

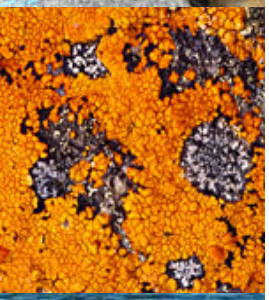

Bilby monitoring from horseback

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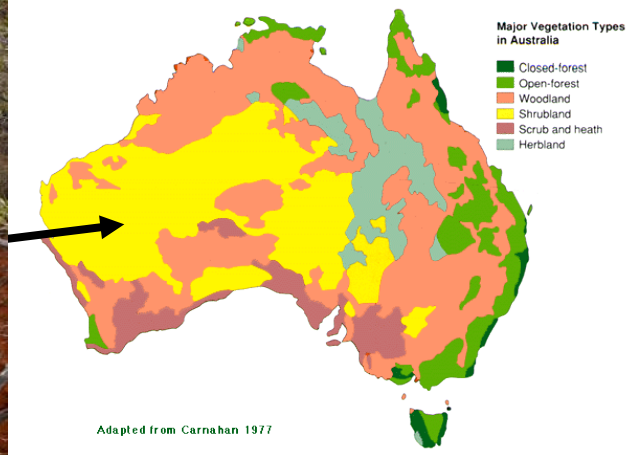
2007-2010
128 bilbies re-introduced to Lorna Glen

Success criteria:

- Survival (>60%)
- Condition (weight)
- Breeding
- Dispersal
- Population growth (>200 by August 2010)

Photo: Judy Dunlop



Trends in feral cat track activity index (TAI) at Lorna Glen 2003-2013

TAI

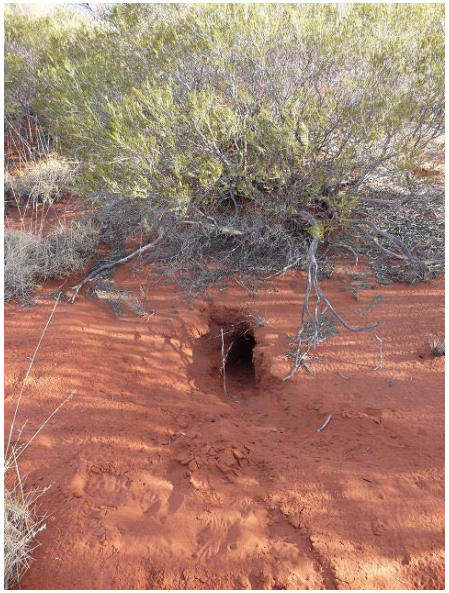
0
5
10
15
20
25
30
35

PreAut03
PosW03
Spr04
PreW05
Spr05
Win06
Sum07
Spr07
Aut08
Spr08
Win09
Spr10
PosSpr11
PreW12
PreW13

Time(season/year)

Post-release monitoring

- Radio tracking
- Trapping
- Scats, digs, burrows



Photos: L.Pertuisel

Bilby monitoring challenges

- Wide dispersal over a large area
- Low densities, often solitary
- Limited RT life
- Limited resources
- Limited access
- Tried ATVs, walking - issues

Photo: Judy Dunlop

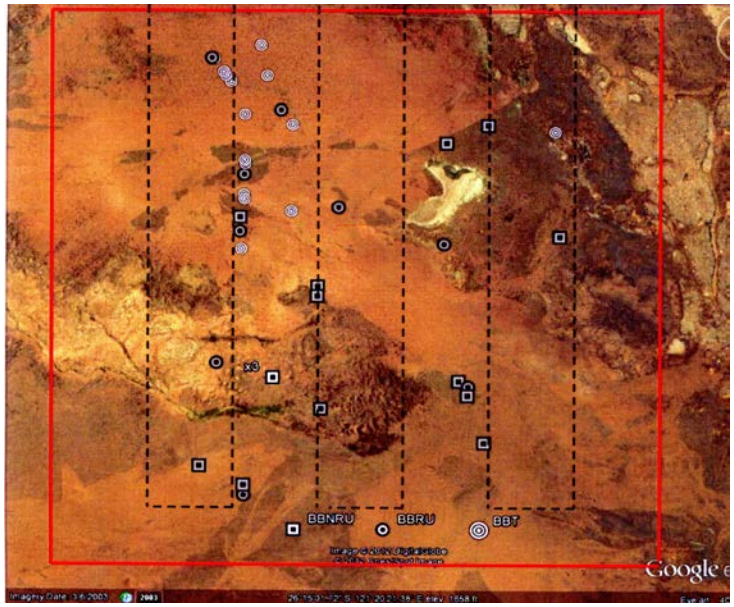
March 2011 trial

Outcomes:

- Endurance
- Cover ground
- Ultimate ‘ATV’
- Safe
- Don’t have to be ‘driven’
- Good observation platform
- ‘Soft’ on country
- Volunteers

