



Roads &  
Maritime

# **Woolgoolga to Ballina Pacific Highway Upgrade Phased Resource Reduction for Koala Laws Point – phase 2**

July 2017

Woolgoolga to Ballina Pacific  
Highway Upgrade Phased  
Resource Reduction for Koala –  
Laws Point phase 2 report.



Sandpiper Ecological

1/94 Main Street  
Alstonville

Final Report – Version 3

4 July 2017

## Document Review

Date	Version	Status	Sent to	Represent	Delivered Format	Dispatched By
8/6/2017	1	Draft	S. Wilson	Pacific Complete	MSW	D. Rohweder
4/7/2017	2	Draft	B. Taylor	Sandpiper	MSW	D. Rohweder

## Document Distribution

Date	Version	Status	Sent to	Represent	Delivered Format	Dispatched By
5/6/2017	3	Final	S. Wilson	Pacific Complete	MSW	D. Rohweder

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Cover Photo: Adult koala, Munro Wharf Road, Tucki Tucki scat collection control site.

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# 1. Introduction

The Woolgoolga to Ballina (W2B) Pacific Highway Upgrade Koala Management Plan proposed a staged approach to clearing in two koala hotspots in Section 10 of the upgrade. Koala hot-spots are situated at Laws Point and Wardell Road. The staged approach is referred to as ‘phased resource reduction’ (PRR) and involves the gradual reduction of food resources by ring-barking and collaring trees to facilitate the voluntary movement of koalas into adjacent habitat. The PRR method aims to reduce stress-induced impacts associated with clearing activities for the new alignment. The project also involves population surveys to monitor koala numbers throughout the PRR process. Due to logistical issues the PRR program has been staged with work commencing at Laws Point prior to Wardell Road. Sandpiper Ecological (Sandpiper) has been contracted by Pacific Complete to implement the PRR program.

The program includes five phases:

- Phase 1 (Wks 1-3): Tag and map all trees to be collared/ring-barked and undertake six population surveys.
- Phase 2 (Wks 4-5): Collar 40%, ring-bark 20% of trees with continuous canopy to feed trees, ring-bark non-collared trees (DBH 100-300mm), and conduct two population surveys.
- Phase 3 (Wks 6-7): Collar a further 40% of trees, continue ring-barking non-collared trees (DBH 100-300mm), and conduct two population surveys.
- Phase 4 (Wks 8-10): Collar the remaining 20% of trees, finalise ring-barking, and conduct two population surveys.
- Phase 5 (Wks 11-17): Following clearing of the hotspot site undertake eight population surveys.

The following report details the results of Phase 2 of the PRR program at the Laws Point hotspot site and builds upon information contained in the Phase 1 report (Sandpiper Ecological 2017). Phase 2 occurred from 22 May to 4 June 2017.

## 2. Study area

Laws Point is located approximately five kilometres south west of the town of Wardell on the New South Wales north coast. Access to the site is via Back Channel Road following the northern bank of the Richmond River. The study site stretches north from the Richmond River for one kilometre and encompasses chainages 146 000 to 147 000 of the Woolgoolga to Ballina (W2B) Pacific Highway Upgrade. The survey area includes the subject site – section of W2B alignment between the abovementioned chainages, and study area – vegetation adjoining the subject site that contains 12, 1km long koala survey transects.

## 3. Methods

### 3.1 Tree collaring

Phase 2 requires that 40% of trees with a Diameter at Breast Height (DBH) of >300mm have 600mm wide collars installed between one and two meters above ground. Collars were made of 1.5mm thick High Density Polyethylene (HDPE). HDPE was used as it is lightweight, has a slippery surface, can withstand punctures, is UV stabilised, and is easy to cut and handle in a field situation. Collar size was determined for each tree by measuring the circumference at 1m (hollow-bearing trees) or 2m (non-



hollow-bearing trees) above ground. A three-step ladder was used to install collars at 2m (Plate 1). An additional 100mm was added to each circumference to allow for imperfections in the trunk and to provide loose fit (Plate 2). Collars were attached using three or four 50-60mm screws. Each tree was inspected for koalas prior to collar installation. Collars were installed loosely around trunks to provide an unstable surface and act as an additional deterrent to fauna. Phase 2 collaring was undertaken between 22 and 26 May 2017.



**Plate 1:** Procedure used to install collars at the Laws point koala hot-spot site.



**Plate 2:** Example of a loosely fitted collar with a gap around the trunk to reduce a koalas grip on the collar.

### 3.2 Ring-barking

During Phase 2 20% of trees that had a continuous canopy to primary and secondary koala feed trees and trees with a DBH between 100 and 300mm were ring-barked. As recommended in the Phase 1 report the proportion of continuous canopy trees ring-barked was increased to 50% to provide a more robust sample. Due to the proximity of most feed trees to retained vegetation or the LoC boundary only three additional continuous canopy trees were added to the 10 identified in the Phase 1 report.

Ring-barking was undertaken by Blue Knob Tree Fellas and Sandpiper Ecological and was undertaken using a chainsaw and axe. Tree were ring-barked by making two parallel cuts, approximately 100mm apart in the trunk. Bark and sapwood was then removed with an axe. The depth of chainsaw cuts varied depending on trunk diameter. Trees with a DBH between 100 and 150mm had bark only removed, with the sapwood left intact. This was done due to concern about the stability of small trees if sapwood was removed. An aggressive approach was adopted to ring-barking trees between 150 and 300mm DBH and continuous canopy trees to maximise the likelihood of defoliation with the 6-week period between Phase 2 and clearing (Plate 3). Ring-barking was undertaken between 22 and 26 May 2017.



**Plate 3:** A ring-barked and collared continuous canopy tree at Laws Point.

### 3.3 Koala population monitoring

Twelve, parallel, 1km transects were sampled to monitor koala population size and distribution. There was approximately 50m between parallel transects. The alignment of each transect was marked with flagging tape and reflective tape at regular intervals using a hand-held GPS to determine transect location. To reduce confusion between transects red and silver reflective tape was alternated



between transects and the transect number written on the tape. Start and end points of each transect were marked with two pieces of flagging tape.

### 3.3.1 Koala surveys

One paired (diurnal & nocturnal) koala population monitoring survey was conducted in Phase 2 and follows on from the three diurnal, and three nocturnal koala population monitoring surveys conducted in phase 1 (Sandpiper Ecological 2017). Nocturnal surveys preceded diurnal surveys, which were conducted on the following day. Surveys were completed by two teams of three with one team sampling transects 1-6 and the other transects 7-12 during the night and subsequent day survey. Each team consisted of one person walking the transect centre line flanked by a person 20m away on each side. Nocturnal surveys were conducted with handheld spotlights (Led Lenser P14) and all personnel were equipped with binoculars for both nocturnal and diurnal surveys. Each 1km transect took between 45 and 60 minutes to complete. The Phase 2 population survey was conducted on 31 May and 1 June 2017. Phase 1 population surveys were conducted on 23 and 24 March, 18 and 19 April, and 26 and 27 April 2017.

Data recorded during each survey included; date, survey number, observer names, start and end time, temperature range, cloud cover, wind, rain and moon phase. Data collected on each koala observed included: date, time, transect number, coordinates (easting & northing GDA 94), tree species including DBH, temperature, weather, sex, breeding status, and health (i.e. signs of conjunctivitis or wet bottom). Each tree with a koala was marked with red and white tape so it could be re-located the following day.

### 3.3.2 Scat collection

Koala scats were collected at Laws Point (impact site) and Tucki Tucki (control site) following each diurnal survey. At Laws Point, each tree containing a koala, or where a koala was recorded the previous night, was revisited and a search conducted for fresh koala scats. Fresh scats were identified by their colour (paler green) and presence of a moist coating. Scats were subsequently collected from the same number, and if possible same sex ratio, of koalas at Tucki Tucki. The Tucki Tucki site was visited on the afternoon following the diurnal koala survey at Laws Point and trees containing suitable koalas were marked. These trees were revisited the following morning and fresh scats collected. Where possible, between five and six scats were collected from each koala and scat collection was conducted during dry weather. Scat collection on 24 and 25 March was affected by rain.

Data recorded at each scat collection site included; location (easting & northing GDA 94), tree species, weather (temperature, cloud cover, rainfall), time since last sunny day, tree size, koala behaviour, koala health, date, and observer. Scats were collected with a toothpick and placed immediately into a Styrofoam block positioned in a plastic container (Plate 4). Scats were then stored in a cool dry location for 2-3 weeks before being placed in a paper bag and sent to Sydney University for analysis.



**Plate 4:** Scats being collected at the Tucki Tucki control site.

## 4. Results

### 4.1 Collaring

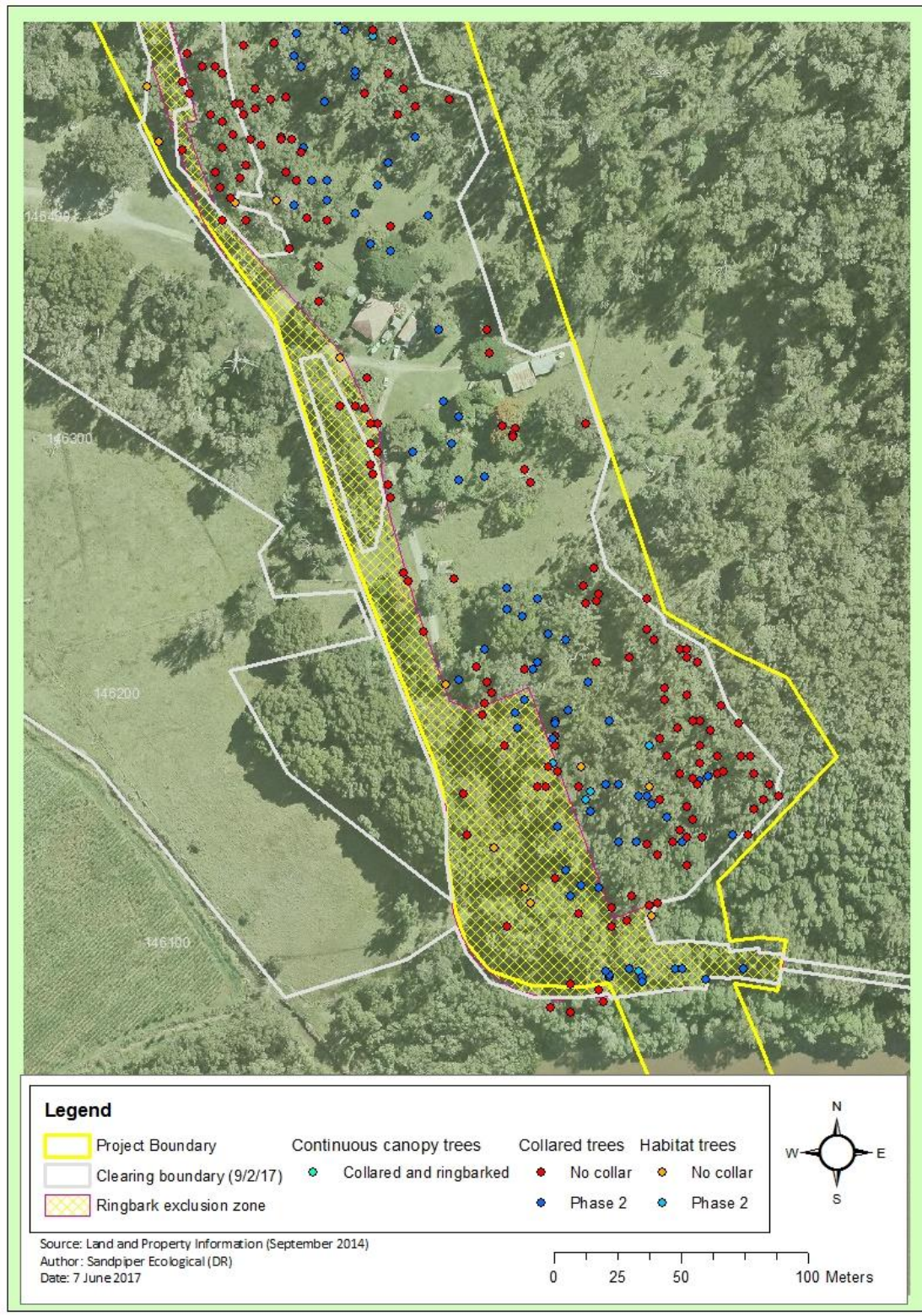
A total of 245 trees containing 282 stems were collared in Phase 2 (Figures 1-3). This equates to 39% of trees to be collared. Fourteen habitat trees and 231 non-habitat trees were collared. No koalas were recorded during tree collaring in Phase 2. Collaring commenced in the centre of the alignment and extended from chainage 146000 to 146900. An attempt was made to evenly distribute collaring throughout the central portion of the alignment, however, more trees were collared in the Swamp Forest between chainages 146 650 and 146 750 than elsewhere. This occurred due to the density of trees in that vegetation community. Three additional, previously unmarked, collared trees and six additional, previously unmarked, habitat trees were identified and collared during Phase 2. This brings the total number of trees to be collared at Laws Point to 635.

