

The Role of Community Groups: *Victoria*

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The subject of this morning's session is The Role Of Community Groups, and we might summarise that by saying that:

- *They get things done, in an organised way, that wouldn't otherwise get done;*
- *They draw attention to, and involve people in, issues that might otherwise be overlooked.*

There has been a long history of community interest in Malleefowl in Victoria, including, from early on the RAOU, and later Sunraysia Naturalists Research Trust at Mildura, the Mid-Murray Field Naturalists in the eastern Mallee, the Friends of Wyperfeld, the Friends of The Little Desert, and other local groups.

Private individuals who have made important contributions to studying Malleefowl and promoting their conservation have included Les Chandler, Keith Hatley, Angus Torpey and Wimpey Reichelt.

The evolution of this group, the VMRG, began at the third International Megapode Symposium at Little Desert Lodge, Nhill, in December 1997. Researchers Joe Benshemesh and Paul Burton contacted attendees, and small local groups at Nhill, Ouyen and Mildura, who with the backing of Parks Victoria, Birds Australia and the Threatened Species Network formed a working group to train volunteers to take on the annual monitoring of breeding activity in the 24 research grids located in the Mallee and Little Desert.

The group was formalised and incorporated in 2001 as the Victorian Malleefowl Recovery Group Inc., whose purposes include:

- Monitoring and associated data collection;
- Media and general education; and
- Preparing project proposals and seeking funding.

The group meets 2 or 3 times yearly, including a training weekend prior to monitoring. A committee handles business between times, and ad hoc sub committees handle e.g. safety, planning, newsletter, and this conference.

We have had the indispensable assistance of a part-time co-ordinator since mid 2001, though in this respect we will soon be on our own.

We have a register of 51 paid-up members, including people resident in Melbourne, Geelong and southern centres, as well as those resident in the homeland of the Malleefowl.

VMRG operates with the close co-operation and support of Parks Victoria and the Department of Sustainability and Environment.

Malleefowl

The historical range of the Malleefowl in Victoria included the entire Mallee region, and the northern and western Wimmera to the southern fringes of the Little Desert. More surprisingly, it included much of the North-Central region, almost to Echuca, and through the Central Goldfields to southern outliers in dry mallee woodlands east of Melbourne and as far south as the Brisbane Ranges.

More recently, the Victorian range of the Malleefowl in both Atlases of Australian Birds has remained the same in gross terms – the number of 1-degree grids – as has the breeding range. The Historical Atlas (pre 1901) shows it breeding in 3 grids where it no longer exists.

Today it is largely confined to the non-agricultural parts of the Mallee – Sunset – Hattah – Annuello in the north, Big Desert – Wyperfeld in the west, and Little Desert in the south. Several small reserves harbour populations in the northeastern Mallee, with larger ones in the central Mallee at Wathe and Bronzewing.

For the rest of its range in Victoria, only a tiny relict population remains at Wychitella in the Goldfields of central Victoria.

The most southerly populations had gone by 1880, and almost nothing is known of the habitat that sustained these populations, or connected them to others through central Victoria and the Wimmera to the Mallee (perhaps they were only relicts of earlier dry times). Indeed most populations in the Wimmera and North-Central regions were also likely gone before 1900, though malleefowl hung on till the 1950s at the Whipstick Scrub north of Bendigo, and in the Mallee areas around Wedderburn until the present.

Much of this range may have contained prime Malleefowl habitat. For example, I was shown a site between Quambatook and Kerang, where Malleefowl were present till around 1900. Here mallee sands met pine / buloke and gum woodlands, and riverine woodlands.

Such areas were among the earliest mallee cleared for cropping.

And clearing for cropping has been the principal reason for the contraction of the Malleefowl's range, in northwestern Victoria at least.

Settlement of the Mallee

From the mid-1840s, grazing had taken place, along watercourses, on lakebeds, saltbush plains and wooded grasslands fringing or scattered through the Mallee, though subject to lack of water, drought, and the first scourge of rabbits through the region in the 1870s.

