Department of Primary Industries

KOALAS

GPS Tracking in a Forestry Landscape

The results, especially tree use, can be used to inform management and optimise existing protections when forests are harvested

Forest Science Unit in NSW DPI has partnered with Forestry Corporation of NSW and the Port Macquarie Koala Hospital to study how Koalas use landscapes after they have been harvested for timber on the mid-north coast.

- The first GPS tracking of koalas 5-10 years after timber harvesting in NSW
- 5 females and 6 males tracked (including during the 2019 drought)

Dazza on the move
Image - Bronwyn Ellis

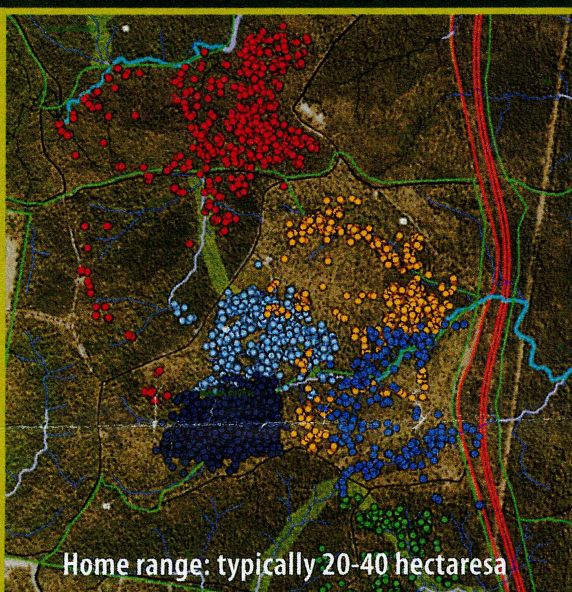**11 Koalas collared**
Map shows GPS results for 6 koalas

Two years of tracking

>11,000 GPS locations

500 koala trees located

Home range: typically 20-40 hectaresa

- Koalas use the full extent of their available landscape:
  - gullies, ridges and mid-slopes
  - young regenerating trees in recently harvested forest and mature forest where harvesting is excluded.
- Home ranges were small (20-40 ha), stable and rarely overlapped (see GPS points left). No koalas were found to be transient.
- Chlamydia was confirmed in the population, but females also successfully bred and were tracked as part of the study

Releasing a koala
Image - Brad Law

- Individual tree use varied and differs between night and day.
  - Tallowwood, a preferred browse tree, was the most often used species at night – medium-sized trees were typically used (average diameter = 31 cm)
  - Koalas typically preferred to shelter in other species during the day.
  - Turpentine was most commonly used during the day, especially in summer when it provides a shady retreat.
- The same tree was rarely re-used by a koala.

Home range of Jacky showing extent of harvesting 10 years prior to her tracking

Study area showing forest mosaic harvested 5 years prior to study

Forestry Corporation

KOALA HOSPITAL PORT MACQUARIE

16837 21APR

www.dpi.nsw.gov.au