

The Malleefowl Momentum

By Susanne Dennings

Farmers and Landowners – a community's response to the cultural and heritage values of their Malleefowl

Australian communities have in the past and are continuing to take an increasing leadership role in driving Malleefowl conservation particularly in Western Australia. In deed, the charismatic life style of the Malleefowl has captured hearts and minds across the country. One proactive isolated 'sheep and wheat' farming community in the south west has been working against incredible odds to preserve the species and this is their story.

Malleefowl *Leipoa ocellata* are listed as 'vulnerable' under the *Commonwealth Environment Protection and Biodiversity Act 1999* and the 2007 IUCN Red List of Threatened Species. In Western Australia, they are listed as 'fauna that is rare or likely to become extinct'.

The species belongs to the family Megapodiidae, the ground dwelling mound builders. The megapode family is made up of seven genera confined to the islands of south-east Asia, south-west Pacific and Australia and generally understood as a sister group to the Galliformes. They use external heat sources to incubate their eggs by various means from the warm sand of Indonesia's tropical beaches to constructing an earth mound filled with leaf litter gathered from the forest floor. Of all the mound builders, Malleefowl are unique to the arid/semi-arid regions of Australia. One would wonder why any self respecting megapode should choose such a low rainfall sparse environment to make a composting incubation mound. The Malleefowl, however, have developed a most sophisticated and elaborate incubation method spending up to 11 months of the year constructing a mound of soil filled with litter. They maintain a constant 32-34 degrees c during the breeding season (Sept-Mar) by adjusting soil cover, then when the decomposing heat diminishes, solar energy is utilised by spreading the mound soil to heat in the sun. Malleefowl lay a large egg weighing approximately 10% of the body weight at 3-8 day intervals burying them deep in the egg chamber above the composting material. Upon hatching, the chick may take up to fifteen hours to emerge. The young Malleefowl receives no parental care and can fly within 24 hours. Sadly it has an estimated survival rate of less than 2%.

In the south western Australian mallee country three small towns; Borden, Gnowangerup, and Ongerup are linked to a rural shire that takes its name from the Noongar Aboriginal word for malleefowl, the 'Gnow'. **Insert photo 1** Like most farming districts, the **Gnowangerup** Shire landscape has been severely modified resulting in the clearing of 85% of the natural bushland for agriculture. Today, the remaining remnant vegetation is further under threat from stock grazing, rabbits and increasing salinity.

The 'gnow', or 'malleehen', as it is also locally known features on the coat of arms as the Gnowangerup Shire faunal emblem, vehicle number plate, school emblem, hospital aged care building and a multitude of local community group and business logos. **Insert photos 2, 3** In 2007 the bird provided a focus for an Ongerup eco tourism, research and information centre that currently houses the administration offices of the Malleefowl Preservation Group.

In 1991 local resident, John Davis was commissioned by the Gnowangerup Shire President to carve a malleefowl, now a show piece in the shire administration building. Describing himself as a 'bushie with a difference', John's keen interest in nature became internationally recognised when he discovered his new found talent for wood carving Australian birds. Without doubt his bulldozer and school bus contracting businesses provided many opportunities to observe nature and all it had to offer.

Upon accepting the Malleefowl carving commission, John realised with concern that he could no longer take a short drive out of town to study the bird. His only option was a 700 km return trip to the Perth Zoo. One year later John learnt this captive Malleefowl had been taken by a fox. This news, his dedication to native wildlife and local Landcare membership motivated him to 'do something about the loss of our malleehens'. So began the formation of the Malleefowl Preservation Group with an out bush 'on the back of the ute' meeting at their only known Gnowangerup Shire Malleefowl breeding site north of Ongerup, known as 'Kelly's block'. **Insert photo 4** This small 138 ha isolated bush remnant had been saved from clearing by a multitude of fortuitous events. Several attempts to burn it in the 50-60's failed followed by a final unsuccessful clearing plan when the tractor dragging its 'rolling' log broke down. **Insert photo 5** The owner, Jack Vaux well understood the threats to sheep grazing in bushland that contained poison plants known locally as 'box' and 'narrow leaf' (*Gastrolobium stenophyllum* and *Gastrololium parviflorum*). The bush block was quickly fenced off to avoid further stock losses. The result - a protected remnant in a cleared landscape supporting threatened species including the Western whipbird *Psophodes nigrogularis*. In addition to the Malleefowl, it was the loss of more obvious species such as the brush wallaby *Marcopus irma* that drove the owner to save this patch of bush for future generations. Sadly the last brush wallabies were eradicated by a non professional visiting 'roo' shooter.

Over the coming years the Malleefowl Preservation Group (MPG) was formed initially as a sub group to the local Landcare movement under the direction and driving passion of its founder, John Davis. It developed a 'Community Action Plan' to prioritise future actions firstly by raising the profile of the Malleefowl in Western Australia then working towards identifying remaining populations. With guidance from the *National Recovery Plan for Malleefowl* and personal support from its author, Dr. Joe Benshemesh, the group contributed to, and encouraged a National conservation approach through linking with similar interstate communities and research scientists.