About 1890, it was realised that clearing and cropping was viable in the Mallee, and closer settlement progressed rapidly from Hopetoun and south of Swan Hill. This could only happen with the advent of the railways, and water provided by the Wimmera-Mallee Stock And Domestic Water Supply Channels.

So successful and rapid was this closer settlement that by 1940 (i.e. in 50 years), almost all the sustainable agricultural land in the Mallee was cleared or well on the way to it. This in spite of terrible droughts in 1902 and 1914, the First World War, and the Great Depression of the 1930s.

The last major public allocations were the Soldier Settlement Schemes after the First World War, at Annuello-Kooloonong (close to 100 square km), and the Millewa south and west from Mildura.

I grew up in one of these areas in the 1940s and 50s, and would like to make some observations about how these developments may have affected the Malleefowl, and in fact how the experience there may reflect what happened earlier in other areas.

The first settlers at Kooloonong decided the easiest way to clear the scrub was to burn it – so they started fires which reputedly burned uncontrolled between Kooloonong, Annuello and Robinvale for up to 2 years. Certainly they burnt very extensive areas, to the detriment of Malleefowl (and the chagrin of later arrivals, who had to deal with the dead sticks).

However even with clearing by mallee-roller, fire was involved. No fire brigade, no heavy equipment to make firebreaks, no water, and the best time to burn was a hot day in February when you would get a clean burn that would kill shoots and stumps as well. Obviously many of these fires got out of control too, until there was sufficient clear land around to stop them.

Early photographs attest that this happened because there is hardly a tree to be seen in cleared land and the roadside vegetation has also been burnt to ground level, with only regrowth to be seen.

Within 4 or 5 years, only pockets of unburnt Malleefowl harbour would be left, and the birds themselves were hunted. Hardly surprising that the species disappeared from so many areas.

In the 1930s Depression, drought, economics and changed government policy forced most of the occupiers off these more recent settlements, though their prodigious efforts had already radically changed vast areas of once prime Malleefowl habitat.

Much of the land reverted to the Crown, channel water supply ceased in some areas, properties were leased for annual grazing, and cropping was opportunistic. The terrible drought of the early 40s, and wartime, crippled farming communities.

However, with better years in the late 40s and 50s there was much regrowth of mallee and scrubs in abandoned areas, with Malleefowl recolonising many properties and becoming relatively abundant.

The birds came back!

They then occurred almost continuously from the Murray River floodplain, close to the Wakool junction, to the South Australian border and beyond. We fairly much took them for granted. A big mistake – and from a conservation point of view, an opportunity lost.

With excellent seasons and a booming wheat industry through the late 40s and 50s, land clearing was renewed in a big way in the early 60s.

The Malleefowl were again on the retreat, with the remaining habitat fragmented and increasingly isolated, to the alarm of some landholders and local naturalists.

The Hoare family had purchased a 5000-hectare property at Wandown, between Annuello and Kooloonong. They were so concerned at the effects of clearing that they approached the Swan Hill Shire and Mid-Murray Field Naturalists Club with a view to having 1700 hectares of prime Malleefowl habitat reserved.

The Shire took up the issue with the Fisheries and Wildlife Department, and the field naturalists undertook what may have been the first grid survey of a Malleefowl population. In June 1969 volunteers walked the proposed reserve area, locating, numbering and tagging all mounds encountered. By modern standards it was primitive, but it revealed the quality of the area for Malleefowl, with upwards of 100 mounds identified. This along with bird, plant and reptile lists compiled for the area, led to the purchase of what is now the Wandown Flora and Fauna Reserve by the private M.A. Ingram Trust, and its conversion to Crown Land.

This reserve has now been added to, and there are smaller reserves nearby. All continue to have remarkably healthy Malleefowl populations, though now isolated within vast areas of cleared agricultural land.

But can they last?

The VMRG in its long-term program is monitoring such areas, and others in the much larger natural blocks running from Hattah and the Sunset Country, from Wathe and Bronzewing through Wyperfeld and the Big Desert.

