

Gilbert's Potoroo

Potorous gilbertii (Gould, 1841)

Size

Body length*
380 mm in males
340 mm in females

Tail length*

204–262 (235) mm in males
198–254 (228) mm in females

*Approximate only, taken from *Potorous tridactylus*

Weight

0.9–1.2 kg

Subspecies

None recognised

Description

Small nocturnal rat-kangaroo, bearing some resemblance to a bandicoot. The body, but not the tail, is densely furred. Its eyes appear to look obliquely upward. It has long hind feet and long, curved claws on its front feet that it uses to dig for food. Males and females are similar in body size.

Other common names

None

Distribution



Key To Map: Black = present distribution



Photos:
Rochelle Pyle (top)
Linda Reinhold/Department
of Conservation and Land
Management (bottom)

Past distribution was restricted to the high rainfall areas of the south-west corner of Western Australia where it was locally abundant.

Currently known to occur in small, restricted pockets in Two Peoples Bay Nature Reserve, Western Australia.

Habitat

Recorded by John Gilbert as occurring in “the dense thickets and rank vegetation bordering swamps and running streams.” Known habitats on Mt Gardner are uplands of low, dense heath containing many small patches of open ground. Of 14 animals tracked by spool and thread, 10 showed

a preference for foraging in open or semi-open country while four foraged among dense cover.

Behaviour

Little is known of the social behaviour of wild *P. gilbertii*. Limited studies have shown that potoroos may travel up to a kilometre from their day-time shelters while foraging and return to the same area each morning. Individuals occupy at least partially overlapping home ranges. Accumulations of sheoak needles are sometimes used for shelter.

Diet

Gilbert's potoroo feeds mainly on mycorrhizal fungi (which are a common dietary item of other potoroo species).

Breeding

Females become sexually mature by the end of their first year and males may breed before the end of their second year. Breeding may occur throughout the year and there is some evidence to suggest that Gilbert's potoroo may have a monogamous breeding system. Gestation period is not known, but is believed to be shorter than that of 38 days recorded for the long-nosed potoroo (*P. tridactylus*). Length of pouch life is also unclear. Two young born in captivity remained in the pouch for four months, a similar period to that observed for the long-nosed potoroo (*P. tridactylus*). Young remain in the pouch until they are about 190 grams in weight.

Threatening processes

Reasons for the decline remain unknown. Predation by foxes and cats, and changed fire regimes resulting in loss of dense vegetation, may have led to a decline in Gilbert's potoroo. Dieback caused by *Phytophthora cinnamomi* may also be a serious threat to the survival of the species by altering the vegetation structure or eliminating plants which are food sources themselves or hosts to the mycorrhizal fungi on which the potoroo feeds. Gilbert's potoroo has only been found in areas free of dieback within Two Peoples Bay Nature Reserve.

Conservation status

2000 IUCN Red List of Threatened Species	Critically Endangered
Western Australia Wildlife Conservation Act	Threatened
Environment Protection and Biodiversity Conservation Act	Threatened (Endangered)

Management

- Determine habitat requirements.
- Management of habitat from frequent and extensive fire using the policy of fire exclusion and fuel reduction in strategic areas.
- Stringent hygiene practices to prevent dieback infection.
- Exotic predator control — 1080 baiting.
- Manage captive breeding colony at Two Peoples Bay Nature Reserve. Re-introduction to former habitat.
- Monitor known populations.
- Search for additional populations in suitable habitat.

Other interesting facts

- John Gilbert's notes recorded the potoroo as being "the constant companion" of the quokka.

- It unknown why the quokka persists over much of its range while Gilbert's potoroo has declined considerably.
- Gilbert's potoroo was presumed to be extinct until it was rediscovered in 1994 with the capture of five individuals in Two Peoples Bay Nature Reserve near Albany, Western Australia.

Selected references

Start, T., Burbidge, A., Sinclair, E. and Wayne, A. (1995). Lost & Found: Gilbert's Potoroo. *LANDSCOPE* 10(3): 28.

Johnson, P.G. (1995). Long-nosed Potoroo. In R. Strahan (Ed.) *The Mammals of Australia*. Australian Museum and Reed Books. Chatswood, NSW.

Danks, A. (1996). Two Peoples Bay: A Haven for the Lost and Found. *LANDSCOPE* 11(4): 35.

Maxwell S., Burbidge A.A, Morris K. (1996). *The 1996 Action plan for Australian Marsupials and Monotremes*. Wildlife Australia, Canberra.

Website links

http://www.naturebase.net/projects/west_shield.html

<http://www.ea.gov.au/biodiversity/threatened/action/marsupials/15.html>