

**What can we learn by radio-tracking
koalas in the Lismore-Goonellabah
urban area?**

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Radio-tracking Background



Radio-tracking :

- important technique to relocate animals
- find where animals are
- infer what they are doing
- build a picture of their movements



Radio-tracking Background



Radio-tracking :

Studies easy to plan but often hard to execute

- catch animals
- attach collars
- use radio-receiver to relocate
- include many individuals over a good (?) period of time (M&F)



Radio-tracking Background



Many animals use discrete areas
– i.e. a home range.

- i) Use available habitats unevenly;
- ii) Some habitats or elements of habitat critically important (e.g. food or shelter);



Radio-tracking Background



iii) Size of area used is important;

iv) Overlap of space by individuals is important;

v) Response to modified habitat important.



History of this project

2007

Barb Dobner & Lorraine Vass wanted to know –

- i) fate of koalas released from care centre;
- ii) information about movements at release site

FoK scored some funds from LCC to buy radio-collars.

Barb, Lorraine & Nick Stephens (LCC) came to see me to see whether we could do a project.

History of this project

2008

Various approvals needed

Koalas collared & released:

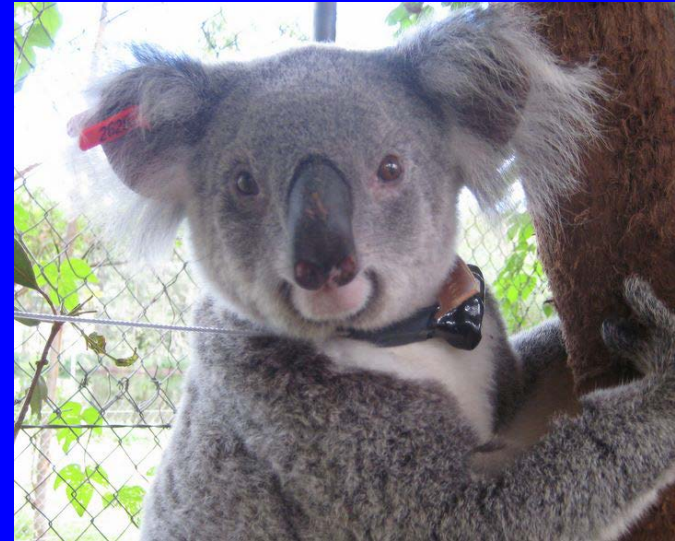
Matthew – 13 Sep 2008

Ashley – 6 Nov 2008

Amaya – 21 Jan 2009

Elizabeth – 9 Feb 2009

etc



Volunteer Trackers

Rick Stewart,
John and Tash Holland,
Samantha Kendall,
Phyllis Mathews,
Roy and Rick Wagner,
Katherine Kermode,
Donna Wilson,
Claire Douglas,
Sophie Lancaster, Elizabeth Reimer,
Dr Eddy Krebbs and John Partridge.



Koalas tracked
daily then
weekly.

Overview of the project

12 koalas collared – 9 tracked >6 months

7 of 10 survived for >1 yr

– 2 euthanased (1 dog attack, 1 ill health)

Location records allow study of
home range size & composition.



Overview of the project

Males: 5 tracked 1.7 yrs (336-742 days)
– 90 locations each

Females: 4 tracked 1.4 yrs (198-609 days)
– 54 locations each

Are numbers adequate?