Building on the research of Joe Benshemesh and Paul Burton, and the work of groups such as Greencorps in establishing the grids, our ongoing study gathers data to assess the trends in breeding activity, and therefore population stability and viability. Currently we are monitoring 26 grids and close to 900 mounds annually. Speakers in later sessions will enlarge on this program.

Trends

This monitoring on any scale only goes back to about 1990, which is not a long time in Malleefowl terms. However it seems that populations are relatively stable, though there is concern about the drier Sunset areas, where monitored breeding populations show a continuing decline.

Overall the last 2 seasons have been an intriguing contrast. Season 2002 was a severe drought, with only 8 mounds active out of 878 visited. All of the active mounds were in a narrow strip through three grids, which may have indicated a crucial episode of rainfall in a limited area.

Season 2003 started with widespread general rain, and continued favourably most of the season. How would the previous year's drought have affected populations?

Monitoring in October-December 2003 revealed 108 active mounds out of about 900. That is: in 2002, less than 1% of mounds monitored were active. In 2003, 12% of mounds monitored were active – which is probably as high a rate of breeding activity as we have yet recorded.

That looks good. The breeding population has survived and bounced back. But a closer look reveals something quite startling, in my view.

Of the 108 active mounds, around 80% were found in five grids, with an active to inactive ratio in those grids averaging 30%+, and in one case approaching 50% of monitored mounds.

The story gets curiously.

The five grids – Wandown, Menzies, Bronzewing and Wathe 1 and 2 – were all surveyed and allocated for closer settlement in the 1920s and 30s, and they were all cleared and farmed to varying extents – that is, cropped and grazed.

Further, they are all adjacent to, or completely surrounded by, farmland, and four are in tiny to relatively small reserves. In fact, they are the isolated reserves, away from the huge public land blocks, but part of the agricultural Mallee.

Menzies block, which was purchased by Trust For Nature, is only about 325 hectares. It was cleared and farmed in the 20s and 30s, again rolled and burnt in the 1960s, is completely surrounded by farmland – and this season has 12 active mounds out of 26!

It is certainly drawing a long bow to read too much into the results of one year's monitoring, but these grids have consistently had a good level of breeding activity, and they are located in areas that are agriculturally productive – that is, better soils. Might they provide some insights into what was prime Malleefowl habitat?

That is, not continuous blocks of dense mallee, however variable, but a mosaic of mallee areas for refuge and breeding, interspersed with woodlands, shrub lands and open areas able to provide a wider range of seasonal foraging and dispersal. We know that was the case in mallee areas with better soils. We know Malleefowl are travellers and survivors, and widespread disjunct populations would be a great insurance against fire, which as we often see destroys populations in dense continuous mallee.

All this suggests we need to think carefully about maintaining the integrity of these small isolated reserves. They may in fact be crucial for understanding and conserving malleefowl.

- Perhaps that is where priority should be given to establishing corridors;
- Where priority should be given to working with landholders;
- Where because of their breeding capacity, and the population's obvious resilience, we should look when restocking other areas.
- Perhaps, in the wider scheme of things, the “inevitable” decline of these smaller areas matters more than most.

Threatened?

Another general issue I would like to comment on is that of how threatened Malleefowl are.

- Nationally the Malleefowl is listed as Vulnerable (National Malleefowl Recovery Plan).
- In Victoria it is listed as Vulnerable (Victorian Flora And Fauna Guarantee Act).
- The fact is that we really do not know. Although they are widely dispersed over much of their original range, they remain an enigmatic species.

It is argued that there are many other more endangered species, or more urgent issues demanding attention and resources. The VMRG argues that if we can sustain viable Malleefowl populations, we are necessarily providing viable habitat for the full range of mallee species, plant and animal.

The Malleefowl is also a truly unique species – large enough, and interesting enough, to be a “feel-good” species which the wider community can get excited about, and which can be used to “sell” mallee conservation as a whole. The Western Australian groups such as the Malleefowl Preservation Group have clearly recognised and acted on this.

