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Koala Beach nesting box and Glossy Black-Cockatoo nesting tube monitoring report

Winter 2022

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Introduction

Twenty-one artificial nest hollows have been installed in various locations at bushland edges and APZs throughout Koala Beach over the last 10 years to provide supplementary nesting resources for hollow-dependent fauna. The hollows consist of mainly modified salvaged hollow limbs attached to existing trees. Inspections are generally carried out annually to record use by fauna and determine the condition of the hollows to see if any repairs are required.

Tweed Shire Council contracted Tweed Landcare to monitor the use of nesting boxes at Koala Beach, Pottsville by wildlife. The monitoring event for 2022 was undertaken on 1 June 2022 by Tweed Landcare Project Officer, Kim Stephan, and Tweed Shire Council Biodiversity Officer, Marama Hopkins.

Method

The sites were accessed on foot. When possible, each box/hollow or tube was monitored using a Wireless Nestbox Inspection Camera placed inside the entrance hole of the nesting box which transmitted the image back to the handheld LCD screen as live video (Figure 1). The camera was attached to a 9-metre-long carbon fibre extension pole so that most entrance holes could be reached from the ground. Where possible a photo was taken inside the nesting box. The Council officer collected the GPS waypoint for each location.

Figure 1. The camera (left) attached to the 9m pole and inserted into the hollow transmitted the image from inside the box to the handheld screen (right).

Results

Nesting box and salvaged hollow inspections

Twenty-one artificial nesting boxes and salvaged hollow locations were inspected. The results are summarised in Table 1. Photos of each were emailed with this report to Council.

Condition: From the twenty-one inspections, fifteen were considered in sound condition, two were damaged to the point that they were no longer viable (# 12 and 13) and four (#7,#10,#17,#20) could not be located.

Occupation: Of the boxes still present, three contained native bees, and nine contained leaf dens indicative of sugar glider occupation (Figure 2).

Figure 2. One of the glider dens with fresh leaves.

Gliders, most likely sugar gliders, were present at two locations at the time of inspection (see Figure 3). One pair remained in the hollow, whilst the other pair were seen when leaving the hollow. Both pairs of gliders were observed in the salvaged hollow style boxes.

Figure 3. Two gliders (*Petaurus spp.*) inside a salvaged hollow known as #16.

On our approach two gliders fled hollow #15 and climbed and glided away to apparent safety.

Figure 4. The salvaged hollow (#15) on a grey gum from which two gliders fled.

Table 1. Summary of the nesting box/hollow condition and occupancy inspection on 1 June 2022.

Box/hollow identifier	Photo file name & time	Host tree species	Comments	Condition	Maintenance required
1	11.45	Swamp mahogany	Salvaged log hollow. Fresh leaf den present. Possibly sugar glider.	Sound	No
2a	11.35	Swamp oak	Salvaged log hollow. Native bees present.	Sound	No
2b	11.34	Swamp oak	Salvaged log hollow. 5 gum leaves inside.	Sound	No
3	12.27	Pink bloodwood	Salvaged log hollow. Fresh leaf den. Possibly sugar glider.	Sound	No
4	12.33	Pink bloodwood	Salvaged log hollow. Fresh leaf den (within the last week).	Sound	No
5	12.41	Pink bloodwood	Sound. Salvaged log hollow. Fresh leaf den present. Possibly sugar glider.	Sound	No
6	12.45	Pink bloodwood	Native bees (*Tetragonula* sp.) present.	Sound	No
7			Nesting box not located.	Presumed gone	Yes
8	1.44	Swamp oak	Fresh leaf den. Possibly sugar glider.	Sound	No
9	1.32	Swamp mahogany	Salvaged hollow. Leaf den present. Possibly sugar glider. Huntsman spider.	Sound	No
10			Nesting box not located.	Presumed gone	Yes
11	3.12	Brush box	Poor visibility. Although entrance is clear. Appears empty.	Sound	No
12	2.51	Pink bloodwood	Empty. Light coming in at base.	NOT sound. Base is falling off.	Yes
13	2.25	Ironbark	Empty.	NOT sound. Crack down the front.	Yes
14	2.48	Ironbark	Native bees present.	Sound	
15	2.32	Small-fruited grey gum	Two gliders present. They escaped the hollow on our approach then were chased by noisy miners.	Sound	No
16	2.05	Swamp oak	Two gliders inside (see Figure 1).	Sound	No
17			Nesting box not located.	Presumed gone	Yes

18	12.00	Swamp oak	Bat box. Could have been erected by resident. About 2m high from ground. Appears to be unused by bats.	Sound	No
19	12.07	Brush box	Leaf den inside. Wasps observed outside.	Sound	No
20			Nesting box not located.	Presumed gone	Yes

Glossy Black-Cockatoo nesting tubes

Six Glossy Black-Cockatoo PVC nesting tubes were installed in the bushland surrounding Koala Beach in March 2010. The monitoring and inspection of these tubes was incorporated into the annual Koala Beach general nesting box/hollow inspection on 1 June 2022 using the same methods and equipment. The results are summarised in Table 2.