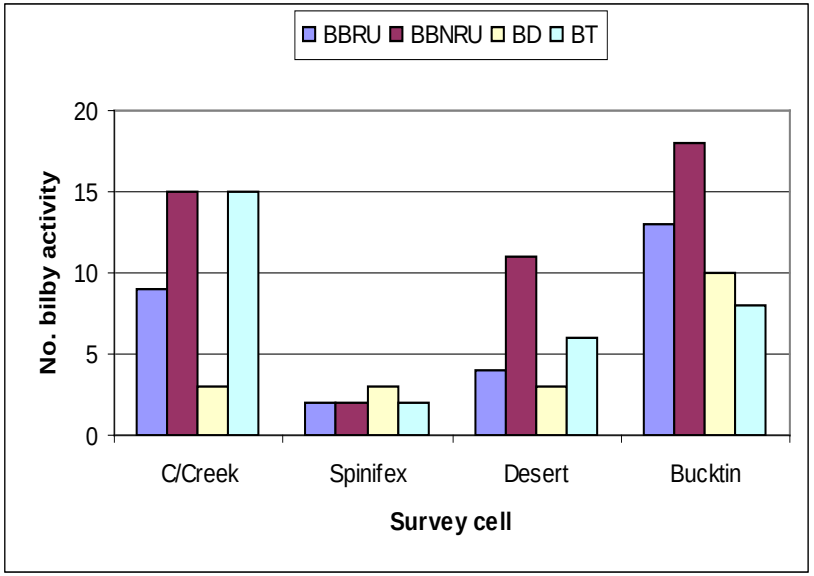
May 2012: large-scale survey

- 3 teams of 2 riders
- Training, safety, weeds
- 4 x 9,000 ha sample ‘cells’
- 6 line transects ~10 km long X ~1.4 km apart
- Visual observation width 60 m per team
- Photographs
- GPSd observations
- 1 cell per day (~6.5 hrs)
- ~384 ha visually inspected per day



Key observations

- Bilby burrows (‘old’-before rain, ‘fresh’ –after rain)
- Bilby digs, scats, tracks
- Cat, dog, echidna tracks



BBRU = burrow recently used (since rain) BBNRU = burrow not recently used (since rain) BD = bilby digging recent
BT = bilby tracks recent.

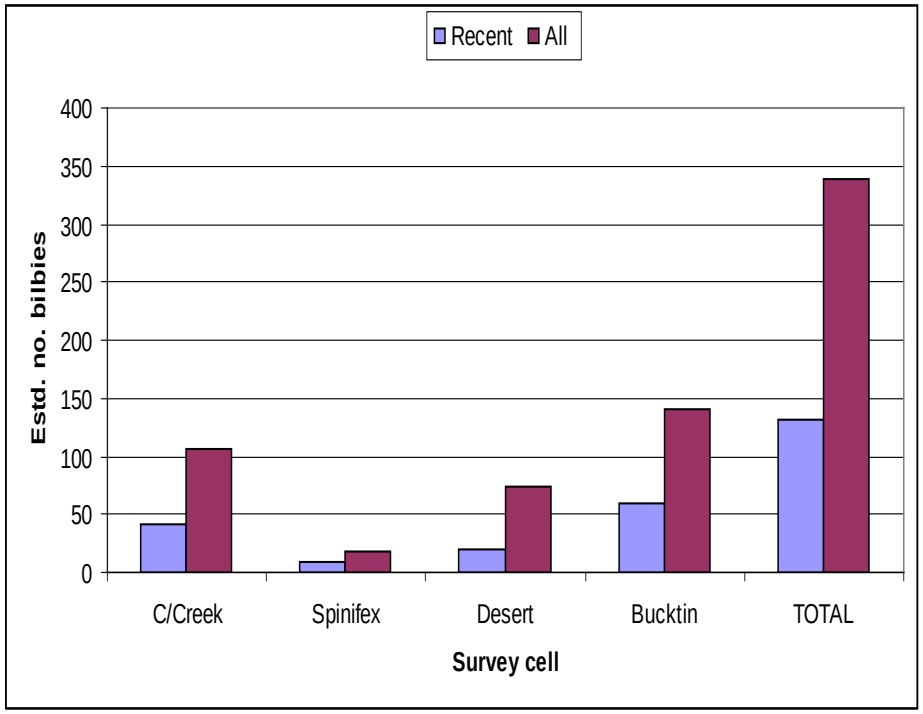
Some results

- 74 bilby burrows
- 38% fresh, 62% ‘old’
- One bilby burrow per ~21.3 ha, or 1,690 burrows in 36,000 ha
- Patchy distribution
- Diverse landsystems had higher number of burrows

Estimates of bilby population

Assume 5 burrows per bilby:

- All burrows = 338 bilbies
- 'Fresh' burrows = 128 bilbies



Key issues

Key issues:

- Reliability and consistency of observers
- ‘Fresh’ vs ‘old’?
- Relationship between burrows and bilbies?

Next survey May 2014

Cheers!