



Glossy Black Cockatoo Conservation and Bioacoustic Monitoring Project

Noosa Biosphere Reserve

2022 Report

1-1-2022 – 31-9-2022



Calyptorhynchus lathami lathami in a feed tree in Noosa

1. <u>Introduction</u>	2
2. <u>Restrictions of use</u>	3
3. <u>Methodology and Works undertaken</u>	4
4. <u>Results</u>	9
5. <u>Maps and Tables</u>	24
6. <u>Wildnet</u>	37
7. <u>Risk assessment</u>	40
8. <u>Project team</u>	42
<u>References</u>	43

1. Introduction

Bushland Conservation Management (BCM) is engaged by Noosa Biosphere Reserve Foundation (NBRF) for Glossy Black Cockatoo Conservation and Bioacoustic Monitoring Project across the Noosa region and surrounding area for the 2022 breeding season.

The goal of this project for the 2022 breeding season was to identify potential nesting sites, install bioacoustic sound recorders and utilise Dr. Daniella Teixeira's Call Recogniser and gain data across the region giving an insight into the bird's movements, requirements and help guide future conservation efforts in key areas.

Bushland Conservation Management is committed to environmental sustainability, and strives to achieve best practice in conservation management. BCM adhere to a comprehensive Workplace Health and Safety Policy and Procedures Manual and work under a Safe Work Method statement, which is read and checked by all staff before any works are undertaken. BCM also work under strict guidelines in place through our Environmental Management System.

BCM aims to continue the Glossy Black Cockatoo Conservation and Bioacoustic Monitoring Project across coming years to better represent the movement of the birds creating a longer term picture with further field data to better support this species.

Permissions

Bushland Conservation Management has gained all relevant permits and permissions to conduct scientific research study across the local council areas as well as the Scientific Research Permit through local council and Queensland Parks and Wildlife Service for the relevant sections, including vehicle permits for access to these locations and we thank all related parties.



Figure 1: Scientific research signage in the field.

2. Restrictions of use for report:

Aside from fair dealing for the purposes of private study, research or review as permitted under the Copyright Act, no part of this report, its attachments, photos or appendices may be reproduced by any process without the written consent of Bushland Conservation Management (BCM).

BCM have prepared this report for the protection of the Glossy Black Cockatoo for the specific purpose only for which it is supplied. This report is strictly limited to the purpose and the facts and matters stated in it, and do not apply directly or indirectly and will not be used for any other application, purpose, use or matter.

If a Third Party uses or relies on the facts, content, opinions or subject matter contained in this report with or without the consent of BCM, BCM disclaims all risk and the Third Party assumes all risk and releases and indemnifies and agrees to keep indemnified BCM from any loss, damage, claim or liability arising directly or indirectly from the use of or reliance on this report. A reference to loss and damage includes past and prospective economic loss, loss of profits, damage to property, injury to any person (including death) costs and expenses incurred in taking measures to prevent, mitigate or rectify any harm, loss of opportunity, legal costs, compensation, interest and any other direct, indirect, consequential or financial or other loss. Due to important data for exact locations, some information will be attached separately for protecting the significant locations.

Joel Morris
Director
Bushland Conservation Management

Date: 30-6-2022

3. Methodology/ Works undertaken

This first year of bioacoustic monitoring effort of the Glossy Black Cockatoo *Calyptorhynchus lathami lathami* (*C. Lathami*) was focused on the installation of bioacoustic sound recorders in reference sites across areas of high suitability. These reference sites fit within the Glossy Black Cockatoo (GBC) required habitat for likely nesting sites throughout the Noosa region and locally surrounding areas. These areas were based upon similar requirements that have been researched on Kangaroo Islands successful Glossy Black Cockatoo Recovery Project.

- Nesting sites are approximately 1.5km to a water source

- Feed sites are within a 12km distance

The female relies on her mate to allofeed and water her during the egg incubation process.

The female also takes her evening drink for herself as well as her nestling making the watering hole proximity an important link.

The nesting season in eastern Australia lasts from around March to September and a key challenge in the *C. lathami* recovery is breeding success, and this challenge has become ever more difficult locally, with feeding habitat and nest sites destroyed through development, bushfire and storms.

During the lead into the project, consultation was undertaken with key stakeholders in *C. Lathami* including Noosa Shire Council, Sunshine Coast Council, Gympie Shire Council, Birdlife, Birdlife Toowoomba, Dr. Danielle Teixeira - Wildlife Conservation Biologist, Dr. Gabriel Conroy and The Glossy Black Cockatoo Society.

Information was sent out to private landholders via the Land for Wildlife newsletter for information relating to sightings of the Glossy Black Cockatoos in varying areas. Articles were placed in local print media and interviews undertaken with local radio networks. Letter box drops were carried out in known areas with key information regarding the GBC. Any information supplied by the general public was followed up with visual inspection of site, photos and information supplied. A large portion came back as likely Yellow Tailed Black Cockatoo.

Ten Reference sites with bioacoustic sound recorders have been installed across the region with GPS locations recorded. ArcPad geographical mapping software has been utilised through personal data digital assistant (PDA) and compiled through Arc GIS. BCM utilized 10 sound recorders during the term of the project. This included 9 x AudioMoth and one Song Meter Mini. All ten bioacoustic sound recorders were installed by BCM on the nesting tree or adjacent vegetation. The sites have all been selected in known GBC habitat that complements the important link between feed trees and watering site.

A key challenge in Glossy Black Cockatoo recovery is breeding success, by utilising bioacoustic sound recorders with software analysing the calls, BCM are able to decipher whether the potential nest site had activity with the assistance of Dr Danielle Teixeira. A successful nest site is classed if the fledgling successfully leaves the nest site. The *C. Lathami* is listed a rare and threatened species and listed as vulnerable in Queensland at the beginning of this project, with up to one third of the entire known population thought to frequent the Noosa Biosphere region, which is considered a significant habitat. Utilizing bioacoustic sound recorder technology, allows for high precision results and less human impact on possible nesting locations.

This year saw the South Eastern Glossy Black-Cockatoo listed as a threatened subspecies and is now listed as Vulnerable under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The sound recorders were set to record for 3.5 hours over the later afternoon period daily with some areas adding in an extra hour throughout the day to pick up on fly overs. This would give insight as to whether the birds were in fact in the area at all. Due to no known nesting sites being known of or recorded it was decided to install the recorders across areas that had been chosen to install GBC nesting boxes as well as a couple of natural hollow sites. Five of these are boxes BCM have designed and had installed, as well as supply GBC boxes to Noosa Landcare for their bush fire recovery grant project. Other species nest boxes were also supplied from us and different local nest box manufacturers from around the Sunshine Coast locality.

It is recommended for more than one GBC nest box, installation should occur on different trees, more than 100m apart. On installation of sound recorders it was observed multiple species and GBC boxes had been installed on the same trees.

Equipment was regularly inspected during the project duration. The prolonged wet weather heavily impacted on the quality of sound recording. At the half way point the SD cards were removed and information downloaded. A new SD card was installed for the second period of the project. The downloaded files were sent to Dr Danielle Teixeira and to run the files through her call recogniser on a larger computer to assist with time management and her expertise.



Figure 2: multiple nest boxes installed



Figure 3: Inspecting Green pipe nest box at Weyba Nature Refuge



Figure 4: AudioMoth bio acoustic sound recorders installed in Weyba Section Noosa National Park

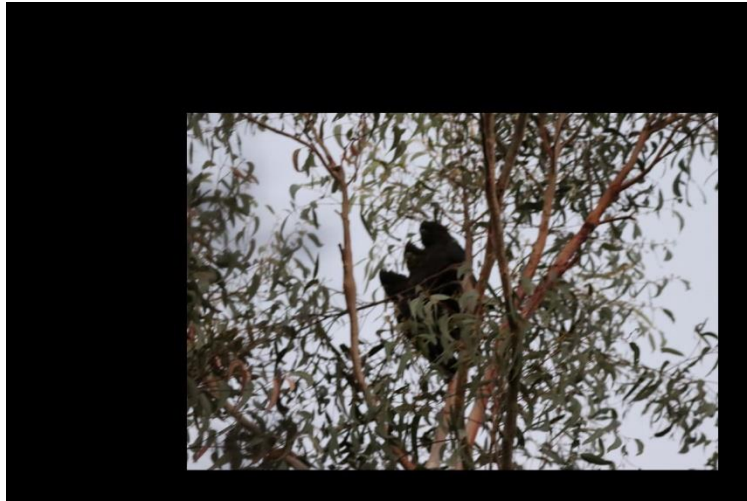


Figure 5: Three *C.lathami* roosting in Noosaville September 2021



Figure 6: Visually inspecting nest box locations near Cambroon.



Figure 7: Installation onsite.

4. Results

Completion of the Glossy Black Cockatoo Conservation and Bioacoustic Monitoring Project has now come to a close for the 2022 breeding season.

Two positive hits on our bioacoustic equipment have been identified through the call recogniser. One identifying as likely a male allofeeding his female – with female begging call, indicative of a nesting site nearby identified off our bioacoustic sound recorder installed at Girraween Nature Refuge (next to the offset site for the Grasstree Court Sunrise Beach development.)

A second positive Glossy Black Cockatoo call was also identified at Tuan Environment Reserve in the Cambroon area on our sound recorder.

