

Koala Safe Neighbourhood

Koala monitoring, genetics research and community engagement project

Phase 5 (2022)



Interim Progress Report

1 July 2022 to 31 December 2022

Prepared for the Redland City Council by the University of Sunshine Coast, Detection Dogs for Conservation

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Introduction

Redland City Council's (RCC) Koala Safe Neighbourhoods (KSN) program is part of a suite of conservation initiatives aimed at protecting the city's koala population under the Redlands Coast Koala Conservation Action Plan 2022-2027. The focus for phase five is to further investigate how to deliver effective wildlife conservation in a highly anthropogenic landscape and is supported by partnerships with the University of the Sunshine Coast Detection Dogs for Conservation, and Griffith University. RCC phase five initiatives include:

- continued monitoring of ambassador koalas, to raise awareness of the koala's plight,
- continued monitoring of koala disease and population dynamics in Sentinel Sites and in Koala Safe Neighbourhoods,
- the development of a targeted disease management program,
- an active and engaged citizen scientist program to support koala conservation in highly modified landscapes.

The Koala Safe Neighbourhood program has been running for four years with the aim of generating a greater sense of custodianship from residents in KSN areas of their local koalas by informing, supporting, and empowering residents to actively participate in and adopt koala conservation initiatives within urbanised landscapes to conserve koalas and their habitat. The University of the Sunshine Coast's Detection Dogs for Conservation has been monitoring ambassador koalas for over three and a half years across four KSNs encompassing select areas of Ormiston, Birkdale, Thornlands and Mount Cotton. This report provides an update on the progress of Redland City Council's Koala Safe Neighbourhoods program to the end of December 2022.

Summary results

The recruitment and monitoring of koalas for this program commenced in March 2019 and has resulted in the capture from the wild or recruitment from a wildlife hospital post treatment of 77 koalas from the suburbs of Cleveland, Wellington Point, Ormiston, Birkdale, Thornlands and Mount Cotton KSN, or Minjerrabah (Table 1). In summary:

- The majority (68.8%, n=53) of these koalas were recruited as ambassador koalas after being given clean bills of health at their veterinary examination and were fitted with tracking devices and monitored in the field.
 - Of the 53 koalas released with monitoring devices, 15 (28%) are currently actively monitored with satellite tracking or VHF tags.
 - Thirty-eight koalas are currently wearing Bluetooth Low Energy (BLE) ear tags providing an average range of up to 15-20m where there is direct line of site between the animal and mobile phone, to enable researchers to identify individual koalas.
- The remainder of the koalas were diagnosed in poor health at their initial veterinary examination (32.8%, n=24) and were admitted to care due to illness or injury.
 - The 24 koalas admitted to care were euthanised due to severity of disease, poor long-term prognosis if released to the wild, or adverse complications during treatment.
 - Some of these animals have been admitted to a wildlife hospital on multiple occasions for health checks (see note below).
- Two koalas (Ruby from Toondah Harbour and Aroha from Victoria Point) who are not located within a current KSN were caught for welfare reasons. (Ruby to reunite with her lost joey; Aurora captured with a sick mother) and were released with BLE ear tags, as they originated from high pedestrian traffic suburban parks with very koala-engaged local residents who were keen to use the app to find the koalas. This will be the focus of council's next stage of koala monitoring, where all koalas released after treatment from wildlife hospitals will be fitted with a BLE ear tag and monitored by local 'Koala Guardians'. One orphan raised after its mother was euthanised was also released with a BLE tag (River).
- Two koalas were captured at a development site at Cowley Street to ensure their safety, after the development proponent received state government approval to relocate the few koalas remaining before clearing the land:
 - Guinevere has now been decollared and is not monitored after being tracked for close to one year. She had travelled away from her usual home range at the time of decollaring and was likely looking for mates during the breeding season and was detected with an early-term pregnancy at her final veterinary exam.
 - Lancelot was admitted to the Australia Zoo Wildlife Hospital (AZWH) with cystitis but was euthanised due to complications from his disease.
- Nine koalas were captured while DDC personnel were undertaking catching or monitoring activities in the field, and the majority (78%) were euthanised for welfare reasons:
 - Three sick female koalas with chlamydial disease from the Birkdale land site,
 - Five sick koalas with chlamydial disease from Mount Cotton and Wellington Point,

- One koala was injured by a car and captured from Cleveland.

