

### Supplementary Material

#### **An improved method of capture and immobilisation for medium to large-size macropods**

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**Supplementary Material. Measurements and characteristics taken from each individual obtained for carcasses surveys.**

- Sex;
- Tail length: measured from the cloaca to the end of the last vertebra at the tip of the tail (Fig. SM1);
- Pes length: measured from the back of the foot (i.e. heel) to the end of the longest toe, at the base of the claw (Fig. SM1);
- Tibia length: measured from the top of the knee joint to the bottom of the pes (Fig. SM1).
- Reproductive state:
  - For females, pouch content an appearance was recorded as:
    - Non-parous (females that have never bred): Pouch small with no skin folds, clean and dry, teats very small (Jackson 2007).
    - Parous (females that have bred previously but not presently): Pouch is small but distinct, dry and dirty, the teats are slightly elongated (Jackson 2007).
    - Pregnant: Pouch pink in colour and glandular in appearance, skin folds may be observed on the lateral margins of the pouch (Jackson 2007).
    - Pouch young present: attached to the teat (Jackson 2007).
      - Pouch young sex
      - Pouch young weight
      - Pouch young head length: from occiput to snout tip (Fig. SM1)
      - Pouch young head with: maximum width across the zygomatic arches
      - Pouch young crown rum length: Only for very small neonates (Fig. SM1)
      - Pouch young body length: from snout tip to cloaca (Fig. SM1)
      - Pouch young tail length: from cloaca to the end of the last vertebra of the tail tip Fig. SM1)
      - Pouch young total length: from snout tip to tail tip (Fig. SM1)
      - Pouch young tibia length: from the knee to the bottom of the pes (Fig. SM1)

- Pouch young pes length: from heel to the base of the longest toe, not including the claw (Fig. SM1).
- Lactating (young absent from the pouch but still suckling): pouch area large, skin folds flaccid, hair sparse and stained, skin smooth and dark pink, teats elongated and producing milk when pressed (Jackson 2007).
- Post lactation: with teats expressing only clear liquid and/or regressing (Jackson 2007).
- For males, testis length and width was recorded.

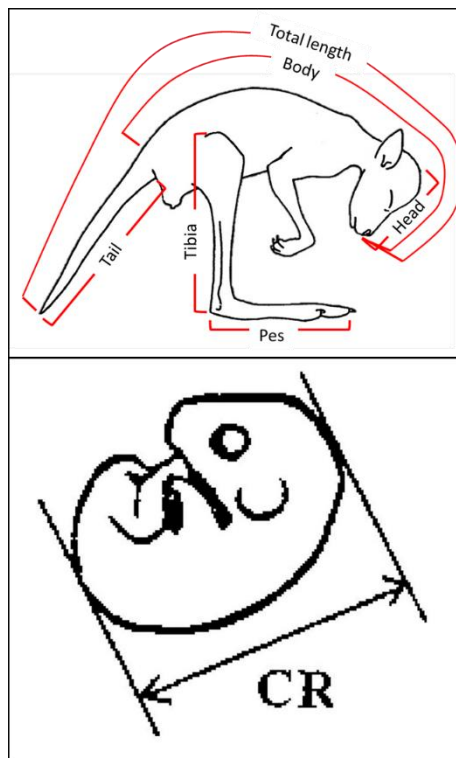


Fig. SM1. Morphometric measurements recorded for adults and pouch young of agile wallaby. Top panel shows a diagram of different measurements taken for both large pouch young and adult individuals (modified from Sharman *et al.* (1964)), while the bottom panel shows the Crown Rump (CR) measurement for small neonates.

## References

Jackson, S. (2007). Macropods. In 'Australian mammals: Biology and captive management' pp. 245-296. (CSIRO Publishing: Melbourne.)

Sharman, G., Frith, H., and Calaby, J. (1964). Growth of the pouch young, tooth eruption and age determination in the Red kangaroo, *Megaleia rufa*. *CSIRO Wildlife Research* **9**, 20-49.  
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