Research in 2023 will intensify in these areas and will be more highly prioritised.

Joel and Kim Morris of Bushland Conservation Management were monitoring across the Noosa Biosphere Reserve region and surrounding areas including the Sunshine Coast Council region and Gympie Council region, since January 2022 following on from many hours of visual monitoring throughout the 2021 period. This was to enable us comparisons in feeding routines and sightings before the project commenced. Sound recorders were installed from March 2022 and were removed September 2022.

Excellent natural hollows in potential habitat locations have been observed and mapped across many of the monitored areas. Our research has shown a change in feeding times this year with the birds not returning as per previous years, to feed trees that were active in the 2021 year, this could be impacted by the extreme rainfall events over the last few years and will be compared over the continuing project with Bushland Conservation Management. There were still a small number of birds feeding across the Sunrise Beach locale with visual sightings and local Bob Carey observing some being sub adult stage, it is a consideration the Sunrise Beach local habitat hot spots could be used as a crèche or a reserve for those birds unable to fly further distances to source feed trees. On the 15th August 2021 we observed two birds feeding throughout the day across numerous feed trees in Noosaville at the Noosaville State School bushland and surrounding area near Doonella estate. The two birds were followed to their nearby roost site that late afternoon with another bird joining them, likely their juvenile. Another two birds roosted further away which we could not locate. This site has valuable GBC habitat, natural hollows, feed trees, roost site and a drinking site and this was an area we were excited to monitor only to find the birds did not return to this area at all to this point in the 2022 season. Noosaville State School Principal Mr Mike Hobson was very supportive of our project and readily gave land use permissions.

Glossy Black Cockatoo research has been ongoing in other regions and being driven by the universities scientific team. Gold Coast birds have been reported informally through Dr Daniella Teixeira research team to be up in numbers in 2022. While it is suggested that the GBC do not fly large distances on Kangaroo Island, it is possible a portion of our local birds leave the Sunshine Coast in search of feed trees in other areas, possibly feeding itinerantly along the way. We had communication with Roger Jaensch from Jaensch Ornithology & Conservation from Toowoomba, LUCI (Lockyer Upland Conservation Inc. who has worked with Dr Guy Castley and Griffith University GBC projects previously) Scot McPhie Darling Downs Birdlife Group, Land For Wildlife Officers, Facebook groups, Council Project Officers across Noosa, Sunshine Coast and Gympie. It was consistently reported back that there was no GBC activity in these areas. If GBC population in areas

around the Gold Coast were up in numbers, it is possible the Noosa population moved on from here when food source became low.

The Bushland Conservation Management team currently manage approximately 140 bushland reserves across the Sunshine Coast region including Noosa North Shore and contracts on K'gari, Rainbow Beach and Noosa National Park. Our team is on the ground 5 days a week and always looking out for any feeding activity from the GBC.

It is assumed the birds are likely to continue to return now to the Noosa region as feed trees are ripe.

A large development at Sunrise Beach has cleared a large plot of a feeding habitat and it is yet to be understood the implications that will arise from the loss of this habitat locally. This has potentially already been shown this year in the number of birds that were not present.

All collected data is valuable information in providing a greater understanding of the GBC. There appeared to be a dramatic decrease in the population during this period. This will be monitored over the next five years of the project. BCM is in regular contact with project partners in known areas of Gympie, Gold Coast, Brisbane and Toowoomba. Previous fires, heavy rainfall and development could be factors in the findings. There was one recorded death of a Glossy Black Cockatoo, by car strike during the project in Noosa. Visual inspections of both artificial and natural hollows will continue to be observed during the project. With little to no historic data and current information, natural hollows were observed on regular intervals and Bio-acoustic recorders installed in these locations.

During the nesting period there were long stretches of rain and periods of heavy rain including flooding events, which affected the quality of the sound recordings during this period. Rain, wind, road noise, Crickets and Cicada also made for very noisy recordings.

Roosting sites including watering holes have been observed in three locations in the lead up and into the project at Sunrise Beach, Noosaville and Kenilworth. The same areas also contained drinking sites and feed sites.

In conclusion, it has been identified that we do have breeding pairs in the region and exact nesting locations have not been confirmed during this period of reporting. BCM look forward to comparing future breeding seasons to the 2022 year.

Below: Two call snippets identified.

[GBC project\Bioacoustics\Wallum_snippet 2022.wav](#)

[GBC project\Bioacoustics\Tuan_snippet 2022.wav](#)

Location: Johns Landing Bushland Reserve	Date: 2022
Position: Cooroibah	Species: <i>Eucalyptus tereticornis</i>
Comment: Storm water drain pipe (Men's shed) artificial nest box install at Johns Landing.	



Figure 8

Location: Great Sandy National Park – Cooloola section	Date: 2022
Position: Como	Species: <i>Eucalyptus racemosa</i>
Comment: PVC drain pipe (BCM) artificial nest box install at Como.	



Figure 9

Location: Noosa National Park	Date: 2022
Position: Weyba Downs	Species: <i>Eucalyptus racemosa</i>
Comment: PVC drain pipe (Men's shed) artificial nest box install at Weyba Downs.	



Figure 10

Location: Noosa National Park	Date: 2022
Position: Weyba Downs	Species: <i>Eucalyptus racemosa</i>
Comment: Green pipe recycled plastic (BCM) artificial nest box install at Weyba Downs.	



Figure 11

Location: Great Sandy National Park – Cooloola section	Date: 2022
---	-------------------

Position: Como	Species: <i>Eucalyptus racemosa</i>
-----------------------	--

Comment:
 Numerous large hollow bearing trees were observed adjacent to the access track to the Noosa everglades. Weed trees evident and water source nearby.



Figure 12: An example of natural hollows observed throughout the Noosa region.



Figure 13: An example of natural hollows observed throughout the Noosa region.



Figure 14: An example of natural hollows observed throughout the Noosa region.



Figure 15: An example of natural hollows observed throughout the Noosa region.



Figure 16: An example of natural hollows observed throughout the Noosa region.



Figure 17: Joel Morris in a bushfire recovery bushland, recording GPS of bioacoustic sound recorder.



Figure 18: Kim Morris attaching AudioMoth bioacoustic sound recorder.



Figure 19: Orts under a feed tree.

