

Appendix J Inspection of Possible Black Cockatoo (*Calyptorhynchus Spp.*) Breeding Hollows

**INSPECTION OF POSSIBLE BLACK COCKATOO (*Calyptorhynchus spp.*) BREEDING HOLLOWs,
BAYSWATER TO ELLENBROOK LINE.**

Three species of black cockatoos occur in the south-west of Western Australia – Forest Red tailed Black Cockatoo *C. banksii naso*, Baudin’s Cockatoo *C. baudinii* and Carnaby’s Cockatoo *C. latirostris*. Both Forest Red-tailed and Carnaby’s Cockatoos occur in the study area. Baudin’s Cockatoo is unlikely to occur in the study area other than as a vagrant.

A total of 43 trees containing hollows which were located in a previous survey (Eco Logical Australia 2020) were inspected from ground level using binoculars and any with an entrance suitable for use as black cockatoo breeding hollow were then inspected with a pole camera (if safe and possible). Four nesting boxes at the junction of Broun Avenue and Tonkin Highway were also inspected.

Hollows were assessed for suitability regarding entrance size, shape, angle, height from ground and signs of past or present use.

The survey took place on 4th – 5th April 2020 and was undertaken by Tony Kirkby who has over 20 years experience in assessing black cockatoo breeding habitat in Western Australia.

Results (see Attachment 1 for details)

Part 1. Bayswater to Malaga.

Part I consists of three Marri *Corymbia calophylla* trees (one dead) and four nesting boxes.

None of the Marri had hollows suitable for black cockatoos.

Though two of the nesting boxes had chewing and wear around the entrance which indicates they have been used, it is doubtful they have been used by black cockatoos. One of the two boxes had a large sized entrance suitable for a black cockatoo, but the body of the box was too small and probably does not have enough internal floor space. The other was a larger box but had an entrance which was too small for a black cockatoo. They have possibly been used by smaller parrots. The remaining two boxes show no signs of use and are probably unsuitable with one being too shallow and the second too small in width.

Part 2. Malaga to Ellenbrook.

Thirty nine trees containing hollows were inspected. Of these twelve were Marri *Corymbia calophylla*, four Flooded Gum *Eucalyptus rudis*, one Coastal Blackbutt *E. todtianna*. The remaining trees were dead stags of either Jarrah *E. marginata* or Marri.

A Marri tree (# 19) originally noted at 401870E - 6477344N had completely lost it's canopy and most of the trunk and no longer contained any hollows. A Marri (# 26) previously recorded at 401872.7211E - 6477351.94N could not be found at this location. A large Marri approximately 50m to the east at 401959E - 6477368N may be this tree. This tree has also recently lost both it's canopy and most of it's trunk and no longer contains hollows.

Of the 39 trees none were considered as having hollows suitable to be used by black cockatoos as breeding hollows. All hollows present were either too small, incorrect angle, too close to the ground, too shallow or a combination of these factors.

Judging by the presence of tree scarring consistent with Galah *Eolophus roseicapilla* use near and around the hollow entrances, six were occupied by this species. A Galah was present near Hollow #12.