A primary goal of the KSN program is to enable citizen scientists, using technology and apps developed and tested during the program, to collect data that helps to monitor disease and other threats and to better protect the Redlands urban koala population.

Multiple hospital admissions for treatment of injury or illness

A small number of Ambassador koalas have required multiple hospital admissions for illness or injury. The ongoing monitoring of koalas by the research team and community has allowed RCC to collect valuable data on koala population dynamics such as the incidence of disease, and mortality from threatening processes such as domestic dog attack.

Benson was originally recruited to the program after treatment at AZWH for peritonitis from a suspected car hit. He was fitted with monitoring devices before release to the wild in December 2020 in the Thornlands KSN, where he quickly dispersed to the north to take up residence in south-eastern Cleveland. His home range encompassed backyards, street trees and parks, routinely crossing suburban streets. He was hit by a car in late 2021, resulting in a fractured leg and foot, requiring surgery and months-long treatment at AZWH. In April 2022, he was released into the southern end of his home range and has since established a new home range on the border of Thornlands and Cleveland and remains in the program.

Miles was admitted to care as an orphaned Minjerribah koala and was successfully rehabilitated and released with monitoring devices as an ambassador koala in the Mount Cotton KSN in May 2021. On capture for a second six monthly veterinary examination in January 2022, Miles was noted as lethargic, with average body condition and some bruising to his spine, but without a clear cause of his condition and a definitive diagnosis, he was categorised as a 'poor-doer'. He was released back at his point of capture for ongoing monitoring.

Larissa, a translocated Minjerribah koala, initially admitted to the RSPCA wildlife hospital on the 13/12/20 due to a vehicle strike, where she was fortunate to not sustain any injuries. was captured. A routine health exam detected a subclinical chlamydial infection, and Larissa was sent to the AZWH for treatment. She was released towards the end of April 2022 in good health and fitted with monitoring devices to remain in the tracking program.

Axle was admitted to AZWH with moderate cystitis in April 2022. He was treated and released with tags as a healthy koala in May. Axle had a home range in habitat around Pitt Road, Birkdale, until he was found deceased at a private residence in October 2022. The cause of death is a suspected dog attack



as the dog at the property is a breed that is recognised for attacking and killing koalas and Axle showed no prior signs of illness or injury.

Bruce was previously admitted to AZWH for chlamydial disease (conjunctivitis) in October 2017 and November 2021. He was released on both occasions and showed good recovery until he was observed with conjunctivitis during routine tracking in November 2022. He is currently receiving treatment at AZWH.

Table 1 provides an overview of the fates of koalas that have been monitored during each phase of this project.

Table 1. Summary of koalas caught for the KSN program, including health and current status.