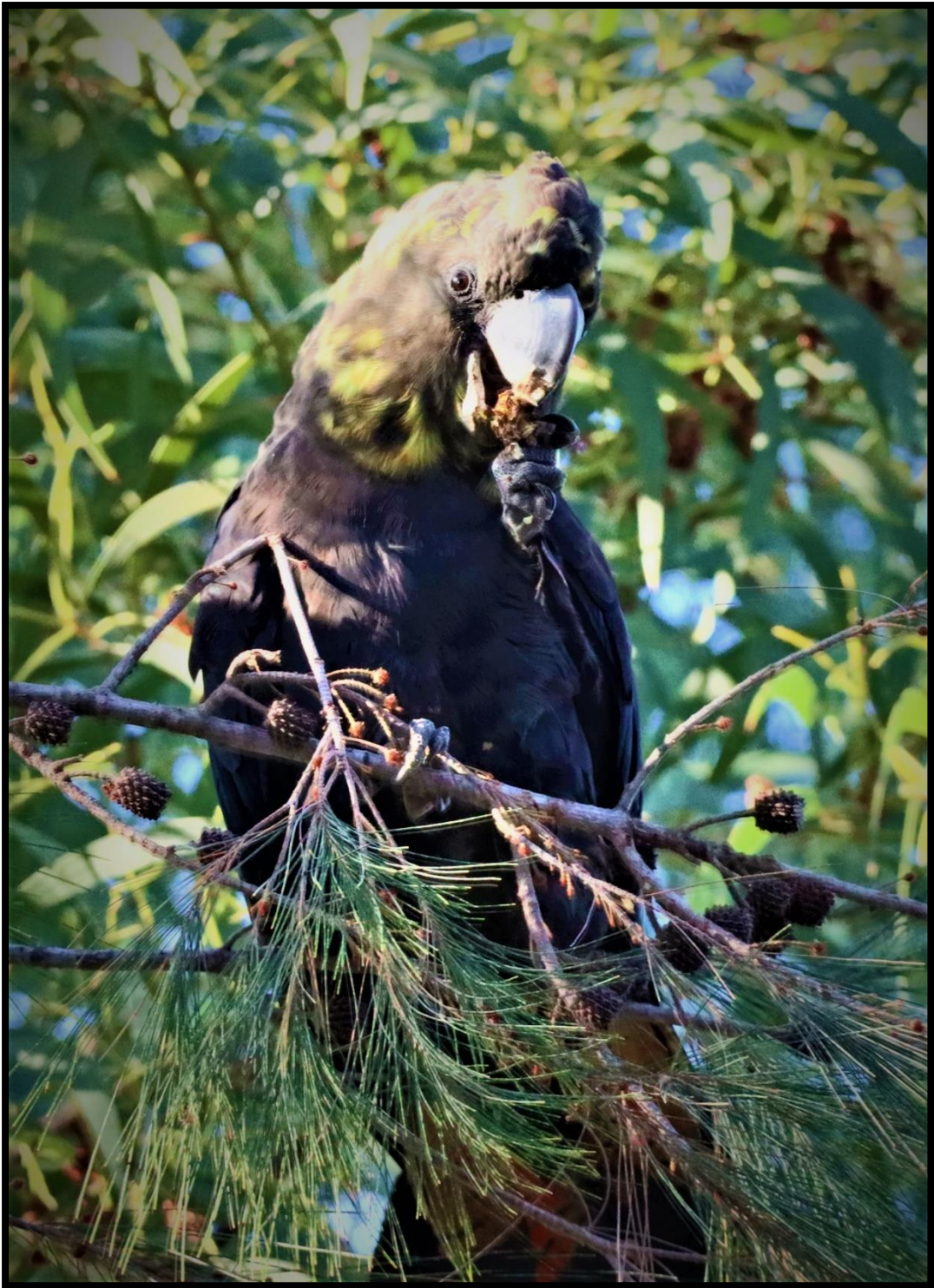


Figure 20: Female feeding

5. Maps and tables:

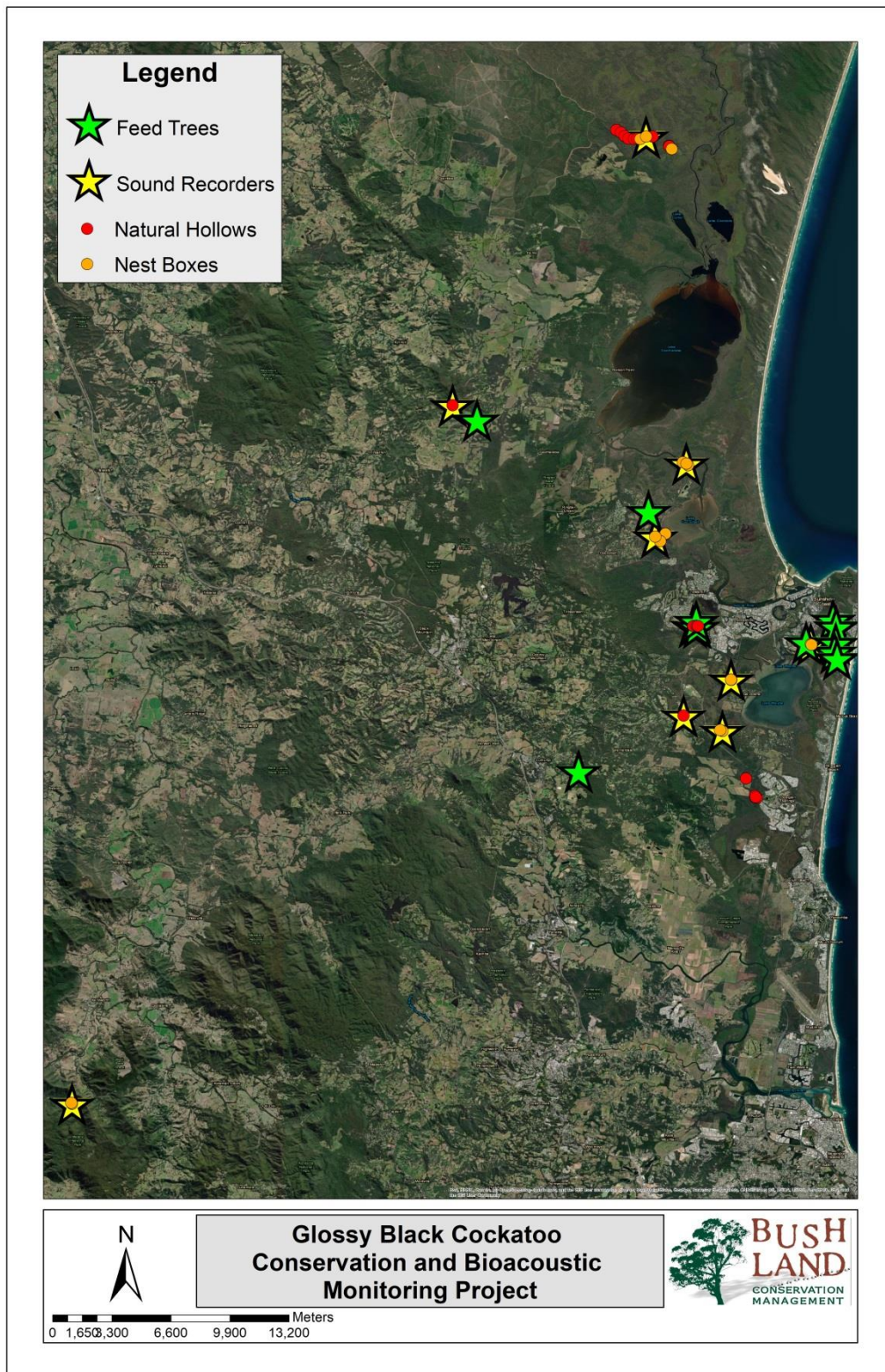


Figure 21: Full extend of Survey area and locations

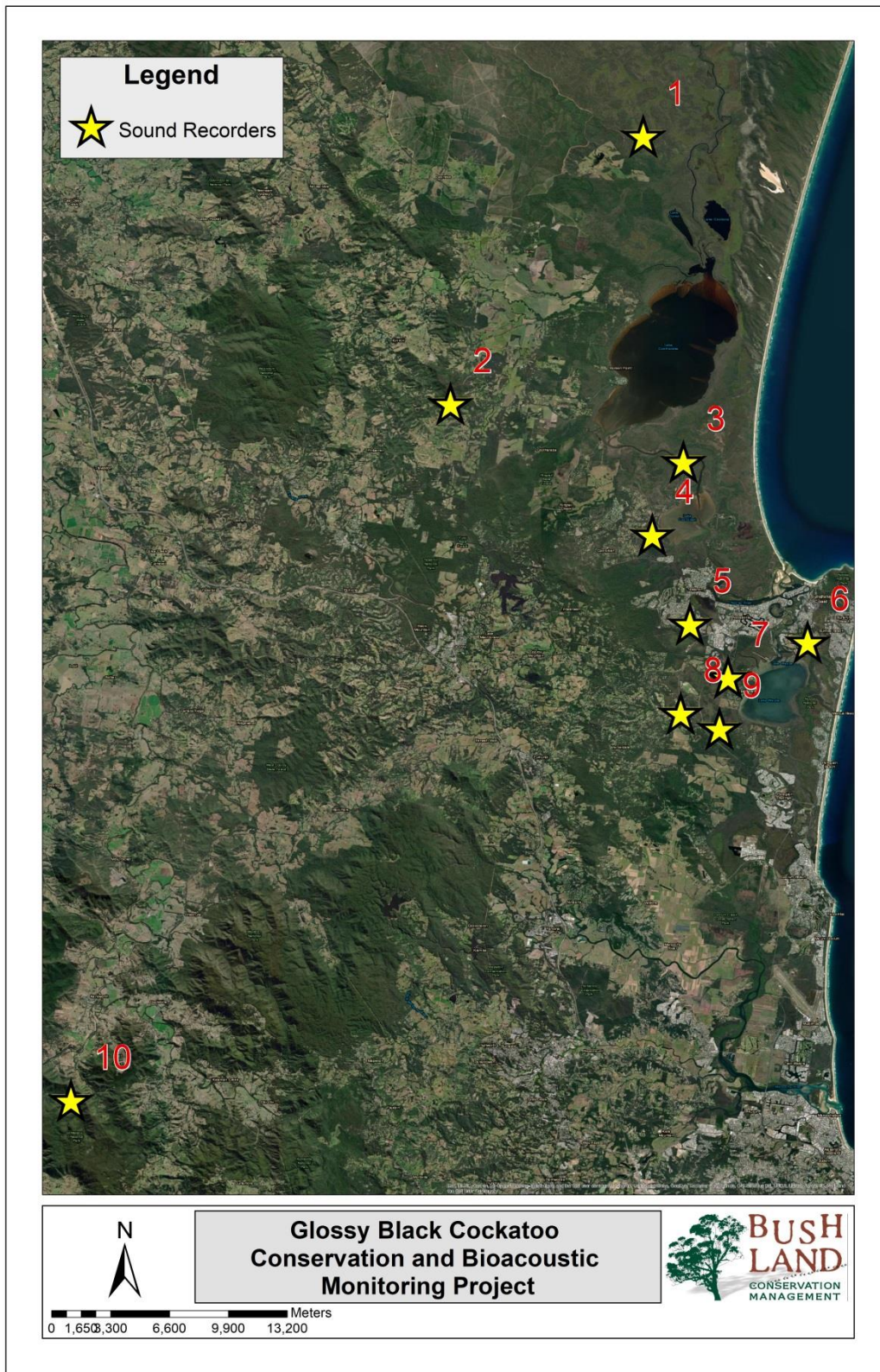


Figure 22: Locations of sound recorders for project.

ID	Location	Species	Type	Date
1	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	Nest Box	17-9-2022
2	Noosa Trail Network - Cootharaba	Eucalyptus microcorys - Tallowwood	Natural Hollow	17-9-2022
3	Johns Landing Conservation Area	Eucalyptus tereticornis - Blue gum	Nest Box	17-9-2022
4	Cooroibah Environmental Reserve	Eucalyptus racemosa - Scribbly gum	Nest Box	17-9-2022
6	Girraween Nature Refuge	Eucalyptus tereticornis - Blue gum	Nest Box	17-9-2022
9	Noosa National Park - Weyba Downs Section	Eucalyptus racemosa - Scribbly gum	Nest Box	17-9-2022
7	Weyba Nature Refuge	Eucalyptus racemosa - Scribbly gum	Nest Box	17-9-2022
8	Grays Road Environment Reserve	Eucalyptus pilularis - Blackbutt	Natural Hollow	17-9-2022
5	Noosaville State School	Eucalyptus racemosa - Scribbly gum	Natural Hollow	18-9-2022
10	Tuan Environment Reserve	Eucalyptus grandis - Flooded gum	Nest Box	18-9-2022

Table 1 Location of Sound recorders across project area.

