

Malleefowl

Leipoa ocellata (Gould, 1840)

Size

550-610 mm in length

Weight

1.5-2.5 (2.0) kg

Subspecies

None recognised

Description

Malleefowl are large ground dwelling birds that rarely fly unless alarmed. They have robust, powerful legs and the wings are short, broad and rounded at the tip. A crest



Photo. Babs & Bert Wells/Department of Conservation and Land Management

extends from the front of the crown to the nape and is raised when the bird is alarmed. The upper body is boldly barred, fringed and streaked grey, white, black and rufous. The breast and belly are cream-white. Face mid-grey with white line under eye. Bill is slate grey. Malleefowl are well camouflaged in their mallee habitat.

Other common names

Gnow, mallee chook, mallee hen

Distribution

Historically, the malleefowl was found in mallee regions of southern Australia including, south-west New South Wales, north-west and central-west Victoria, most of South Australia, southern Northern Territory and south-west Western Australia, from approximately the 26th parallel of latitude southwards.

Today it can still be found in most of these areas but appears to be extinct in the Northern Territory, northern South Australia, and the western and northern goldfields and far south-west in Western Australia. Its remaining range is highly fragmented, extending across southern Australia, from coastal Western Australia through South Australia and north-western Victoria to central New South Wales. In Western Australia, malleefowl occur in Dryandra State Forest, Fitzgerald River National Park, Kalbarri National Park, and Cape Arid National Park, and have been reintroduced into Francois Peron National Park, Shark Bay. They have also been reported from many reserves within and around the wheatbelt.

Habitat

Malleefowl are largely confined to arid and semi-arid woodland that is dominated by mallee eucalypts on sandy soils, with less than 430 millimetres of rainfall annually. They may also be found in Mulga, *Acacia aneura*, and other sclerophyllous associations. In Western Australia malleefowl may also be found in coastal heath where shrubs produce sufficient leaf litter for use in nest mounds.

Behaviour

Malleefowl build distinctive nests that comprise a large mound of soil covering a central core of leaf litter. These nest mounds range in diameter but on average span more than five

metres and may be up to one metre high. A malleefowl pair will often use the same nest site each season rather than build a new one. Nest preparation occurs in autumn and the male will tend the nest through summer until temperatures begin to fall. The female helps with the nest initially but spends most of her time looking for food to meet the metabolic demands of egg production.

Malleefowl are generally monogamous and once breeding begins, pair for life. Breeding malleefowl tend to be sedentary, as they nest and roost in the same area year after year. While breeding, males do not stray far from the nest but at other times birds may range over several square kilometres. Home ranges do not appear to be defended, although in the vicinity of its nest the male is vigorously aggressive toward other malleefowl except its mate. Radio-tracking studies have shown that over the course of a year the birds may range over one to several square kilometres and that home-ranges overlap considerably. Malleefowl will usually find cover and remain motionless with any sign of a threat from the air. The same is generally true for terrestrial predators, as young will often rely solely on their camouflage to escape detection. Malleefowl will take to flight only as a last resort even though they are capable of strong flight.

Diet

Malleefowl are opportunistic feeders and will eat whatever food sources are locally or seasonally abundant. They are omnivorous and their diet may include foliage, fruits, flower buds and seeds of a diverse range of plants as well as invertebrates, and their products such as sugary lerps, tubers and fungi. Although it will drink if water is available, it normally lives without it.

Breeding

Established pairs generally breed annually. Eggs are laid from September to January four to eight days apart. The average clutch size is 16 (the range is between 5 and 33). The decomposing organic matter with which the birds fill the nest incubates the eggs for between 62 and 64 days. About 80 per cent of all eggs hatch provided they are not saturated by rain or raided by foxes.

Chicks hatch buried beneath soil up to one metre deep. Their struggle to the surface is unaided and may take up to 15 hours. Malleefowl chicks receive no parental care and within an hour of leaving the nest can run and feed independently. Mortality among chicks is high, with 80 per cent falling prey to, or dying from metabolic stress brought on by exposure or starvation within about ten days. Malleefowl chicks are capable of dispersing quite widely after emerging from the nest but some have been reported to stay within the vicinity for up to 10 days.

Malleefowl reach maturity at two, work a nest at three, and breed at four years of age. The lifespan of the malleefowl is unknown but studies have not recorded an individual breeding beyond 12 years.

Threatening processes

Clearing of habitat for agriculture, increased fire frequency, competition with exotic herbivores (sheep, rabbits, cattle, goats) and kangaroos, predation by foxes and cats, inbreeding as a result of fragmentation and possibly hunting for food in marginal populations. Habitat clearing in agricultural areas would increase the risks of local extinction.

Conservation status

2000 IUCN Red List of Threatened Species	Vulnerable
Western Australian Wildlife Conservation Act	Threatened
Environment Protection and Biodiversity Conservation Act	Threatened (Vulnerable)

Management in Western Australia

- Control of foxes, goats, rabbits.
- Prevention of wildfire in suitable habitat.
- Monitoring of malleefowl populations.
- Prevention of further clearing of mallee lands.
- Revegetation of high quality habitat.
- Captive breeding of malleefowl for translocation to rehabilitated habitat.

Other interesting facts

- Malleefowl were regularly hunted by European Australians during the nineteenth and early twentieth centuries for food.
- Each egg the female lays weighs 10 per cent of the female's body weight.
- Within 24-hours of hatching from the eggs, young can fly because, unlike their downy body, their wings are well feathered.

Selected references

Garnett S. (1992). The Action Plan for Australian Birds. Australian National Parks and Wildlife Service.

Priddel D., and Wheeler, R. (1995). The Biology and Management of the Malleefowl in NSW. NSW National Parks and Wildlife Service. Hurstville, NSW.

Blyth J., Burbidge A., Brown A. and Hooper K. (1996). Working Together. *LANDSCOPE* 11(3): 36.

Website links

http://www.naturebase.net/projects/west_shield.html

<http://www.ea.gov.au/biodiversity/threatened/action/birds2000/pubs/malleefowl.pdf>

<http://skuld.cage.curtin.edu.au/gis/malleefowl/>

<http://www.panda.org/kids/wildlife/fmfowl.htm>

<http://www.westernwildlife.com.au/western/birds/malleefo.htm>

<http://www.perthzoo.wa.gov.au/mallee.html>