### 4.2 Ring-barking

Thirteen trees with continuous canopy to feed trees, comprising all continuous canopy trees that could be ring-barked, and all trees with a DBH between 100-300mm were ring-barked in Phase 2 (Figure 2). The number of continuous canopy trees that could be ring-barked was limited by proximity of these trees to the outer LoC boundary or retained vegetation boundary and the final number ring-barked was 13.

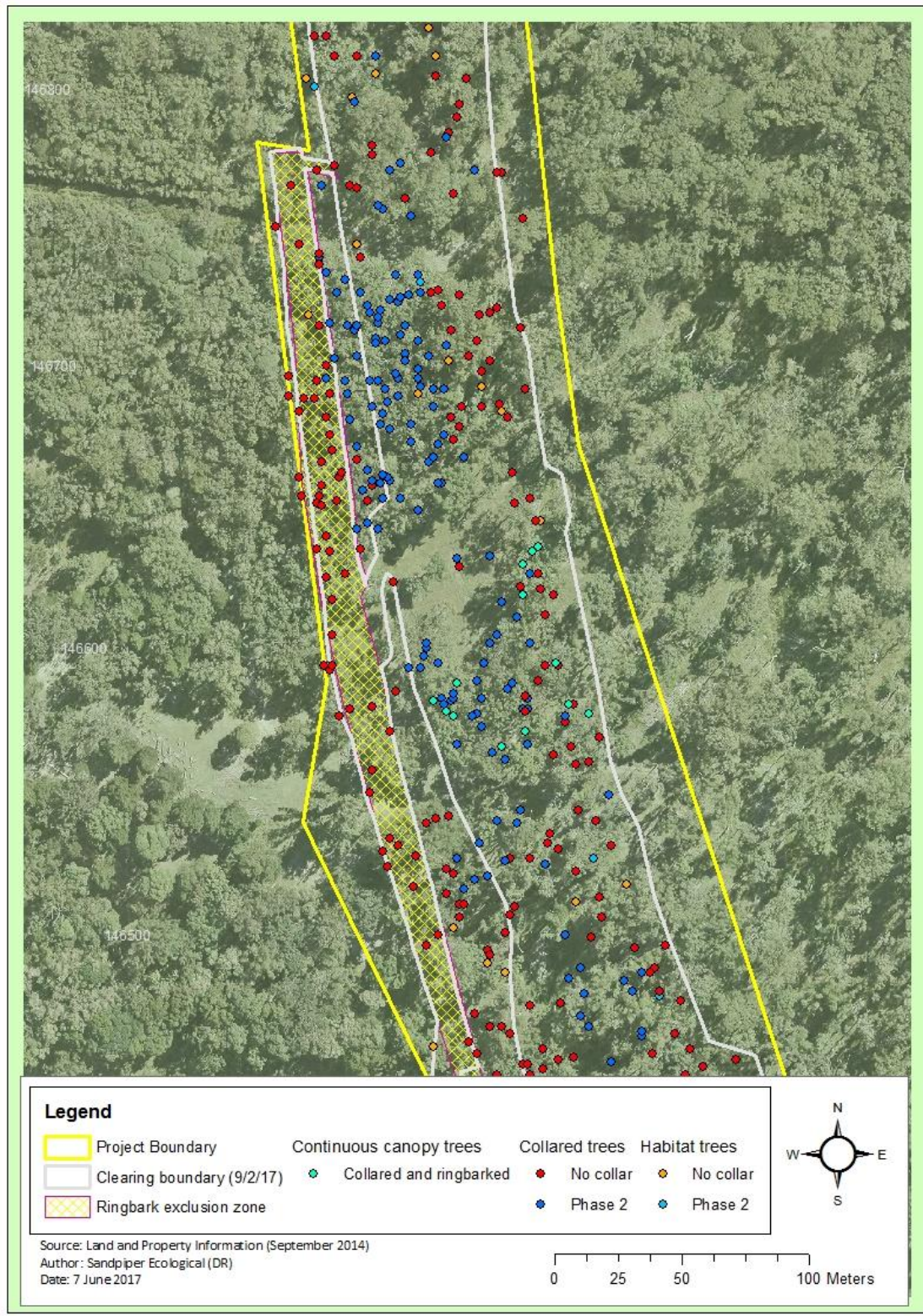
No trees were ring-barked within 10m of the LoC boundary. Five trees with a DBH <200mm were deemed unsound following initial cuts and were subsequently felled. Approximately five trees with a DBH <200mm fell over during strong winds between 31 May and 3 June. A small number of trees with a DBH <300mm situated in a flooded depression were not ring-barked. These trees will be collared during Phase 4 of the project.





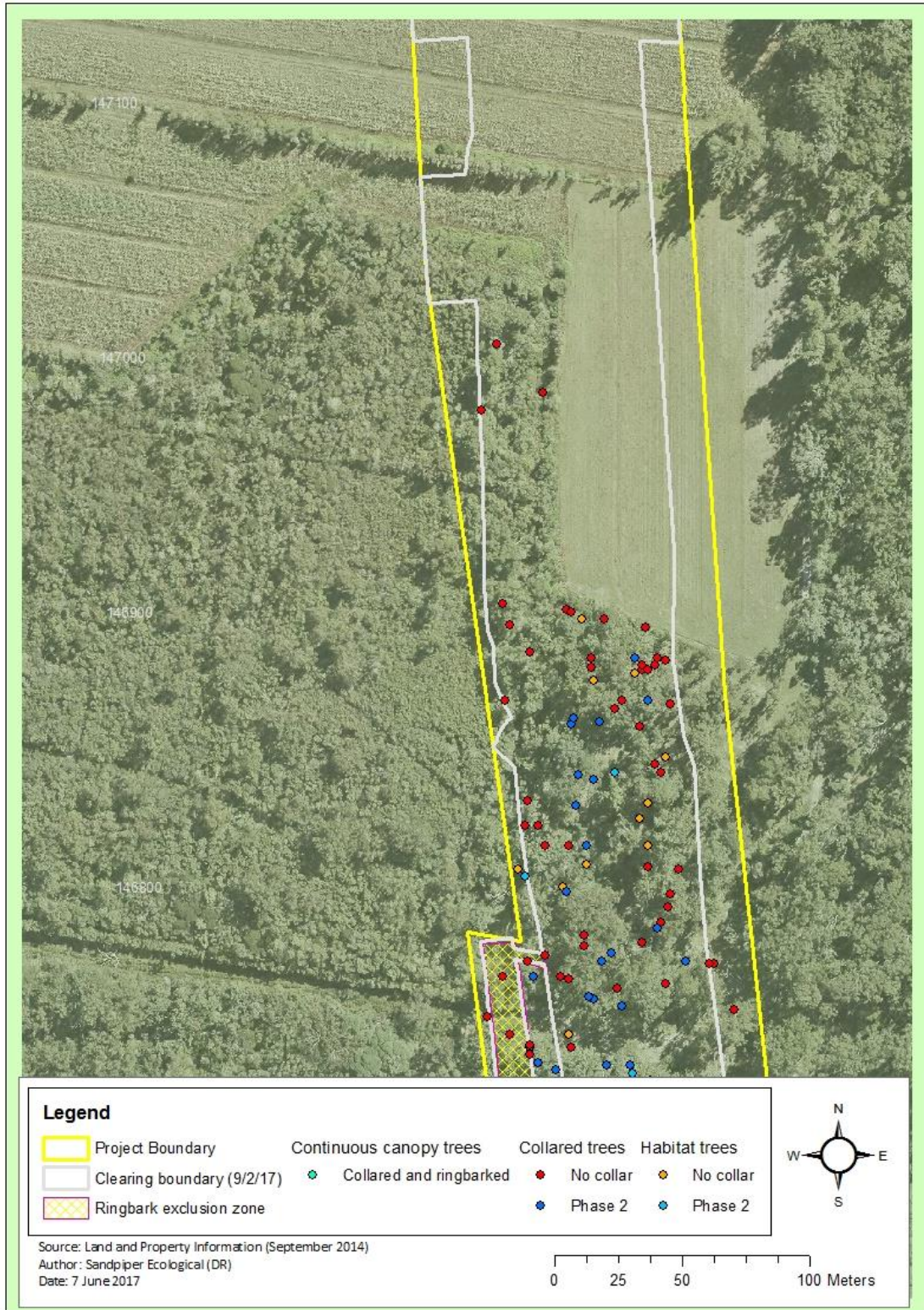
**Figure 1:** Distribution of collared trees (DBH >300mm), habitat trees, and collared and ring-barked trees within the Laws Point site. Blue dots signify trees that were collared during Phase 2. Red and orange dots signify trees that will be collared in later phases.





**Figure 2:** Distribution of collared trees (DBH >300mm), habitat trees, and collared and ring-barked trees within the Laws Point site. Blue dots signify trees that were collared during Phase 2. Red and orange dots signify trees that will be collared in later phases.



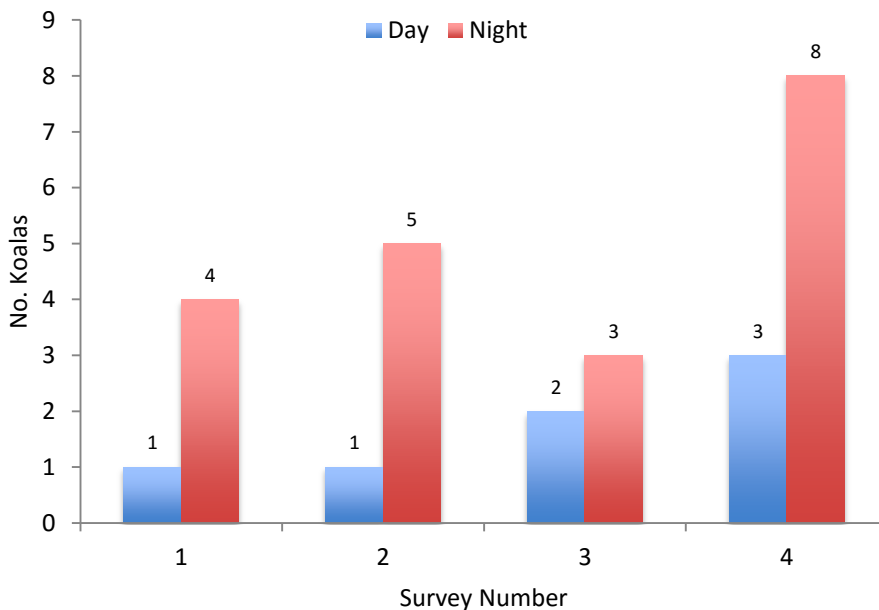


**Figure 3:** Distribution of collared trees (DBH >300mm), habitat trees, and collared and ring-barked trees within the Laws Point site. Blue dots signify trees that were collared during Phase 2. Red and orange dots signify trees that will be collared in later phases.

