

Supplementary Material

Population structure and genetic diversity of the black-footed rock-wallaby (*Petrogale lateralis* MacDonnell Ranges race)

Laura Ruykys^{A,B,D} and Melanie L. Lancaster^{A,C}

^ASchool of Earth and Environmental Sciences, University of Adelaide, Adelaide, SA 5005, Australia.

^BPresent address: Mt Gibson Sanctuary, Australian Wildlife Conservancy, Great Northern Highway, Wubin, WA 6612, Australia.

^CPresent address: Healesville Sanctuary, Zoos Victoria, Badger Creek Rd, Healesville, Vic. 3777, Australia.

^DCorresponding author. Email: laura.ruykys@australianwildlife.org

Table S1 Mean reproductive success for adult male warru (*Petrogale lateralis*) at three colonies (Alalka, Kalka, New Well) in the Anangu Pitjantjatjara Yankunytjatjara Lands, South Australia.

| | Alalka | | Kalka | | New Well | |
|---------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|
| | No. males KTBA | No. breeding (%) | No. males KTBA | No. breeding (%) | No. males KTBA | No. breeding (%) |
| 2005 | 1 | EX | 1 | EX | 6 | 0 (0) |
| 2006 | 0 | EX | NA | NA | 8 | 0 (0) |
| 2007 | 5 | 4 (80) | NA | NA | 10 | 6 (60) |
| 2008 | 5 | 2 (40) | 7 | 3 (43) | 7 | 4 (57) |
| 2009 | 7 | 3 (43) | 5 | 3 (60) | 10 | 3 (30) |
| Average | 5.7 | 3 (54.3) | 6 | 3 (51.5) | 8.2 | 2.6 (29) |

KTBA = known to be alive and includes only breeding (adult and sub-adult) animals, NA = not available due to an absence of trapping events, EX = year excluded in calculating averages due to exceptionally low captures (one or no adult/sub-adult males).

Table S2 Mating observations of male warru (*Petrogale lateralis*) in three colonies (Alalka, Kalka and New Well) in the Anangu Pitjantjatjara Yankunytjatjara Lands, South Australia.

| Site | Sire | Birth year ^a | Dam | Mate change ^b | | Persistent pairing ^b | |
|----------|------|----------------------------|------|--------------------------|------------------|---------------------------------|--------------|
| | | | | Within-year | Between- year | Within-year | Between-year |
| Alalka | M9 | 2007 | F7 | 1 | UK | 0 | UK |
| | | 2007 | F8 | | | | |
| | | M10 | 2007 | F9 | UK | 1 | UK |
| | | 2009 | F10 | | | | |
| Kalka | M3 | 2008 | F11 | UK | 1 | UK | 0 |
| | | 2009 | F2 | | | | |
| | M11 | 2008 | F12 | 1 | UK | 0 | UK |
| | | 2008 | F13 | | | | |
| New Well | M4 | 2007 | F3 | UK | 1 | UK | 0 |
| | | 2009 | F14 | | | | |
| | M5 | 2007 | F5 | 1 | UK | 0 | UK |
| | | 2007 | F6 | | | | |
| | M6 | 2007 | F4 | 0 | 0 | 1 | 1 |
| | | 2007 | F4 | | | | |
| | | 2008 | F4 | | | | |
| Total | | | | 3 | 3 | 1 | 1 |

^a refers to the birth year of the offspring for which dam and sire were genotyped, 'M' and 'F' denote individual males and females respectively, ^b denote incidence of a change in female partner and persistent pairings in the respective year. 'UK' indicates that it is unknown if the incidence occurred.

Table S3 Mating observations of female warru (*Petrogale lateralis*) in three colonies (Alalka, Kalka and New Well) in the Anangu Pitjantjatjara Yankunytjatjara Lands, South Australia.

| Site | Dam | Birth year ^a | Sire | Male change ^b | | Persistent pairing ^b | |
|----------|-----|----------------------------|------|--------------------------|--------------|---------------------------------|--------------|
| | | | | Within-year | Between-year | Within-year | Between-year |
| Alalka | F1 | 2008 | M1 | 1* | UK | 0 | UK |
| | | 2008 | M2 | | | | |
| Kalka | F2 | 2008 | M3 | 0 | UK | UK | 1* |
| | | 2009 | M3 | | | | |
| New Well | F3 | 2007 | M4 | 0 | 1 | 0 | 0 |
| | | 2008 | M5 | | | | |
| | F4 | 2007 | M6 | 0 | 0 | 1 | 1* |
| | | 2007 | M6 | | | | |
| | | 2008 | M6 | | | | |
| | F5 | 2007 | M7 | 1* | 1* | 0 | 0 |
| | | 2007 | M8 | | | | |
| | | 2009 | M5 | | | | |
| | F6 | 2007 | M5 | 1* | UK | 0 | UK |
| | | 2007 | M8 | | | | |
| Total | | | | 3 | 2 | 1 | 2 |

^a refers to the birth year of the offspring for which dam and sire were genotyped, 'M' and 'F' denote individual males and females respectively, ^b denote incidence of a change of male partner and persistent pairings in the respective year. 'UK' indicates that it is unknown if the incidence occurred and * that the dam 'lost' the offspring to cross-fostering.