

# Threatened species of the Northern Territory

## Malleefowl

### *Leipoa ocellata*

#### Conservation status

##### Australia: Vulnerable

Environment Protection and Biodiversity Conservation Act 1999

##### Northern Territory: Critically Endangered

Territory Parks and Wildlife Conservation Act 1976

#### Description

The Malleefowl is a large bird, with a combined head and body length of up to 60 cm and a body mass of 1.5–2.5 kg. It has powerful grey legs, a short dark bill and a flattish head. The tail is long and rounded. The head and neck down to the sides of the breast are largely bluish-grey to grey-brown, except for the pale chestnut chin and throat. A broad black stripe with white margins extends from the throat to the upper breast. The upperbody is strikingly barred and mottled grey, white, black and rufous, while the breast and belly are creamy white.

#### Distribution

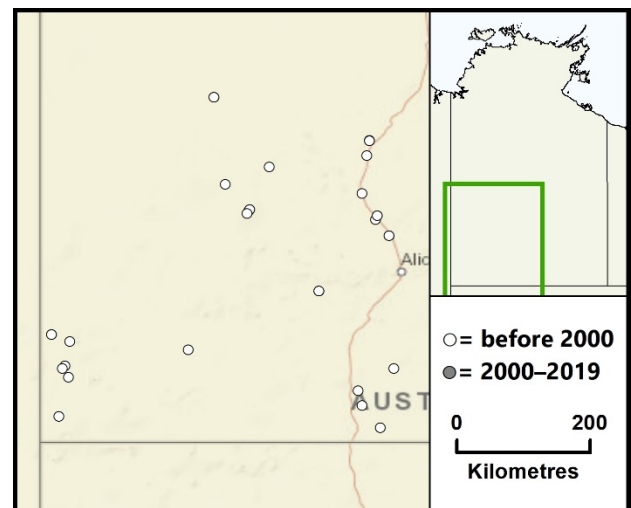
The Malleefowl is distributed widely across southern Australia, from the west coast to the western side of the Great Dividing Range. However, within this distribution the species occurs as widely scattered localities in arid and semi-arid rangelands and dryland cropping zones, notably in north-western Victoria, south-east South Australia, the Great Victoria Desert, and the wheatbelt region of Western Australia.



Credit: G. Chapman

In the Northern Territory (NT), it has been recorded from the southwest corner, including the Petermann Range, MacDonnell Ranges, Tanami Desert (Mt Theo), Idracowra Station, Burt Well, Tea Tree, Connors Well, Aileron and Central Mount Stuart<sup>1</sup>. No records of the species in the NT have been collected since the early 1960s; though Aboriginal people reported credible sightings of Malleefowl near the South Australian border in the late 1900s<sup>2</sup>.

NT conservation reserves where reported: None.



Caption: Known localities of the Malleefowl in the NT ([nrmmaps.nt.gov.au](http://nrmmaps.nt.gov.au))

## Ecology and life-history

The Malleefowl occurs primarily in shrublands and low woodlands dominated by Mulga (*Acacia aneura*) and mallee eucalypts in the semi-arid and arid zones<sup>3</sup>.

Malleefowl pairs occupy large stable home ranges. The species feeds on the ground, mostly consuming seeds but other plant matter and invertebrates are also eaten. Individuals roost in shrubs and trees at night.

The Malleefowl is monogamous and reproduces by incubating eggs in a large mound—measuring up to 3–5 m wide and up to 1 m high—constructed by the pair using leaf litter and soil. When the mound has reached a suitable temperature, the female begins to lay eggs that are then incubated by a combination of solar radiation and heat produced by rotting organic matter in the egg chamber. The male alone tends the mound, regulating the internal temperature, during incubation. Young have to dig themselves from the mound after hatching and are then independent.

The demography and life-history of the Malleefowl, and how these influence population dynamics, are not well understood<sup>3–4</sup>. It is likely this is due to the cryptic nature of the species and the difficulty in monitoring individuals and reliably measuring abundance<sup>3</sup>.

## Threatening processes

The cause(s) of the decline of the Malleefowl in the NT is unclear. The timing of the decline coincided with the arrival of the Red Fox *Vulpes vulpes*—which is regarded as a key threat across the current distribution of the species<sup>3,5</sup>—in southern parts of the Northern Territory, but this invasive predator did not reach the south-western Tanami Desert until the 1970s<sup>2</sup>. It is likely that widespread cessation of traditional burning regimes—particularly in spinifex communities adjacent to fire-sensitive mulga communities—altered habitat suitability for the Malleefowl and contributed to its decline<sup>1,3</sup>.

Hunting, extensive fires and habitat degradation by European Rabbits *Oryctolagus cuniculus*,

followed by severe drought in the 1930s, have been implicated as additional contributing factors to the decline in the NT<sup>2–3</sup>.

## Conservation objectives and management

A national recovery plan was prepared for the Malleefowl in 2007<sup>2</sup>.

There is no existing management program for the Malleefowl in the NT. Nonetheless, conservation management priorities are to: i) undertake searches for Malleefowl and their mounds as an integral part of biological surveys of the Central Ranges and Great Sandy Desert bioregions; and ii) immediately follow-up any potentially credible sightings in the NT.

## References

- <sup>1</sup> Kimber, R. G., 1985. The history of the Malleefowl in central Australia. R.A.O.U. Newsletter June 1985, 6–8.
- <sup>2</sup> Benshemesh, J., 2000. National Recovery Plan for the Malleefowl. National Parks and Wildlife South Australia, Adelaide.
- <sup>3</sup> Benshemesh, J., 2007. National Recovery Plan for Malleefowl. Department for Environment and Heritage, South Australia.
- <sup>4</sup> Bode, M., Brennan, K., 2011. Using population viability analysis to guide research and conservation actions for Australia's threatened malleefowl *Leipoa ocellata*. *Oryx* 45, 513–521.
- <sup>5</sup> Priddel, D., Wheeler, R., 1999. Malleefowl conservation in New South Wales: a review, in: Dekker, R., Jones, D.N., Benshemesh, J. (Eds.). Proceedings of the Third International Megapode Symposium, pp 125–141. Backhuys Publishers, Leiden.