Tony Kirkby

11th May 2020

Attachment 1

Tree #	Type	Comment	Eastings	Northing	Species	Photo	Hollow Type	Hollow Size	Author	Species Com	Tree Height	HolHeight	HolWidth	DBH_mm	HolPresent	Part	T. Kirky comments
1		dead stag	397533.9748	6473187.296	Corymbia calophylla	648			GHD	Marri		0		600	Yes	Part 1	No black cockatoo breeding hollows present
2			397552.5743	6473161.493	Corymbia calophylla	654			GHD	Marri		0		1000	Yes	Part 1	No black cockatoo breeding hollows present
3			397553.5718	6473133.122	Corymbia calophylla				GHD	Marri		0		750	Yes	Part 1	No black cockatoo breeding hollows present
4		nesting box	397830.1081	6470554.34	Corymbia calophylla				GHD	Marri		0		700	Yes	Part 1	Two of these four nesting boxes have been used but probably by Galah's
5	Potential Breeding Tree	Potential breeding tree	401589.702	6480630.731	Corymbia calophylla		branch - Galahs nesting - 15cm	spout - 25cm	ELA	Marri			150	1911	Yes	Part 2	Hollow with chewing. Too small for black cockatoos. Probably Galah hollow
6	Potential Breeding Tree	Potential breeding tree	401577.0204	6480659.987	Corymbia calophylla		spout	35 cm	ELA	Marri				1156	Yes	Part 2	Heavily scarred Galah hollow
7	Potential Breeding Tree	Potential breeding tree	401516.3817	6480783.899	Dead stag	5209	5 x spout hollows - 15cm +	trunk hollow - 30 cm	ELA	Stag			150	2134	Yes	Part 2	Has large hollow entrance but it too shallow for black cockatoos
8	Potential Breeding Tree	Potential breeding tree	401474.6588	6480929.388	Dead stag		trunk hollow 80cm		ELA	Stag				955	Yes	Part 2	Hollow too low to be used by black cockatoos
9	Potential Breeding Tree	Potential breeding tree	401485.5297	6481000.33	Dead stag		2x trunk - 50-60cm	branch - 15cm	ELA	Stag				1210	Yes	Part 2	No suitable hollows
10	Potential Breeding Tree	Potential breeding tree	401350.813	6481148.143	Dead stag		trunk - 80 cm		ELA	Stag				618	Yes	Part 2	No suitable hollows
11	Potential Breeding Tree	Potential breeding tree	401149.4647	6481707.482	Dead stag		spout 15cm		ELA	Stag				653	Yes	Part 2	Has hollow with chewed entrance but trunk too small to provide black cockatoo hollow
12	Potential Breeding Tree	Potential breeding tree	399874.6988	6475971.657	Dead stag		Spout 30 cm	Branch - 40cm	ELA	Stag				338	Yes	Part 2	Small hollow with chewing at entrance. Galah near hollow. Too small for black cockatoo and probably used by Galah
13	Potential Breeding Tree	Dead stag	401843.819	6483358.912	Dead stag		Spout 30cm		ELA	Stag				910	Yes	Part 2	Has hollow which has no depth
14	Potential Breeding Tree	Potential breeding tree	401633.4296	6480275.297	Dead stag		spout x 2 30 cm		ELA	Stag				1300	Yes	Part 2	Has hollow which has no depth
15	Potential Breeding Tree	Potential breeding tree	401629.2511	6480316.274	Dead stag		trunk 10cm	spout 30cm	ELA	Stag			300	790	Yes	Part 2	No suitable hollows
16	Potential Breeding Tree	Potential breeding tree	401602.6392	6480376.769	Dead stag		spout 30cm	spout 30cm	ELA	Stag			300	1220	Yes	Part 2	Top has blown off this tree recently and hollow floor is exposed. Not suitable as breeding hollow
17	Potential Breeding Tree	Potential breeding tree	401564.2495	6480540.249	Dead stag		Spout 40cm		ELA	Stag				1250	Yes	Part 2	Has suitable entrance but hollow has no depth
18	Potential Breeding Tree	Potential breeding tree	399774.9254	6476052.941	Dead stag		spout x 2 30-40cm		ELA	Stag				1990	Yes	Part 2	Slightly worn at entrance. Checked with camera. Not a viable hollow
19	Potential Breeding Tree		401870	6477344	Corymbia calophylla				Terrestrial Ecosystems	Marri	20	10	2 x 400	1500	Yes	Part 2	This tree has completely lost top of trunk. No hollows
20	Potential Breeding Tree		402185.8229	6476185.153	Eucalyptus rudis	R268_photo_1_30.jpg		5	DBCA Database	Flooded Gum				0	Yes	Part 2	Galah at hollow
21	Potential Breeding Tree		402162.8237	6476245.241	Eucalyptus rudis	R270_photo_1_32.jpg		5	DBCA Database	Flooded Gum				0	Yes	Part 2	Has hollow but is too small for black cockatoo