### 4.3 Koala population surveys

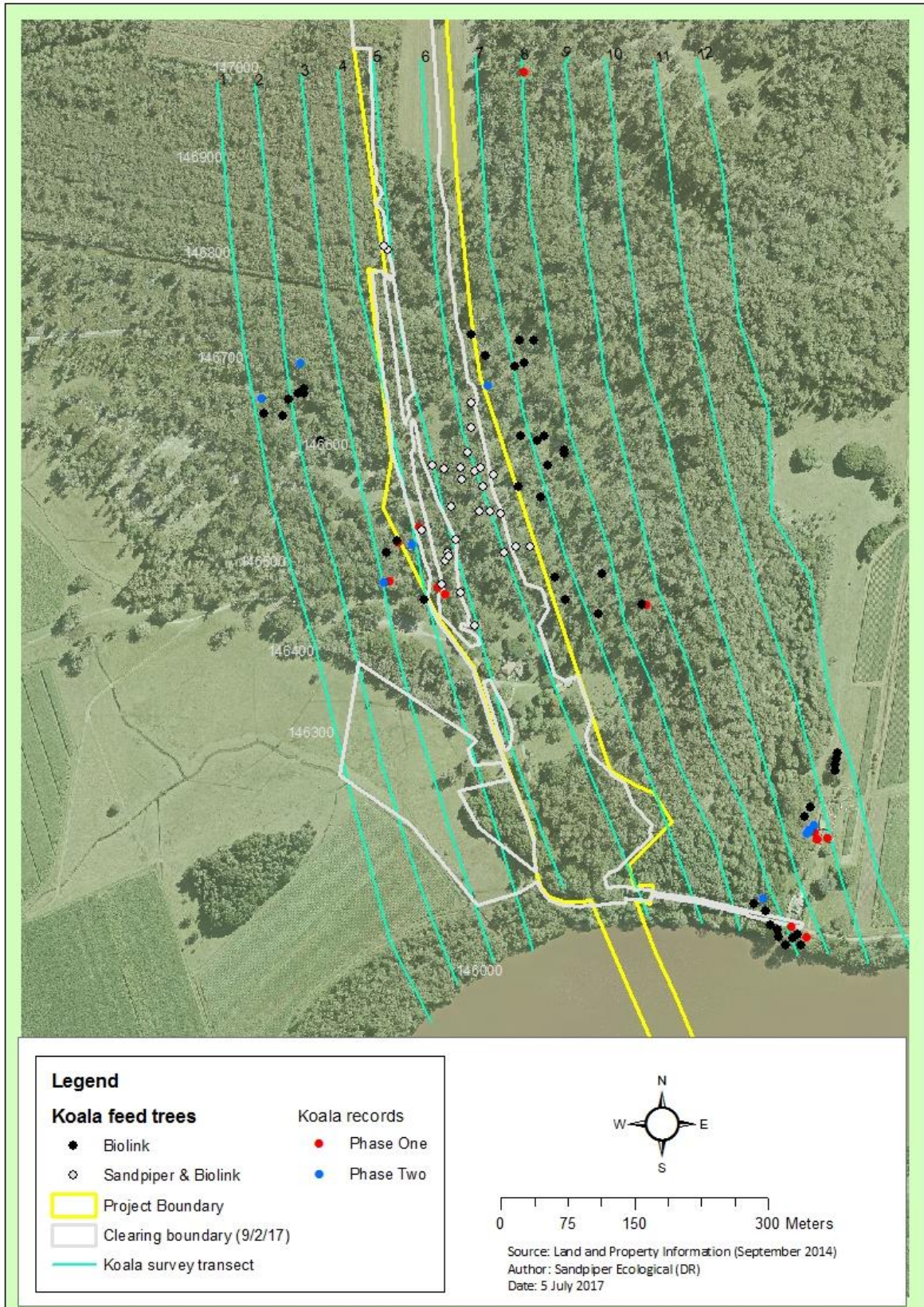
Phase 2 koala population surveys were conducted on 31 May and 1 June 5, 2017. A total of 11 koalas, comprising at least eight individuals were recorded (Figure 4). Eight koalas were recorded during the night survey and three during the day survey (Table 1). No individuals were recorded inside the Limit of Clearing (LoC) boundary, although one (probable) male was recorded inside the project boundary on the west side (approximate chainage 146 500) and one male was recorded just outside the project boundary on the east side (approximate chainage 146 620) (Figure 5). No koalas were recorded in collared or ring-barked trees. Koalas were recorded near the cluster of Phase 1 records near Ken Laws house and on the west side of the alignment between chainages 146400 and 146500 (Figure 5). A single male (record #22) was recorded on the east side of the alignment near chainage 146650. Two individuals (K19 & K21) were recorded on the far western side of the study area on transects one and two (Figure 5).

A total of 27 koala records have been made during the four paired (day & night) population surveys. Twenty records have occurred at night, and seven during the day. During phase 2, two ear-tagged individuals were recorded, a male near the eastern LoC boundary and a female north of Ken Laws house. That female and an independent sub-adult, suspected to be the previous year's young, were recorded in the same tree. All individuals recorded in Phase 2 appeared healthy, although K15 had an obvious brown bottom, indicative of possible cystitis infection. Weather conditions during the Phase 2 population survey are summarised in Table A3, Appendix A.



**Figure 4:** Number of koalas recorded during paired day and night surveys during phase 1 (surveys 1-3) and phase 2 (survey 4) at Laws Point.





**Figure 5:** Distribution of koala records obtained during phase 1 (baseline) surveys at the Laws Point site.

**Table 1:** Koalas recorded during Phase 1 and 2 population surveys at Laws Point. Poss = possible

Date	Record No.	Same individual	D/N	Time	Phase	Transect	Easting	Northing	Tree sp.
23/3/2017	K1	K6poss	N	2050	One	11	542987	6792428	Forest red gum
23/3/2017	K2	K8poss	N	2115	One	10	542960	6792322	Forest red gum
23/3/2017	K3		N	2234	One	9	542798	6792683	Tallowwood
23/3/2017	K4		N	2128	One	4	542542	6792770	Tallowwood
24/3/2017	K5	K2	D	1240	One	10	542978	6792310	Forest red gum
18/4/2017	K6		N	1805	One	11	542989	6792420	Forest red gum
18/4/2017	K8		N	1805	One	11	542989	6792420	Forest red gum
18/4/2017	K10		N	2230	One	8	542660	6793281	Small-fruited grey gum
18/4/2017	K7		N	2114	One	3	542509	6792709	Swamp Mahogany
18/4/2017	K9		N	2118	One	4	542571	6792695	Forest red gum
19/4/2017	K12	K8	D	1020	One	11	542989	6792420	Forest red gum
26/4/2017	K14	K8	N	1750	One	11	543002	6792421	Forest red gum
26/4/2017	K11		N	1907	One	5	542563	6792703	Tallowwood
26/4/2017	K13		N	2000	One	4	542519	6792753	Pink bloodwood
27/4/2017	K11.1	K11	D	1144	One	5	542563	6792703	Tallowwood
27/4/2017	K13.1	K13	D	2000	One	4	542519	6792753	Pink bloodwood
31/5/17	K16	K6	N	1744	Two	11	542985	6792436	Forest red gum
31/5/17	K18	K8	N	1744	Two	11	542985	6792440	Forest red gum
31/5/17	K20		N	2053	Two	9	542929	6792353	Forest red gum
31/5/17	K22		N	2207	Two	6	542619	6792929	<i>E. patentevensis</i>
31/5/17	K15		N	1841	Two	4	542534	6792751	Tallowwood
31/5/17	K17		N	2011	Two	3	542503	6792708	Swamp Mahogany
31/5/17	K19		N	2105	Two	2	542409	6792955	Red Mahogany
31/5/17	K21		N	2144	Two	1	542365	6792915	Swamp Mahogany
1/6/17	K16	K6	D	1115	Two	11	542932	6792430	Blackbutt
1/6/17	K18	K8	D	1115	Two	11	542932	6792434	Blackbutt
1/6/17	K17.1	K17	D	1301	Two	3	542503	6792708	Swamp Mahogany

#### 4.4 Koala scat collection

Koala scats were collected from six individuals at Laws Point and eight individuals at the Tucki Tucki control site (Table A3, Appendix A). Eighteen scat samples collected during Phase 1 were sent to Sydney University for analysis on 1 June 2017 and 14 samples collected in Phase 2 were sent on 4 July.



## 5. Discussion

Phase 2 of the koala PRR program at Laws Point was completed with no obvious impacts on koalas. No koalas were encountered during tree collaring and no koalas were recorded in collared trees during the subsequent population survey. The fourth koala population survey provides further evidence that koalas are more readily detected at night. Population survey results must be interpreted in the context of systematic transect surveys, and are not directly comparable to selective diurnal inspections of feed trees. During targeted surveys substantially more time can be allocated to each feed tree than during systematic transect surveys. For example, during collaring two observers inspected each tree for 1-2 minutes with more time spent on feed trees and in areas where koalas have been previously recorded.

The higher number of koalas recorded during the Phase 2 population survey is not attributed to positive or negative effects of the PRR program, rather normal movement of individuals within their home ranges. The Phase 2 survey further confirms use of large forest red gums (*Eucalyptus tereticornis*) on transects 10-12 by three individuals, and the use of a cluster of tallwoods (*E. microcorys*), forest red gums and *E. patentinervis* on the western side of the alignment near chainage 146500. Some of these trees are situated within retained vegetation inside the LoC boundary and others are situated west of the LoC boundary. A single male koala recorded on the east side of the alignment is consistent with two previous records on the western side of the ridge (transects 7, 8 and part of 9). The two koalas observed on transects one and two may not have been recorded during previous surveys and their occurrence is attributed to normal movement within a home range.

Trees collared and ring-barked during Phase 2 are not known to support koalas and Phase 2 collaring was unlikely to affect access to feed or shelter trees. As a consequence, impacts on koala stress levels from Phase 2 are predicted to be negligible. The decision to commence collaring in the central section of the alignment is predicted to have reduced impacts as exclusion from feed and/or shelter trees will occur over several weeks.

# Appendix A – Survey data

**Table A1:** Collared trees identified in the Laws Point study area. CDT = co-dominant trunk

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
10/3/17	NP/SR	1	Red Mahogany	0542553	6793180	390	1.23	x3	No collar
10/3/17	NP/SR	2	Blackbutt	0542549	6793168	610	1.90		P2
10/3/17	NP/SR	3	Blackbutt	0525420	6793175	605	1.89		P2
10/3/17	NP/SR	4	Blackbutt	0542552	6793163	474	1.49		No collar
10/3/17	NP/SR	5	Blackbutt	0542552	6793165	450	1.42		No collar
10/3/17	NP/SR	6	Blackbutt	0542557	6793165	435	1.37		No collar
10/3/17	NP/SR	7	Blackbutt	0542554	6793163	520	1.57		No collar
10/3/17	NP/SR	8	Mel. quin	0542561	6793167	437	1.39		No collar
10/3/17	NP/SR	9	Mel. quin	0542558	6793168	450	1.28		No collar
10/3/17	NP/SR	10	Blackbutt	0542563	6793150	397	1.25		No collar
10/3/17	NP/SR	11	Blackbutt	0542544	6793151	740	2.32		No collar
10/3/17	NP/SR	12	Blackbutt	0542541	6793148	370	1.16		No collar
10/3/17	NP/SR	13	Red Mahogany	0542551	6793141	990	3.11		No collar
10/3/17	NP/SR	14	Blackbutt	0542559	6793123	630	1.97		No collar
10/3/17	NP/SR	15	Blackbutt	0542557	6793126	480	1.28		No collar
10/3/17	NP/SR	16	Blackbutt	0542566	6793085	385	1.22		No collar
10/3/17	NP/SR	17	Blackbutt	0542554	6793086	418	1.32		No collar
10/3/17	NP/SR	18	Blackbutt	0542563	6793075	364	1.14		No collar
10/3/17	NP/SR	19	Blackbutt	054569	6793075	610	1.90		No collar
10/3/17	NP/SR	20	Acacia sp.	0542562	6793070	320	1.01		No collar
10/3/17	NP/SR	21	Blackbutt	0542559	6793064	365	1.14		No collar
10/3/17	NP/SR	22	Blackbutt	0542558	6793062	456	1.44		P2
10/3/17	NP/SR	23	Blackbutt	542569	6793049	390	1.23		P2
13/3/17	DR/SR	24	Pink bloodwood	542580	6793048	385	1.24		No collar
13/3/17	DR/SR	25	Pink bloodwood	542578	6793048	320	1.10		No collar
13/3/17	DR/SR	26	Red mahogany	542561	6793040	990	3.1		No collar
13/3/17	DR/SR	27	Blackbutt	542542	6793038	497	1.55		No collar
13/3/17	DR/SR	28	Blackbutt	542552	6793056	427	1.35		No collar
13/3/17	DR/SR	29	Red mahogany	542540	6793052	415	1.3		P2
13/3/17	DR/SR	30	Blackbutt	542533	6793034	350	1.1		P2
13/3/17	DR/SR	31	Blackbutt	542531	6793035	395	1.25		P2
13/3/17	DR/SR	32	Pink bloodwood	542544	6793031	385	1.2		P2
13/3/17	DR/SR	33	Pink bloodwood	542587	6792987	350	1.11		No collar
13/3/17	DR/SR	34	Red mahogany	542572	6792970	446	1.4		No collar
13/3/17	DR/SR	35	Swamp box	542575	6792974	735	2.31		No collar
13/3/17	DR/SR	36	Mahogany spp	542589	6792963	547	1.71		No collar
13/3/17	DR/SR	37	Swamp Box	542579	6792957	950	2.98		No collar
13/3/17	DR/SR	38	Red mahogany	542582	6792952	530	1.67		No collar
13/3/17	DR/SR	39	Red mahogany	542561	6792943	445	1.40		No collar
13/3/17	DR/SR	40	Red mahogany	542565	6792936	775	2.43		P2
13/3/17	DR/SR	41	Swamp box	542584	6792930	463	1.46		No collar
13/3/17	DR/SR	42	Pink Bloodwood	542591	6792920	660	2.06		No collar
13/3/17	DR/SR	43	Bancroft Red Gum	542585	6792918	547	1.72		No collar
13/3/17	DR/SR	44	Swamp box	542593	6792911	525	1.65		No collar