The sound recorders were installed in locations with known historical and present sightings. All locations had the key factors of drinking water and feed trees in close proximity to either artificial nest box or natural hollow.

The Cambrook and Noosaville locations had visual identification of Glossy Black Cockatoo drinking from creek lines. The Cootharaba location has visual recording of Allo-feeding occurring.

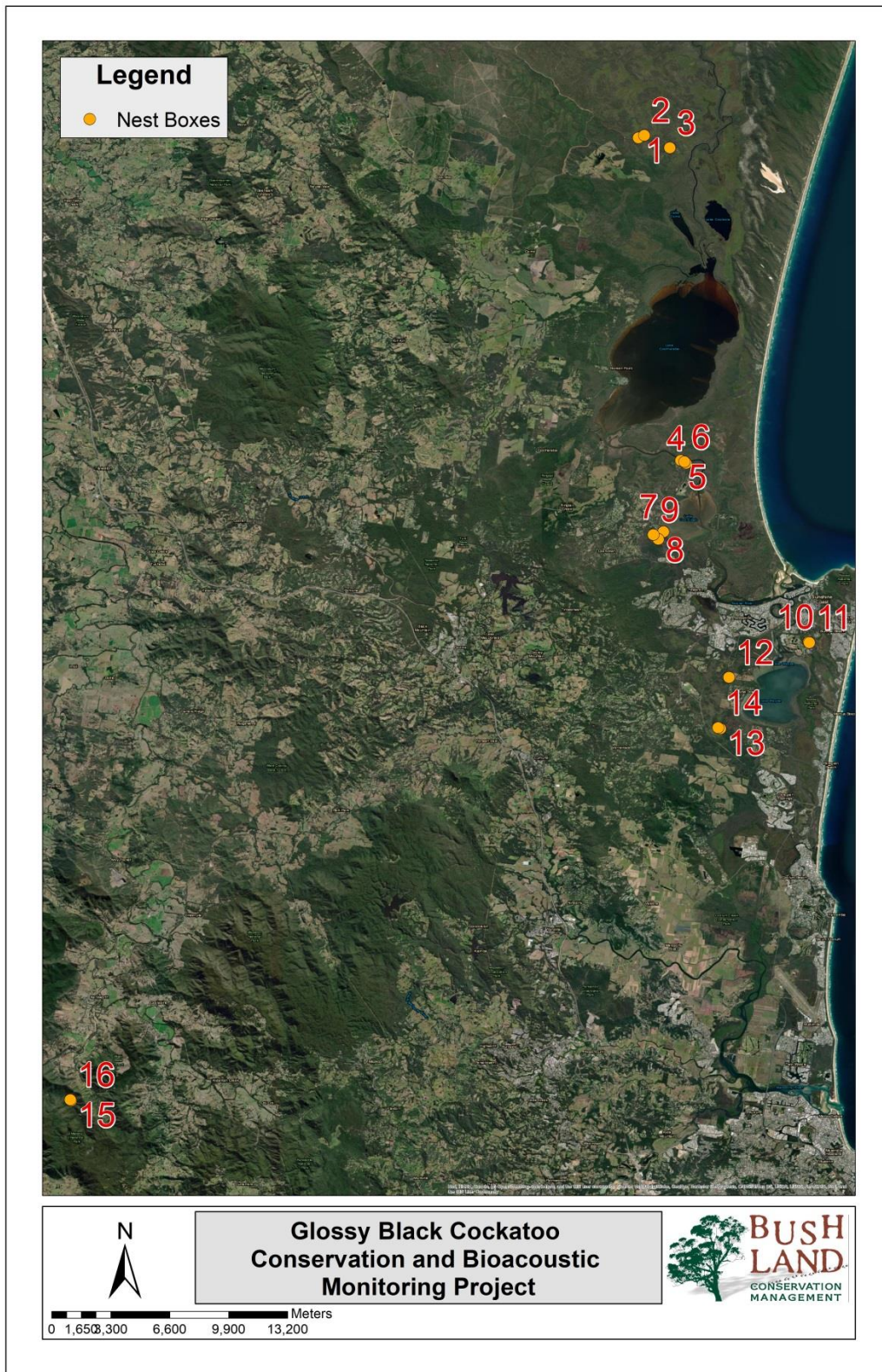


Figure 22: Locations of Nest boxes.

ID	Location	Species	Nest Box	Date
1	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	Black storm pipe - manufactured by the men shed	17-9-2022
2	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	PVC storm pipe painted - manufactured by BCM	17-9-2022
3	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	Green storm pipe - manufactured by the men shed	17-9-2022
4	Johns Landing Conservation Area	Eucalyptus tereticornis - Blue gum	Recycled eco pipe green - manufactured by BCM / Black storm pipe - manufactured by the men shed	17-9-2022
5	Johns Landing Conservation Area	Eucalyptus tereticornis - Blue gum	Black storm pipe - manufactured by the men shed	17-9-2022
6	Johns Landing Conservation Area	Eucalyptus tereticornis - Blue gum	Green storm pipe - manufactured by the men shed / Black storm pipe - manufactured by the men shed	17-9-2022
7	Cooroibah Environmental Reserve	Eucalyptus tereticornis - Blue gum	Green storm pipe - manufactured by the men shed	17-9-2022
8	Cooroibah Environmental Reserve	Eucalyptus racemosa - Scribbly gum	2 x Green storm pipe - manufactured by the men shed	17-9-2022
9	Cooroibah Environmental Reserve	Eucalyptus racemosa - Scribbly gum	Black storm pipe - manufactured by the men shed	17-9-2022
10	Girraween Nature Refuge	Eucalyptus tereticornis - Blue gum	Plywood closed top painted, open front entrance - manufactured by BCM	17-9-2022
11	Girraween Nature Refuge	Eucalyptus tereticornis - Blue gum	Plywood open top painted - manufactured by BCM	17-9-2022
13	Noosa National Park - Weyba Downs Section	Eucalyptus racemosa - Scribbly gum	Black storm pipe - manufactured by the men shed	17-9-2022
14	Noosa National Park - Weyba Downs Section	Eucalyptus siderophloia - Ironbark	Recycled eco pipe green - manufactured by BCM	17-9-2022
12	Weyba Nature Refuge	Eucalyptus racemosa - Scribbly gum	Recycled eco pipe green - manufactured by BCM	17-9-2022
15	Tuan Environment Reserve	Eucalyptus grandis - Flooded gum	Recycled eco pipe green - manufactured by BCM	18-9-2022
16	Tuan Environment Reserve	Eucalyptus grandis - Flooded gum	Plywood closed top painted, open front entrance - manufactured by BCM	18-9-2022

Table 2: Location of Nest boxes across survey area.

Sound recorders were installed at all locations where nest boxes were installed. In areas of multiple nest boxes in one area, one location nest box was selected to install the sound recorder. This also allowed sound capture of fly overs to identify Glossy Black Cockatoo's located in the area.

