

**SCIENTIFIC REPORT FOR THE SOUTH AUSTRALIAN MUSEUM WATERHOUSE CLUB TRIP
TO CHAMBERS GORGE, 4–9 SEPTEMBER 2017**

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MAMMALS:

Mammals sighted included:

- (a.) **Goats** (*Capra hircus*) (hundreds)
- (b.) **Euros** (*Macropus robustus*) (many, including mummified remains of two juveniles collected for the South Australian Museum) (One Euro also recorded on a camera trap set up on the waterhole adjacent to the campsite by Trevor Ireland.
- (c.) **Yellow-footed Rock-wallabies** (*Petrogale xanthopus*) x4.

Mammals identified from their scats included:

- (a.) **Echidna** (*Tachyglossus aculeatus*). Scats were collected from three different locations, two at Chambers Gorge and one in Bendieuta Creek cave. Scats were passed on to Adelaide University PhD candidate Tahlia Perry for diet analysis.
- (b.) **Goat** (*Capra hircus*) (everywhere, including caves in the region)
- (c.) **Euro** (*Macropus robustus*) (everywhere, but often in caves)
- (d.) **Yellow-footed Rock-wallaby** (*Petrogale xanthopus*) (often in caves in the Chambers Gorge area.)
- (e.) **Brushtail Possum** (*Trichosurus vulpecula*). Extinct in the northern Flinders Ranges. (A trial re-introduction of Brushtail Possums was carried out at Wilpena Pound in 2016.) Brushtail Possum scats found in several caves at Chambers Gorge and also in the Bendieuta Creek cave.
- (f.) **Stick-nest Rat** (*Leporillus* sp.). Scats were collected from a cave below Mt Chambers and also from Bedieuta Creek cave. (Both samples suitable for radio-carbon dating.)
- (g.) **Ghost Bat** (*Macroderma gigas*). Scats have been collected from a number of caves at Chambers Gorge including Miners' Cave (Cave G1), Cave D upper and lower sections, in Waterfall Gorge and Lookout Cave (Cave F in Zone 3).

Mammals identified from other traces (burrows, diggings etc.) included:

- (a.) **Echidna** (*Tachyglossus aculeatus*) (diggings).
- (b.) **Euro** (*Macropus robustus*) (holes dug for less saline water adjacent to more saline waterholes. Euros seen digging and drinking from these holes.
- (c.) **Rabbit** (*Oryctolagus cuniculus*). Not common, but several warren complexes were seen. No actual rabbits were seen.

Mammals identified from bones in old owl roosts in caves:

Collection 1:

Site: Cave G2 above Miners' Cave (G1) eastern end of Chambers Gorge. (See map.)

Date of collection: 8 September 2017.

Collector: Bradley Pfeiffer assisted by Tony Morphet.

A partial pellet contained a part skull of the **Dusky Hopping-mouse** (*Notomys fuscus*) and the left maxilla of the extinct **Gould's Mouse** (*Pseudomys gouldii*).

The following species were identified from the fragmentary remains:

RODENTS:

Lesser Stick-nest Rat (*Leporillus apicalis*)*

Dusky Hopping-mouse (*Notomys fuscus*)

Plains Mouse (*Pseudomys australis*)

MARSUPIALS:

Kultarr (*Antechinomys laniger*)

Golden Bandicoot (*Isoodon auratus*)*

Dunnarts (*Sminthopsis* sp.)

Bolam's Mouse (*Pseudomys bolami*)

Brown Desert Mouse (*Pseudomys desertor*)

Gould's Mouse (*Pseudomys gouldii*)*

Long-haired Rat (*Rattus villosissimus*)

* = extinct species

Collection 2:

Site: Cave E eastern end of Chambers Gorge. (See map.)

Date of collection: 8 September 2017.

Collector: Jane Axon.

A partial pellet contained the remains of a small bird and an unidentified Pseudo mouse.

RODENTS:

Long-haired Rat (*Rattus villosissimus*)

MARSUPIALS:

Pig-footed Bandicoot (*Chaeropus ecaudatus*)*

Western Barred Bandicoot (*Perameles bougainville*)*

BATS:

Bat calls were recorded using an Anabat machine to identify the species.

- 56 bat calls (four species) were recorded on Sunday night, before most expeditioners had arrived, between 7.51 and 8.25 p.m.
- Only 2 calls (two species) were recorded overnight on Monday night between 8.32 and 8.34 p.m. (two minutes), with no more calls for the rest of the night.
- Only 5 calls (two species) were recorded on Tuesday night between 9.32 and 11.29 p.m. (nearly two hours).

Conditions were not conducive for collecting Anabat calls on the Monday and Tuesday nights — too windy and too cold. By contrast between the evening of April 18 to the morning of April 21, 2014, (3 nights and 3 mornings) during a survey with the Field Naturalists Society of South Australia Mammal Club 1,227 calls were recorded at a site less than a kilometre from the Waterhouse Club campsite.

The following calls were recorded on Sunday night, 3 September 2017.

- **White-striped Free-tailed Bat** (*Austronomus australis*). (The only bat which calls within the audible range of the human ear.)
- **Gould's Wattled Bat** (*Chalinolobus gouldii*)
- **Chocolate Wattled Bat** (*Chalinolobus morio*)
- **Inland Broad-nosed Bat** (*Scotorepens balstoni*)

Other bats recorded from Chambers Gorge over Easter 2014 in addition to those above, included:

- South-eastern Free-tailed Bat (*Mormopterus planiceps*) and
- Lesser long-eared Bat (*Nyctophilus geoffroyi*).

At least nine species of bat have been recorded in the Chambers Gorge area.

Copies of the Anabat traces of the bat species identified from their calls during the Waterhouse Club trip, can be found in the accompanying PowerPoint presentation.