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
13/3/17	DR/SR	45	Mel quinquenervia	542599	679299	405	1.28		No collar
13/3/17	DR/SR	46	Tallowwood	542600	6792882	635	2		No collar
13/3/17	DR/SR	47	Blackbutt	542587	6792885	548	1.72		No collar
13/3/17	DR/SR	48	Blackbutt	542595	6792884	565	1.78		No collar
13/3/17	DR/SR	49	Swamp box	542594	6792890	510	1.6		No collar
13/3/17	DR/SR	50	Swamp box	542591	6792890	368	1.15	x2	P2
13/3/17	DR/SR	51	Swamp Box	542580	6792879	520	1.63		P2
13/3/17	DR/SR	52	Blackbutt	542586	6792873	633	1.98		P2
13/3/17	DR/SR	53	Pink bloodwood	542591	6792863	380	1.20		P2
13/3/17	DR/SR	54	Pink Bloodwood	542578	6792866	495	1.55		P2
13/3/17	DR/SR	55	Blackbutt	542575	6792863	649	2.04		P2
13/3/17	DR/SR	56	Pink Bloodwood	542573	6792855	456	1.43		P2
13/3/17	DR/SR	57	Pink Bloodwood	542570	6792848	360	1.13		P2
13/3/17	DR/SR	58	Swamp box	542572	6792841	358	1.12		P2
13/3/17	DR/SR	59	Pink Bloodwood	542572	6792830	362	1.14		P2
13/3/17	DR/SR	60	Tallowwood	542570	6792835	794	2.49		P2
13/3/17	DR/SR	61	Swamp Box	542568	6792834	375	1.18		P2
13/3/17	DR/SR	62	Pink bloodwood	542561	6792841	370	1.15		P2
13/3/17	DR/SR	63	Pink bloodwood	542556	6792841	328	1.02		P2
13/3/17	DR/SR	64	Tallowwood	542557	6792839	583	1.83		P2
13/3/17	DR/SR	65	Red mahogany	542560	6792840	545	1.72		P2
13/3/17	DR/SR	66	Pink bloodwood	542561	6792841	345	1.09		P2
13/3/17	DR/SR	67	Blackbutt	542561	6792843	985	3.09	x2	P2
13/3/17	DR/SR	68	Pink bloodwood	542555	6792855	350	1.1		P2
13/3/17	DR/SR	69	Pink bloodwood	542548	6792853	441	1.39		P2
13/3/17	DR/SR	70	Pink bloodwood	542543	6792853	433	1.36		P2
13/3/17	DR/SR	71	Blackbutt	542549	6792858	992	3.12		P2
13/3/17	DR/SR	72	Pink bloodwood	542550	6792861	380	1.2		P2
13/3/17	DR/SR	73	Swamp box	542550	6792863	540	1.7		P2
13/3/17	DR/SR	74	Red mahogany	542575	6792897	590	1.85		P2
13/3/17	DR/SR	75	Red mahogany	542562	6792896	562	1.76		P2
13/3/17	DR/SR	76	Swamp box	542563	6792893	515	1.62		No collar
13/3/17	DR/SR	77	Red Mahogany	542537	6792887	647	2.03		No collar
13/3/17	DR/SR	78	Callitris sp.	542518	6792890	593	1.86		No collar
17/3/17	GM/SR	79	Pink bloodwood	542602	6792854	429	1.35		No collar
17/3/17	GM/SR	80	Tallowwood	542597	6792854	677	2.12		No collar
17/3/17	GM/SR	81	Swamp box	542594	6792848	430	1.35		No collar
17/3/17	GM/SR	82	Swamp box	542584	6792847	399	1.26		P2
17/3/17	GM/SR	83	Swamp box	542582	6792845	353	1.11		P2
17/3/17	GM/SR	84	Tallowwood	542588	6792837	952	2.98		P2
17/3/17	GM/SR	85	Pink bloodwood	542590	6792841	416	1.31		P2
17/3/17	GM/SR	86	Blackbutt	542589	6792842	326	1.03		No collar
17/3/17	GM/SR	87	Grey Ironbark	542590	6792837	365	1.15		P2
17/3/17	GM/SR	88	Blackbutt	542618	6792826	437	1.37		No collar
17/3/17	GM/SR	89	Tallowwood	542614	6792816	635	2		No collar
17/3/17	GM/SR	90	Grey Ironbark	542608	6792839	488	1.54		No collar



Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
17/3/17	GM/SR	91	Blackbutt	542607	6792822	565	1.77		No collar
17/3/17	GM/SR	92	Tallowwood	542605	6792832	554	1.74		No collar
17/3/17	GM/SR	93	Pink bloodwood	542605	6792834	302	0.95	x2	P2
17/3/17	GM/SR	94	Tallowwood	542589	6792836	683	2.15		No collar
17/3/17	GM/SR	95	Grey Ironbark	542600	6792819	538	1.69		No collar
17/3/17	GM/SR	96	Tallowwood	542590	6792823	732	2.3		P2
17/3/17	GM/SR	97	Blackbutt	542581	6792817	737	2.32	x2	P2
17/3/17	GM/SR	98	Pink bloodwood	542576	6792820	365	1.15		P2
17/3/17	GM/SR	99	Camphor Laurel	542562	6792823	367	1.16		P2
17/3/17	GM/SR	100	Tallowwood	542578	6792793	540	1.7		P2
17/3/17	GM/SR	101	Blackbutt	542587	6792797	828	2.6		P2
17/3/17	GM/SR	102	Grey Ironbark	542610	6792797	580	1.83		No collar
17/3/17	GM/SR	103	Pink bloodwood	542609	6792815	420	1.32		No collar
17/3/17	GM/SR	104	Pink bloodwood	542622	6792803	374	1.18		P2
17/3/17	GM/SR	105	Grey Ironbark	542617	6792793	572	1.8		No collar
17/3/17	GM/SR	106	Pink bloodwood	542598	6792784	413	1.3		No collar
17/3/17	GM/SR	107	Grey Ironbark	542597	6792776	435	1.37		P2
17/3/17	GM/SR	108	Blackbutt	542591	6792778	1023	3.21		No collar
17/3/17	GM/SR	109	Grey Ironbark	542583	6792778	352	1.11		No collar
17/3/17	GM/SR	110	Pink bloodwood	542581	6792777	395	1.25		P2
17/3/17	GM/SR	111	Blackbutt	542569	6792770	657	2.07		P2
17/3/17	GM/SR	112	Pink bloodwood	542586	6792792	463	1.46		P2
17/3/17	GM/SR	113	Cypress	542585	6792759	380	1.19		No collar
17/3/17	GM/SR	114	Pink bloodwood	542602	6792782	236	0.73	x2	No collar
17/3/17	GM/SR	115	Blackbutt	542599	6792788	633	1.99		No collar
17/3/17	GM/SR	116	Grey Ironbark	542609	6792773	500	1.57		No collar
17/3/17	GM/SR	117	Blackbutt	542623	6792783	623	1.96		No collar
17/3/17	GM/SR	118	Blackbutt	542618	6792763	600	1.89		No collar
17/3/17	GM/SR	119	Grey Ironbark	542619	6792755	385	1.2		No collar
17/3/17	GM/SR	120	Blackbutt	542640	6792735	780	2.45		No collar
17/3/17	GM/SR	121	Pink bloodwood	542644	6792744	310	0.98		No collar
17/3/17	GM/SR	122	Pink bloodwood	542642	6792726	308	0.98		No collar
17/3/17	GM/SR	123	Grey Ironbark	542638	6792733	350	1.1		No collar
17/3/17	GM/SR	124	Pink bloodwood	542632	6792743	375	1.18		No collar
17/3/17	GM/SR	125	Grey Ironbark	542615	6792747	345	1.08		No collar
17/3/17	GM/SR	126	Grey Ironbark	542605	6792748	455	1.43		P2
17/3/17	GM/SR	127	Stag	542590	679277	1090	3.42		No collar
17/3/17	GM/SR	128	White mahogany	542591	6792720	1600	3.64		No collar
17/3/17	GM/SR	129	Pink bloodwood	542603	6792721	390	1.23	x2	No collar
17/3/17	GM/SR	130	Pink bloodwood	542606	6792731	390	1.22		P2
17/3/17	GM/SR	131	Pink bloodwood	542612	6792725	441	1.38		P2
17/3/17	GM/SR	132	Grey Ironbark	542611	6792735	445	1.4		P2
17/3/17	GM/SR	133	Grey Ironbark	542635	6792733	424	1.33		P2
17/3/17	GM/SR	134	Blackbutt	542628	6792730	721	2.27		P2
17/3/17	GM/SR	135	Pink bloodwood	542631	6792726	325	1.02		P2
17/3/17	GM/SR	136	Pink bloodwood	542614	6792712	510	1.61		P2

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
17/3/17	GM/SR	137	Swamp box	542611	6792716	330	1.04		P2
17/3/17	GM/SR	138	Pink bloodwood	542602	6792699	486	1.53		No collar
17/3/17	GM/SR	139	Swamp box	542596	6792703	880	2.78		No collar
17/3/17	GM/SR	140	Mel quinquenervia	542591	6792693	467	1.47		No collar
17/3/17	GM/SR	141	Swamp box	542596	6792695	460	1.45		No collar
17/3/17	GM/SR	142	Swamp box	542608	6792700	588	1.85		No collar
17/3/17	GM/SR	143	Pink bloodwood	542635	6792708	476	1.5		P2
17/3/17	GM/SR	144	Blackbutt	542650	6792722	850	2.67		No collar
17/3/17	GM/SR	145	Pink bloodwood	542635	6792710	400	1.26		P2
17/3/17	GM/SR	146	Brush box	542648	6792709	680	2.14		No collar
17/3/17	GM/SR	147	Blackbutt	542639	6792701	772	2.43		No collar
17/3/17	GM/SR	148	Pink Bloodwood	542654	6792703	475	1.5		No collar
17/3/17	GM/SR	149	Blackbutt	542652	6792693	620	1.95		No collar
17/3/17	GM/SR	150	Blackbutt	542659	6792696	452	1.43		No collar
17/3/17	GM/SR	151	Swamp box	542659	6792684	516	1.62		P2
17/3/17	GM/SR	152	Swamp box	542623	6792698	603	1.9		P2
17/3/17	GM/SR	153	Swamp box	542610	6792683	370	1.16		No collar
17/3/17	GM/SR	154	Swamp box	542606	6792684	475	1.5		No collar
17/3/17	GM/SR	155	Swamp box	542598	6792681	519	1.63		No collar
17/3/17	GM/SR	156	Swamp box	542606	6792683	408	1.28		No collar
17/3/17	GM/SR	157	Swamp box	542612	6792667	505	1.59		No collar
17/3/17	GM/SR	158	Mel quinquenervia	542608	6792670	605	1.9		No collar
17/3/17	GM/SR	159	Swamp box	542611	6792657	432	1.36		P2
17/3/17	GM/SR	160	Swamp box	542616	6792652	724	2.28		No collar
17/3/17	GM/SR	161	Swamp box	542618	6792667	403	1.27		P2
17/3/17	GM/SR	162	Swamp box	542624	6792667	615	1.93		P2
17/3/17	GM/SR	163	Swamp box	542624	6792659	550	1.73		P2
17/3/17	GM/SR	164	Swamp box	542624	6792651	634	1.99		No collar
17/3/17	GM/SR	165	Swamp box	542635	6792654	620	1.94		P2
17/3/17	GM/SR	166	Mango tree	542641	6792642	471	1.49		P2
17/3/17	GM/SR	167	Swamp box	542615	6792680	462	1.45		P2
17/3/17	GM/SR	168	Swamp box	542614	6792678	846	2.66		No collar
17/3/17	GM/SR	169	Swamp box	542648	6792674	593	1.86		P2
17/3/17	GM/SR	170	Mango tree	542644	6792665	315	1		P2
17/3/17	GM/SR	171	Mango tree	542621	6792633	359	1.13		No collar
17/3/17	GM/SR	172	Jacaranda	542621	6792619	945	2.57		No collar
17/3/17	GM/SR	173	Mango tree	542640	6792589	953	2.98		No collar
17/3/17	GM/SR	174	Poinciana	542649	6792639	504	1.58	x3	P2
17/3/17	GM/SR	175	African tulip	542664	6792653	465	1.46	x2	P2
27/3/17	GM/SR	176	Norfolk Pine	542687	6792608	390	1.23		No collar
27/3/17	GM/SR	177	Poinciana	542688	6792599	455	1.43	x6	No collar
27/3/17	GM/SR	178	Melaleuca spp.	542668	6792608	673	2.11		P2
27/3/17	GM/SR	179	African tulip	542670	6792580	420	1.32		P2
27/3/17	GM/SR	180	Mango tree	542676	6792574	465	1.48		P2
27/3/17	GM/SR	181	Fire wheel tree?	542673	6792563	689	2.16		P2
27/3/17	GM/SR	182	Silkyoak	542676	6792549	714	2.25		P2

