

Threatened species of the Northern Territory

Golden bandicoot

Isoodon auratus

Conservation status

Australia: Vulnerable (*I. a. auratus*)

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Endangered

Territory Parks and Wildlife Conservation Act 1976

Description

The Golden Bandicoot is a small bandicoot weighing up to 600 g. It is superficially similar to the more common Northern Brown Bandicoot *Isoodon macrourus*, but is distinguished in the field by its smaller size, the shape of its hairs and by its flatter and more elongated head shape.

Distribution

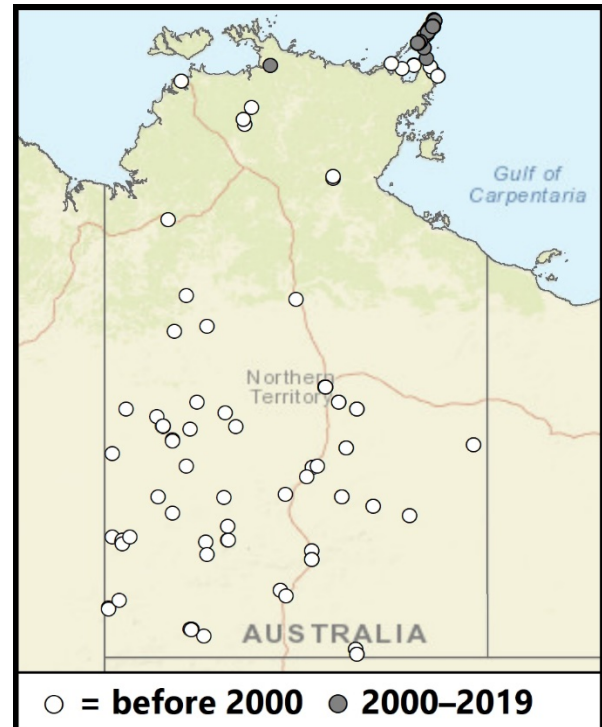
The Golden Bandicoot formerly occurred across most of northern, central and western Australia, extending to south-western New South Wales. However, it declined precipitously within decades of European settlement, and disappeared from the central deserts in the mid-1900s^{1,2}. Records from mainland north-eastern Arnhem Land collected in the 1950s to 1980s are probably referable to this species³.

The Golden Bandicoot has disappeared from all areas of the Northern Territory (NT), except for Marchinbar Island on the Wessel chain, north-eastern Arnhem Land⁴. However, translocated populations have since been established on Raragala and Guluwuru Islands in the Wessel Islands.



Credit: NT Government

Beyond the NT, the same subspecies, *Isoodon auratus auratus*, occurs on a small portion of the mainland of the north-western Kimberley, Western Australia and from two nearby islands: Augustus Island and Uwins Island. Another subspecies, *I. a. barrowensis*, occurs on Barrow and nearby Middle Islands off the Pilbara coast.



Caption: Known localities of the Golden Bandicoot in the NT (nrmmaps.nt.gov.au)

NT conservation reserves where reported: Formerly occurred in areas that are now included within Kakadu National Park, Uluru Kata-Tjuta National Park and Tjoritja/West MacDonnell National Park.

Ecology and life-history

The Golden Bandicoot formerly occupied a diverse range of habitats. Most information on the ecology of this species was derived from a single short-term study on Marchinbar Island⁵. There it occurs mainly in heathland and shrubland on sandstone or sandsheets, and avoids vegetation with greater tree cover. Individual Golden Bandicoots maintain overlapping home ranges of 12–35 ha. The diet comprises a broad range of invertebrates.

Threatening processes

No single factor has been demonstrated to have caused the decline of the Golden Bandicoot, but the extent of loss on the mainland and the persistence of some island localities suggests that it is not due to land-use practices, but rather to either disease or exotic predators. The most likely causal factor is predation by feral Cats *Felis catus*.

Marchinbar Island has no feral Cats, but wild Dogs *Canis familiaris* were present on the island until they were eradicated in 2004–05, largely because they preyed on Golden Bandicoots and nesting marine turtles. The greatest threat to the Marchinbar locality is the deliberate or inadvertent introduction of feral Cats to the islands.

Golden bandicoots may be negatively affected by inappropriate fire regimes. The species appears to prefer areas which have been burned two to five years previously within a fine-scale mosaic.

Conservation objectives and management

Many actions of the expired recovery plan for the Golden Bandicoot⁶ have been implemented jointly by Gumurr Marthakal Rangers of north-eastern Arnhem Land and the NT Government,

including the establishment of translocated animals on three of the Wessel Islands.

Management priorities consistent with the plan are to: i) better safeguard the existing localities through improved communication of the need to keep Marchinbar Island cat-free, through encouragement of traditional Aboriginal burning practices, and through the implementation of a monitoring program; ii) continue to manage translocated locations; and iii) investigate whether the Golden bandicoot is extant on the mainland of north-east Arnhem Land.

References

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- ⁴ Fisher, A., Woinarski, J., 1994. Golden Bandicoot. Aust. Nat. Hist. 26, 20–21.
- ⁵ Southgate, R., Palmer, C., Adams, M., Masters, P., Triggs, B., Woinarski, J., 1996. Population and habitat characteristics of the Golden Bandicoot (*Isodon auratus*) on Marchinbar Island, Northern Territory. Wildl. Res. 23, 647–664.
- ⁶ Palmer, C., Taylor, R., Burbidge, A., 2003. Recovery plan for the Golden Bandicoot *Isodon auratus* and Golden-backed Tree-rat *Mesembriomys macrurus* 2004–2009. Department of Infrastructure Planning and Environment, Darwin.