Name	Sex	KSN	Date of first vet check ~	Age first capture ~	Wt (kg)	Initial diagnosis	Initial fate #	No. vet checks ^	Current status, as of 31 Dec 2022	Status Date
Ambassador koalas										
Brian	M	Ormiston	17/04/19	2.2	7.05	Healthy	Released with tracking devices	2	Presumed alive, not monitored – dropped collar	N/A
Kimo	F	Ormiston	17/04/19	5	6.8	Healthy	Released with tracking devices#	4	Dropped collar	12/2022
Lucky	M	Ormiston	17/04/19	6.5	6.68	Healthy	Released with tracking devices	1	Found dead – disease, chronic ill-thrift	05/05/19
Banjo	M	Ormiston	24/04/19	4	7.51	Healthy	Released with tracking devices	2	Presumed alive, not monitored – dropped collar, VHF ear tag flat	N/A
Gumnut	F	Ormiston	24/04/19	1.9	4.11	Healthy	Released with tracking devices#	1	Currently monitored	12/2022
Lulu	F	Ormiston	24/04/19	2.5	5.06	Healthy	Released with tracking devices	1	Dead – train-related trauma. Joey also dead	07/07/21
Bruce	M	Ormiston	01/05/19	3.33	8.3	Healthy	Released with tracking devices#	4	AWZH	12/2022
Cuddles	F	Ormiston	01/05/19	1.4	3.98	Healthy	Released with tracking devices	1	Presumed alive, not monitored – dropped collar	N/A
Monty	M	Ormiston	01/05/19	4	9.19	Healthy	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Billie	F	Ormiston	01/05/19	TBC	TB	Diseased	Admitted to AZWH	1	Euthanased – chlamydial disease	2/5/21
Saxon	M	Ormiston	01/05/19	3.5	5.6	Diseased	Admitted to AZWH	1	Euthanased while in care – oxalate nephrosis from antibiotic treatment for cystitis	06/06/19
Ted	M	Ormiston	01/05/19	4	7.3	Healthy	Released with tracking devices#	2	Presumed alive, not monitored – dropped collar	N/A
Rubin	M	Ormiston	02/07/19	2	5.72	Diseased	Admitted to AZWH#	1	Presumed alive, not monitored – dropped collar	N/A
Chips	M	Ormiston	21/08/19	2.5	8.22	Healthy	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Leaf	F	Ormiston	21/08/19	1.8	4.99	Healthy	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Poppy	F	Ormiston	21/08/19	4	5.46	Healthy	Released with tracking devices	1	Found dead – unknown cause	7/1/22
Bilbo	M	Ormiston	18/09/19	5	8.66	Healthy	Released with tracking devices	1	Found dead	12/2022
Ember	F	Ormiston	18/09/19	3	6.56	Diseased	Released with tracking devices#	1	Presumed alive, passive monitoring – dropped collar	N/A
Wonky	M	Ormiston	18/09/19	6.5	7.84	Healthy	Released with tracking devices	2	Not monitored – dropped collar. Recaptured, euthanased – trauma (vehicle?)	13/4/21
Pebbles	F	Ormiston	25/09/19	6.5	6.7	Diseased	Admitted to AZWH	1	Euthanased – disease, lymphedema, joey River	30/09/21
River	F	Ormiston	25/09/19	0.8	1.01	Orphaned	Admitted to care#	1	Presumed alive, not monitored	N/A
Silkie	F	Ormiston	25/09/19	5.5	6.01	Healthy	Released with tracking devices	3	Admitted to AZWH 9/12/21. Euthanased – severe chlamydial reproductive disease	10/12/21
Bluey	M	Ormiston	30/10/19	2.5	7.0	Healthy	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A



Name	Sex	KSN	Date of first vet check ~	Age first capture ~	Wt (kg)	Initial diagnosis	Initial fate #	No. vet checks ^	Current status, as of 31 Dec 2022	Status Date
Olive	F	Ormiston	30/10/19	TBC	TB C	Diseased	Admitted to AZWH	1	Euthanased – blind from potential head trauma, reproductive disease	31/10/21
Milo	M	Ormiston	30/10/19	3.5	6.65	Healthy	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Tally	F	Ormiston	30/10/19	6	5.97	Healthy	Released with tracking devices	1	Not monitored – dropped collar. Euthanased -	7/11/21
Bark	M	Ormiston	16/06/20	1.5	4.28	Healthy	Released with tracking devices#	1	Currently monitored	12/2022
Rainbow	F	Birkdale	25/08/20	6	6.23	Healthy	Released with tracking devices#	2	Presumed alive, not monitored – dropped collar	27/10/21
Uka	F	Birkdale	25/08/20	2.5	6.56	Healthy	Released with tracking devices	3	Euthanased	12/2022
Nibble	F	Ormiston	03/09/20	0.81	1.39	Healthy	Joey of KImo, no devices fitted	1	Presumed alive, never monitored	N/A
Banjora	F	Thornlands	02/09/20	4.5	6.16	Diseased	Admitted to AZWH	1	Euthanased while in care – chlamydial disease	23/9/20
Lackey	M	Thornlands	02/09/20	2.5	6.47	Diseased	Released with tracking devices#	3	Presumed alive, not monitored – dropped collar	N/A
Cariad	F	Thornlands	03/09/20	6	6.52	Diseased	Admitted to AZWH	1	Euthanased – chlamydial disease	04/09/20
Hazel*	F	Thornlands	09/9/20	0.7	0.8	Orphaned	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	31/10/21
Blake	M	Thornlands	11/09/20	2	6.74	Healthy	Released with tracking devices#	2	Currently monitored	12/2022
Daisy	F	Thornlands	14/09/20	3	5.48	Diseased	Admit to EVE clinic	1	Euthanased – leukaemia, joey Sir Derek fostered	15/09/21
Sir Derek*	M	Thornlands	14/09/20	0.8	3.15	Orphaned	Released with tracking devices#	2	Presumed alive, not monitored – dropped collar	N/A
Summer	F	Thornlands	17/09/20	3	6.16	Healthy	Released with tracking devices	1	Admitted to AZWH 10/12/20. Euthanased,	10/12/20
Benson*	M	Thornlands	17/12/20	2	5.78	Injured	Released with tracking devices#	1	Currently monitored	12/2022
Slinky*	M	Ormiston	07/10/20	1.8	5.06	Orphaned	Released with tracking devices	2	Dropped collar – passively monitoring. Euthanased – trauma domestic dog	06/02/21
Liptus*	M	Birkdale	22/01/21	1.05	3.03	Diseased	Released with tracking devices#	2	Initially treated for conjunctivitis with mother Uka at AZWH before release. Presumed alive, not	N/A
Princess	F	Thornlands	13/04/21	11	6.43	Diseased	Admitted to AZWH	1	Euthanased – chlamydial disease	13/04/21
Squirrel*	M	Ormiston	15/04/21	1.3	3.5	Orphaned	Released with tracking devices	2	Euthanased	12/2022
Blinky*	M	Thornlands	10/05/21	9	6.85	Diseased	Released with tracking devices#	2	Dropped collar – passive monitoring	31/12/21
Oscar*	M	Ormiston	16/06/21	1.5	3.7	Orphaned	Released with tracking devices	3	Dead	12/2022