Based in Ongerup, a small community of just 120 residents, the Malleefowl Preservation Group well recognised its future operational and volunteer challenges. So much to do, so few people, isolation, declining infrastructure and aging rural populations. Just how would the group implement its full action plan? A major Community Awareness and Education program was embarked upon in 1994 to encourage support and increase understanding of the decline in Malleefowl populations throughout the southern half of Western Australia. The group focused on a series of country show and field day displays then turned its energy to developing a school education program. **Insert photo 6** Designed as a curriculum/outcome based program, 'Malleefowl Magic' gained its introduction support from Sir David Attenborough and curriculum guidelines from environmental education officer, Janette Huston. To date 130 schools have received the education program which is currently being reviewed for future expansion. **Insert photo 7 &/or 7a**

What of the Mums and Dads? Well known Australian singer and song writer, John Williamson pledged his support by becoming the group's patron. A man dedicated to the Australian environment with a similar farming background and a good understanding of the Malleefowl Preservation Group's members, John visited 'Kelly's block' and has been closely linked to the MPG for the past 10 years. *Insert photo?*

'Kelly's block' became a focal point for on-ground conservation work as the area was once recognised as a Malleefowl strong hold. The now fully cleared nearby 'malleehen paddock' is a bleak reminder of what once was. In recognition of the local community's cultural significance for the surviving population in 'Kelly's block', the MPG set about constructing a series of wildlife bush corridors. This vision developed from the realisation that the small remnant supported an astonishing breeding density of 5 active mounds and, secondly, farmers' personal observations of 'malleehens' using a degraded bush connection along the 'Little Ayre' paddock fence line. Stretching some 63 kms to the east and west, the corridor was constructed in three stages through farmers' allocation of cleared and uncleared land to plant local providence seed collected from 'Kelly's block'. **Insert photo 'seed picking'** The most recent 50 metre wide corridor extension (stage 3) was described in the group's *Malleefowl Matter* newsletter as the equivalent to an area of 1800 suburban housing blocks.

More farmers from neighbouring shires became involved, some travelling from as far a field as Kojonup, 250 km to the west to participate in a special MPG partnership project with the Kent District Hunting for Conservation Group. This organisation, a sub group of the Sporting Shooters Association, regularly patrol the corridor at night to eradicate feral cats and foxes. **Insert photo 8a**

How successful has this wildlife corridor project been? The group pledged support to a dedicated PhD student who set up her primitive bush camp at 'Kelly's block' to study the Malleefowl. Her enthusiasm was infectious so that before long Jessica van der Waag had a multitude of willing helpers donning head torches to trek through the mallee at night, rain, hail or shine to monitor the survival and dispersal of malleefowl chicks. Their use of the bush corridors has been mapped to date however further research and monitoring is still required to identify long-term chick survival and adult movements.

With all this activity, one apprehensive however important question continually arose on the group's agenda 'How many Malleefowl do we really have left?'. As a long-lived species, it was recognised that a long-term commitment to monitoring populations needed to be established if community groups such as the Malleefowl Preservation Group were able to provide evidence of population trends and contribute to conservation guidelines.

'It is crucial to describe the current distribution, abundance, and stability of remaining Malleefowl populations so that effective management can be prescribed for poorly known populations within a landscape context. Information is also needed to adequately assess the threats, examine the viability and conservation status of these populations, and plan the most effective and efficient management for self-sustaining populations' *Benshemesh, J: National Recovery Plan for Malleefowl, 2000.*

Initially the MPG set about establishing a 'Malleefowl Sightings' project involving the broader community with the aim of identifying migrating and resident Malleefowl in agricultural landscapes. Fifteen hundred sighting reports later, the project provided the basis for further research by PhD student, Blair Parsons. It would seem that all is not bad news for the Malleefowl. The report 'Malleefowl Conservation – informed and integrated community action' 2008, Dr. Jeff Short and Blair Parsons states:

'We conclude that the long-term prognosis for Malleefowl in the Western Australian wheatbelt is much brighter than elsewhere in its range and that its status here is much more secure than previous published studies have indicated. However, their continued persistence cannot be taken for granted, requiring overall neutral or positive environmental trends over time throughout the wheatbelt for it to persist. These environmental trends relate strongly to maintenance of overall connectivity of the landscape and the maintenance of habitat quality within remnants (chiefly by the exclusion of grazing).'

Commencing in 1993, the MPG assisted community interest groups and the corporate sector to establish a series of Western Australian survey sites in search of Malleefowl mounds enabling and encouraging annual monitoring of breeding pairs. **Insert photo 9** Their findings are an important contribution to the National Malleefowl Monitoring Program data base coordinated and managed by the Victorian Malleefowl Recovery Group.

Malleefowl surveys rely heavily on teams of 20-30 volunteers who camp out to bush walk each day carrying a back pack lunch and drinking water. Over the years, the MPG has developed an efficient 'human chain' survey methodology implemented by a team of experienced and enthusiastic volunteers. For many, it provided an introduction to GPS technology and, in most cases, a first 'real bush walking' experience. 'State of the art' camp out facilities including an under cover kitchen and 12 volt battery operated hot showers fed from an old style copper in a cut off 44 gallon drum, ensure volunteer comforts are well catered for. ***Insert photo 10*** 'Camping under the stars is wonderful especially at the end of the day when we all meet around the camp fire at night for the de-brief. Hot showers? What a luxury however you have to be quick to beat the cold nights when the temperature can drop below zero. Then of course if it's raining, plastic bags come in handy to keep our clean knickers and socks dry!' said one volunteer.

From humble beginnings to save their 'Gnow', the Malleefowl Preservation Group today boasts five environmental awards and a membership of 650 (approximately 2000 individuals). The group continues to operate on a 95% volunteer basis contributing its success to keeping 'its eye on the ball', appreciating and rewarding the commitment of its volunteers and maintaining a grass roots focus.

The organisation has very much understood and promoted the iconic values of the Malleefowl. Not without future challenges, the MPG is today at a cross roads in expanding Malleefowl conservation through developing a strategic 'whole of biodiversity' community driven conservation program.

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Footnote: A half hour television documentary titled 'It's Gnow of Never' telling the MPG story is in the final stages of production.

For further information visit the group's web site www.malleefowl.com.au or email: malleefowl.wa@wn.com.au