



SOUTHERN BROWN BANDICOOT

ISOODON OBESULUS



Synonyms

Short-nosed bandicoot. Known as Quenda in WA.

Taxonomic Classification

Animalia: Chordata: Vertebrata:
Mammalia: Marsupialia:
Paramelamorphia (bandicoots and bilbies) Some publications list 5 subspecies, (*I. o. fusciventer*, *I. o. obesulus*, *I. o. peninsulae*, *I. o. affinus*, *I. o. nauticus*).

Quenda are the subspecies *I. o. fusciventer* of Southern Brown Bandicoots found only in southwest WA.

Description

The Southern Brown Bandicoot has a head-body length of 28-36cm, and tail length of 9-14cm. Males are slightly larger and heavier than females.

These stocky bandicoots have a solid, hunched body, with powerful forearms and large blunt claws for digging. The ears are small and rounded, and they have a conical snout with numerous pointy teeth.

The fur is brownish-grey flecked with yellow and brown, creamy white below. Bristly guard hairs cover the upper body. The short, tapering tail and feet are a darker brown.

Distribution

Southern Brown Bandicoots are endemic to Australia. They occur from south-western WA to south-eastern Victoria and into NSW, as well as on Tasmania, and also in widely disjunct populations in northern Queensland. They are absent from Australia's interior.

Habitat

Dry eucalypt, woodland and scrubland. Southern Brown Bandicoots prefer native vegetation with a dense, scrubby understory, where they feel secure from predators and have an abundance of insect prey.

Diet

Omnivorous, feeding on arthropods (insects), earthworms, roots and tubers, and fungi.

Conservation status

Least Concern (IUCN Red List of Threatened Species).

Population size and trends

This species has fared comparably well, considering many other bandicoots are Extinct, Endangered or Critically Endangered. Despite being listed as Least Concern owing to their widespread distribution, Southern Brown Bandicoots have a declining population trend, have suffered range contractions, and each subspecies have declined, some to levels warranting conservation attention. Loss of native vegetation, introduced predators and changes to fire regimes have led to Southern Brown Bandicoot populations declining to dangerous levels in NSW, VIC and SA, where the subspecies are threatened with extinction. Quenda in southwest WA have fared slightly better and are one of the few native mammals still persisting around remnant bushland in suburban Perth, yet have also declined and face a range of threats. Quenda are listed as a Priority 5 species (taxa in need of monitoring conservation dependent) under the WA Wildlife Conservation Act 1950.



Life history and reproduction

Southern Brown Bandicoots have a gestation of only 11-12 days long – the shortest gestation period of all mammals in the world! Despite this, newborn bandicoots are comparably well-developed for marsupials (which are all born tiny and highly undeveloped, akin to a placental mammal embryo in their stage of development). Moreover, Southern Brown Bandicoot joeys are weaned by the age of 60-70 days old, and Southern Brown Bandicoots reach sexual maturity at 3-4 months of age. Females can produce 2-3 litters per season comprising 2-6 joeys. However, usually only two joeys survive to weaning. Females have a rear-opening pouch, preventing the pouch from being filled with soil when the female is digging. The pouch contains 8 teats.

Breeding occurs in both winter and summer, and is linked to times of high rainfall coinciding with flushes of new vegetation and increases in their invertebrate prey. Male and female Southern Brown Bandicoots mate with multiple partners in any given breeding season. This species has a lifespan of about 3 years.

Behaviour

The Southern Brown Bandicoot is a solitary species, coming together only for mating. Males can be highly aggressive, and many feature wounds from aggressive encounters. Southern Brown Bandicoots are territorial, and defend home ranges of 2-7ha. Nevertheless, home ranges may overlap with minimal aggression provided resources are abundant. They are crepuscular (active in the early hours of the morning, and evening), but also extend activity into the night, and may sometimes be active also during daylight hours. Southern Brown Bandicoots rest in nests constructed of grass and other plant material mixed with earth. They are a semi-fossorial species, and dig cone-shaped pits whilst foraging.

Threats

- Habitat destruction and fragmentation.
- Predation, especially by cats, but also foxes and dogs.
- Loss, degradation and fragmentation of habitat through land-clearing and other human-caused stressors.
- Loss of habitat due to Phytophthora dieback.
- Too frequent, extreme and widespread fires.
- Climate change.
- Vehicle strikes.
- Poisoning from ingesting rat and snail baits.

Support conservation of this species by:

- Keeping pet cats indoors at all times.
- Keeping pet dogs on leashes at all times when walking.
- Fence areas of remnant vegetation to exclude dogs and livestock from predating and destroying bandicoot habitat respectively.
- Objecting to and preventing further land clearing.
- Restoring and replanting native vegetation, especially corridors linking habitat.
- Slowing down on roads, especially in the evening, night-time, and early morning.
- Urging Road Authorities to erect signs around areas where bandicoots are, and reducing road speeds in such areas.
- Urging Road Authorities to install fauna underpasses to allow safe passage across roads and reduce habitat fragmentation and isolation owing to roads bisecting populations.
- Providing fresh, cool water daily in shallow bowls, especially in summer.

Fun Fact

Bandicoots are ecosystem-engineers: their digging activity whilst foraging aerates the soil, promotes nutrient cycling, and overall improves ecosystem health.