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
27/3/17	GM/SR	183	Silky oak	542686	6792550	564	1.77		P2
27/3/17	GM/SR	184	African tulip	542693	6792570	730	2.29		No collar
27/3/17	GM/SR	185	African tulip	542698	6792569	378	1.19		No collar
27/3/17	GM/SR	186	African tulip	542697	6792567	424	1.33		No collar
27/3/17	GM/SR	187	African tulip	542697	6792566	806	2.53		No collar
27/3/17	GM/SR	188	Red Cedar	542702	6792553	446	1.4		No collar
27/3/17	GM/SR	189	Red Cedar	542704	6792548	395	1.24		No collar
27/3/17	GM/SR	190	Grey Ironbark	542718	679255	752	2.36		No collar
27/3/17	GM/SR	191	Pink bloodwood	542726	6792571	527	1.66		No collar
27/3/17	GM/SR	192	African tulip	542644	6792571	896	2.81	x4	No collar
27/3/17	GM/SR	193	Pinus spp.	542648	6792547	443	1.39		No collar
27/3/17	GM/SR	194	Pinus spp.	542649	6792542	415	1.3		No collar
27/3/17	GM/SR	195	Jacaranda	542702	679256	448	1.4		No collar
27/3/17	GM/SR	196	Silky oak	542674	6792510	960	3.01		No collar
27/3/17	GM/SR	197	Silky oak	542654	6792512	496	1.56		No collar
27/3/17	GM/SR	198	Unidentified spp	542656	6792509	525	1.65		No collar
27/3/17	GM/SR	199	Norfolk Pine	542649	6792649	593	1.86		No collar
27/3/17	GM/SR	200	Poinciana	542662	6792489	499	1.56		No collar
27/3/17	GM/SR	201	Pink bloodwood	542729	6792514	640	2		No collar
27/3/17	GM/SR	202	Pink bloodwood	542725	6792507	495	1.56		No collar
27/3/17	GM/SR	203	Grey Ironbark	542731	6792504	691	2.17		No collar
27/3/17	GM/SR	204	Grey Ironbark	542726	6792500	486	1.53		No collar
27/3/17	GM/SR	205	Blackbutt	542730	6792501	730	2.29		No collar
27/3/17	GM/SR	206	Pink bloodwood	542750	6792502	397	1.25		No collar
27/3/17	GM/SR	207	Grey Ironbark	542750	6792490	335	1.05		No collar
27/3/17	GM/SR	208	Pink bloodwood	542753	6792486	429	1.34		No collar
27/3/17	GM/SR	209	Pink bloodwood	542763	6792482	311	0.98		No collar
27/3/17	GM/SR	210	Blackbutt	542766	6792479	534	1.68		No collar
27/3/17	GM/SR	211	Blackbutt	542766	6792482	672	2.11		No collar
27/3/17	GM/SR	212	Grey Ironbark	542770	6792477	411	1.3		No collar
27/3/17	GM/SR	213	Pink bloodwood	542771	692468	317	1		No collar
27/3/17	GM/SR	214	Blackbutt	542779	6792460	690	2.17		No collar
27/3/17	GM/SR	215	White Mahogany	542771	6792454	320	1.01		No collar
27/3/17	GM/SR	216	Stag	542757	6792467	321	1.01		No collar
27/3/17	GM/SR	217	White Mahogany	542757	6792462	351	1.1		No collar
27/3/17	GM/SR	218	Blackbutt	542727	6792469	1181	3.71		P2
27/3/17	GM/SR	219	Blackbutt	542730	6792477	985	3.09		No collar
27/3/17	GM/SR	220	Pink bloodwood	542743	6792479	328	1.03		No collar
27/3/17	GM/SR	221	Grey Ironbark	542727	679246	718	2.25		P2
27/3/17	GM/SR	222	Grey Ironbark	542718	6792486	610	1.92		P2
27/3/17	GM/SR	223	Pink bloodwood	542711	6792488	423	1.33		P2
27/3/17	GM/SR	224	Camphor Laurel	542701	6792495	1500	4.71	x4	P2
27/3/17	GM/SR	225	Camphor Laurel	542695	6792498	950	2.98	x3	P2
27/3/17	GM/SR	226	Pink bloodwood	542695	6792506	658	2.06	x3	P2
27/3/17	GM/SR	227	Stag	542707	6792502	395	1.24	x3	P2
27/3/17	GM/SR	228	Grey Ironbark	542707	6792477	780	2.45		P2



Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
27/3/17	GM/SR	229	Grey Ironbark	542705	6792474	559	1.76		P2
27/3/17	GM/SR	230	Pink bloodwood	542702	6792474	333	1.05		No collar
27/3/17	GM/SR	231	Blackbutt	542687	6792469	407	1.28		No collar
27/3/17	GM/SR	232	Brushbox	542683	6792475	386	1.22		No collar
27/3/17	GM/SR	233	Blackbutt	542689	6792465	472	1.48		No collar
27/3/17	GM/SR	234	Blackbutt	542686	6792461	323	1		No collar
27/3/17	GM/SR	235	Blackbutt	542685	6792456	369	1.16		No collar
27/3/17	GM/SR	236	Pink bloodwood	542702	6792462	379	1.19		P2
27/3/17	GM/SR	237	Grey Ironbark	542698	6792457	486	1.53		P2
27/3/17	GM/SR	238	Pink bloodwood	542699	6792451	377	1.18		P2
27/3/17	GM/SR	239	Pink bloodwood	542699	6792451	454	1.43		P2
27/3/17	GM/SR	240	Unidentified rainforest	542694	6792444	323	1.01		No collar
27/3/17	GM/SR	241	Pink bloodwood	542714	6792454	395	1.24		P2
27/3/17	GM/SR	242	Grey Ironbark	542714	6792453	631	1.98		P2
27/3/17	GM/SR	243	Grey Ironbark	542714	6792448	335	1.06		No collar
27/3/17	GM/SR	244	Brush box	542713	6792447	389	1.22		P2
27/3/17	GM/SR	245	Pink bloodwood	542719	6792458	328	1.03		P2
27/3/17	GM/SR	246	Grey Ironbark	542735	6792454	312	0.98		P2
27/3/17	GM/SR	247	Blackbutt	542755	6792447	842	2.64		No collar
27/3/17	GM/SR	248	White Mahogany	542762	6792451	523	1.64		No collar
27/3/17	GM/SR	249	Blackbutt	542768	6792454	640	2		No collar
27/3/17	GM/SR	250	White Mahogany	542766	6792464	289	0.91		No collar
27/3/17	GM/SR	251	Blackbutt	542775	6792450	707	2.22		No collar
27/3/17	GM/SR	252	Blackbutt	542771	6792444	549	1.72		No collar
27/3/17	GM/SR	253	Pink bloodwood	542778	6792440	334	1.05		No collar
27/3/17	GM/SR	254	Blackbutt	542771	6792437	607	1.91		No collar
27/3/17	GM/SR	255	Blackbutt	542774	6792432	535	1.68	x2	P2
27/3/17	GM/SR	256	Pink bloodwood	542771	6792430	285	0.9		P2
27/3/17	GM/SR	257	Blackbutt	542768	6792431	468	1.46		No collar
27/3/17	GM/SR	258	Brush box	542770	6792429	529	1.66		No collar
27/3/17	GM/SR	259	Blackbutt	542763	6792433	573	1.8		No collar
27/3/17	GM/SR	260	Pink bloodwood	542758	6792440	325	1.02		No collar
27/3/17	GM/SR	261	Pink bloodwood	542755	6792423	503	1.58		No collar
27/3/17	GM/SR	262	Pink bloodwood	542750	6792424	437	1.37		P2
27/3/17	GM/SR	263	Grey Ironbark	542739	6792429	578	1.82		P2
27/3/17	GM/SR	264	Blackbutt	542734	6792429	300	0.96		P2
27/3/17	GM/SR	265	Blackbutt	542723	6792428	490	1.54		No collar
27/3/17	GM/SR	266	Brush box	542714	6792444	350	1.1		No collar
28/3/17	GM/SR	267	Blackbutt	542711	6792436	785	2.46		No collar
28/3/17	GM/SR	268	Pink bloodwood	542710	6792428	414	1.3		No collar
28/3/17	GM/SR	269	Stag	542715	6792434	432	1.35		No collar
28/3/17	GM/SR	270	Blackbutt	542707	6792428	382	1.2		No collar
28/3/17	GM/SR	271	Blackbutt	5427689	6792436	437	1.38		No collar
28/3/17	GM/SR	272	Brush box	542678	6792425	815	2.56		No collar
28/3/17	GM/SR	273	Grey Ironbark	542715	6792412	542	1.7		P2

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
28/3/17	GM/SR	274	Blackbutt	542728	6792418	768	2.41		P2
28/3/17	GM/SR	275	Blackbutt	542747	6792424	440	1.38		P2
28/3/17	GM/SR	276	Brush box	542752	6792421	494	1.55		P2
28/3/17	GM/SR	277	Brush box	542758	6792416	332	1.05		P2
28/3/17	GM/SR	278	Pink bloodwood	542766	6792420	300	0.94		No collar
28/3/17	GM/SR	279	White Mahogany	542778	6792433	595	1.87		No collar
28/3/17	GM/SR	280	Pink bloodwood	542780	6792434	350	1.1		No collar
28/3/17	GM/SR	281	White Mahogany	542787	6792440	300	0.94		No collar
28/3/17	GM/SR	282	White Mahogany	542786	6792453	362	1.13		No collar
28/3/17	GM/SR	283	Grey Ironbark	542791	6792440	379	1.19		No collar
28/3/17	GM/SR	284	Brush box	542792	6792433	468	1.47		No collar
28/3/17	GM/SR	285	Brush box	542798	6792429	314	0.99		No collar
28/3/17	GM/SR	286	Brush box	542796	6792423	353	1.11		No collar
28/3/17	GM/SR	287	Brush box	542802	6792424	347	1.09		No collar
28/3/17	GM/SR	288	Brush box	542792	6792419	403	1.26		No collar
28/3/17	GM/SR	289	Brush box	542790	6792409	406	1.28		No collar
28/3/17	GM/SR	290	Pink bloodwood	542784	6792409	368	1.15		P2
28/3/17	GM/SR	291	Pink bloodwood	542772	6792408	428	1.35	x2	No collar
28/3/17	GM/SR	292	Brush box	542768	6792415	468	1.47		No collar
28/3/17	GM/SR	293	Brush box	542763	6792411	361	1.14		No collar
28/3/17	GM/SR	294	Brush box	542764	6792406	446	1.4		P2
28/3/17	GM/SR	295	Brush box	542760	6792406	323	1.02		No collar
28/3/17	GM/SR	296	Brush box	542766	6792408	372	1.17	x3	No collar
28/3/17	GM/SR	297	Brush box	542766	6792397	583	1.83		No collar
28/3/17	GM/SR	298	Brush box	542746	6792406	473	1.49		P2
28/3/17	GM/SR	299	Brush box	542750	6792405	600	1.88		No collar
28/3/17	GM/SR	300	Brush box	542754	6792401	853	2.68		No collar
28/3/17	GM/SR	301	Brush box	542739	6792406	896	2.82		P2
28/3/17	GM/SR	302	Brush box	542751	6792381	475	1.49		No collar
28/3/17	GM/SR	303	Brush box	542754	6792382	355	1.12		No collar
28/3/17	GM/SR	304	Brush box	542744	6792385	863	2.72		No collar
28/3/17	GM/SR	305	Brush box	542736	6792380	382	1.2		No collar
28/3/17	GM/SR	306	Pink bloodwood	542742	6792375	456	1.43		No collar
28/3/17	GM/SR	307	Brush box	542736	6792373	368	1.16		No collar
28/3/17	GM/SR	308	Brush box	542731	6792388	665	2.09		P2
28/3/17	GM/SR	309	Brush box	542724	6792389	632	1.98		P2
28/3/17	GM/SR	310	Brush box	542718	6792395	583	1.83		P2
28/3/17	GM/SR	311	Brush box	542714	6792392	695	2.18		No collar
28/3/17	GM/SR	312	Blackbutt	542720	6792385	890	2.8	x2	P2
28/3/17	GM/SR	313	Brush box	542723	6792378	585	1.84		No collar
28/3/17	GM/SR	314	Blackbutt	542679	6792409	1157	3.63		No collar
28/3/17	GM/SR	315	Brush box	542695	6792373	787	2.47		No collar
20/4/17	GM/MJ	316	Brushbox	542712	6792341	474	1.49		No collar
20/4/17	GM/MJ	317	Camphor Laurel	542720	6792339	655	2.07	x3	No collar
20/4/17	GM/MJ	318	Brush box	542720	6792350	935	2.94		No collar
20/4/17	GM/MJ	319	Camphor Laurel	542731	6792348	355	1.11		No collar

