

Nest hollow monitoring - Koala Beach

Winter 2020

Introduction

Sixteen artificial nest hollows were installed in various locations at bushland edges throughout Koala Beach in 2010 to provide supplementary nesting resources for hollow-dependent fauna. Hollows consisted of mainly modified salvaged hollow limbs attached to existing trees. Additional nest boxes of various designs have been installed subsequently, and added to the monitoring program.

Inspections are generally carried out annually to record use by fauna and identify and carry out any repairs required. The inspection technique for this monitoring period involved using a Britestar pole camera mounted on a 3.6m Rhino pole. Additional extensions were made using adjustable tent poles. Inspections were carried out by two personnel.

This report also contains the results of inspection of six glossy black-cockatoo artificial nest tubes (part of the glossy black-cockatoo monitoring program), as these inspections were carried out concurrently (Table 2). These results will be incorporated into a subsequent glossy black-cockatoo monitoring report.

Results

Hollows were inspected on 29 July 2020 by Mark Fitzgerald Ecological Consultants.

Occupancy and condition observations are provided in Table 1 below. Occupancy was generally low. One sugar glider was present within one hollow and leaf nests were present in several other hollows, indicating recent or current use by sugar gliders or antechinus. Native bees occupied a further three hollows.

Additional observations

A large population of at least 30 individual pink nodding orchid *Geodorum densiflorum* was observed in the reserved GBC habitat. This is the largest *Geodorum* population ever noted by the consultant at Koala Beach (see Plate 5).

Table 1. Nest hollow inspection results 29 July 2020

ID #	Occupancy observations	Condition	Comments
1	Empty	Sound	
2	Native bees in one aperture, second aperture blocked	Sound	
3	Empty	Sound	
4	Empty	Sound	
5	Empty	Sound	
6	Native bees	Sound	
7	Empty	Sound	
8	Empty	Sound	
9	Empty	Sound	
10	Native bees	Sound	
11	Empty	Sound	

ID #	Occupancy observations	Condition	Comments
12	Sugar glider <i>Petaurus breviceps</i>	Sound	See Plate 1
13	Empty	Sound	
14	-	Sound	Angled spout, inaccessible for camera.
15	-	Sound	Angled spout, inaccessible for camera.
16	-	-	Not located. Likely deteriorated.
17	-	Floor coming loose	Angled spout, inaccessible for camera. Maintenance not recommended as there is a sound hollow adjacent.
18	-	Sound	Angled spout, inaccessible for camera.
19	Empty	Sound	
20	-	Fell from tree 20/08/2020; unrepairable.	Not inspected. Aperture blocked by European bees on previous visit.

Table 2. Glossy black-cockatoo nest tubes inspection 29 July 2020

	Occupancy observations	Location description
<i>i</i>	Australian wood duck <i>Chenonetta jubata</i> on down, no eggs	Ironbark, western
<i>ii</i>	Australian wood duck on eggs	Blackbutt, southwestern
<i>iii</i>	Empty	Blackbutt, northwestern
<i>iv</i>	Dead eggs, broken shells	Blackbutt, northwestern
<i>v</i>	Empty	Bloodwood, eastern
<i>vi</i>	Australian owllet-nightjar <i>Aegotheles cristatus</i> flushed	Brush Box, eastern

Recommendations

- Continue to monitor all existing hollows for occupancy on an annual basis, identifying and carrying out maintenance where required and practical.
- Consider installation of five additional hollows to replace those that have deteriorated and are not recommended for repair (#16, #17, #20).
- Suggested location for additional hollows is swamp oak forest adjacent Sugar Glider Drive (where hollow #16 was located). This area seems largely devoid of natural hollows so a cluster of hollows there may create a useful shelter resource.
- Installation of hollows in a cluster, rather than widely spaced, is preferred as it seems to result in utilisation of at least some hollows.
- Any replacement hollows should be installed at a height to allow ease of monitoring using a pole camera operated by one person, and in a location that allows safe access for maintenance.

Nest hollow monitoring photos



Plate 1. Sugar gliders in nest hollow.



Plate 2. Huntsman spider in nest hollow. Note: incorrect date shown.



Plate 3. An image from one of the smaller hollows showing insufficient detail for identification. Coarse fur possibly indicates black rat *Rattus rattus*. Note: incorrect date shown.



Plate 4. Wood duck on eggs in glossy black-cockatoo nest tube.



Plate 5. Pink nodding orchids in glossy black-cockatoo habitat.



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