

## Western ringtail possum (*Pseudocheirus occidentalis*)



<b>Also known as:</b>	Western ringtail
<b>Synonyms:</b>	<i>Pseudocheirus peregrinus</i>
<b>Kingdom</b>	Animalia
<b>Phylum</b>	Chordata
<b>Class</b>	Mammalia
<b>Order</b>	Diprotodontia
<b>Family</b>	Pseudocheiridae
<b>Genus</b>	<i>Pseudocheirus</i> (1)
<b>Size</b>	Head-body length: 30 - 40 cm (2) Tail length: 30 - 40 cm (2)
<b>Weight</b>	up to 1.3 kg (3)

### Status

Classified as Vulnerable (VU) on the IUCN Red List (1).

### Description

The western ringtail possum has thick, woolly, grey fur intermingled with dark brown to black fur on its upperparts, and creamy grey fur on its underside. It has a long, thin, **prehensile** tail terminating in a white tip, which it uses to help it move through the forest, as well as to carry twigs and leaves to build its nest (2). The ears are small and round with white patches of fur behind them (3). There is little difference between the male and female of this species (4).

## Range

The western ringtail possum occupies a very small range in the south-western corner of Western Australia. It is restricted to coastal areas of peppermint woodland from south of Mandurah to the Waychinicup National Park, and to suitable patches of inland habitat, such as Perup Nature Reserve and the surrounding forest (1) (5).

## Habitat

The western ringtail possum is arboreal, meaning it spends the majority of its time in trees. Along the coast it is found in peppermint (*Agonis flexuosa*) and tuart (a eucalyptus) forest and woodland. Inland, the western ringtail possum occupies forests of jarrah, wandoo and marri, all types of eucalyptus (1). It is often found in forests situated close to watercourses, swamps and floodplains, and favours cooler conditions (6).

## Biology

The **nocturnal** western ringtail possum is a **folivorous** marsupial (1), with a strong preference for peppermint leaves. Leaves from trees of the Myrtle family are a second favourite when peppermint foliage is unavailable (1), while jarrah and marri leaves are the main food source in the inland forests (3). Garden vegetation, such as leaves from rose bushes, is sometimes eaten in urban areas (1). The western ringtail possum is generally solitary during the day (2), when it takes shelter in tree hollows, where they are available, or in dreys (nests) that it constructs in dense vegetation using leaves and sticks (1) (5) (6). Any social activity takes place at night, when males may visit females in neighbouring home ranges (3). The western ringtail possum occupies a small and stable **home range**, although the size of the range varies depending on habitat quality and population density, and often overlaps with the home range of other individuals by up to 70 percent (1) (2).

Although reproduction takes place year round, the majority of young are born in late autumn and winter (1). This ensures lactation and weaning, which have a high nutritional demand, take place during the spring and summer when there is an abundance of new leaf shoots (3). Generally only one offspring is produced, although the litter size can vary between one and three young (1). Like all **marsupials**, immediately after birth the young crawls into its mother's pouch where it remains until it is about three months old; the young then leaves the pouch but continues to suckle until it is six to seven months old (1) (2). When male western ringtails are seven months old (and weigh between 600 and 700 grams), they leave their mother's range and gain independence (1), while female young generally remain in or adjacent to their mother's range. Life expectancy in the wild is three to five years on average, although some individuals have lived beyond six years (3).

## Threats

The main threats facing the western ringtail possum are habitat loss and fragmentations resulting from urban development, timber harvesting and agriculture (1) (3) (7). Predation by introduced species, particularly foxes and cats, but also pythons, is also having a major effect on populations (1). Changed fire regimes that began after the settlement of Europeans have also had negative impacts on this species, either resulting in the deaths of individuals or by reducing the availability of the western ringtail possum's food (3). These threats have resulted in the devastating loss of this species from 90 percent of its original range (2).

## Conservation

The western ringtail possum is listed as vulnerable under Australia's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and listed as 'fauna that is rare or likely to become extinct' under the Western Australian Wildlife Conservation Act 1950. Efforts are underway to retain and improve the possum's habitat, and fox control baiting programmes have been set up in reserves in order to reduce predation by this introduced species (3). The western ringtail has also been the focus of **translocation** programmes, moving the possum into parks and reserves and away from the threat of habitat loss, although the success of these translocations has not yet been demonstrated (1) (8).

## Find Out More

To learn more about efforts to conserve the western ringtail possum see:

- Department of Environment and Conservation:  
<http://www.dec.wa.gov.au/content/view/5759/1820>

## Authentication

Authenticated (02/09/10) by Dr Adrian Wayne, Research Scientist (Forest Fauna Ecology), Department of Environment and Conservation, Western Australia.

<http://science.dec.wa.gov.au/people/?sort=1&sid=126>

## Glossary

- **Folivorous:** leaf-eating.
- **Home range:** the area occupied by an animal during routine activities, which is not actively defended.
- **Marsupials:** a diverse group of mammals characterised by their reproduction, in which gestation is very short, and the female typically has a pouch (marsupium) in which the young are raised. When born, the tiny young crawls to the mother's teats, where it attaches and stays for a variable amount of time, whilst it continues to develop. Marsupials also differ from placental mammals in their dentition.
- **Nocturnal:** active at night.
- **Prehensile:** capable of grasping.
- **Translocation:** when individual living organisms from one area are transferred and released in another area.

## References

1. IUCN Red List (March, 2010)  
<http://www.iucnredlist.org>
2. Threatened Species Day Fact Sheet. (2007) *Western Ringtail Possum Pseudocheirus occidentalis*. Department of the Environment and Water Resources, Canberra, Australia. Available at:  
<http://www.environment.gov.au/biodiversity/threatened/publications/tsd07-w-ringtail-possum.html>
3. Department of the Environment, Water, Heritage, and the Arts. (2009) *Background Paper to EPBC Act Policy Statement 3.10 -Nationally Threatened Species and Ecological Communities. Significant impact guidelines for the vulnerable western ringtail possum (Pseudocheirus occidentalis) in the southern Swan Coastal Plain, Western Australia*. Department of the Environment and Water Resources, Canberra, Australia.

4. Wayne, A.F., Rooney, J.F., Ward, C.G., Vellious, C.V. and Lindenmayer, D.B. (2005) The life history of *Pseudocheirus occidentalis* (Pseudocheiridae) in the jarrah forest of south-western Australia. *Australian Journal of Zoology*, **53**: 325-337.
5. Wayne, A. (2010) *Pers. comm.*
6. Jones, B., How, R. and Kitchener, D. (1994) A field study of *Pseudocheirus occidentalis* (Marsupialia: Petauridae). II. Population Studies. *Wildlife Research*, **21**: 189-201.
7. Wayne, A.F., Cowling, A., Lindenmayer, D.B., Ward, C.G., Vellios, C.V., Donnelly, C.F. and Calver, M.C. (2006) The abundance of a threatened arboreal marsupial in relation to anthropogenic disturbances at local and landscape scales in Mediterranean-type forests in south-western Australia. *Biological Conservation*, **127**: 463-476.
8. Department of the Environment, Water, Heritage and the Arts. (2010) *Pseudocheirus occidentalis* in *Species Profile and Threats Database*. Department of the Environment, Water, Heritage and the Arts, Canberra. Available at:  
<http://www.environment.gov.au/sprat>.