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
20/4/17	GM/MJ	320	Brush box	542731	6792348	927	2.92		No collar
20/4/17	GM/MJ	321	Camphor Laurel	542733	6792343	337	1.05	x4	No collar
20/4/17	GM/MJ	322	Camphor Laurel	5422739	6792346	452	1.42	x3	P2
20/4/17	GM/MJ	323	Brush box	542735	6792353	350	1.09		P2
20/4/17	GM/MJ	324	Brush box	542735	6792354	675	2.13		P2
20/4/17	GM/MJ	325	Brown kurrajong	5422731	6792351	480	1.50	x2	No collar
20/4/17	GM/MJ	326	Brown kurrajong	5422731	6792351	440	1.38		No collar
20/4/17	GM/MJ	327	Camphor Laurel	542743	6792356	687	2.16		P2
20/4/17	GM/MJ	328	Camphor Laurel	542734	6792355	450	1.42	x2	P2
20/4/17	GM/MJ	329	Brush box	542748	6792353	300	0.92		P2
20/4/17	GM/MJ	330	Brown kurrajong	542748	6792351	365	1.16		P2
20/4/17	GM/MJ	331	Brush box	542761	6792356	702	2.20		P2
20/4/17	GM/MJ	332	Brush box	542764	6792356	482	1.51		P2
20/4/17	GM/MJ	333	Brush box	542764	6792356	448	1.41		P2
20/4/17	GM/MJ	334	Brush box	542773	6792352	428	1.34		P2
20/4/17	GM/MJ	335	Brush box	542788	6792356	526	1.66		P2
20/4/17	GM/MJ	336	Pink bloodwood	542531	6792908	440	1.38		P2
20/4/17	GM/MJ	337	Pink bloodwood	542540	6792920	327	1.03		P2
20/4/17	GM/MJ	338	Red mahogany	542523	6792908	780	2.45		P2
20/4/17	GM/MJ	339	Red mahogany	542527	6792910	579	1.82		P2
20/4/17	GM/MJ	340	Red mahogany	542527	6792919	505	1.59		No collar
20/4/17	GM/MJ	341	Red mahogany	542533	6792920	383	1.20		P2
20/4/17	GM/MJ	342	Endiandra sieberi	542532	6792926	337	1.07		P2
20/4/17	GM/MJ	343	Pink bloodwood	542536	6792927	408	1.28		P2
20/4/17	GM/MJ	344	Pink bloodwood	542547	6792915	325	1.03		P2
20/4/17	GM/MJ	345	Red mahogany	542556	6792926	705	2.21		P2
20/4/17	GM/MJ	346	Red mahogany	542555	6792926	474	1.49		P2
20/4/17	GM/MJ	347	Pink bloodwood	542551	6792700	404	1.27		P2
20/4/17	GM/MJ	348	Cypress	542551	6792934	335	1.05		P2
20/4/17	GM/MJ	349	Red mahogany	542553	6792936	515	1.62		P2
20/4/17	GM/MJ	350	Red mahogany	542555	6792941	356	1.12		P2
20/4/17	GM/MJ	351	Red mahogany	542557	6792945	345	1.08		P2
20/4/17	GM/MJ	352	Red mahogany	542563	6792948	430	1.35		No collar
20/4/17	GM/MJ	353	Red mahogany	542560	6792952	465	1.46		No collar
20/4/17	GM/MJ	354	Red mahogany	542572	6792956	344	1.08		No collar
20/4/17	GM/MJ	355	Red mahogany	542564	6792956	475	1.50		No collar
20/4/17	GM/MJ	356	Swamp box	542544	6792942	357	1.12		P2
20/4/17	GM/MJ	357	Melaleuca sieberi	542544	6792949	310	0.98		P2
20/4/17	GM/MJ	358	Red mahogany	542536	6792947	433	1.36		P2
20/4/17	GM/MJ	359	Mel quinquenervia	542553	6792956	375	1.18		P2
20/4/17	GM/MJ	360	Red mahogany	542535	6792958	730	2.29		P2
20/4/17	GM/MJ	361	Endiandra sieberi	542534	6792963	307	0.97		P2
20/4/17	GM/MJ	362	Endiandra sieberi	542539	6792960	319	1.00		P2
20/4/17	GM/MJ	363	Red mahogany	542548	6792964	386	1.21		P2
20/4/17	GM/MJ	364	Red mahogany	542557	6792963	45	1.42		P2
20/4/17	GM/MJ	365	Red mahogany	542553	6792963	385	1.20		P2



Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
20/4/17	GM/MJ	366	Endiandra sieberi	542558	6792980	425	1.34		P2
20/4/17	GM/MJ	367	Blackbutt	542570	6792982	700	2.20		No collar
20/4/17	GM/MJ	368	Blackbutt	542560	6792986	63	1.97		No collar
20/4/17	GM/MJ	369	Endiandra sieberi	542556	6792996	378	1.19		No collar
20/4/17	GM/MJ	370	Blackbutt	542567	6792976	470	1.47		No collar
20/4/17	GM/MJ	371	Blackbutt	542578	6792995	1060	3.23		No collar
20/4/17	GM/MJ	372	Endiandra sieberi	542575	6792993	325	1.02		No collar
20/4/17	GM/MJ	373	Blackbutt	542571	6792992	465	1.46	x2	No collar
20/4/17	GM/MJ	374	Pink bloodwood	5422568	6792998	550	1.72		No collar
20/4/17	GM/MJ	375	Red mahogany	542563	6793000	418	1.31		No collar
20/4/17	GM/MJ	376	Endiandra sieberi	542555	6793002	344	1.08		No collar
20/4/17	GM/MJ	377	Endiandra sieberi	542552	6793001	304	0.96		No collar
20/4/17	GM/MJ	378	Endiandra sieberi			341	1.08	x2	P2
20/4/17	GM/MJ	379	Endiandra sieberi	542543	6793000	345	1.10		P2
20/4/17	GM/MJ	380	Red mahogany	542548	6793001	450	1.40		P2
20/4/17	GM/MJ	381	Endiandra sieberi	542542	6792988	390	1.23		P2
20/4/17	GM/MJ	382	Endiandra sieberi	542551	6792976	392	1.23		P2
20/4/17	GM/MJ	383	Melaleuca sieberi	542547	6792967	388	1.22		P2
20/4/17	GM/MJ	384	Callistemon salignus	542539	6792967	367	1.15		P2
20/4/17	GM/MJ	385	Stag	542538	6792969	391	1.24		P2
20/4/17	GM/MJ	386	Red mahogany	542542	6792977	380	1.19		P2
20/4/17	GM/MJ	387	Endiandra sieberi	542547	6792971	347	1.10		P2
20/4/17	GM/MJ	388	Callistemon salignus	542547	6792982	390	1.23		P2
20/4/17	GM/MJ	389	Stag	542540	6792984	484	1.51		P2
20/4/17	GM/MJ	390	Cabbage tree palm	542542	6792974	386	1.21		P2
20/4/17	GM/MJ	391	Red mahogany	542531	6792966	495	1.56		P2
20/4/17	GM/MJ	392	Red mahogany	542533	6792953	507	1.60		P2
20/4/17	GM/MJ	393	Red mahogany	542529	6792956	385	1.21		P2
20/4/17	GM/MJ	394	Red mahogany	542528	6792966	556	1.77		P2
21/4/17	GM/MJ	395	Pink bloodwood	542529	6792925	666	2.09		No collar
21/4/17	GM/MJ	396	Endiandra sieberi	542527	6792931	365	1.15		P2
21/4/17	GM/MJ	397	Stag	542525	6792923	320	1.00		P2
21/4/17	GM/MJ	398	Pink bloodwood	542535	6792928	350	1.10		P2
21/4/17	GM/MJ	399	Pink bloodwood	542533	6792929	325	1.34		P2
21/4/17	GM/MJ	400	Endiandra sieberi	542529	6792927	430	1.36		P2
21/4/17	GM/MJ	401	Blackbutt	542523	6792940	785	2.47		P2
21/4/17	GM/MJ	402	Stag	542532	6792949	482	1.50		P2
21/4/17	GM/MJ	403	Swamp box	542520	6792951	428	1.02		P2
21/4/17	GM/MJ	404	Swamp box	542519	6792961	315	1.00		P2
21/4/17	GM/MJ	405	Endiandra sieberi	542511	6792967	440	1.39		P2
21/4/17	GM/MJ	406	Red mahogany	542518	6792966	479	1.50		P2
21/4/17	GM/MJ	407	Endiandra sieberi	542523	6792976	301	0.95		P2
21/4/17	GM/MJ	408	Red mahogany	542523	6792976	478	1.50		P2
21/4/17	GM/MJ	409	Endiandra sieberi	542514	6792975	415	1.30		P2
21/4/17	GM/MJ	410	Red mahogany	542522	6792986	605	1.89		P2
21/4/17	GM/MJ	411	Endiandra sieberi	542530	6792983	445	1.40		P2

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
21/4/17	GM/MJ	412	Endiandra sieberi	542534	6792982	325	1.02	x2	P2
21/4/17	GM/MJ	413	Endiandra sieberi	542530	6792981	345	1.08		P2
21/4/17	GM/MJ	414	Red mahogany	542531	6792989	439	1.38		P2
21/4/17	GM/MJ	415	Endiandra sieberi	542531	6792991	335	1.06	x3	P2
21/4/17	GM/MJ	416	Red mahogany	542532	6792994	509	1.60		P2
21/4/17	GM/MJ	417	Endiandra sieberi	542539	6792997	310	0.97		P2
21/4/17	GM/MJ	418	Red mahogany	542540	6792999	488	1.56		P2
21/4/17	GM/MJ	419	Endiandra sieberi	542536	6792998	350	1.10		P2
21/4/17	GM/MJ	420	Stag	542538	6793008	395	1.25		P2
21/4/17	GM/MJ	421	Red mahogany	542519	6792988	532	1.67		P2
21/4/17	GM/MJ	422	Stag	542523	6792988	315	0.90		P2
21/4/17	GM/MJ	423	Red mahogany	542528	6792993	390	1.22		P2
21/4/17	GM/MJ	424	Red mahogany	542527	6792996	688	2.16		P2
21/4/17	GM/MJ	425	Blackbutt	542524	6793001	626	1.98		P2
21/4/17	GM/MJ	426	Callistemon salignus	542512	6792989	397	1.26		P2
21/4/17	GM/MJ	427	Endiandra sieberi	542515	6793001	459	1.44		P2
21/4/17	GM/MJ	428	Endiandra sieberi	542518	6793006	453	1.42		P2
21/4/17	GM/MJ	429	Endiandra sieberi	542511	6793009	393	1.23	x2	P2
21/4/17	GM/MJ	430	Endiandra sieberi	542508	6793015	326	1.03	x2	P2
21/4/17	GM/MJ	431	Stag	542509	6793043	711	2.23		P2
21/4/17	GM/MJ	432	Blackbutt	542507	6793049	370	1.20		No collar
21/4/17	GM/MJ	433	Scribbly gum	542514	6793051	720	2.26		No collar
21/4/17	GM/MJ	434	Endiandra sieberi	542520	6793043	301	0.95	x2	No collar
21/4/17	GM/MJ	435	Red bloodwood	542523	6793042	403	1.27		No collar
21/4/17	GM/MJ	436	Blackbutt	542536	6793049	932	2.93		P2
21/4/17	GM/MJ	437	Blackbutt	542529	6793059	460	1.45	x2	No collar
21/4/17	GM/MJ	439	Red mahogany	542522	6793076	380	1.20		P2
21/4/17	GM/MJ	440	Red mahogany	542506	6793102	340	1.06		No collar
21/4/17	GM/MJ	441	Stag	542511	6793102	604	1.90		No collar
21/4/17	GM/MJ	442	Stag	542514	6793094	530	1.65	x2	No collar
21/4/17	GM/MJ	443	Stag	542523	6793094	540.	1.70		No collar
21/4/17	GM/MJ	444	Swamp box	542530	6793094	310	0.97		P2
21/4/17	GM/MJ	445	Blackbutt	542526	6793110	375	1.18		P2
21/4/17	GM/MJ	446	Red mahogany	542507	6793112	360	1.13		No collar
21/4/17	GM/MJ	447	Blackbutt	542527	6793122	510	1.60		P2
21/4/17	GM/MJ	448	Blackbutt	542533	6793120	440	1.38		P2
21/4/17	GM/MJ	449	Red mahogany	542524	6793142	875	2.75		P2
21/4/17	GM/MJ	450	Stag	542525	6793144	770	2.40		P2
21/4/17	GM/MJ	451	Red mahogany	542535	6793143	495	1.56		P2
21/4/17	GM/MJ	452	Red mahogany	542498	6793151	427	1.34		No collar
21/4/17	GM/MJ	453	Red mahogany	542508	6793170	690	2.18		No collar
21/4/17	GM/MJ	454	Red mahogany	542500	6793181	315	0.99		No collar
21/4/17	GM/MJ	455	Red mahogany	542497	6793189	814	2.56		No collar
21/4/17	GM/MJ	456	Red mahogany	542522	6793187	345	1.05		No collar
21/4/17	GM/MJ	457	Red mahogany	542524	6793186	304	0.95		No collar
21/4/17	GM/MJ	458	Blackbutt	542537	6793183	390	1.20		No collar

