheartening.

But all is not lost. Reporting Gang-gangs to BirdLife Australia through our Birddata app is of the utmost importance. The coronavirus crisis has resulted in a substantial increase in birdwatching from home—and in telling us what you see. In fact, since March, there has been a tenfold increase of Gang-gangs being reported in Birddata by volunteers.

This data is vital as it helps scientists and land managers piece together the poorly understood movement ecology of the species, and most importantly tracks how Gang-gangs respond to landscape scale fires.

BirdLife Australia’s maps and assessments have been vital in raising the alarm for this species since the Black Summer fires, and in the nomination to upgrade the species status to Vulnerable. And it is the contribution of our birdwatching volunteers that have made this work possible. Together, we can learn more about these beautiful birds, now that Gang-gangs are finally taking their place in the conservation spotlight.

GLOSS UP ON YOUR BLACK-COCKY ID

Can you pick a Glossy from a Gang-gang? With BirdLife Australia’s new *Identifying southeast Black-Cockatoos* you soon will! Designed to aid bird lovers of all stripes in accurately spotting their local black-cockatoos, and complete with QR codes to easily listen to calls, the guide encourages everyone to report their sightings through Birddata—especially important in the aftermath of the 2019–2020 bushfires, which has seen black-cockatoos range far and wide in search of food and shelter. Go to www.birdlife.org.au/bushfire-recovery to download your copy today.

