Charles Sturt University

The effects of urban encroachment on the use of hollow-bearing trees by squirrel gliders - Thurgoona

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Squirrel gliders

- found in dry forests and woodlands and forests from north QLD to central VIC
- depend on hollows (for dens) and shrubs (for food)
- nocturnal, can glide > 50m
- lives where we like to live
- *habitat under increasing threat from human activity*

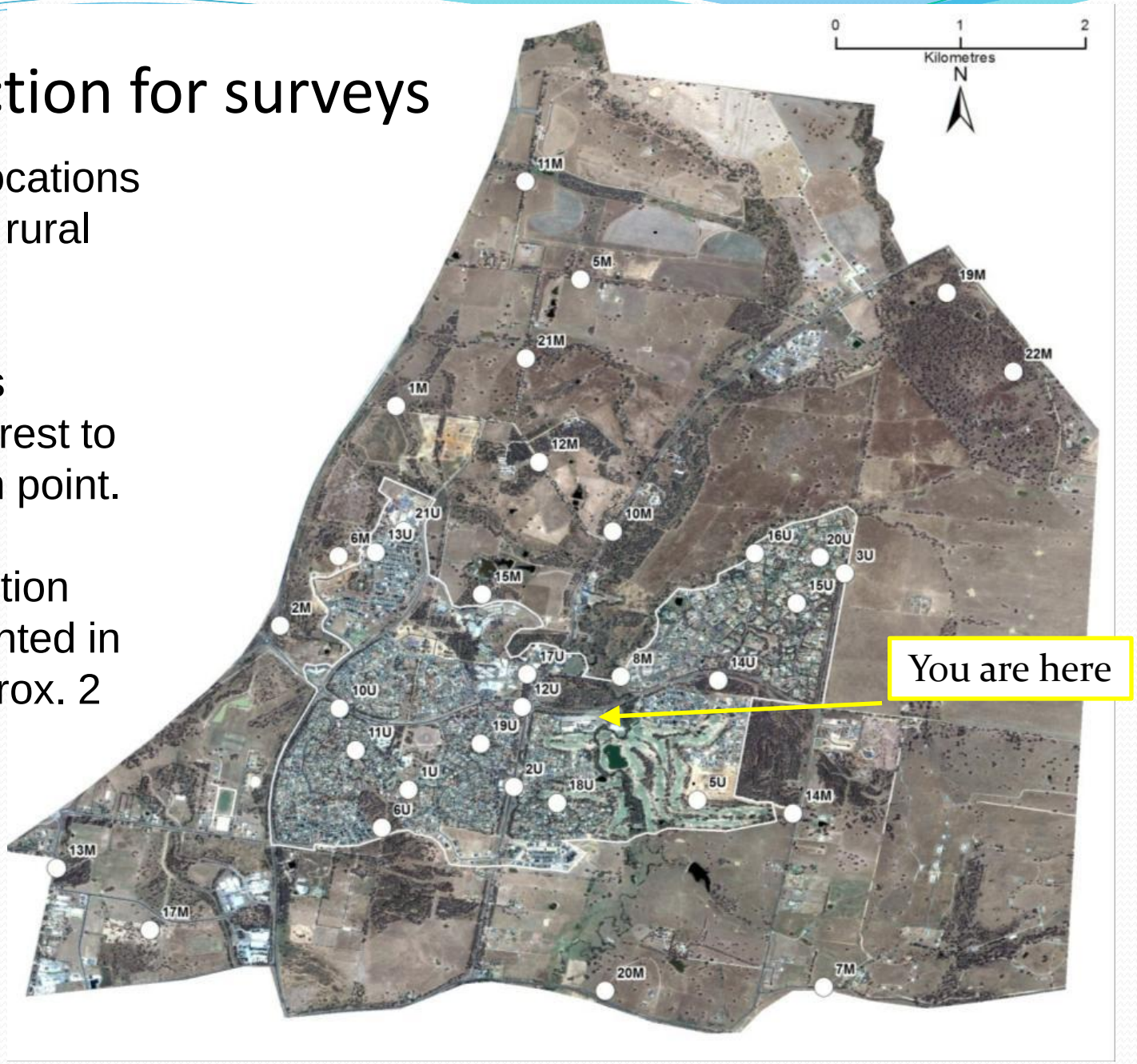
Thurgoona urban growth

Tree selection for surveys

30 random locations in urban and rural

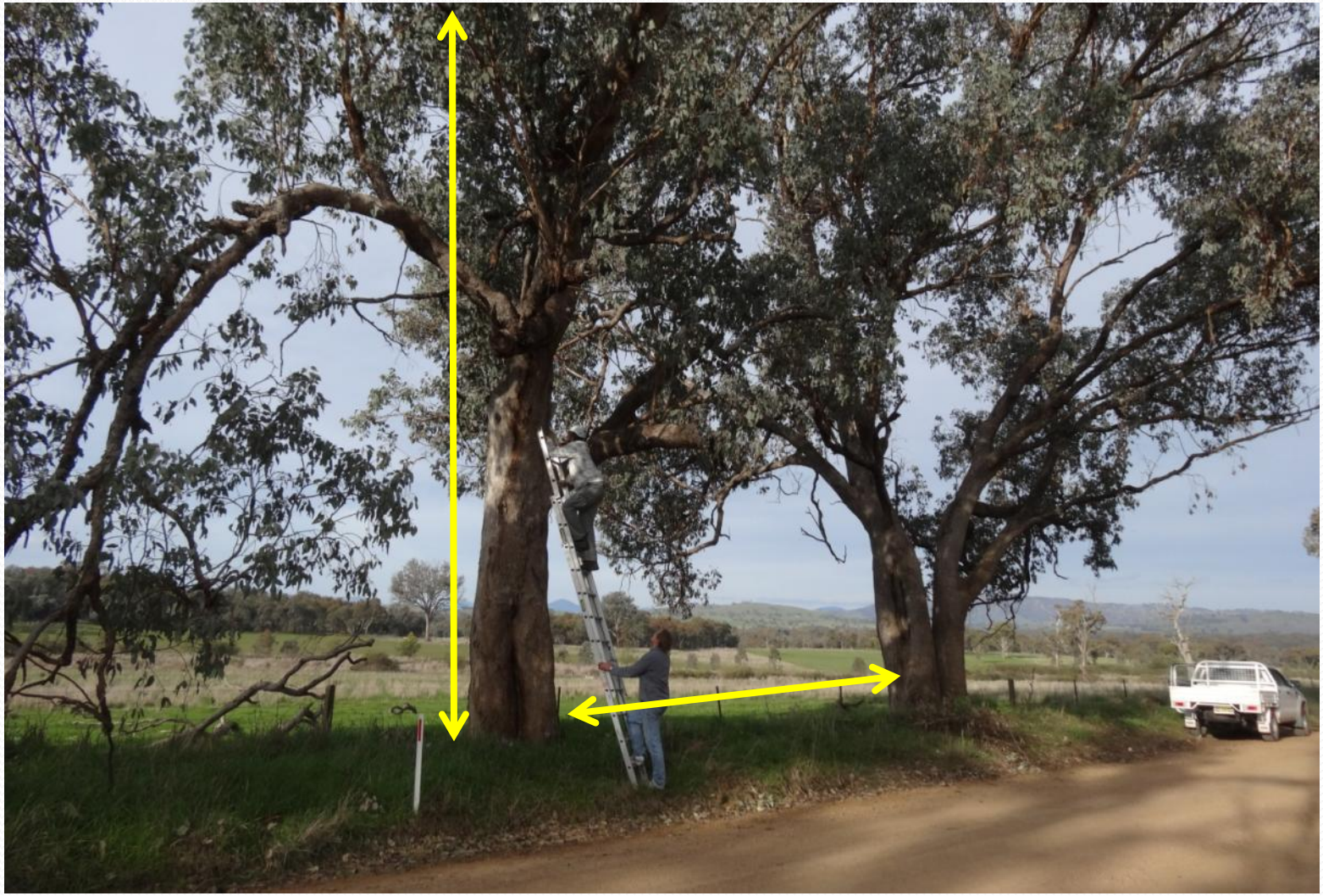
Large hollow bearing trees selected nearest to each random point.

Motion detection camera mounted in trees for approx. 2 weeks.



Set-up of motion-sensor cameras

Measurement of site variables



Equipment used to record tree height, noise and light variables


Woolworths

Squirrel gliders are in Thurgoona!

