

Sharman's rock-wallaby

Petrogale sharmani

Vulnerable (*Nature Conservation Act 1992*) |
Ecological Sciences, Queensland Herbarium

Identification

Medium-sized rock-wallaby weighing 3-5 kg with males being slightly larger than females. Head-body length is 490-530 mm for males and 455-475 mm for females. Body is grey-brown in colour, paler sandy-brown on the underside, forearms, hind legs and on the base of the tail. Sometimes with a pale cheek stripe, pale patch between the eyes or a slight mid-dorsal head stripe. Colouration is seasonal; being greyer after the autumn moult and then more sandy-brown throughout the year. It is readily confused the morphologically identical Mareeba rock-wallaby *Petrogale mareeba* which occurs to the north and the allied rock-wallaby *P. assimilis* which is found to the south and west. Genetic (chromosome) analysis is currently required to confirm identification, particularly near distribution limits. (Eldridge and Close 1992; Eldridge 2008; 2012; Menkhurst and Knight 2011).



Photo by Barry Nolan

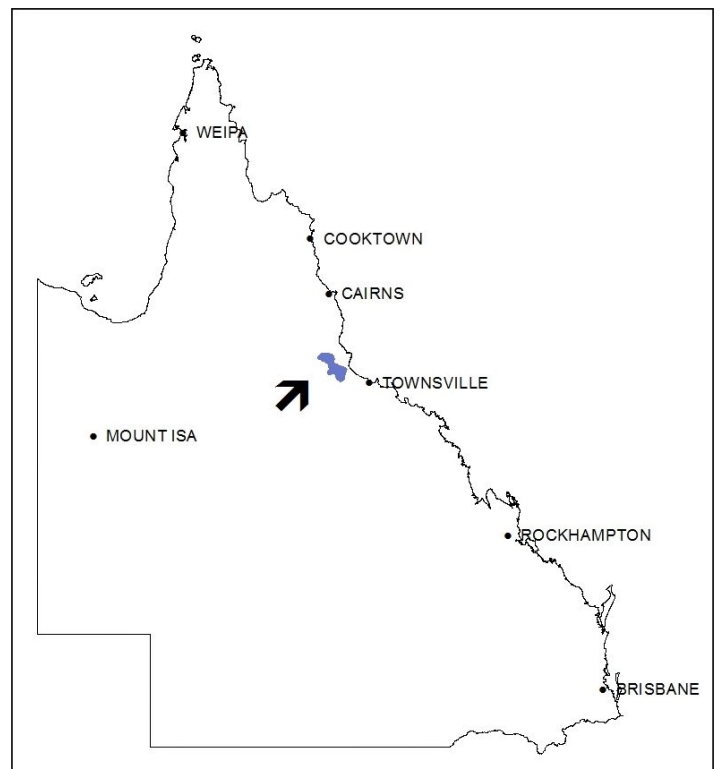
Distribution

Petrogale sharmani is currently known from approximately 10 locations around the Seaview and Coane Ranges, west of Ingham. Its distribution is bounded by the Star River to the south and partially by the Burdekin River to the west (Eldridge et al. 2008).

Habitat

Favoured habitat of *P. sharmani* includes boulder piles, rocky slopes, cliffs and gullies in open forest or tropical woodlands with a grassy understorey (Eldridge and Close 1992; Eldridge et al. 2008; Eldridge 2012), often with figs *Ficus* spp. and hoop pine *Araucaria cunninghamii* (Mulder et al. 2012).

Habitats include those dominated by narrow-leaved ironbark *Eucalyptus crebra*, white mahogany *E. portuensis* and bloodwoods *Corymbia* spp., with a sparse to mid-dense shrub layer of canopy species



including quinine *Petalostigma* spp., grass trees *Xanthorrhoea* spp., *Acacia* spp. and *Grevillia* spp., kangaroo grass *Themeda triandra* and black speargrass *Heteropogon contortus* are frequently found in the ground layer (Qld Herbarium 2013).

Seasonal and timing considerations

In general, searches for signs and other inferential evidence, as well as infra-red camera trapping can be undertaken at any time of the year.

Observation surveys should be conducted at dawn and/or dusk, and ideally in the cooler months when animals are most likely to sunbathe (DSEWPaC 2011; Eldridge 2012). To maximise detection success, surveys should be undertaken during fine weather conditions, and avoid the hotter months and inclement weather (i.e. rainfall periods) (M. Eldridge pers. comm. 2013).

Recommended survey approach

The following survey techniques should be prioritised in order as per the headings below. Remember that positive identification from sightings or signs is only possible within the known range of *P. sharmani*.

Searching for signs

Diurnal searches for signs of activity, particularly their distinctive scats, are the most efficient method in determining the presence of rock wallabies in general. Unfortunately, DNA testing of scats cannot confirm the species' identity in all cases. A definitive ID still requires sampling of tissues from a live animal (M. Eldridge pers. comm. 2013).

Other signs of activity include smooth worn rock ledges and tracks in sandy substrate on rock ledges or along cliff lines. All suitable rocky habitat should be searched thoroughly, such as mid-level ledges and holes (DSEWPaC 2011)

Infra-red camera trapping

Using Infra-red camera traps to detect the presence of rock-wallabies is becoming an increasingly popular survey technique. To maximise the likelihood of detection, cameras should be placed at a source of water or baited with lucerne contained within an elevated net bag, preferably in or adjacent to suitable habitat.

Camera traps should also be positioned near the exit points of refuges and known shelter sites (identified from either direct observation or presence of scats) (DSEWPaC 2011).

Observation surveys

Observation surveys can be undertaken to detect basking animals. These can be conducted from the ground using binoculars in suitable habitat, or air (i.e. from a plane or helicopter).

Keep in mind this survey technique can prove difficult in detecting animals, mostly due to their secretive nature, but also due to reduced visibility in denser vegetation (M. Eldridge pers. comm. 2013). Thus, these surveys are best undertaken during cooler weather and encompassing a dawn and/or dusk period when *P. sharmani* is most likely to be active (e.g. sunbathing in the early morning), and should avoid the summer months or hot weather (DSEWPaC 2011; Eldridge 2012).

Other inferential evidence

The collection of other inferential evidence in the vicinity of suitable habitat may indicate the presence of the species.

Searches for predator scats, owl pellets, and targeting predatory bird and mammal nests and dens may prove useful in detecting *P. sharmani* (DSEWPaC 2011).

Survey effort guide

There is currently no information on detection rates for *P. sharmani*. However, the recommended level of effort below may provide a reasonable opportunity to detect *P. sharmani* if present in the project area.

Minimum effort per 5 ha of suitable habitat	
Survey technique	Minimum Effort
Searching for signs	2 hours per survey day
Infra-red camera trapping	5 cameras, at least 14 nights
Observation surveys	4 hours per survey day
Other inferential evidence	1 hour per survey day

Ethical and handling considerations

- Conduct surveys with a minimum of two observers with prior experience of surveying rock-wallabies (DSEWPaC 2011).
- When surveying from the air, minimise disturbance to animals to ensure individuals are not exposed to potential predators and/or do not fall (DSEWPaC 2011).
- Wear gloves when handling scats and other animal signs to reduce exposure to zoonotic diseases.

Acknowledgements

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Citation

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Key references

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