Ashley

4 yrs old
6.2 kg

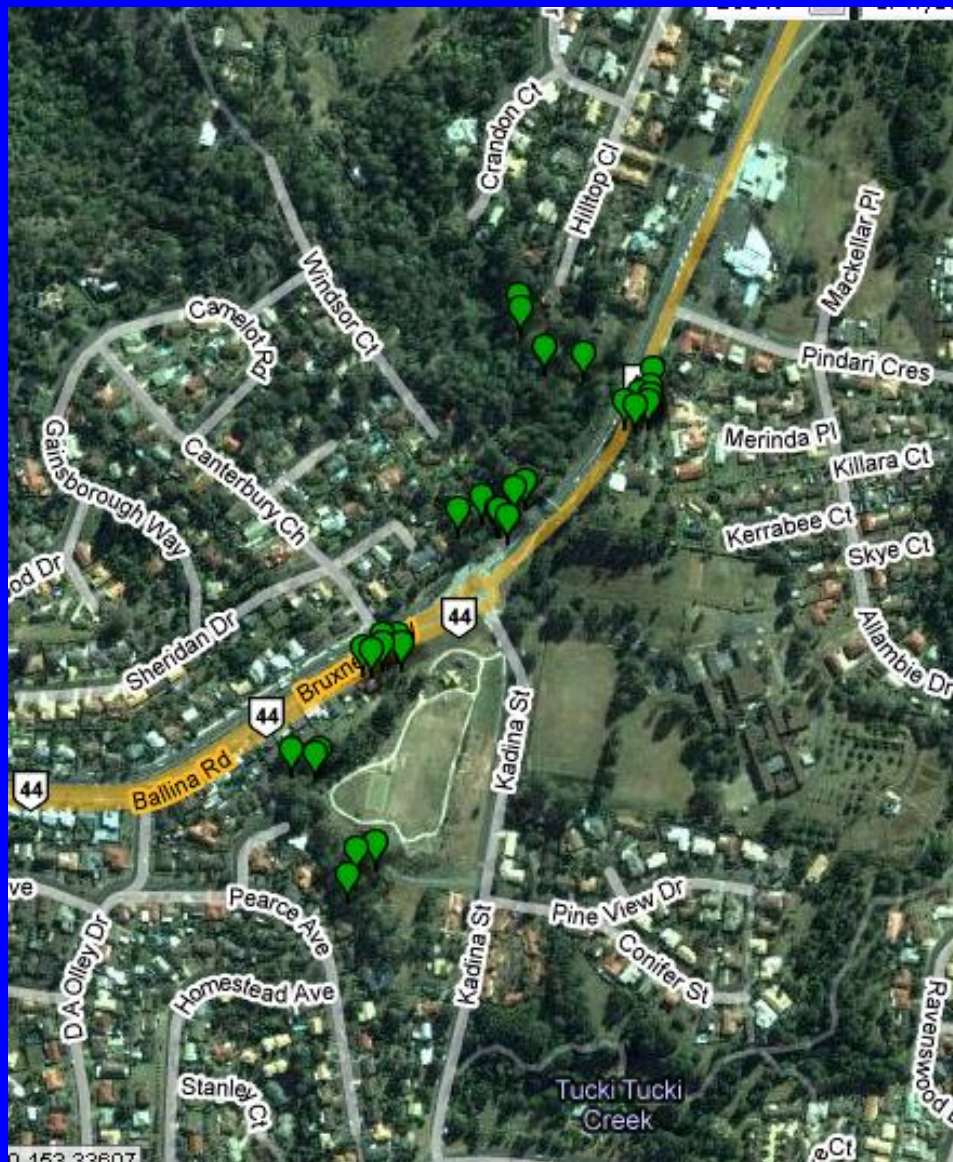
Released
6 Nov 2008
Tracked 113 times
over 678 days



