

Malleefowl learnings helping to save the species



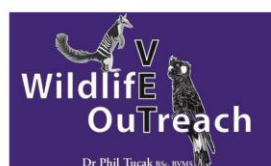
Malleefowl are meticulous. In semi-arid to arid shrublands and woodlands across Australia, a breeding pair of malleefowl will build a large mound made of sand which can be up to five metres in diameter and one metre in height. Building the mound takes several months, and in the middle of mound, up to a cubic metre of moist litter is buried to create the perfect incubator for their eggs.

The female malleefowl will usually lay about one egg a week in the mound from spring through until late summer. The male malleefowl spends several hours every day maintaining the mound throughout this time, regulating the incubation temperature of the mound to about 33°C. The malleefowl chicks begin hatching and emerging from the mound from November onwards – the chicks commonly have to burrow their way up through about a metre of sand before breaking the surface hours later.

Once out, the chicks fend for themselves, and are immediately at risk from predation and starvation. Those that survive will range over an area of up to several square kilometres, with adult malleefowl preferring to travel via corridors of thick vegetation. The malleefowl can fly, and roost at night in trees, however they spend most of their time travelling by foot.

Once widespread across much of inland Australia, the impacts of predators like foxes, and reduced or fragmented habitat availability have contributed to this threatened species being listed as vulnerable nationally. Sadly however, in many parts of Australia they are rare and endangered.

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“The national population of malleefowl has been roughly estimated at about 25,000 breeding adults. The species has an enormous range across southern Australia and typically occurs at low densities, so estimating population size is difficult and involves extrapolation from about 140 sites where the breeding population is known to a vast area where it is not known,” explained National Malleefowl Recovery Coordinator Michael Gooch.

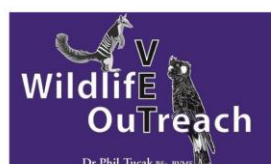
“Breeding numbers of malleefowl appear to be declining over much of the species range, and previous recovery efforts - such as reducing introduced predators, appear to have had little benefit. At least some of the decline is thought to be due to declining winter rainfall which is important for both the provision of winter foods and for mound construction and function.”

“...one of the largest single species monitoring programs in Australia...”

The National Malleefowl Monitoring Program is one of the largest single species monitoring programs in Australia. The program ensures that malleefowl mounds are monitored in the same ways in all regions across Australia, which is important for understanding population trends.

Volunteers collect data about malleefowl mounds, including taking photographs, mapping locations and using lidar to undertake large landscape level searches for mounds. Mound activity is considered the best indicator of species survival, with the greater the number of active mounds, the more Malleefowl expected to be present nearby in the bush.

The information collected by the national network of volunteers is fed into a national database allowing scientists to study the species population dynamics.



“Malleefowl belong to a small and unusual family of birds, the megapodes, that do not use body heat to incubate their eggs - instead relying on their mounds as giant incubators. Malleefowl are incredibly robust and hardy birds who eke out an existence in some of the toughest terrains in Australia. Because they are so resilient that makes any efforts to preserve them more realistic than some other species,” said Mr Gooch.

To save the malleefowl from extinction, Mr Gooch and the recovery program team have identified three key changes that need to occur.

“The amount of malleefowl habitat being cleared has to be reduced, and more corridor linkages between fragmented habitats must be provided along with population augmentation if required – such as through translocation of birds. There also needs to be an increase in scientific efforts to research the challenges facing the malleefowl,” said Mr Gooch.

A national Adaptive Management Predator Experiment project is currently underway to better understand the benefits of reducing introduced predators such as foxes and feral cats. The project is occurring at paired sites across Australia, with monitoring of a treatment area that has been baited for foxes, and a control site that has no baiting.



A malleefowl translocation project is also underway in the Riverina region of New South Wales, aiming to reintroduce the species to sites within its former range.

“This project is the first to incubate eggs and immediately reintroduce malleefowl chicks to a site where malleefowl had become extinct. The core idea is to re-establish a breeding population at an isolated ‘malleefowl sanctuary’ near Griffith where the species became extinct in the 1980’s by using eggs taken from a range of mounds in other isolated patches where malleefowl still occur but are threatened by low numbers and inbreeding,” explained Mr Gooch.

“The malleefowl eggs are hatched in a special incubator and the ensuing chicks immediately released to replicate what happens in nature. The malleefowl sanctuary is fenced and predators are controlled, so the chicks should have a better chance of survival than if they had not been moved.”

It is hoped that through these research efforts, together with raising awareness of the impact of habitat destruction on the species, that malleefowl will grace the arid scrub of inland Australia well into the future.

To help support the work of the National Malleefowl Recovery Group, visit their website:

<https://www.nationalmalleefowl.com.au/get-involved/donate/>

Article by Dr Phil Tucak, [Wildlife Outreach Vet](#). Images thanks to Michael Gooch – Explore the Mallee.