Here in Victoria we know that local farmers and communities are proud of and sympathetic towards this symbol. Its wellbeing can be used to promote wider conservation and management initiatives.

Climate Change

Further to this is the issue of climate change. If in fact we are entering a period of rapid climate change, we have even less reason for complacency. Certainly Malleefowl have adapted to a wide range of temperature and rainfall before. But the crucial factors in the posited changes in the near future are:

- Rate of change;
- Seasonality of rainfall; and
- The clearing of former habitat and corridors.

In this context, a 1995 paper by Brereton, Bennett and Mansergh¹ postulated 1 possible scenario, whereby a 3-degree Celsius average temperature increase, a 10% fall in winter rain and a 10% increase in summer rain over several decades would drive suitable bioclimatic conditions for Victorian Malleefowl to the cleared areas of

¹ Brereton, Bennett, & Mansergh. “Enhanced Greenhouse climate change, and its potential effect on selected fauna of south-eastern Australia”. In *Biological Conservation* 72 (1995).

central Victoria. Here, ironically, the only mallee left is in the Wychitella area, where the species is now almost extinct.

Hopefully this speculative analysis will not be realised, or both we, and the Malleefowl, will be in serious bother by then – through no fault of the unfortunate Malleefowl.

Malleefowl Management Issues for Victoria

- Fragmentation of habitat
 - Wildlife corridors – creation and extension
 - Salinity
 - Fire – impacts and management
 - Clearing (including illegal and incremental)
- Climate change
 - Temperature
 - Rainfall (totals, and seasonality)
 - Rate of change
 - Implications and responses
- New monitoring grids
 - In burnt areas of Big Desert Wilderness
 - Wychitella
 - Little Desert
- Private property - relationship with landholders
 - With Malleefowl on their land
 - Adjacent to reserves
 - Possible purchase of further small reserves as available.

VMRG Responses to Action Plans

- Victorian Flora And Fauna Guarantee Act 1988: Action Statement 59. Malleefowl. November 1994, updated January 2000.²
 - Vic. listing – “Vulnerable”.
 - Major objective: to increase breeding populations in Victoria to over 2000 pairs over next 20 years.
 - Related VMRG actions
 - Monitoring of grids;
 - Extension of grid system;
 - Liase with DSE and Parks Victoria;
 - Collect Malleefowl genetic material (feathers, scat);

² Flora And Fauna Guarantee Act 1988: Action Statement 59. Malleefowl. November 1994, updated January 2000

- Work with other conservation and community groups.
- National Malleefowl Recovery Plan (October 2000)³
 - VMRG, within its limits, is contributing to:
 - Objective 1 – Reducing permanent habitat loss;
 - Objective 4 – Reducing predation - by monitoring and reporting fox activity, and collecting scats for analysis;
 - Objective 5 – Reducing isolation of fragmented populations - by advocacy and supporting local groups;
 - Objective 7 – Reducing road loss – by advocating use of warning signs;
 - Objective 8 – Providing information for regional planning – through our monitoring and advocacy;
 - Objective 9 – Monitoring trends in Malleefowl
 - Objective 10 – Detailing the distribution of Malleefowl in settled areas.

Conclusion

In conclusion, may I say that while “monitoring” may sound “as dry as dust”, it is in fact an involving, stimulating activity, and we have no trouble at all engaging enthusiastic volunteers to take up on an ongoing basis.

It is a great reason to go out into the Mallee, to see and learn much, and to do something constructive in a scientific and disciplined way.

References

- Brereton, Bennett, & Mansergh. “Enhanced Greenhouse climate change, and its potential effect on selected fauna of south-eastern Australia”. In *Biological Conservation* 72 (1995).
- Flora And Fauna Guarantee Act 1988: Action Statement 59. Malleefowl. November 1994, updated January 2000
- National Malleefowl Recovery Plan (October 2000)

³ National Malleefowl Recovery Plan (October 2000)