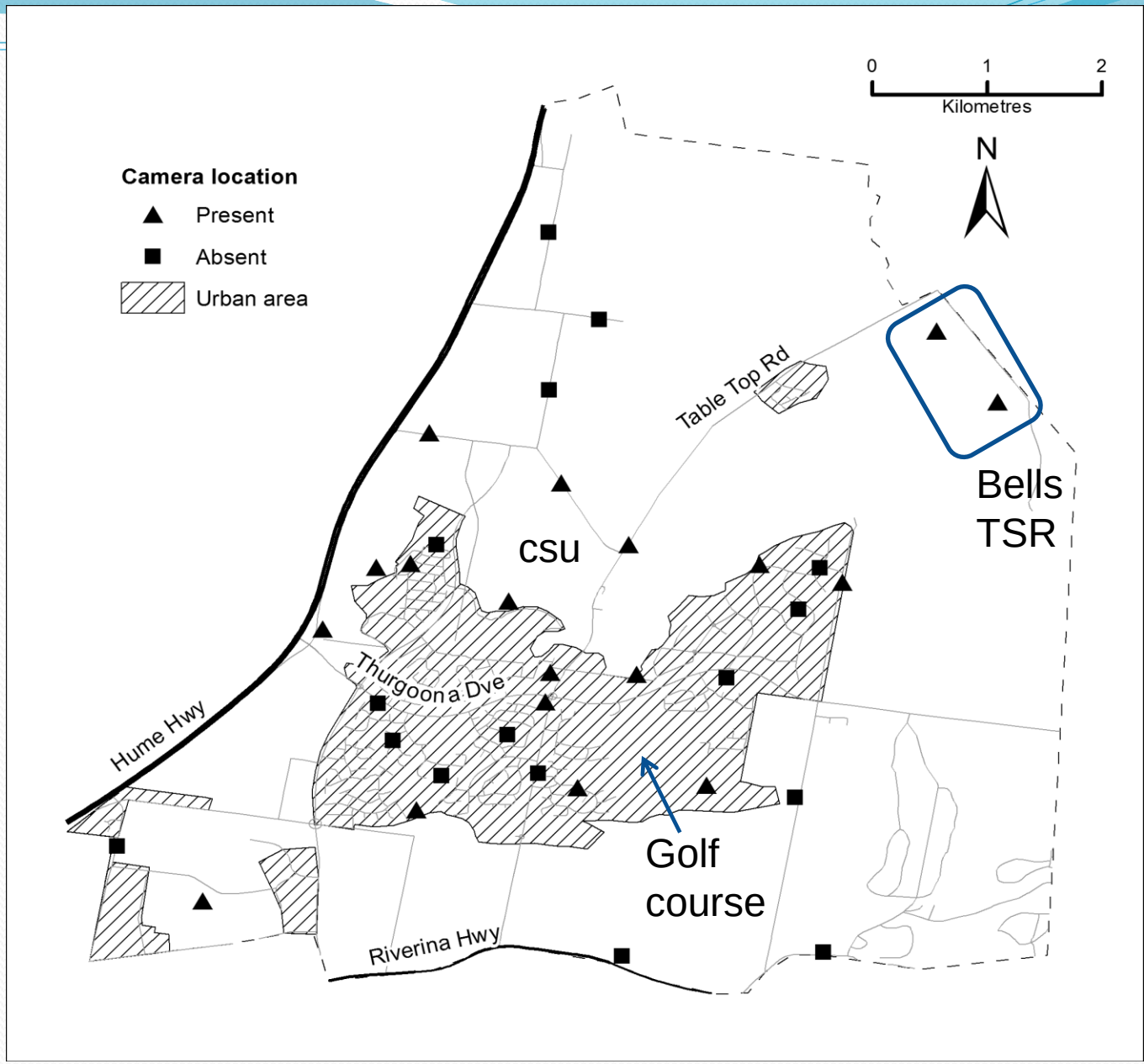
Squirrel gliders were detected in 18/34 trees

...as well as two Ringtail possums

..and a few Brushtail possums

Where were they found?

- Map of gliders present in randomly selected trees - Thurgoona



Glider activity in relation to the urban gradient

Noise levels where squirrel gliders were observed

mainly found in quiet areas

Light levels where squirrel gliders were observed

mainly found in dark areas – no artificial light

Urban influences on squirrel gliders – main predictive factors:

- Tree height and connectivity (distance to next tree)
- noise and light pollution
- road density > another key factor - represents a barrier to movements (and source of light and noise)

New finding - tall trees are a key predictor of squirrel glider presence

Management of urban encroachment on habitat for squirrel gliders and other wildlife

- Endangered woodland communities and species > the retention of large remnant patches is critical e.g. roadside vegetation.

- **Need to 'connect' remnant vegetation and isolated old trees** > development of 'green' corridors, free of urban effects

- **Control of light and noise** in key wildlife areas > speed limits, alternative options for street lighting, buffer areas.

- **Road design** – rather than upgrade minor rural roads which are well vegetated – close these roads, make new ones elsewhere.

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