Name	Sex	KSN	Date of first vet check ~	Age first capture ~	Wt (kg)	Initial diagnosis	Initial fate #	No. vet checks ^	Current status, as of 31 Dec 2022	Status Date
Lorri*	F	Birkdale	05/07/21	1.2	3.31	Orphaned	Released with tracking devices#	1	Presumed alive - dropped collar	30/10/21
Patti*	M	Birkdale	05/07/21	1.7	3.99	Orphaned	Released with tracking devices	1	Found dead - septicaemia	11/08/21
Takka*	M	Birkdale	05/07/21	1.4	3.38	Orphaned	Released with tracking devices	2	Admitted to AZWH 12/7/21. Euthanased while in	19/07/21
Gummi*	M	Ormiston	23/08/21	1.3	4.29	Orphaned	Released with tracking devices	1	Presumed alive, not monitored – dropped collar	N/A
Axle*	M	Birkdale	09/07/21	2.7	6.45	Diseased	Released with tracking devices	2	Found dead	12/2022
Grace*	F	Thornlands	22/10/21	1.5	3.84	Orphaned	Released with tracking devices	1	Dead	12/2022
Bob	M	Mt Cotton	05/02/21	5	7.93	Diseased	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Nugget	M	Mt Cotton	13/04/21	TBC	TBC	Diseased	Admitted to AZWH	1	Euthanased while in care – chlamydial disease, oxalate nephrosis from antibiotic treatment	15/05/21
Larissa*	F	Mt Cotton	05/05/21	4	5.03	Healthy	Released with tracking devices#	1	Currently monitored	12/2022
Olly*	F	Mt Cotton	05/05/21	1.5	3.69	Orphaned	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Thelma*	F	Mt Cotton	05/05/21	9.25	5.98	Injured	Released with tracking devices#	2	Currently monitored	12/2022
Louise*	F	Mt Cotton	13/05/21	1.5	3.78	Orphaned	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Miles*	M	Mt Cotton	13/05/21	2	4.39	Orphaned	Released with tracking devices#	2	Presumed alive, not monitored – dropped collar	12/2022
Leuca	M	Mt Cotton	29/03/202	2.5	6.59	Healthy	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Angie*	F	Birkdale	15/04/202	1.8	3.83	Healthy	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Geraldine*	F	Thornlands	15/04/202	5.5	5.1	Healthy	Released with tracking devices#	1	Presumed alive, not monitored – dropped collar	N/A
Frodo	M	Ormiston	20/4/2022	3.5	7.92	Healthy	Released with tracking devices#	1	Currently monitored	12/2022
Twiggy	F	Ormiston	30/05/202	2.0	4.36	Healthy	Released with tracking devices	1	Deceased	12/12/22
Jazza*	F	Birkdale	06/07/202	7	3.37	Healthy	Released with tracking devices#	1	Currently monitored	12/2022
Rose	F	Ormiston	09/07/202	4.5	5.73	Healthy	Released with tracking devices	1	Presumed alive, not monitored – dropped collar	N/A
Bell	F	Ormiston	09/07/202	1.3	3.82	Healthy	Released with tracking devices#	1	Currently monitored	12/2022
Dandy*	F	Mt Cotton	14/09/22	2	3.43	Orphaned	Released with tracking devices	1	Currently monitored	12/2022
Toby	M	Ormiston	04/10/22	6	6.45		Admitted to AZWH, released with tracking devices#	1	Currently monitored	13/12/22
Iggy Pop*	F	Ormiston	02/11/22	1.4	3.47	Orphaned	Released with tracking devices	1	Deceased	7/11/22