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
21/4/17	GM/MJ	459	Red mahogany	542532	6793164	655	2.06		No collar
21/4/17	GM/MJ	460	Red mahogany	542532	6793168	850	2.67		No collar
21/4/17	GM/MJ	461	Endiandra sieberi	5422534	6793176	382	1.20		No collar
21/4/17	GM/MJ	462	Endiandra sieberi	542554	6793151	306	0.97		P2
28/4/17	GM/NP	463	Red mahogany	529985	6800085	440	1.37	x3	No collar
28/4/17	GM/NP	464	Blueberry ash	52995	6800085	350	1.10		No collar
28/4/17	GM/NP	465	Red mahogany	542489	6793265	560	1.76		No collar
28/4/17	GM/NP	466	Red mahogany	542489	6793265	555	1.76		No collar
28/4/17	GM/NP	467	Mel saligna?	542495	6793291	380	1.20		No collar
5/5/17	GM/SR	468	Blackbutt	542497	6793043	823	2.59		No collar
5/5/17	GM/SR	469	Stag	542491	6793027	487	1.53		No collar
5/5/17	GM/SR	470	Endiandra sieberi	542500	6793020	510	1.60	x2	No collar
5/5/17	GM/SR	471	Endiandra sieberi	542508	6793016	317	1.00	x2	No collar
5/5/17	GM/SR	472	Endiandra sieberi	542508	6793012	410	1.29	x2	No collar
5/5/17	GM/SR	473	Endiandra sieberi	542512	6792996	465	1.46	x4	No collar
5/5/17	GM/SR	474	Stag	542508	6792988	413	1.30		No collar
5/5/17	GM/SR	475	Red mahogany	542511	6792972	382	1.20		No collar
5/5/17	GM/SR	476	Red mahogany	542512	6792961	557	1.75		No collar
5/5/17	GM/SR	477	Melaleuca quinquenervia	542496	6792968	505	1.59		No collar
5/5/17	GM/SR	478	Red mahogany	542507	6792966	726	2.28		No collar
5/5/17	GM/SR	479	Stag	542506	6792959	675	2.12		No collar
5/5/17	GM/SR	480	Endiandra sieberi	542496	6792960	445	1.39		No collar
5/5/17	GM/SR	481	Stag	542500	6792954	338	1.06		No collar
5/5/17	GM/SR	482	Allocauarina torulosa	542502	6792959	312	0.98		No collar
5/5/17	GM/SR	483	Red mahogany	542511	6792952	480	1.51		No collar
5/5/17	GM/SR	484	Swamp box	542512	6792945	461	1.45		No collar
5/5/17	GM/SR	485	Swamp box	542513	6792939	400	1.25		No collar
5/5/17	GM/SR/ NP	486	Red mahogany	542509	6792934	660	2.80		No collar
5/5/17	GM/SR/ NP	487	Endiandra sieberi	542523	6792935	410	1.30		No collar
5/5/17	GM/SR/ NP	488	Red mahogany	542516	6792928	460	1.45		No collar
5/5/17	GM/SR/ NP	489	Red mahogany	542517	6792930	405	1.27		No collar
5/5/17	GM/SR/ NP	490	Red mahogany	542509	6792925	485	1.52		No collar
5/5/17	GM/SR/ NP	491	Red mahogany	542500	6792928	830	2.60		No collar
5/5/17	GM/SR/ NP	492	Red mahogany	542508	6792921	690	2.17		No collar
5/5/17	GM/SR/ NP	493	Red mahogany	542501	6792921	610	1.92		No collar
5/5/17	GM/SR/ NP	494	Red mahogany	542515	6792919	315	0.97		No collar
5/5/17	GM/SR/ NP	495	Red mahogany	542507	6792918	350	1.10		No collar
5/5/17	GM/SR/ NP	496	Red mahogany	542509	6792917	420	1.32		No collar
5/5/17	GM/SR/ NP	497	Red mahogany	542512	6792899	330	1.04		No collar
5/5/17	GM/SR/ NP	498	Red mahogany	542511	6792905	580	1.82		No collar



Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
5/5/17	GM/SR/ NP	499	Red mahogany	542507	6792900	445	1.40		No collar
5/5/17	GM/SR/ NP	500	Red mahogany	542524	6792900	820	2.58		No collar
5/5/17	GM/SR/ NP	501	Red mahogany	542511	6792889	600	1.91		No collar
5/5/17	GM/SR/ NP	502	Swamp box	542513	6792880	330	1.04		No collar
5/5/17	GM/SR/ NP	503	Swamp box	542512	6792852	340	1.07		No collar
5/5/17	GM/SR/ NP	504	Red mahogany	542513	6792866	965	3.03		No collar
5/5/17	GM/SR/ NP	505	Swamp box	542510	6792854	440	1.38		No collar
5/5/17	GM/SR/ NP	506	Swamp box	542513	6792854	305	0.92		No collar
5/5/17	GM/SR/ NP	507	Pink bloodwood	542520	6792837	885	2.78		No collar
5/5/17	GM/SR/ NP	508	Red mahogany	542516	6792834	555	1.74		No collar
5/5/17	GM/SR/ NP	509	Eucalyptus spp.	542529	6792838	460	1.45		No collar
5/5/17	GM/SR/ NP	510	Swamp box	542538	6792844	300	0.90		No collar
5/5/17	GM/SR/ NP	511	Pink bloodwood	542538	6792844	375	1.18		No collar
5/5/17	GM/SR/ NP	512	Blackbutt	542536	6792828	1350	4.10		No collar
5/5/17	GM/SR/ NP	513	Coastal cypress	542529	6792813	385	1.21		No collar
5/5/17	GM/SR/ NP	514	Eucalyptus spp.	542528	6792804	330	1.04		No collar
5/5/17	GM/SR/ NP	515	Swamp box	5422542	6792814	460	1.45		No collar
5/5/17	GM/SR/ NP	516	Pink bloodwood	5422536	6792794	460	1.45		No collar
5/5/17	GM/SR/ NP	517	Blackbutt	542539	6792783	895	2.82		No collar
5/5/17	GM/SR/ NP	518	Blackbutt	542550	6792792	102	3.20		No collar
5/5/17	GM/SR/ NP	519	Blackbutt	542550	6792792	745	2.35		No collar
5/5/17	GM/SR/ NP	520	Blackbutt	542554	6792794	990	3.11		No collar
5/5/17	GM/SR/ NP	521	Swamp box	542559	6792795	395	1.24		No collar
5/5/17	GM/SR/ NP	522	Grey ironbark	542571	6792784	390	1.22		P2
5/5/17	GM/SR/ NP	523	Swamp box	542562	6792778	330	1.04		P2
5/5/17	GM/SR/ NP	524	Pink bloodwood	542574	6792771	360	1.23		P2
5/5/17	GM/SR/ NP	525	Eucalyptus spp.	542558	6792774	400	1.25	x2	No collar
5/5/17	GM/SR/ NP	526	Pink bloodwood	542546	6792779	300	0.95	x2	No collar
5/5/17	GM/SR/ NP	527	Endiandra sieberi	542536	6792786	760	2.40	x2	No collar
5/5/17	GM/SR/ NP	528	Swamp box	542533	6792781	415	1.30	x2	No collar
5/5/17	GM/SR/ NP	529	Unid rainforest sp.	542535	6792775	405	1.27	x2	No collar
5/5/17	GM/SR/ NP	530	Tallowwood	542545	6792767	840	2.65	x2	No collar
5/5/17	GM/SR/ NP	531	Pink bloodwood	542561	6792772	425	1.34		No collar
5/5/17	GM/SR/	532	Pink bloodwood	542565	6792766	620	1.94		P2

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
	NP								
5/5/17	GM/SR/ NP	533	Pink bloodwood	542558	6792764	490	1.54	x2	No collar
5/5/17	GM/SR/ NP	534	Stag	542563	6792760	300	0.95		No collar
5/5/17	GM/SR/ NP	535	Camphor Laurel	542565	6792760	370	1.16		No collar
5/5/17	GM/SR/ NP	536	Pink bloodwood	542565	6792760	570	1.78		No collar
5/5/17	GM/SR/ NP	537	Pink bloodwood	542563	6792755	400	1.25		No collar
5/5/17	GM/SR/ NP	538	Pink bloodwood	542550	6792744	590	1.85		No collar
5/5/17	GM/SR/ NP	539	Endiandra sieberi	542555	6792748	520	1.63		No collar
5/5/17	GM/SR/ NP	540	Tallowwood	542583	6792756	495.	1.56		No collar
5/5/17	GM/SR/ NP	541	Tallowwood	542574	6792742	500	1.57		No collar
5/5/17	GM/SR/ NP	542	Pink bloodwood	542575	6792740	385	1.21		No collar
5/5/17	GM/SR/ NP	543	Eucalyptus sp.	542583	6792709	355	1.12		No collar
5/5/17	GM/SR/ NP	544	Swamp box	542575	6792712	410	1.28		No collar
5/5/17	GM/SR/ NP	545	Coastal cypress	542581	6792749	330	1.04		No collar
5/5/17	GM/SR/ NP	546	Swamp box	542580	6792712	495.	1.56		No collar
5/5/17	GM/SR/ NP	547	Swamp box	542570	6792701	405	1.28		No collar
5/5/17	GM/SR/ NP	548	Pink bloodwood	542569	6792717	620	1.94		No collar
5/5/17	GM/SR/ NP	549	Tallowwood	542588	6792697	665	2.09		No collar
5/5/17	GM/SR/ NP	550	Melaleuca quinquenervia	542590	6792697	495	1.56		No collar
5/5/17	GM/SR/ NP	551	Pink bloodwood	542587	6792685	450	1.42		No collar
5/5/17	GM/SR/ NP	552	Tallowwood	542567	6792706	860	2.70		No collar
5/5/17	GM/SR/ NP	553	Swamp box	542583	6792690	500	1.57		No collar
5/5/17	GM/SR/ NP	554	Swamp box	542578	6792693	495	1.54		No collar
5/5/17	GM/SR/ NP	555	Swamp box	542594	6792683	610	1.92		No collar
5/5/17	GM/SR/ NP	556	Swamp box	542583	6792680	450	1.42		No collar
5/5/17	GM/SR/ NP	557	Camphor Laurel	542567	6792679	1235	3.87		No collar
5/5/17	GM/SR/ NP	558	Chinese rain tree	542580	6792670	300	0.94		No collar
5/5/17	GM/SR/ NP	559	Melaleuca quinquenervia	542592	6792673	510	1.60		No collar
5/5/17	GM/SR/ NP	560	Swamp box	542590	6792668	570	1.80		No collar
5/5/17	GM/SR/ NP	561	Swamp box	542582	6792664	610	1.92		No collar
5/5/17	GM/SR/ NP	562	Unid rainforest sp.	542586	6792660	305	0.98		No collar
5/5/17	GM/SR/ NP	563	Chinese rain tree	542583	6792651	450	1.42		No collar
5/5/17	GM/SR/ NP	564	Chinese rain tree	542592	6792651	540.	1.71		No collar
5/5/17	GM/SR/ NP	565	Poinciana	542609	6792640	485	1.53	x2	No collar

Date	Obs	Tree number	Species	Easting	Northing	DBH (mm)	Circumf (mm)	CDT	Collar Status
5/5/17	GM/SR/ NP	566	Radiata pine	542629	6792578	685	2.15		No collar
5/5/17	GM/SR/ NP	567	Radiata pine	542639	6792577	475	1.49		No collar
5/5/17	GM/SR/ NP	568	Radiata pine	542635	6792578	635	2.00		No collar
5/5/17	GM/SR/ NP	569	Radiata pine	542641	6792571	415	1.31		No collar
5/5/17	GM/SR/ NP	570	Radiata pine	542641	6792563	625	1.97		No collar
5/5/17	GM/SR/ NP	570	Radiata pine	542644	6792560	490	1.54		No collar
5/5/17	GM/SR/ NP	572	Radiata pine	542641	6792555	438	1.38		No collar
5/5/17	GM/SR/ NP	573	Norfolk pine	542642	6792551	465	1.46		No collar
21/4/17	GM/MJ	574	Endiandra sieberi	542524	6793015	400	1.25	x2	No collar
10/05/17	DR/SR	574	Swamp Box	542598	67928878	337	1.06		No collar
10/05/17	DR/SR	575	Pink Bloodwood	542597	6792874	413	1.3		No collar
10/5/17	NP/SR	576	Ironbark	542686	6792482	315	0.99		P2
10/5/17	NP/SR	577	Brushbox	542676	6792470	300	0.96		P2
10/5/17	NP/SR	578	African tulip	542658	6792560	311	0.97		P2
10/5/17	NP/SR	579	Pink Bloodwood	542672	6792699	605	1.9		No collar
10/5/17	NP/SR	580	Endiandra sieberi	542547	6793008	315	0.99		P2
10/5/17	NP/SR	581	Scribbly Gum	542588	6793030	401	1.26		No collar
10/5/17	NP/SR	582	Camphor Laurel	542513	6793272	498	1.57		No collar
21/4/17	GM/MJ	438a	Blackbutt	542529	6793055	416	1.31	x2	No collar
23/5/17	DR/SR	583	Stag	NR	NR	NR	NR		P2
23/5/17	DR/SR	584	Broad-leaved paperbark	NR	NR	NR	NR		P2
23/5/17	DR/SR	585	Red Mahogany	NR	NR	380	NR		P2

**Table A2:** Habitat trees identified in the Laws Point study area. s = small (10-50mm); m = medium (51-150mm); l = large (151-300mm); vl = very large (>300mm); Obs = observer.