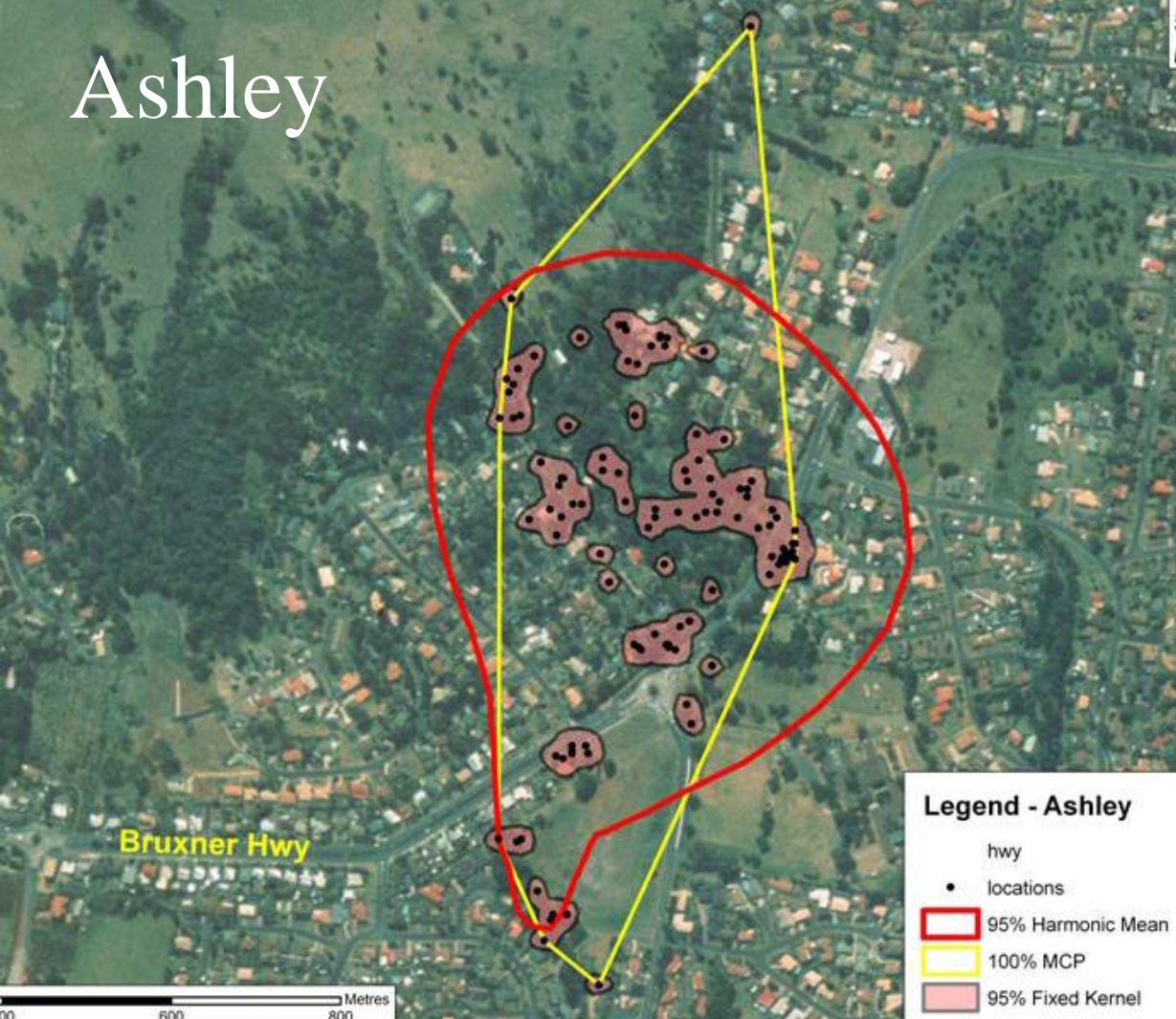
Ashley's tracked locations

53 road crossing
events (32 on
Bruxner Hwy)

2.4/month [that we
know of]



