

Victorian Malleefowl Recovery Group Inc.

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Newsletter June 2005



Coming VMRG events

August 13	- Committee
September	- Newsletter
October 8, 9	- Training weekend, AGM
October to January	- Nest monitoring
February 2006	- Newsletter
March 2006	- Reporting back meeting

See www.malleefowlvictoria.org.au

Malleefowl and their food. A WA research project extracted from a forum presentation by Jessica van der Waag (on our website)

Food availability is an important factor in the survival of both adults and chicks. In studies of chick mortality, it has been shown that metabolic stress, due to an inability to find food, is a major cause of mortality.

Examination of the crop and gizzard content of 19 birds confirmed that the birds are opportunistic feeders, taking a wide range of plant material and invertebrates.

There was a diversity of invertebrates identified, particularly ants, with a low number of individuals from each species. Invertebrates are taken opportunistically and not sought out. The birds also took advantage of insect outbreaks, such as lerps, grasshoppers and winged ants.

There was no strong seasonal preference for any particular food type, however seeds were the major food type taken, making up 66% of food objects in the stomach. Apart from native seed, agricultural crop including lupins and wheat were also taken. Crop seed is readily available, both in the field and from roadside grain spills after harvest. Vegetative material from weed species commonly found on roadsides was also taken. This, together with observations of birds feeding regularly in cropland, indicates adults will readily seek food outside remnant habitat.

The stomach content of one chick was found to contain predominately termites and

Fabaceae seeds (probably *Daviesia* sp – bitter pea and barbedwire bush).

Also present were *Hibbertia* sp, *Eremophila* sp, *Astroloma* sp and some ants.



Daviesia sp – photos F.J.C.Rogers

Malleefowl chicks are independent and have innate cues targeted at particular stimuli that will eventually lead, through trial and error, to the selection of food objects. They aren't able to learn from parents and siblings. Innate cues and the ability to learn edible from inedible objects quickly is important for successful foraging and survival.

Malleefowl chicks begin pecking within half an hour of emergence, with pecking orientated toward objects with reflective surfaces (such as insect carapaces) and objects of contrasting colour to the background.



Photo Joe Benshemesh

In small reserves there may be insufficient food available for the chicks to learn to forage successfully in the critical period. Chicks are in direct competition with adults for seeds & invertebrates, however adults are also able to

use shrubs which chicks cannot reach, agricultural crops and supplied grain.

The presence of Fabaceae and *Acacia* species in a remnant is important to provide Seed. Seeding can be reduced by grazing, so fencing remnants and control of herbivores such as kangaroos and rabbits which compete with Malleefowl is important. In rehabilitation work, it is important to select indigenous plant species with a range of seeding times, particularly those seeding during the summer hatching months.

The importance of termites in Malleefowl chick diet is not known. These invertebrates are found in a range of habitats and their behaviour makes them ideal prey for Malleefowl chicks. A large proportion of termite species in Australia are grass and debris feeders, which forage on the surface during the day when the chicks are active and can be locally abundant. In order to support these species, a healthy herb layer and litter is needed.

Another invertebrate that occurs widely in the Australian landscape and could be of importance to Malleefowl chicks are the collembolans (springtails). These small (3-10mm) invertebrates inhabit the surface layer of soil and leaf litter debris and could be picked up by the chicks when foraging.

What would you like in the Newsletter?

What have you done?

Tell Gil and send pictures on giliz@netconnect.com.au

Present Committee

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Nominating for VMRG committee

Our AGM will be held on Saturday October 8 2005 during the training weekend at Wyperfeld National Park, where election of office bearers will occur. VMRG follows a formal process for election of office holders and committee members.

A nomination form will be sent out by the Secretary in late August.. All nominations should be submitted on this form and should reach our Secretary, Ann Stokie, 25 Belfast St. Newtown 3220, annos@iprimus.com.au at least 7 days before the AGM (Friday September 30). Post, email or hand delivered is OK. If it is difficult to get a second member to sign the form, she can do this. It is essential to obtain the written consent of the candidate on the nomination form. If it is not possible to get written consent on the nomination form, then a consent note can be sent separately but must also reach Ann by Sept 30.

Please note that those nominees may only nominate a candidate for one office.

If you want to nominate for the committee or executive, think about it now because forms have to be completed before the AGM. The position of President will be vacant!

Changing the constitution

Any changes to the constitution usually occur at the AGM, so notice of motion must be made to the Secretary well beforehand, so the motion can be communicated to members before the meeting. It would be best to forward any proposals to the Committee, so they can help with any problems first.



Malleefowl nests by Gil Hopkins

Reading different books, including our own Manual, we can get different ideas about how Malleefowl develop their nests and incubate their eggs over about 6 months.

Usually we expect the 'chooks' to use one of the nests in their area, and to change nests each year, depending on leaf litter and food available. Some say the female chooses the nest site; others say it's the male. But now and then they make a completely new nest. Why? It certainly keeps monitors on their toes, and that's why we need to re-search the grids regularly.

The nests are dug out (usually in winter) in preparation for breeding season. The soil can vary from sand through to gravel (*check the website for photos of nests*). A rectangular egg chamber is dug at the bottom of the hole. Leaf litter is scraped up in lanes or windrows and into the nest. We expect the litter to be Mallee gum leaves, but many nests are amongst Callitris pine. In earlier days, when mf were more widespread, maybe they used whatever leaf litter was available.