22	Potential Breeding Tree		402157.6694	6476259.825	Eucalyptus rudis	R271_photo_1_33.jpg		4	DBCA Database	Flooded Gum				0	Yes	Part 2	Hollow with suitable entrance but which has no depth
23	Potential Breeding Tree	Numerous small branch hollows <5cm	402159.011	6476258.064	Eucalyptus rudis	R272_photo_1_34.jpg			DBCA Database	Flooded Gum				0	Yes	Part 2	Has hollow but is too small for black cockatoos
24	Potential Breeding Tree	Bees	401498.3863	6481279.259	Corymbia calophylla	R173_photo_1_155.jpg		Linear 2m	DBCA Database	Marri				0	Yes	Part 2	No hollows suitable for black cockatoos
25	Potential Breeding Tree		401547.069	6481366.305	Dead stag	R303_photo_1_168.jpg		30	DBCA Database	Stag				0	Yes	Part 2	No hollows suitable for black cockatoos
26	Potential Breeding Tree	Two potential large hollows	401872.7211	6477351.94	Corymbia calophylla	R57_photo_1_294.jpg			DBCA Database	Marri				0	Yes	Part 2	No tree at this location. Marri 50m north but has recently lost top of trunk. No hollows
27	Potential Breeding Tree		401774.5333	6477307.324	Dead stag	R311_photo_1_299.jpg		35	DBCA Database	Stag				0	Yes	Part 2	Has hollow but unusable. Floor of hollow can be seen through gap in trunk
28	Potential breeding tree		401825.2063	6477283.198	Corymbia calophylla		Spout	10 CM	ELA	Marri				600	Yes	Part 2	Has hollow but it has no depth
29	Potential breeding tree		401740.8827	6477293.145	Eucalyptus sp. (planted/non-native)		Spout	15cm	ELA	Non native Eucalyptus				900	Yes	Part 2	Stag tree at this location and not exotic Eucalyptus? Has hollow but is too near to horizontal and is unsuitable for black cockatoos
30	Potential breeding tree		401712.0053	6477244.978	Corymbia calophylla		Spout	30 cm	ELA	Marri				850	Yes	Part 2	Has a hollow which is too low for black cockatoos
31	Potential breeding tree		401751.9256	6477385.373	Eucalyptus sp. (planted/non-native)		branch	10cm	ELA	Non native Eucalyptus				1000	Yes	Part 2	Stag tree at this location and not exotic Eucalyptus? No hollows suitable for black cockatoos
32	Potential breeding tree		397969.0994	6475122.236	Eucalyptus patens		Branch	40cm	ELA	Blackbutt				1200	Yes	Part 2	This is Eucalyptus todtiana? No suitable black cockatoo hollows
33	Potential breeding tree		400152.6458	6475978.686	Corymbia calophylla		Spout	10cm	ELA	Marri				520	Yes	Part 2	Hollow in spout. Too small for black cockatoo
34	Potential breeding tree		402182.1587	6476023.377	Eucalyptus rudis		Spout	10 cm	ELA	Flooded Gum				800	Yes	Part 2	Has a hollow with suitable entrance but which is too low
35	Potential breeding tree		399805.0834	6476113.533	Dead stag	2227	Branch	5cm	ELA	Stag				605	Yes	Part 2	Hollow with suitable entrance for black cockatoo but has no depth
36	Potential breeding tree		400050.1182	6475623.606	Dead stag		Spout	15cm	ELA	Stag				760	Yes	Part 2	No suitable black cockatoo hollows
37	Potential breeding tree		401748.9745	6479140.112	Dead stag	2093	Trunk	15-20	ELA	Stag				1200	Yes	Part 2	No suitable black cockatoo hollows
38	Potential breeding tree		401952.7119	6477171.229	Corymbia calophylla	2111	Spout (potential)	20-30cm	ELA	Marri				870	Yes	Part 2	Has a hollow but has no depth
39	Potential breeding tree		401627.0926	6477346.155	Corymbia calophylla	2114-2115	2 x trunk hollows	30cm	ELA	Marri				850	Yes	Part 2	Hollow too small for black cockatoos
40	Potential breeding tree		401675.6274	6477298.286	Corymbia calophylla	2117	Branch	10cm	ELA	Marri				650	Yes	Part 2	Hollow too small for black cockatoos
41	Potential breeding tree		401689.5134	6477291.102	Corymbia calophylla	2121-2122	2 x spout	30, 10	ELA	Marri				850	Yes	Part 2	Has heavily scarred Galah hollow
42	Potential breeding tree		401749.3686	6477425.147	Dead stag	2150	Trunk	20cm	ELA	Stag				955	Yes	Part 2	No suitable black cockatoo hollows
43	Potential breeding tree		401790.3401	6477376.429	Dead stag	2160	Spout	30cm	ELA	Stag				800	Yes	Part 2	Has hollow with suitable entrance but which has no depth