Obs	Date	Tree no.	Tree Species	Easting	Northing	DBH (mm)	Circumf (m)	Branch	Trunk	Spout	Collar status
NP	10/3/17	H1	Blackbutt	542751	6792444	650	2.2	2s	1m	1m	P2
NP	10/3/17	H2	Blackbutt	542751	6792428	700	2.05	1m		1m	No collar
NP	10/3/17	H3	Blackbutt	542756	672401	700	2.26			1l	No collar
NP	10/3/17	H4	Blackbutt	542728	6792426	730	2.3			2m	P2
NP	10/3/17	H5	Blackbutt	542724	6792436	890	2.8	1m			No collar
NP	10/3/17	H6	Blackbutt	542713	6792437	625	1.95			1l	P2
NP	10/3/17	H7	Blackbutt	542726	6792423	550	1.73	1m			P2
NP	10/3/17	H8	Blackbutt	542752	6792377	981	3.1	2m			No collar
NP	10/3/17	H10	Blackbutt	542704	6792382	1100	3.45	1m		1m	No collar
NP	10/3/17	H11	Blackbutt	542702	6792388	1350	4.25	1l, 2m			No collar
NP	10/3/17	H12	Blackbutt	542690	6792404	1250	3.9	1m			No collar
NP	10/3/17	H13	Blackbutt	542671	6792468	1370	4.3		1l		No collar
NP	10/3/17	H15	Blackbutt	542609	6792761	1340	4.2	2l, 2m		1l	No collar
NP	10/3/17	H16	Blackbutt	542629	6792768	1290	4.05	1l, 4m			No collar
NP	10/3/17	H17	Blackbutt	542642	6792724	1400	4.4	2m			P2
NP	10/3/17	H22	Blackbutt	542521	6793078	1145	3.6			2m	No collar
NP	10/3/17	H28	Blackbutt	542549	6793162	1130	3.55	1l	1l		No collar
NP	10/3/17	H32	Blackbutt	542554	6793111	1350	4.25	5l			No collar
NP/GM	5/05/17	H37	Blackbutt	542561	6792751	1080	3.4	2s			No collar
NP	10/3/17	H9	Brush box	542747	6792355	790	2.5		1m		P2
NP	10/3/17	H14	Forest Red Gum	542604	6792659	930	2.9	1l			No collar
NP	10/3/17	H24	Forest Red Gum	542506	6793082	1350	3.25			1l	P2
NP	10/3/17	H25	Forest Red Gum	542503	6793085	775	2.43				No collar
NP/GM	5/05/17	H42	Melaleuca quinquenervia	542588	6792658	530	1.68	1m			No collar
NP/GM	5/05/17	H36	Melaleuca sieberi	542504	6792992	290	0.9		1s		No collar
NP/GM	5/05/17	H43	Poinciana	542629	6792597	557	1.78		2m		No collar
NP	10/3/17	H18	Red Bloodwood	542572	6792964	1100	3.34			2l	No collar
NP	10/3/17	H23	Red Mahogany	542530	6793087	1100	3.18			1vl, 1l	No collar
NP	10/3/17	H26	Red Mahogany	542533	6793159	950	3	1l			No collar
NP	10/3/17	H27	Red Mahogany	542528	6793183	945	2.97			1l	No collar
NP	10/3/17	H29	Red Mahogany	542561	6793129	680	2.13		1l		No collar
NP	10/3/17	H30	Red Mahogany	542541	6793123	835	2.63	2m			P2
NP	10/3/17	H31	Red Mahogany	542551	6793105	610	1.9		1m		No collar
NP	10/3/17	H33	Red Mahogany	542554	6793094	910	2.73	2m	1l		No collar
NP	10/3/17	H20	Red Mahogany	542547	6792961	1225	3.85			1vl	No collar
NP	10/3/17	H19	Scribbly Gum	542523	6793020	1000	3.15	1l, 1m			No collar
NP/GM	5/05/17	H41	Stag	542558	6792682	725	2.28	3m, 1l			No collar
NP	10/3/17	H21	Swamp Box	542559	6792974	680	2.13			1l	No collar
DR	13/3/17	H34	Swamp Box	542580	6792954	917	2.88	1L	2m		No collar
DR	10/3/17	H35	Swamp box	542595	6792911	700	2.2	1m	1s		No collar
NP/GM	5/05/17	H40	Swamp box	542553	6792704	1520	4.78	2m			No collar



Obs	Date	Tree no.	Tree Species	Easting	Northing	DBH (mm)	Circumf (m)	Branch	Trunk	Spout	Collar status
NP/GM	5/05/17	H38	Tallowwood	542581	6792733	725	2.28	3m			No collar
NP/GM	5/05/17	H39	Tallowwood	542574	6792737	650	2.04			1l	No collar
DR/SR	24/5/17	Add	Blackbutt	542616	6792778	NR	NR	NR	NR	NR	P2
DR/SR	24/5/17	Add	NR	NR	NR	NR	NR	NR	NR	NR	P2
DR/SR	24/5/17	Add	Scribbly gum	542548	6793005	NR	NR	NR	NR	NR	P2
DR/SR	24/5/17	H172	NR	NR	NR	NR	NR	NR	NR	NR	P2
DR/SR	24/5/17	Add	NR	NR	NR	NR	NR	NR	NR	NR	P2
DR/SR	24/5/17	H9 add	NR	NR	NR	NR	NR	NR	NR	NR	P2

**Table A3:** Weather conditions during Phase 1 and 2 koala population surveys at the Laws Point hotspot. Mlb = moves large branch; Msb = moves small branch.

Date	Site	Survey No.	Observers (T'sects)	Start	End	Temp Range	Cloud %	Wind	Rain	Moon	Comments
23/3/2017	LP	1-N	DR,GM,MJ =1-6; BT,NP,SR =7-12	1919	2420	22	100	still	<2hr	3/4	
24/3/2017	LP	1-D	DR,GM,MJ =1-6; BT,NP, SR =7-12	1137	1610	24	90	Mlb	<24hr	3/4	rain prior to survey, cloudy, mod wind
18/4/2017	LP	2-N	NP,SR,MJ =1-6; BT,GM, SF =7-12	1759	2315	18-20	10	Still	Fine	2/4	Shower during surveys
19/4/2017	LP	2-D	NP,SR,GM =1-6; BT,MJ, ZE =7-12	1010	1440	22-24	10-60	Msb	Fine	2/4	
26/4/2017	LP	3-N	BT, GM. ZE=1-6; NP, MJ,SR=7-12	1745	2242	18-21	10	Msb	Fine; <24hr	4/4	Fine
27/4/2017	LP	3-D	BT, GM. ZE=1-6; NP, MJ,SR=7-12	1030	1455	19-22	10	Msb	Fine; <24hr	4/4	Fine
30/5/2017	Ward	1-N	BT,NP, SR	1730	2056	14-17	10	Still	Fine	1/4	Fine
31/5/2017	Ward	1-D	NP, SR, MJ	1202	1530	16-19	nil	Mlb	fine	1/4	fine
31/5/2017	LP	4-N	BT,DR, ZE=7-12; NP,SR, MJ=1-6	1730	2215	13-17	10	Msb	Fine	1/4	fine
1/6/2017	LP	4-D	BT,DR, ZE=7-12; NP,SR, MJ=1-6	1030	1515	17-19	10	Mlb	Fine/windy	1/4	fine/windy

**Table A4:** Koala scat collection location data. MWR = Munro Wharf Road; TR = Tucki Road; HL = Hazlemount Lane; GR = Grahams Road.

Collection Date	Record No.	Impact/Control	Time	T'sect/ Location	Easting	Northing	Tree sp.	DBH
24/3/2017	K5 (S1)	I	1240	9	542798	6792683	Tallowwood	180
24/3/2017	K4(po)	I	1240	3	542499	6792712	Red Mahogany	nr
25/3/2017	K1	I	1240	10	542961	6792316	Forest red gum	nr
25/3/2017	C1 (S2)	C	1746	TR	531203	6801690	Forest red gum	390
25/3/2017	C2 (S3)	C	1801	MWR	529810	6800118	Forest red gum	380
25/3/2017	C3 (S4)	C	1907	MWR	528958	6800262	Forest red gum	
19/4/17	K7	I	1500	T3	542509	6792709	Swamp mahogany	750
19/4/17	K9	I	1500	T4	542571	6792695	Forest red gum	700
19/4/17	K6 & K8	I	1510	T11	542989	6792420	Forest red gum	850
19/4/17	C4	C	1610	TR	531194	6801698	Forest red gum	350
19/4/17	C5	C	1622	MWR	531062	6800449	Swamp Oak	380
19/4/17	C6	C	1632	MWR	529080	6800242	Forest red gum	400
27/4/2017	K11	I	1442	T5	542563	6792703	Tallowwood	900
27/4/2017	K13	I	1450	T4	542519	6792753	P bloodwood	750
27/4/2017	K14	I	1510	T11	543002	6792421	Forest red gum	850
27/4/2017	C7	C	1631	MWR	529991	6800090	Swamp mahogany	350
27/4/2017	C8	C	1649	MWR	529045	6800250	Forest red gum	450
27/4/2017	C9	C	1655	MWR	529280	6800210	Forest red gum	350
1/6/2017	K20	I	1540	T9	542929	6792353	Forest red gum	600
1/6/2017	K16	I	1545	T11	542985	6792436	Forest red gum	800
1/6/2017	K18	I	1545	T11	542985	6792436	Forest red gum	800
1/6/2017	K15	I	1504	T4	542534	6792751	Tallowwood	1200
1/6/2017	K17	I	1506	T3	542503	6792708	Swamp Mahogany	750
1/6/2017	K19	I	1510	T2	542409	6792955	Red Mahogany	900
1/6/2017	K21	I	1514	T1	542365	6792915	Swamp Mahogany	600
2/6/17	C10	C	810	MWR	530051	6800077	Forest red gum	250
2/6/17	C11	C	815	MWR	529854	6800116	Forest red gum	300
2/6/17	C12	C	820	MWR	529819	6800125	Forest red gum	450
2/6/17	C13	C	828	MWR	529604	6800156	Forest red gum	300
2/6/17	C14	C	834	MWR	529501	6800171	Forest red gum	350
2/6/17	C15	C	800	TR	531155	6801668	Forest red gum	500
2/6/17	C16	C	857	HL	532131	6799640	Swamp Mahogany	500
2/6/17	C17	C	954	GR	535101	6804385	Flooded Gum	800

**Table A5:** Koala scat collection weather and health data. MWR = Munro Wharf Road; TR = Tucki Road.

Record No.	Temp at collection	Weather at collection	Rainfall (collection period)	Sex	Breeding	Health
K5 (S1)	22.4	fine. Rain<2hr	F(pr)		No	dry bottom ; robust, healthy
K4(po)	24.2	fine, cloudy	10mm over night		No	
K1	22	cloudy	10mm over night	F	No	good
C1 (S2)	21	fine, cloudy	10mm over night	F	No	dry bottom ; clear eyes
C2 (S3)	21	fine, cloudy	10mm over night	M(pr)	No	Obstructed view
C3 (S4)	21	fine, cloudy	10mm over night	M(pr)	No	Good
K7	23	Fine and windy	5mm O/N	?	NA	Dry bottom
K9	23	Fine and windy	5mm O/N	F?	No	Dry bottom
K6 & K8	23	Fine and windy	5mm O/N	F(ad); F (sub)	no	both looked robust, healthy
C4	23	Fine and windy	5mm on	F?	No	Dry
C5	22	Fine and windy	5mm on	?	No	Dry
C6	22	Fine and windy	5mm O/N	F?	No	Dry
K11	19	Fine	Nil	M.	No	Dry bum, injured L eye
K13	19	Fine	Nil	F	No	Dry bum
K14	19	Overcast	Nil	F	No	Healthy; dry bum
C7	16	Fine, cloudy	Nil	F?	No	Dry
C8	16	Fine, cloudy	Nil	?	No	Dry
C9	17	Fine, cloudy	Nil	F?	No	Dry
K20	18.1	Fine, windy	Nil	M	No	Healthy, robust
K16	18.1	Fine, windy	Nil	F(ad)	No	Dry bum
K18	18.1	Fine, windy	Nil	F(sub)	Sub-adult	Dry bum
K15	18.4	Fine and windy	Nil	?	No	Very brown bum
K17	18.4	Fine and windy	Nil	F?	No	Clean, dry bum
K19	18.4	Fine and windy	Nil	?	No	Healthy?
K21	18.4	Fine and windy	Nil	?	No	Dry bum
C10	10	Fine, slight wind	Nil	M	No	Conjunctivitis in both eyes. Brown belly, bum slight brown
C11	10	Fine, slight wind	Nil	F	No	Dry bum, eyes clear
C12	10	Fine, slight wind	Nil	F	No	Healthy, eyes clear, feeding
C13	10	Fine, slight wind	Nil	F	No	Healthy, eyes clear
C14	10	Fine, slight wind	Nil	?	No	Dry bum
C15	10	Fine	Nil	?	No	Clean, dry bum
C16	12	Fine	Nil	M	No	Minor conjunctivitis, slight brown bum
C17	15	Fine	Nil	F?	No	Healthy, dry bum