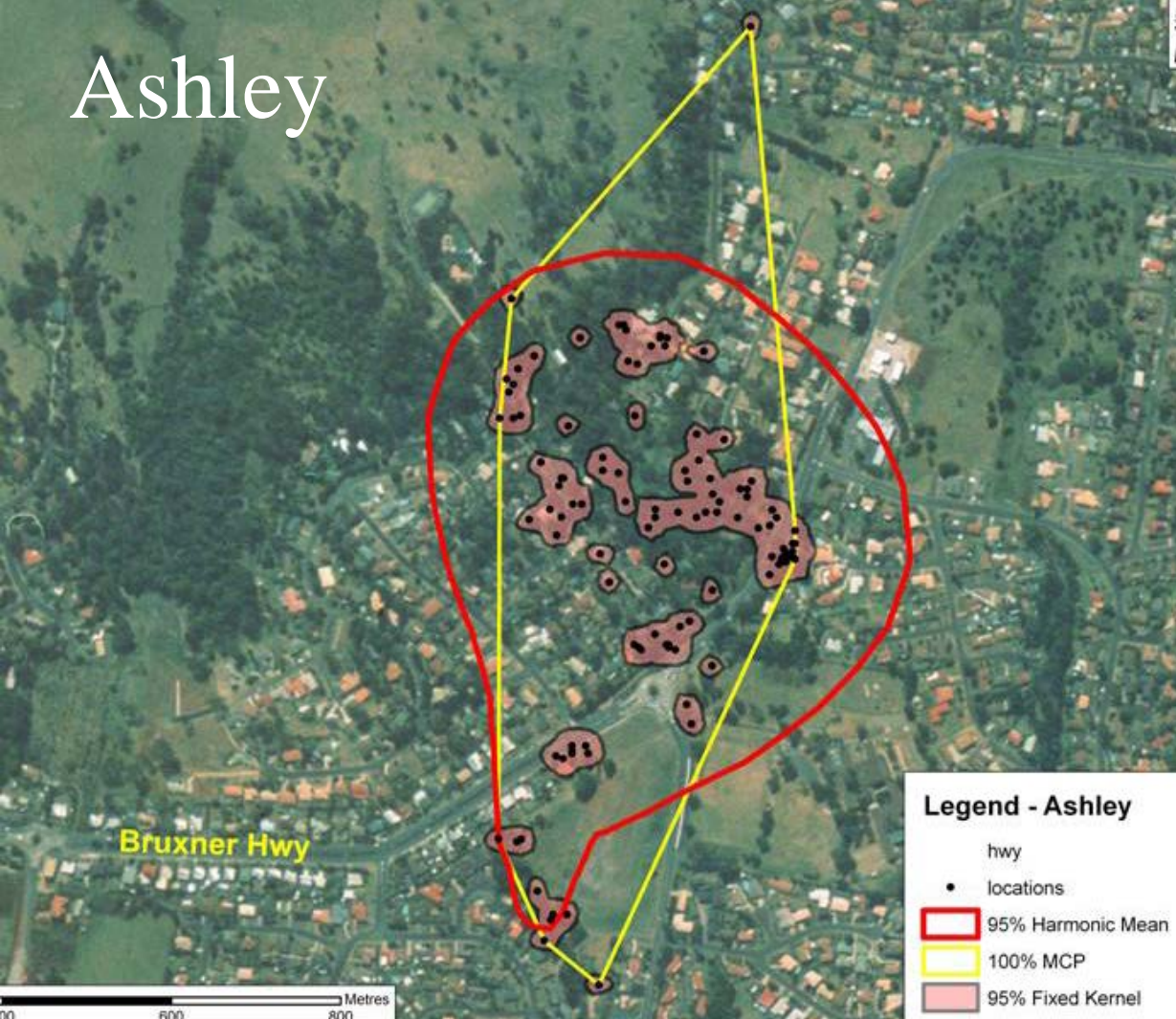
Ashley



Average home
territory= 26.4
ha

Primary habitat = 35% - Koala specific trees
Non-habitat = 61% (non Koala trees)

Ashley



53 road crossing events (32 on Bruxner Hwy)
2.4/month [that we know of]

What allowed Ashley to survive the Bruxner?

32 crossings [that we know of] of the Bruxner Hwy
over 2 yrs



?????

Conclusions

Koala habitat
embedded in large
areas of non-habitat.

All of the 9 koalas had
to make
road crossings.



Conclusions

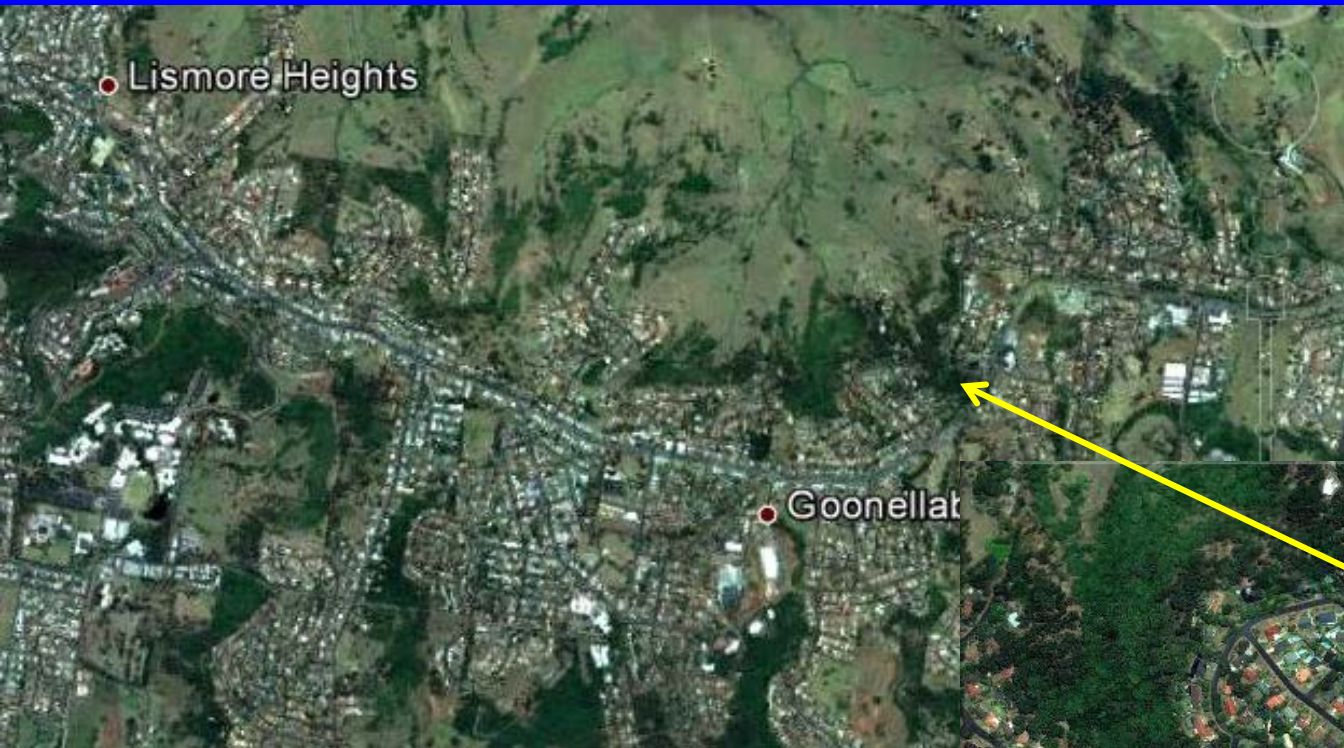


FoK records for 2011-12 show only 10 of 52 koalas “hit by vehicle” survived.

Ashley’s lesson may be the value of roundabouts.



Strategic planning for the koala will require N-S links over Bruxner Hwy



Ashley's gully looks like a good location to enhance