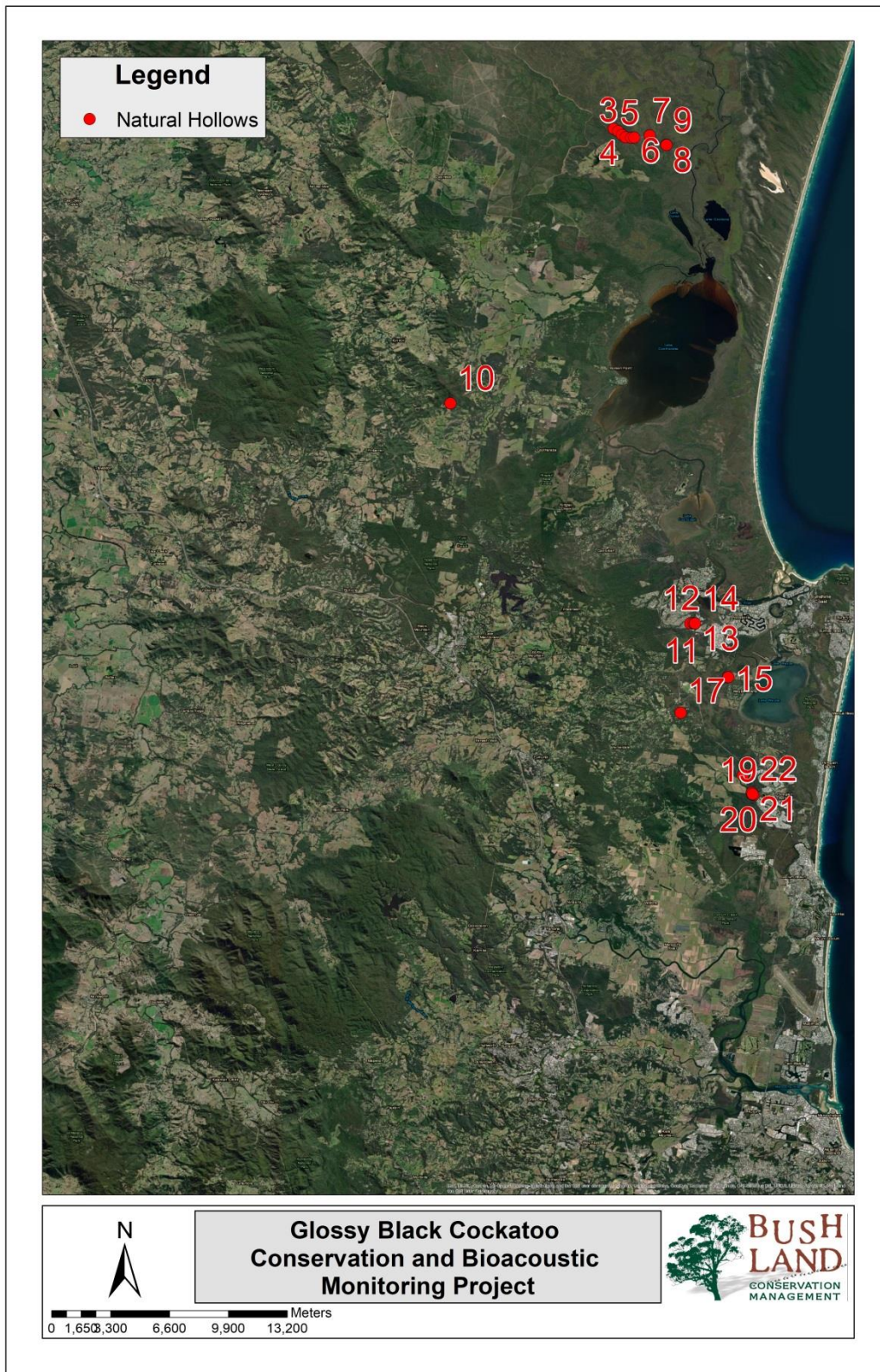


Figure 23: Location of Natural hollows adjacent to known Glossy Black Cockatoo locations.

ID	Location	Species	Number	Date
1	Great Sandy National Park - Cooloola Section Como	Eucalyptus tereticornis - Blue gum	1	16-9-2022
2	Great Sandy National Park - Cooloola Section Como	Corymbia intermedia - Bloodwood	1	17-9-2022
3	Great Sandy National Park - Cooloola Section Como	Eucalyptus tereticornis - Blue gum	1 Chimney	17-9-2022
4	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	1	17-9-2022
5	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	1	17-9-2022
6	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	1 Chimney	17-9-2022
7	Great Sandy National Park - Cooloola Section Como	Stag Tree	2	17-9-2022
8	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	1	17-9-2022
9	Great Sandy National Park - Cooloola Section Como	Eucalyptus racemosa - Scribbly gum	1	17-9-2022
10	Noosa Trail Network - Cootharaba	Eucalyptus microcorys - Tallowwood	1	17-9-2022
16	Weyba Nature Refuge	Eucalyptus racemosa - Scribbly gum	2	17-9-2022
15	Weyba Nature Refuge	Eucalyptus racemosa - Scribbly gum	1	17-9-2022
17	Grays Road Environment Reserve	Eucalyptus pilularis - Blackbutt	2	17-9-2022
11	Noosaville State School	Stag Tree	2	18-9-2022
12	Noosaville State School	Eucalyptus racemosa - Scribbly gum	2	18-9-2022
13	Noosaville State School	Stag Tree	3	18-9-2022
14	Noosaville State School	Corymbia intermedia - Bloodwood	1	18-9-2022
18	Doonan Creek Environment Reserve	Eucalyptus racemosa - Scribbly gum	4	17-9-2022
20	Doonan Creek Environment Reserve	Eucalyptus racemosa - Scribbly gum	3	17-9-2022
19	Doonan Creek Environment Reserve	Eucalyptus racemosa - Scribbly gum	1	17-9-2022
21	Doonan Creek Environment Reserve	Eucalyptus racemosa - Scribbly gum	1	17-9-2022
22	Doonan Creek Environment Reserve	Stag Tree	1	17-9-2022

Table 3 Location of natural hollows in areas with sightings of Glossy Black Cockatoos

During the project, areas were identified with the potential for Glossy Black Cockatoo nesting areas. Within these areas natural hollows were identified and recorded. In three locations sound recorders were installed. The three locations had water source and feed trees in close proximity.

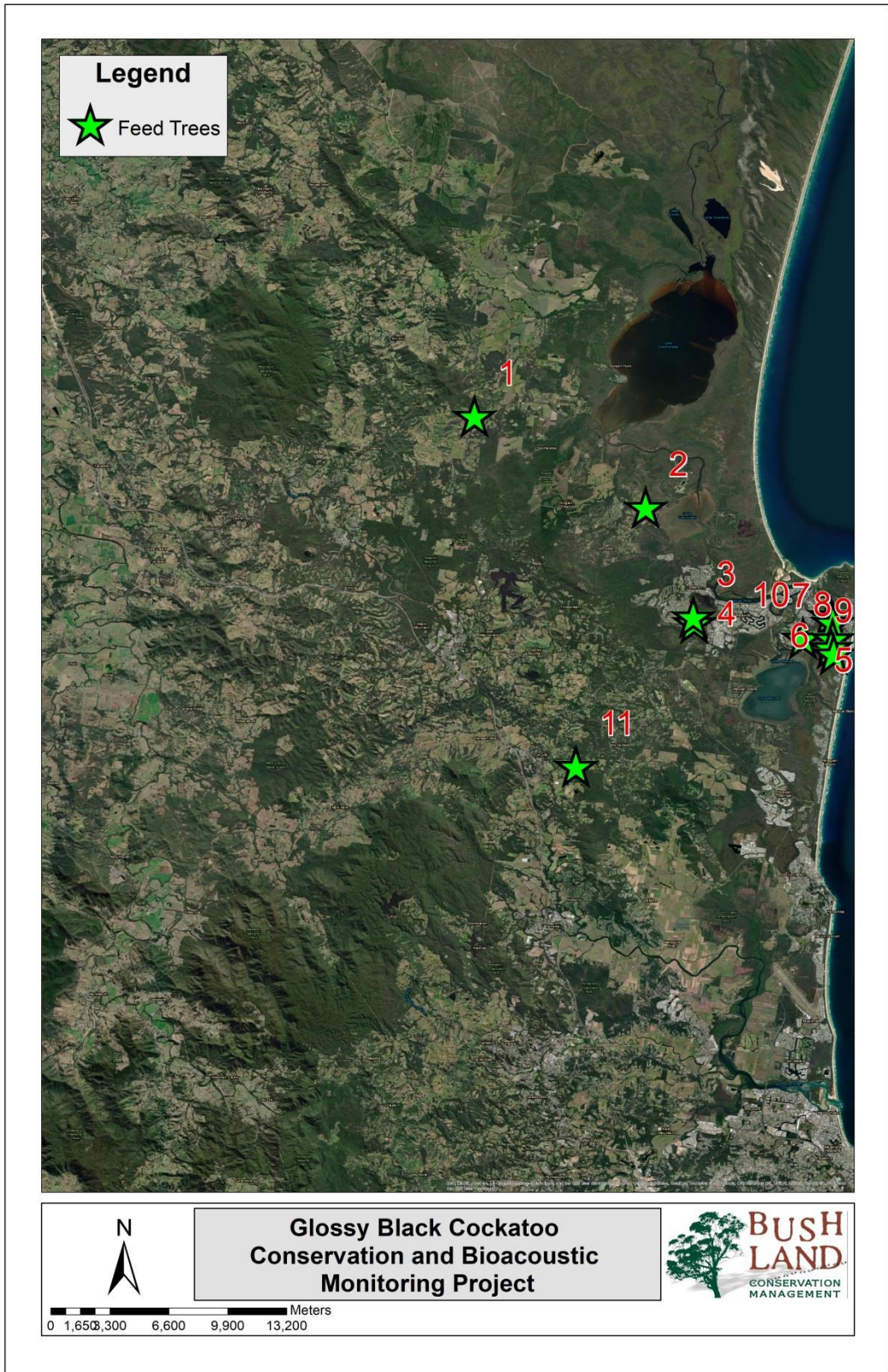


Figure 24: Location of feed trees in proximity of sound recorders

ID	Location	Species	Year	Area
10	Girraween Nature Refuge	Allocasuarina littoralis - Black she-oak	2021	500m2
5	Sunrise Beach - Bicentennial Drive	Allocasuarina littoralis - Black she-oak	2022	400m2
6	Sunrise Beach - Ben Lexcen Drive/Eenie Creek Road	Allocasuarina littoralis - Black she-oak	2022	500m2
7	Sunrise Beach - Reliance Park	Allocasuarina littoralis - Black she-oak	2022	200m2
8	Sunrise Beach - Comet Park	Allocasuarina littoralis - Black she-oak	2022	300m2
9	Sunrise Beach - Rainbow Park	Allocasuarina littoralis - Black she-oak	2022	500m2
4	Noosaville - Noosaville State School	Allocasuarina littoralis - Black she-oak	2021	1200m2
3	Lake Doonella Bushland Reserve	Allocasuarina littoralis - Black she-oak	2021	400m2
2	Cooroibah - Lake Cooroibah Road / Amaroo Place	Allocasuarina littoralis - Black she-oak	2022	200m2
11	Eumundi Conservation Park	Allocasuarina littoralis - Black she-oak	2021	400m2
1	Cootharaba - Cootharaba Road	Allocasuarina littoralis - Black she-oak	2021	200m2

Table 4 Location of feed trees located near sound recorders

Before the project commenced, areas were identified for possible viable feed areas for the Glossy Black Cockatoo from collected information and our own knowledge of the area. During the project, search areas around the sound recorders were expanded seeking orts and recording data.