There was no evidence of Glossy Black-Cockatoos using the nesting tubes.
Condition: All of the six PVC nest tubes were considered to be in sound condition. Each of the tree guards around the base of the trees need to be replaced due to problems with the guards growing into trees, or because they were missing or they need to be replaced with a more user friendly material. Large flexible coreflute is recommended.
Occupation: From the inspections, one tube (#i) had no sign of activity, one tube (#iii) had signs of debris possibly from old wildlife activity and three tubes (#ii, #3, #iv, #vi) contained broken eggs shells and/or down that were presumably the remnants of wood duck (*Chenonetta jubata*) nesting (see Figure 5).

Table 2. The condition and usage of the Glossy Black-Cockatoo nesting tubes on 1 June 2022.

Nesting tube identifier	Photo file name & time	Host tree species	Comments	Condition	Maintenance required*
i	9.41	Blackbutt	Empty	Sound	Yes
ii	9.55	Blackbutt	Broken shells from more than 2 eggs. Possibly wood duck.	Sound	Yes
iii	10.12	Blackbutt	Empty, except for some debris. Maintenance required to trim small trees away from base of tree.	Sound	Yes
iv		Grey ironbark	Base covered with feathers, likely from wood duck.	Sound	Yes
v	11.07	Pink bloodwood	Broken shells from more than 4 eggs. Possibly wood duck.	Sound	Yes
vi	11.18	Brushbox	Broken shells from 8 eggs. Neatly arranged. Possibly wood duck.	Sound	Yes

*** The tree guards on all trees with nesting tubes need to be maintained and/or replaced**

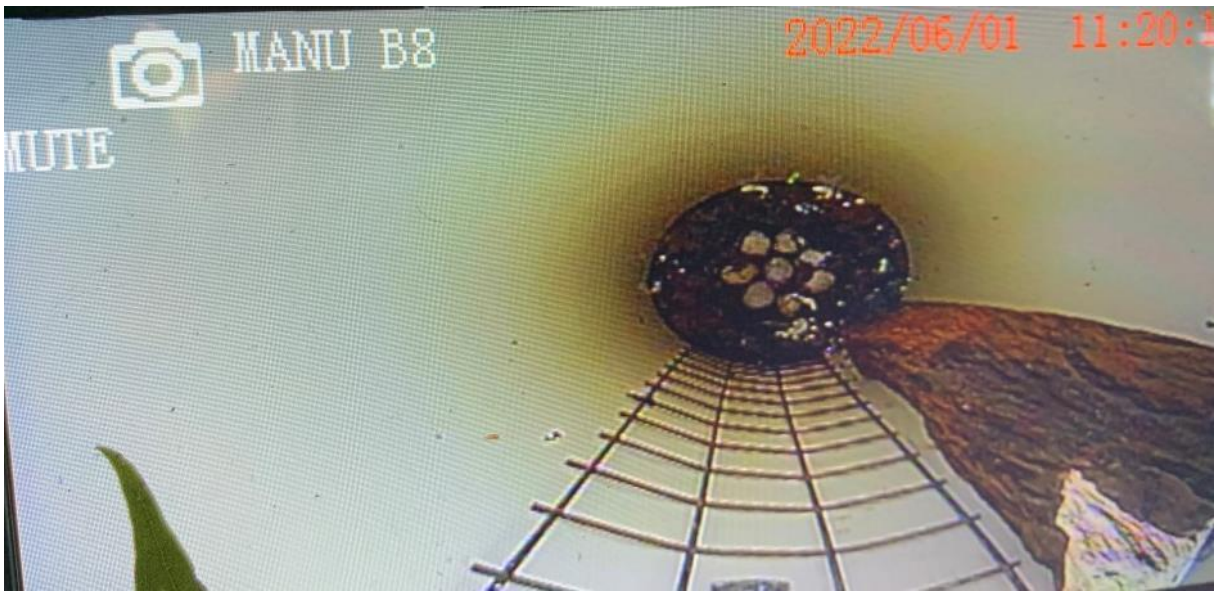

Figure 5. A precisely positioned wood duck egg arrangement in the Glossy Black-Cockatoo nesting tube known as #vi.