Name	Sex	KSN	Date of first vet check ~	Age first capture ~	Wt (kg)	Initial diagnosis	Initial fate #	No. vet checks ^	Current status, as of 31 Dec 2022	Status Date
Gina	F	Ormiston	16/12/202	3.0	4.74	Healthy	Released with tracking devices#	1	Currently monitored	12/2022
Released from Australia Zoo Wildlife Hospital (released outside a KSN)										
Ruby*	F	Cleveland	27/05/21	3	3.88	Healthy	BLE ear tag only#	1	Passively monitored by the community/KAG	29/05/21
Aroha*	F	Victoria Pt	10/02/21	1.3	3.2	Healthy	BLE ear tag only#	1	Not monitored, not found	16/06/21
Cowley Street development										
Lancelot	M	Ormiston	26/08/21	3	7.05	Diseased	Admitted to AZWH	1	Euthanased – chlamydial disease	1/10/21
Guinevere	F	Ormiston	09/09/21	2.5	6.5	Healthy	Released with tracking devices#	1	Not monitored	13/12/22
Sick or injured koalas captured during routine monitoring or catching										
Wasa	F	Birkdale land	15/07/21	3	3.95	Diseased	Admitted to AZWH	1	Euthanased - chlamydial disease, reproductive disease	16/07/21
Shoyu	F	Birkdale land	15/07/21	3	3.8	Diseased	Admitted to AZWH	1	Euthanased while in care – chlamydial disease, oxalate nephrosis Euthanased	26/07/21
De-Ville	F	Wellington	09/09/21	4	5.55	Diseased	Admitted to AZWH	1	Treated and released, no monitored tags fitted	14/11/21
Quinn	F	Birkdale land	09/09/21	8	5.2	Diseased	Admitted to AZWH	1	Euthanased - chlamydial disease, reproductive disease	10/09/21
Tibereus	M	Cleveland	10/11/21	6	7.85	Vehicle hit	Admitted to AZWH	2	Euthanased – vehicle trauma, head injury causing seizures	11/11/21
Lucifer	M	Mt Cotton	15/08/21	10	6.85	Disease	Admitted to AZWH	1	Euthanased – chlamydial disease, causing blindness	27/09/21
Roxy	F	Mt Cotton	18/04/22	4	3.75	Disease	Admitted to AZWH	1	Euthanased – chlamydial disease (severe cystitis)	18/04/22
Silica	F	Mt Cotton (Sandy Ck)	10/6/2022	4	5.3	Disease	Admitted to AZWH	1	Euthanased – chlamydial disease, reproductive disease	10/06/22
Caydyn	M	Cleveland	19/6/2022	3	6.55	Disease	Admitted To AZWH	1	Treated and released, no monitored tags fitted	10/09/22



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*Koalas recruited from wildlife rehabilitation facilities

~Date of first vet check and age is at the time of capture from the wild or collaring after discharge from a wildlife rehabilitation facility.

^Vet checks are typically carried out at the Endeavour Veterinary Ecology clinic, however, koalas with disease are referred directly to the Australia Zoo Wildlife Hospital. During treatment, koalas may have multiple exams – these during-treatment exams are not included in the above totals.

Bluetooth Low Energy (BLE) ear tag.