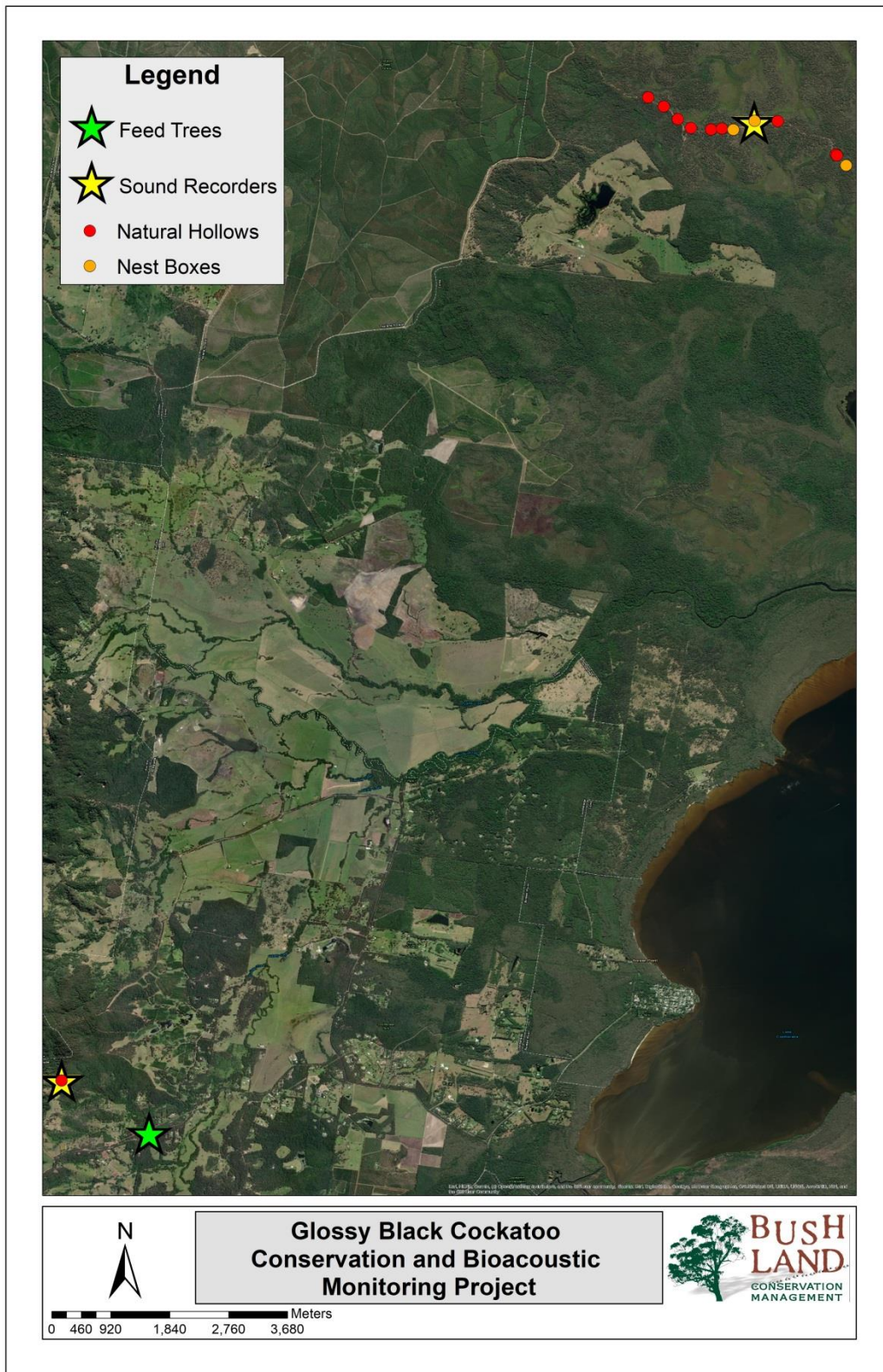


Figure 25: Como and Cootharaba locations

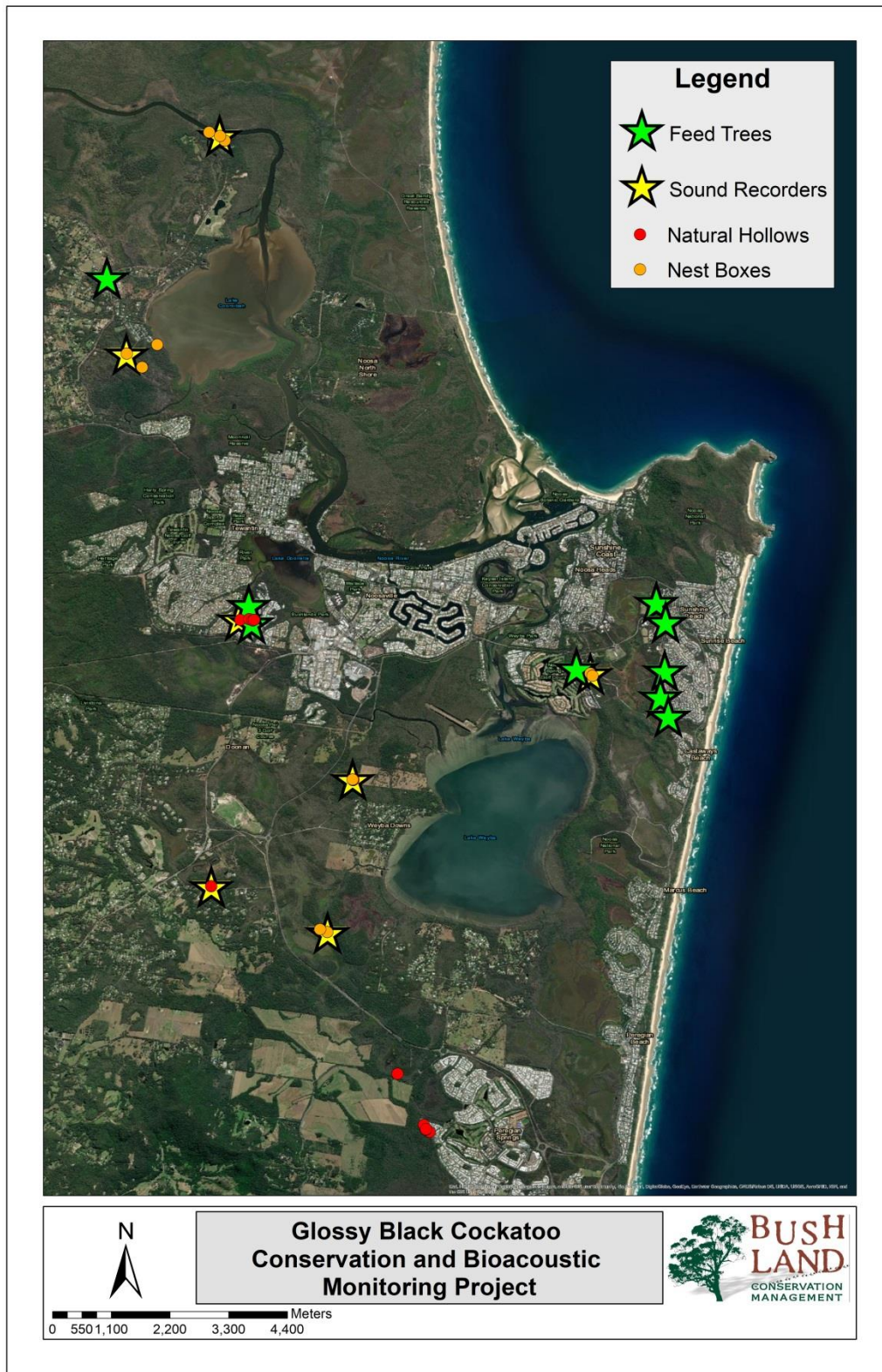


Figure 26: Cootharaba, Noosaville, Weyba Downs and Doonan locations

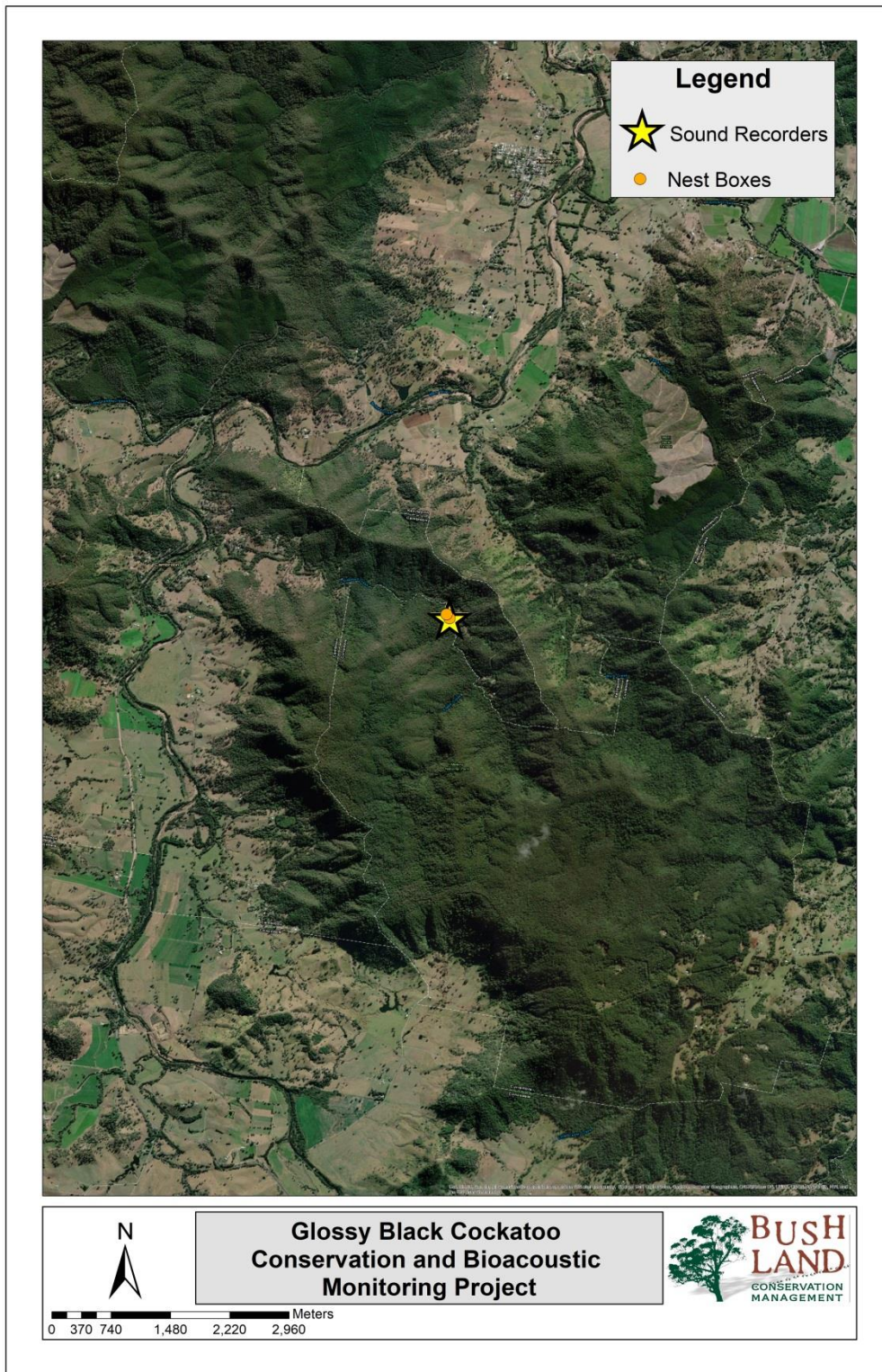


Figure 27: Cambronn location

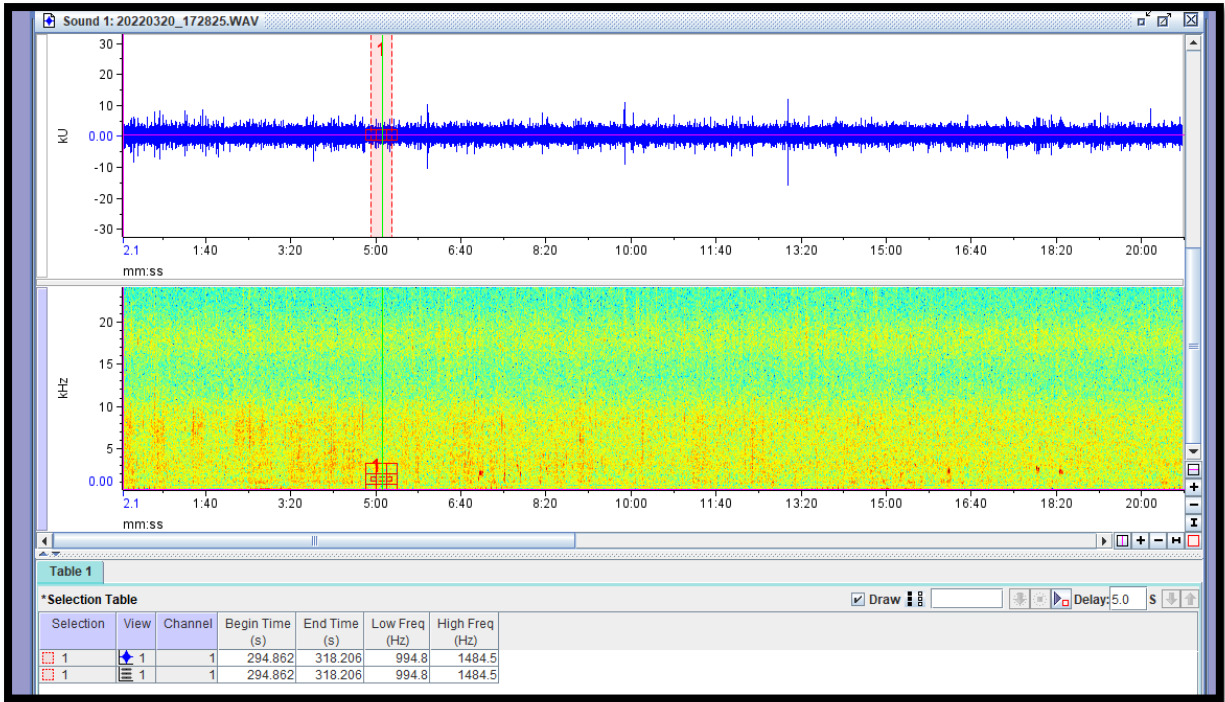


Figure 28 Sound file of a Glossy Black Cockatoo call

6. Wildnet Data Submission:

Submission records from 2021 (Wildnet)-

Collector	Start date	End date	Location	Latitude	Longitude	Datum	Precision (m)	Altitude (m)	Vegetation code	Landform code	Scientific name	Common name	Count	Count type	Age code	Sex code	Collection notes	Vetting code
Kim Morris	3/01/2021	3/01/2021	Tuan Environment Reserve Cambroon	-26.644298	152.715199	WGS84	100	145		STC	<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A			Fly over at evening roost time	C
Kim Morris	8/02/2021	8/02/2021	Eumundi Conservation Park	-26.488071	152.976231	WGS84	1000	197	WS	HSL	<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	5	A			Feeding in Allocasuarina littoralis - Geebung track	C
Kim Morris	11/02/2021	11/02/2021	King Creek Road, Eerwah Vale, QLD	-26.49386	152.9072	WGS84	100	96	ws		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A			Fly over 6.10am East to West	C
Kim Morris	4/03/2021	4/03/2021	12 King Creek Road, Eerwah Vale, QLD	-26.49386	152.9072	WGS84	100	96	WS		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A			Fly over 7am West to East	C
