

Threatened species of the Northern Territory

Nabarlek (Victoria River District)

Petrogale concinna concinna

Conservation status

Australia: Critically Endangered

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Critically Endangered (Possibly Extinct)

Territory Parks and Wildlife Conservation Act 1976



Credit: Gould (1863)*

Description

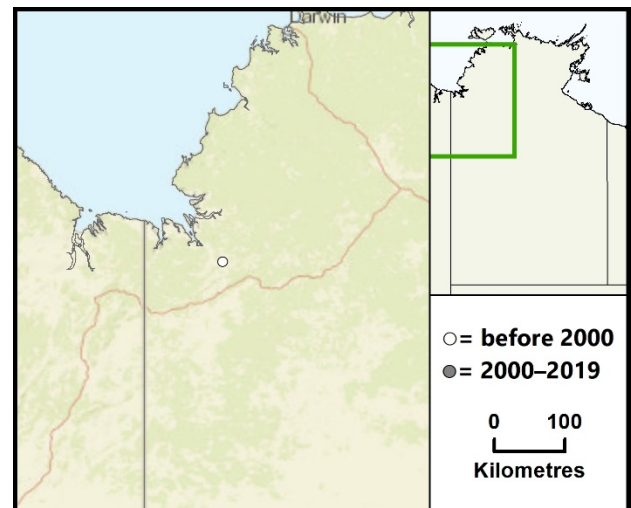
The Nabarlek is a very small (~1.4 kg body mass) rock-wallaby. The species is similar to the Eastern and Western Short-eared Rock-wallabies *Petrogale wilkinsi* and *P. brachyotis*, but differs in being smaller and having a bushier tail tip and less bold markings on the side of the body. Nabarleks also differ in their habit of hopping with their fluffed tail arched high above their near-horizontal body.

Three subspecies of the Nabarlek are recognised. *Petrogale concinna concinna* purportedly differs from the other subspecies in being rusty red mottled with whitish and brown above, and having indistinct markings on the face and sides.

The subspecies may have also been collected from near Wyndham in the east Kimberley region in the early 1900s², but the specimen has evidently been lost and therefore cannot be verified.

Distribution

Two subspecies of the Nabarlek occur in the Northern Territory (NT). The Nabarlek (Victoria River District), *P. c. concinna*, is known only from a single specimen that was collected about 100 km upstream of the mouth of the Victoria River in 1839¹.



Caption: Known localities of the Nabarlek (Victoria River District) in the NT (nrmmaps.nt.gov.au)

The Nabarlek (Top End), *P. c. canescens*, was formerly distributed widely across the Top End, but may now be restricted to the western Arnhem Land escarpment. The third subspecies, *P. c. monastria*, occurs in the west Kimberley region of Western Australia.

NT conservation reserves where reported: None.

Ecology and life-history

Very little is known about the Nabarlek (Victoria River District). Other Nabarlek subspecies occur in rugged sandstone and granite rocky areas, especially on steep slopes, with large boulders, caves and crevices. Here they feed on sedges, grasses and ferns. The Nabarlek is unique among marsupials in continually replacing its molar teeth, rather than having a fixed number. This is probably associated with its diet, which has a high silica content and is therefore quite abrasive on teeth. Generation length is estimated to be 5 years³.

Threatening processes

Due to the paucity of knowledge about the historical distribution of the Nabarlek (Victoria River District) and its ecology, there has been no detailed assessment of threats. The subspecies is likely to be vulnerable to predation by feral Cats *Felis catus*. Although Nabarleks are agile and their rugged habitat may afford protection from cats, individuals that forage away from rocky habitats are likely to be especially vulnerable. Altered fire regimes, particularly increases in the frequency, extent and/or intensity of fire, is another likely threat. Livestock and feral herbivores may compete with Nabarleks for food plants, or otherwise change the floristic composition of vegetation, in areas where Nabarleks forage.

Conservation objectives and management

The Nabarlek (Victoria River District) is likely to be extinct. There are consequently no specific conservation objectives for the subspecies in the NT. Nonetheless, as there is a small chance the subspecies is still extant, surveys should be

undertaken where possible and any incidental potential sightings should be followed up. In the event the subspecies is located, conservation management priorities are to: assess colony size or abundance; implement a monitoring program; survey for other occupied localities; and monitor and manage threats in the area.

References

- ¹ Eldridge, M.D.B., 1997. Taxonomy of rock-wallabies, *Petrogale* (Marsupialia: Macropodidae). II. An historical review. *Aust. Mammal.* 19, 113–122.
- ² Thomas, O., 1909. Two new mammals from northern Australia. *Ann. Mag. Nat. Hist.* 8(4), 197–198.
- ³ Woinarski, J.C.Z., Burbidge, A.A., Harrison, P.L. (Eds), 2014. The Action Plan for Australian Mammals 2012. CSIRO Publishing, Canberra.
- ⁴ Threatened Species Scientific Committee, 2019. Conservation advice – *Petrogale concinna concinna* Nabarlek (Victoria River District). Department of the Environment, Canberra.

* image from Gould, J. 1863. The mammals of Australia. Vol. III. John Gould/Taylor and Francis, London. Sourced from Wikipedia Commons.