After enough rain, the leaf litter is covered by soil, making a conical mound. For the female to lay an egg the mound must be dug out down to the egg chamber, then covered again, each time she lays. She may lay as many as 30 eggs in a good season, maybe one a week. Sometimes the pair may work together, but often it seems that it's the male that does most of the digging. Older information is that the egg chamber is near the top of the leaf litter, but this seems not to be true for malleefowl, but maybe for other megapodes.

The male spends a lot of time at the mound, keeping it at a constant temperature by scraping soil away to cool it down when it's composting quickly in Spring, covering it to insulate it from extra heat in Summer, then opening it up on late Summer days to gain solar heat, and closing it each night.

But what do we know? Is all this true? What's your experience with different soils, different vegetation types, and different birds? Do any birds always use the same nest? Do any never use one twice?

Check out the website information and send your comments to giliz@netconnect.com.au

Some ideas from the March General meeting and the April Committee meeting to be discussed at the Training Weekend

- use best quality batteries in Palm
- make Palm use more efficient and same sequence as paper record
- continue training with radios and satellite phones
- satellite phones be available for hire to members when not being used by VMRG
- make vegetation surveys easier and more objective
- consider alternatives for experienced people at Training Weekend
- assist GreenCorp with grid re-searching
- offer funds to local community groups to re-search grids (do you have a local group who needs funds?)
- consider 'job descriptions' for executive and committee and coopted members
- consider next Malleefowl Forum in 2006/7

Green Corps Malleefowl Re-search Team by Peter Stokie

Through the support of Greening Australia and the Mallee CMA, a Green Corps group are currently undertaking the task of re-searching up to 10 of the existing malleefowl grids in North-West Victoria. Under the leadership of Stacey Warne, and with the assistance of Donna Tidey, eight members of the team tackled the first of the grids at Bronzewing during the week 23 - 27 May.

The group were selected because of their interest in this type of work, and during the week of re-searching quickly developed their skills and co-operative spirit to complete this grid with great success.



Green Corps A team – photo Peter Stokie

The survey techniques used by the group are the same as the techniques used successfully over the past seven years by the VMRG, complete with GPS and a modified nest sheet.

Joe Benshemesh has provided a set of waypoints for every 20 metres along the complete baseline and a corresponding waypoint at the back of the grid. Each participant has a GPS and uses it to locate his or her starting point on the baseline. The person at each end of the search line and the team leader in the middle uses the tracking feature of the GPS to keep on line, and all others put their GPS away to concentrate on looking for mounds. Each mound is GPS'ed and downloaded to a database at the end of the day. Any 'new' mound is also tagged with flagging tape for easy location for later monitoring.

As a measure of success, the group located more than 90% of known mounds and located up to 12 'new' mounds, 8 within the grid and 4 just outside the grid.

The group have generated a lot of interest from other people. During the week they were visited by Ann & Peter Stokie, who conducted a PowerPoint presentation to familiarise them with lots of information relevant to monitoring malleefowl. Dr Richard Perry, Biodiversity Manager from Mallee CMA joined the search and provided valuable assistance in setting up the initial line search. Greening Australia Project Officer, David Ramage spent a day with the group, and took on the role as team leader on one of the sweeps of the group, and Ron & Gwyn Wiseman joined the search on another day.

There were several sightings of Malleefowl during the week, with Donna Tidey seeming to attract them to her more often than anybody else. Magic moments included one occasion when a pair of malleefowl took off at one end of the search line and flew directly along the 200 metre search line, giving everybody a wonderful view of birds in flight. However those at the far end of the line thought they were being dive bombed as the birds were getting closer and closer to landing as they flew along.

Re-searching continues through to the end of August, and VMRG members are welcome to participate. Having experienced a wonderful few days with this impressive group of young people, I thoroughly recommend the experience.

Green Corps Malleefowl surveying by Donna Tidey

The team are continuing to show enthusiasm for walking and are working well together during their second trip out bush. I really can't get over the height of some of the dunes, the thick pine and broombush.

The new dates and name of the grids to be searched are as follows;

18/7/05-22/7/05, South Bore & Cowangie, Murray Sunset NP, Staying at Shearers Quarters.

1/8/05-5/8/05, Pheeney's & Cowangie, Murray Sunset NP, Staying at Shearers Quarters.

15/8/05-19/8/05, Dattuck, Wyperfeld NP, Staying at PV depot.

There is potentially an extra week available to survey in the week of 12/9/05-16/09/05.

If anyone has any comments on these grids or would like to come and meet the team and share some of your "Malleefowl experiences" **please let me know the week before** so I can co-ordinate the logistics.

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Wilderness Society "Dara Foundation" funding for grid re-searching.

This is a reminder that VMRG has funding to support community groups to undertake grid re-searches. An amount up to \$1000 is available to assist a group to be involved. The VMRG will supply GPS's and other equipment and initial training using the PowerPoint presentation prepared for the Green Corps, as well as on site assistance. The system devised by Joe in setting up waypoints every 20 metres along the baseline of a grid is a fantastic aid to getting started, and also helps with safety. This system ensures a total coverage of the grid, and will help a group who might want to do this activity over several days.

I have already received several expressions of interest from community groups, but we can easily accommodate more groups as there is no shortage of grids to be re-searched. Contact **Ann** on 03 5229 8648, or annos@iprimus.com.au, for more details, or to register your interest.

