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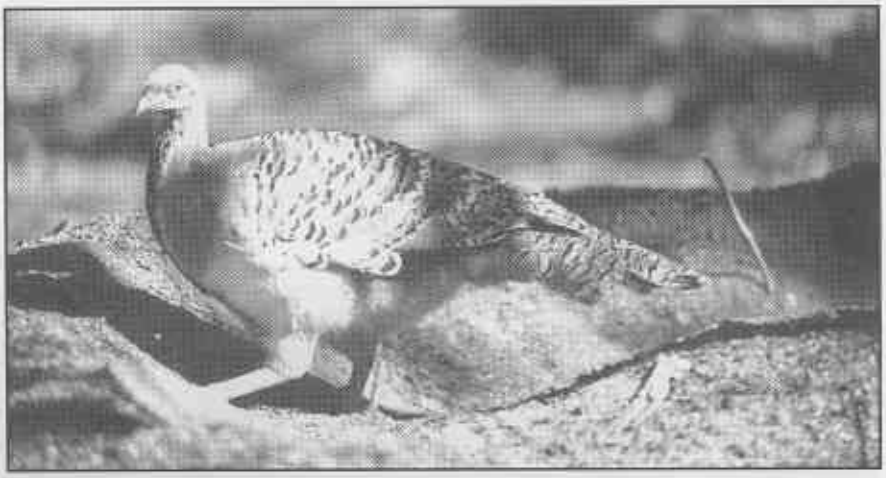
THE MARVELLOUS MALLEEFOWL - ITS GNOW OR NEVER!

From a talk given by Susanne Dennings

MALLEEFOWL use a compost heap to incubate their eggs - which is really rather an extra-ordinary thing to do. It becomes even odder when you realise that all the other 11 species of birds in its family live in tropical areas, where high rainfall rots the vegetation quicker, so making a more reliable incubator. But our malleefowl works - and works hard - in arid and semi-arid areas to keep up his strange life-style.

Inside the heap, the eggs must be kept to within 2°C pf the optimum temperature - 33°C. He achieves this by using his thermally-sensitive beak as a probe, hence an alternative name, 'Thermometer Bird'. Incubation commences about Sept/Oct and goes on until about Mar/April when, by February, the heat generated by the decomposition process begins to decline. So Dad-to-be opens up the mound to obtain a greater exposure of the mound soil to the sun's warmth, later covering it back up to keep the heat in.

Who taught him this specialised skill? Certainly its not his parents, for when, as a hatchling, he battled his way up through as much as a metre of sand and leaf litter (and it may take him up to 15 hours to achieve this!) he merely stoped for a breather before he's off on his own in the big, bad world. Meanwhile, Dad continues the thermal checks and Mum ... well ... she's out there somewhere building up her protein supply for yet another egg. Junior doesn't need an instruction book anyway for he is self-contained, being fully-feathered, well camouflaged, has strong little legs for running and can even fly within 24 hours.



Malleefowl on mound. (P. Hussey)

He needs all this and more to survive. It seems his chances are about 1%! Yet if he does make it, he may then enjoy up to 30 years of foraging and mound-building. He will mate for life when he reaches maturity.

Once the breeding season is over, it doesn't mean Dad's task is done, he has to prepare next year's incubator (no male liberation here!). Out with all the old, spent compost and in with a new layer of fresh vegetable matter in the depression he has bade at the base of the mound and piles of leaf litter above, raked in from up to 25 m away. He then digs an egg chamber in the centre of the mound, into which 18 or so very large eggs are laid at the rate of one every five days. Imagine the quantity of seeds, insects and herbs that must be consumed daily to keep up that prodidgious laying effort! Dad, meanwhile, must also eat a lot to provide the energy needed to rake out the soil or rake it back as the fluctuating temperatures of the mound demand.

The main threats to malleefowl survival are probably predators and loss of suitable habitat. To help with the first problem, the Malleefowl Preservation Group has promoted and taken part in fox control operations, and conducted a 'Kitless Kat Klinick'.

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"Charlie's mound" under Burracoppin Mallee. Note that the understorey would regenerate if stock grazing was removed (photo: Penny Hussey)

Malleefowl Charlie's leaves

Frank Gould of "Albacutya Downs', Narembeen, has been watching 'Charlie' since he first started building this mound in 1994. But the silly bird chose an area of the remnant that is unfenced so that it can act as stock shelter, consequently there's not much litter around. So each year Frank collects a ute-load of mallee leaves and stuff, and dumps it off for Charlie. As you can see, he's used it to make a very satisfactory mound!

The second problem might, in the long term, be harder to remedy. At Ongerup, where we first started studying malleefowl, there are several small reserves with suitable habitat - indeed, they contain old mounds - but living birds have not been seen there for many years. We designed, found a grant to finance, and have planted and fenced 21 km of trees and shrubs to act (we hope) as bush corridors that will both lead and shelter young malleefowl dispersing away from the remnant with active mounds towards the unoccupied areas.

Our aim is to put the 'Gnow' (the Nyoongar name for the bird) back into Gnowangerup - the place where the malleefowl lays its eggs.

Susanne Dennings is a farmer at Ongerup and Voluntary Coordinator of the Malleefowl Preservation Group (see 'About Groups'). She is also on the Board of Greening Western Australia. These notes were taken during a talk given by Susanne to the Darling Range Branch of the WA Naturalists' Club. Any mistakes are due to faulty transcription, blame me! Ed.