Kim Morris	3/08/2021	3/08/2021	Lake Weyba Drive, QLD	-26.421398	153.073099	WGS84	100			LAK	<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A			Fly over 6.45am Heading East	C
Kim Morris	15/08/2021	15/08/2021	Walli Mountain, Kenilworth, Qld	-26.627041	152.724862	WGS84	100		DTR		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A			Fly over 6.50am NE to SW	C
Kim Morris	15/08/2021	15/08/2021	Noosaville State School Qld	-26.407547	153.031543	WGS84	100		FD		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A	A	BO	Feeding in Allocasuarina littoralis - 4.30pm to 5.25pm	C
Kim Morris	15/08/2021	15/08/2021	Noosaville State School Qld	-26.40664	153.029441	WGS84	100		FD		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	1	A	NA	NA	Flew into roost with two others 5.30pm	C
Kim Morris	2/09/2021	2/09/2021	Noosaville State School Qld	-26.409326	153.028847	WGS84	100		FD		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A	A	BO	Feeding in Allocasuarina littoralis at the front of the school office 10.30am	C
Kim Morris	11/09/2021	11/09/2021	Noosaville State School Qld	-26.4067	153.0294	WGS84	100				<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	3	A	A	BO	5.30am 2 Adults 1 Fledgling Roosting and preening in Eucalyptus racemosa	C
Kim Morris	11/09/2021	11/09/2021	Noosaville State School Qld	-26.407	153.0323	WGS84	100				<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A	A	BO	7am Feeding pair	C
Kim Morris	11/09/2021	11/09/2021	Noosaville State School Qld	-26.4089	153.0309	WGS84	100				<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A	A	BO	11.10am Feeding pair	C

