

Australian Capital Territory

Nature Conservation (Southern Brown Bandicoot) Conservation Advice 2019

Notifiable instrument NI2019–231

made under the

Nature Conservation Act 2014, s 90C (Conservation advice)

1 Name of instrument

This instrument is the *Nature Conservation (Southern Brown Bandicoot) Conservation Advice 2019*.

2 Commencement

This instrument commences on the day after its notification day.

3 Conservation advice for the Southern Brown Bandicoot

Schedule 1 sets out the conservation advice for the Southern Brown Bandicoot (*Isoodon obesulus obesulus*).

Arthur Georges
Chair, Scientific Committee
1 May 2019

Schedule 1

(see s 3)



ACT
Government

Environment, Planning and
Sustainable Development



CONSERVATION ADVICE

SOUTHERN BROWN BANDICOOT (eastern)

Isoodon obesulus obesulus

CONSERVATION STATUS

The Southern Brown Bandicoot (eastern) *Isoodon obesulus obesulus* (Shaw, 1797) is recognised as threatened in the following jurisdictions:

National	Endangered , <i>Environment Protection and Biodiversity Conservation Act 1999</i> Near Threatened , <i>The Action Plan for Australian Mammals 2012</i>
ACT	Endangered , <i>Nature Conservation Act 2014</i>
NSW	Endangered , <i>Biodiversity Conservation Act 2016</i>
VIC	Threatened , <i>Flora and Fauna Guarantee Act 1988</i> Near Threatened , <i>Advisory List of Threatened Vertebrate Fauna 2013</i>
SA	Vulnerable , <i>National Parks and Wildlife Act 1972</i>

CRITERIA

The Southern Brown Bandicoot (eastern) is listed as Endangered in the ACT Threatened Native Species List under IUCN Criterion A — A2(b), A3(b)(c). The factors that make it eligible include a continuing decline across its range with existing habitat fragmentation exacerbating threats that continue to operate over much of its range, particularly: predation by foxes and feral cats; too frequent and extensive burning; and further habitat clearing and fragmentation (Threatened Species Scientific Committee (TSSC) 2016).

DESCRIPTION AND ECOLOGY

The Southern Brown Bandicoot (eastern) is a medium-sized, ground-dwelling marsupial with a backward opening pouch. Males weigh around 890 g and females around 620 g. It has small, rounded ears and small, black eyes, a long tapering snout, a naked nose and a compact body (30 cm in length including head) and a short tail around 11–12 cm long (NSW DEC 2006 and Paull 2008).



Southern Brown Bandicoot (eastern) (John Bundock – Canberra Nature Map)

The dorsal surface of the body bears black spiny bristle-hairs and softer, dark grey underfur that appears brown at a distance with a creamy-white, softer underbelly. The forelegs are short with curved claws on the digits and the hind limbs are much longer, resembling those of macropods (NSW DEC 2006 and Paull 2008).

The species is omnivorous and forages for food mainly by digging in the leaf litter and soil to find insects, fungi, plant root nodules and bulbs. It also eats fruit, seeds and other plant material found above ground (NSW DEC 2006 and Paull 2008).

The Southern Brown Bandicoot breeds throughout the year peaking in spring, rearing two or three litters per year, although this is dependent upon food being available. A study in the Mount Lofty Ranges found that litter size was 1-4 with an average of two pouch young per litter (Packer 2013). Generation time is estimated at two years (Woinarski et al. 2014).

DISTRIBUTION AND HABITAT

The Southern Brown Bandicoot has experienced severe range contractions and population declines since European settlement (Zenger et al. 2005; Bilney et al. 2010). Maxwell et al. (1996) estimate that the Southern Brown Bandicoot (eastern) has experienced a 50–90 percent decline in its range. Its distribution is now highly fragmented with many discontinuous subpopulations (Paull 2003; Zenger et al. 2005; Le Duff and Stratman 2009).

The distribution of the Southern Brown Bandicoot (eastern) extends from the southern side of the Hawkesbury River in New South Wales to Kangaroo Island in South Australia. Within this range, it occurs mostly in coastal areas (Woinarski et al. 2014).

The Australian Capital Territory (ACT) had not been considered to be in the current range for the species/sub-species and it was presumed to be extinct until remains were discovered in 2003. Since then there have been opportunistic sightings and the Southern Brown Bandicoot was recorded in Tidbinbilla Nature Reserve from 2016 to 2018 (Canberra.naturemapr.org (CNM) 2018).

The Southern Brown Bandicoot inhabits areas of dense vegetation, including wetland fringes and heathland (Paull 2008). It has been observed in both native bushland and areas with exotic shrubby species such as blackberry (*Rubus* spp.) (Packer 2013). Bandicoots are secretive and rarely venture far from cover, possibly to avoid predation (Claridge 1998 in TSSC 2016). Bandicoots construct nests under plants on the ground; they do not create their own burrow, but occasionally use the burrows of other species (Paull 2008).

THREATS

Threats to the Southern Brown Bandicoot (eastern) are detailed in the Commonwealth Conservation Advice (TSSC 2016) and include:

- predation by foxes, feral and domestic cats and to a lesser extent dogs
- habitat loss, fragmentation and degradation
- too frequent and extensive burning
- road mortality
- climate change adversely affecting habitat quality
- displacement by high rabbit densities

- disease - possibly toxoplasmosis
- timber harvesting
- reduced genetic diversity
- poisoning associated with control of non-native predators

MAJOR CONSERVATION OBJECTIVES

The priority management objective in the ACT is to contribute to regional and national conservation of the species.

CONSERVATION ISSUES AND PROPOSED MANAGEMENT ACTIONS

The ACT is a significant distance from the current predicted range of the Southern Brown Bandicoot (eastern) and it is only known from opportunistic sightings. The most suitable habitat for this species exists in reserved areas. It is therefore unlikely that further areas will need to be reserved for the conservation of this species. Conservation and management actions are provided in Woinarski et al. (2014) and those relevant to the ACT may include:

- mitigate indicated threats
- determine the distribution, abundance and population structure of the Southern Brown Bandicoot in the ACT
- identify the key attributes of existing or potential habitat that are important for the Southern Brown Bandicoot
- incorporate the protection of critical habitat features into fire management prescriptions
- implement vertebrate pest management strategies
- cooperate with and contribute to regional and national networks to ensure coordination of research, survey and monitoring programs.

OTHER RELEVANT ADVICE, PLANS OR PRESCRIPTIONS

- Commonwealth Conservation Advice — Southern Brown Bandicoot (eastern) (TSSC 2016)
- The Action Plan for Australian Mammals 2012 (Woinarski et al. 2014)

LISTING BACKGROUND

The Southern Brown Bandicoot (eastern) was listed as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 4 April 2001 with the endangered status confirmed on 15 May 2016 with a reassessment undertaken and the application of the IUCN criteria. In 2019, under the *Nature Conservation Act 2014*, the ACT Scientific Committee recommended the Southern Brown Bandicoot (eastern) be listed in the Endangered category in the ACT Threatened Native Species List to align with the EPBC Act listing. It has not been previously listed as threatened in the ACT as it was presumed to be locally extinct.

REFERENCES

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FURTHER INFORMATION

Further information on this species or other threatened species and ecological communities can be obtained from Environment, Planning and Sustainable Development Directorate (EPSDD).

Phone: (02) 132281, EPSDD Website: <http://www.environment.act.gov.au/cpr>