Collector	Start date	End date	Location	Latitude	Longitude	Datum	Precision (m)	Altitude (m)	Vegetation code	Landform code	Scientific name	Common name	Count	Count type	Age code	Sex code	Collection notes	Vetting code
Kim Morris	11/09/2021	11/09/2021	Noosaville State School Qld	-26.4067	153.0294	WGS84	100				<i>Calyptrorhynchus lathamii lathamii</i>	Glossy Black Cockatoo	7	A	A	BO	5.30pm Flying, Drinking and then roosting x 5 GBC + 2 continued to fly elsewhere	C
Kim Morris	12/09/2021	12/09/2021	Noosaville State School Qld	-26.4067	153.0294	WGS84	100				<i>Calyptrorhynchus lathamii lathamii</i>	Glossy Black Cockatoo	3	A	A	BO	5.30am 2 Adults 1 Fledgling Roosting and preening in Eucalyptus racemosa	C
Kim Morris	12/09/2021	12/09/2021	Noosaville State School Qld	-26.4062	153.03	WGS84	100				<i>Calyptrorhynchus lathamii lathamii</i>	Glossy Black Cockatoo	2	A	A	BO	5.30am 2 Adults roosting	C
Kim Morris	18/09/2021	18/09/2021	Chinaman Creek Road Cambroon	-26.64444	153.715383	WGS84	100				<i>Calyptrorhynchus lathamii lathamii</i>	Glossy Black Cockatoo	2	A	A	NA	5.30pm Flying west to east	C

Submission records from 2022 (Wildnet) -

Collector	Start date	End date	Location	Latitude	Longitude	Datum	Precision (m)	Altitude (m)	Vegetation code	Landform code	Scientific name	Common name	Count	Count type	Age code	Sex code	Collection notes	Vetting code
KIM MORRIS	29/01/2022	29/01/2022	Chinaman Creek Road Cambroon Tuan Environment Rseerve	-26.64444	153.715383	WGS84	100	145		STC	<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A	A	NA	2xGBC Fly over 6.10pm SE to NW	C
KIM MORRIS	15/02/2022	15/02/2022	Ben Lexcen Drive Sunrise Beach	-26.409298	153.100911	WGS84	100	36	FD		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	1	A	NA	NA	1xGBC fly over 6.05pm heading NW	C
KIM MORRIS	17/03/2022	17/03/2022	Mary Street Noosaville	-26.2419152	153.35438	WGS84	100	56	NV		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A	NA	NA	2XGBC Fly over 4.30pm NE to SW	C
KIM MORRIS	26/03/2022	26/03/2022	Eumundi Noosa Road Noosaville		153.034684	WGS84	100	37	HH		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	1	A	NA	NA	1X GBC fly over E to West	C
KIM MORRIS	30/04/2022	30/04/2022	12 King Creek Road Eerwah Vale	-26.49399	152.907414	WGS84	100	78	FA		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	2	A	NA	NA	2xGBC fly over West to East	C
KIM MORRIS	12/05/2022	12/05/2022	Cooyar Street Noosa	-23.405343	153.090913	WGS84	100		UV		<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo	1	A	NA	NA	1Xgbc DEAD- HIT BY CAR FOUND ON ROAD	C

7. Risk Assessment:

	1-1-2021 – 01-09-22		BUSHLAND CONSERVATION MANAGEMENT	Client Contact	NOOSA BIOSPHERE		
Weather	VARIABLE						
Site Location	Noosa, Sunshine Coast, Gympie		Management Area	Various	Start Time	5:00am	Finish Time 8:00pm
Job Description	<input type="checkbox"/> Bush Regeneration Planting Activities	<input type="checkbox"/> Weed Control Manual Removal	<input type="checkbox"/> Weed Control Chemical Application	<input type="checkbox"/> Vegetation Maintenance Felling/Pruning	<input checked="" type="checkbox"/> Other		
Identified Hazard	<input checked="" type="checkbox"/>						
Control Measures	<input checked="" type="checkbox"/>						
Check off those hazards that apply to this site	<input checked="" type="checkbox"/> Working in isolated or remote areas	<input checked="" type="checkbox"/> Mobile phone	<input checked="" type="checkbox"/> Two way radio	<input checked="" type="checkbox"/> Regular check-in	<input checked="" type="checkbox"/> Work in pairs	<input checked="" type="checkbox"/> Emergency plan	
	<input checked="" type="checkbox"/> Outdoor work & work in public spaces	<input checked="" type="checkbox"/> Sun safe clothing	<input checked="" type="checkbox"/> Water and Amenities	<input checked="" type="checkbox"/> Take breaks in the shade	<input checked="" type="checkbox"/> First aid kit	<input type="checkbox"/> Exclude public from site – barriers/cones	
	<input checked="" type="checkbox"/> Driving - water crossings, rough, uneven ground	<input checked="" type="checkbox"/> Drive to the conditions	<input checked="" type="checkbox"/> Do not cross flowing waterways	<input checked="" type="checkbox"/> Walk the water route	<input checked="" type="checkbox"/> Recovery equipment	<input checked="" type="checkbox"/> Work in pairs	
	<input checked="" type="checkbox"/> Work surfaces - risk of slips, trips or falls	<input checked="" type="checkbox"/> Walk the site and identify potential hazards	<input checked="" type="checkbox"/> Discuss hazards with team before work starts	<input checked="" type="checkbox"/> Choose an alternate site access	<input checked="" type="checkbox"/> Clear hazards and obstacles from site	<input checked="" type="checkbox"/> Wear appropriate footwear	
	<input checked="" type="checkbox"/> Manual handling and manual excavation	<input checked="" type="checkbox"/> Move smaller loads/Team lift – two or more lift together	<input checked="" type="checkbox"/> Rotate the task to reduce fatigue – share the heavier work around	<input checked="" type="checkbox"/> Use mechanical aids before manual handling	<input checked="" type="checkbox"/> Use appropriate light weight hand tools	<input type="checkbox"/> Establish exclusion zones around open holes and excavations	
	<input checked="" type="checkbox"/> Using powered tools - brush cutters, whippers, blowers, chainsaws etc.	<input checked="" type="checkbox"/> Use the most appropriate tool for the task	<input checked="" type="checkbox"/> Induction/training for use	<input checked="" type="checkbox"/> Rotate the task to reduce fatigue – share the heavier work around	<input checked="" type="checkbox"/> Use correct PPE	<input checked="" type="checkbox"/> Check maintenance of plant and equipment	
	<input checked="" type="checkbox"/> Felling and pruning trees	<input checked="" type="checkbox"/> Assess the tree and associated hazards	<input checked="" type="checkbox"/> Use trained competent operators	<input checked="" type="checkbox"/> Check maintenance of plant and equipment	<input checked="" type="checkbox"/> Set up exclusion zones, signs and spotters	<input checked="" type="checkbox"/> Clean up and make safe at end of the job	
	<input type="checkbox"/> Working with and around powered mobile plant and vehicles	<input type="checkbox"/> Licensed competent operators	<input type="checkbox"/> Hi visibility work wear when working close to plant	<input type="checkbox"/> Wear hard hat when working close to mobile plant	<input type="checkbox"/> Exclusion zones- set up signs and spotters	<input type="checkbox"/> Use a spotter to maintain safe exclusion zone around moving plant	



	<input type="checkbox"/> Hazardous chemicals application - spraying, wick wiping, cut and paint etc.	<input type="checkbox"/> Trained licensed operator, supervise any unlicensed operators	<input type="checkbox"/> Follow procedures for Transport, Mixing, Storage of Chemicals	<input type="checkbox"/> Correct distribution method/procedures	<input type="checkbox"/> Use prescribed PPE	<input type="checkbox"/> MSDS on site
	<input checked="" type="checkbox"/> Animals / Insects (attacks/bites/stings) <input checked="" type="checkbox"/> Plants (Scratches/Stings/Punctures)	<input checked="" type="checkbox"/> Walk the site and identify potential hazards- tell others	<input checked="" type="checkbox"/> Long sleeve shirt and trousers/work gloves/boots	<input checked="" type="checkbox"/> Apply insect repellent	<input checked="" type="checkbox"/> First aid kit	<input checked="" type="checkbox"/> Conduct regular body and clothing checks for insects
	<input checked="" type="checkbox"/> Public safety on site	<input checked="" type="checkbox"/> Keep pathways clear of debris and equipment	<input checked="" type="checkbox"/> Be aware of public on site and being Courteous at all times	<input checked="" type="checkbox"/> Stop work on machinery when public approaches and departs work area	<input checked="" type="checkbox"/> Ensure vegetation is not cut down when public approaches	<input type="checkbox"/> Stop spraying activities when public approaches and departs work area
Other hazards and control measures – use this section for hazards not identified above						
Hazard: Novel Coronavirus (COVID-19)			<p>Controls: All staff will remain 1.5 metres apart with other staff members. All staff will remain 1.5 apart from community contact and instruct community members to stay 1.5 metres apart. Frequent hand washing (if you touch something on the vehicle wash your hands afterwards) Avoid contact with others, including through shaking hands, and covering their Mouths while coughing or sneezing, wash hands after coughing, sneezing, eating and touching face etc.</p>			
Hazard: Steep slopes			Controls: Ensure secure footings. Do not walk below other crew members.			
Hazard: Isolation			Controls: Ensure visual contact and communication via two way radio.			
Site Induction Record						
IMPORTANT: With my name below on this document I declare the following: I am not impaired by the effects of alcohol or drugs; and I have participated in the risk assessment process and agree to abide by all control measures listed in this document.						
Project Leader Name: Kim Morris			Name: Joel Morris			

8. Project Team:



Figure 28 Project Team Members - Joel and Kim Morris Bushland Conservation Management



Figure 29: Dr Daniella Teixeira Wildlife Conservation Biologist