

Lowan Behold!

Newsletter of

Victorian Malleefowl Recovery Group Inc.

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March 2009

Coming VMRG 2009 events

April 4 Irymple - Committee meeting and Reporting Back meeting
April 19 - Wathe grid research
April 25, Kiata - Little Desert tracks search
May 9,10 - Annuello grid research
Winter newsletter
Committee meeting
October 10,11 - Training weekend, AGM
Spring newsletter
See www.malleefowlvictoria.org.au
or contact our Secretary

Wychitella monitoring *by Peter Stokie*



Photo by Peter Stokie

This photo was taken in the Wychitella NCR in the Korong Block on the eastern side of the Reserve. This is the first time the VMRG have monitored this Block, and this data has been added to the National Database. VMRG also monitors Skinners Flat (3 years data), Wedderburn (5 years data) and Wychitella (2 years data) blocks in the Wychitella NCR. There are 44 known mounds in the four blocks that are currently being monitored by members of VMRG.

This is the most unusual mound I've ever seen, covered in rocks and pebbles. It's nearly a metre high and 4.5 metres wide and is built on top of a very old mound about 11 metres across. There was one other active mound in the Korong Block.

What it's all about! *by Peter Stokie*



Photo by Julie Fuller

Celie, Macy and Joad Fuller (left to right) celebrating the finding of mound new to our database. This mound was found by Macy while walking to monitor another mound nearby in the Lowan extension site. Remarkably this 'new' mound had fresh Malleefowl prints, and some recent scratching, and was the only mound of the 14 monitored that had any signs of Malleefowl. Well done, Macy: Well done Malleefowl!

VMRG Committee



Photo by Keith Willis

Our new committee, meeting at Wyperfeld, 2008. From left- Greg Currie, Les Solly, Gil Hopkins, Ross Macfarlane, Ralph Patford (Treasurer), Peter Stokie, Ann Stokie (Secretary), Ron Wiseman (President), Heather Drendel.

Do you have any pictures of unusual Malleefowl mounds? Or stories about Malleefowl?
Or stories about 'Malleefowl people'?
Send them to giliz@laharum.vic.au



Malleefowl, Bronzewing Reserve 2008 by Taneal Cope

Conservation Genetics of the Malleefowl

by Taneal Cope

I recently started my PhD on Malleefowl conservation genetics through the University of Melbourne. My project is part of a large collaboration between various industries, institutions and community groups and will have a strong conservation management focus.

Malleefowl have suffered a large reduction in range and available habitat which has led to small patches of Malleefowl spaced throughout Southern Australia. These patches are at times very isolated from each other and from any suitable surrounding habitat.

Populations that are small or isolated have less mating choices which results in the breeding of close relatives (inbreeding). Inbreeding can lead to a various number of flow-on effects for that population, including hatching failure, reduced reproductive success and susceptibility to disease. By measuring genetic variation, we can estimate the level of inbreeding, the level of gene flow between populations and in general the 'health' of the population in conservation terms.

The four main aims of the project are:

1) Estimate the genetic variation of Malleefowl throughout its current range.

This will involve sampling Malleefowl tissue (in the form of feathers) from Victoria, South Australia, Western Australia and New South Wales.

I will be using this part of the feather for DNA analysis



Malleefowl feather by Taneal Cope

Thanks to all of you for your diligent work in collecting many feathers already!!

2) Determine the Mating System of Malleefowl so that the genetic consequences of the mating system and relatedness between individuals can be estimated.

If, for example, there were 20 Malleefowl in a reserve (10 males and 10 females) but all of the female Malleefowl preferred one particular male (obviously one with good legs!) and say that each of the 10 females snuck away from their male and mated with this one particular male. If all of the offspring in this reserve were fathered by only one male, the genetic variation of the population would be greatly reduced.

3) Determine if current populations of Malleefowl have low genetic variation compared to historic populations.

Comparing samples from present day collections to samples in museums (that pre-date 1960) will give us an idea of how the genetics of Malleefowl has been influenced by recent human activities.

4) Using all the available information on genetic variation, isolation of populations, breeding success of populations etc, I will **define biological relevant management areas**. Some populations may be in more need of active management which could involve movement of individuals into or out of an area, for example. Using computer simulation models that have been designed for endangered species, I will estimate the risk of extinction of each population.

This is a really exciting project on a very special bird that is worth of every conservation effort. I look forward to working with all of you in the next 3 years and will keep you updated on any developments with the project.

Taneal Cope will be addressing members at the Reporting Back Meeting at DPI Irymple (Mildura) on April 4, 2009. Come along to find out more!!



The well-equipped Malleefowl monitor – fly veil and satellite phone

VMRG Captive Release (Translocation) Policy

At our 2008 Reporting Back meeting at Rainbow there was discussion of a draft policy. Since then further discussion with Committee members and National Recovery Team members has led to the adoption of the following policy.

“The VMRG supports the removal of eggs from active Malleefowl mounds for the purpose of incubation and subsequent release subject to specific guidelines for the following purposes:
-to supplement existing populations where danger of extinction may occur
-to provide genetic variation in isolated populations
-to re-introduce a population where Malleefowl previously existed
-to support an approved academic scientific program”

“In all circumstances the removal of eggs, incubation and release will be part of a scientifically rigorous adaptive management research project, which would include long term monitoring of released birds and a report prepared on the observations and outcomes of the releases.”

“Captive release of Malleefowl should only occur when the release proposal has the approval and meets the guidelines of the DSE Animal Ethics Committee, and has the approval of Parks Victoria where appropriate.”

“The VMRG expects that the guidelines for captive breeding and re-introduction outlined in the National Recovery Plan for Malleefowl 2006-2010 (p76-77) would form the basis for any project.”

“The following guidelines should be considered in the design of any project
-Habitat restoration established (Objectives 1-7)
-Collation of data for current Malleefowl distribution (Objective 10)
-Genetic considerations (Objective 13)
-Understanding of population dynamics (Objective 11)
-Assessment of the success of current and past programs”



Monitoring at Nurcoung – photo by Liz Hopkins

Victorian Report to the National Malleefowl Recovery Team

adapted from the report by Peter Stokie 18/12/08

Monitoring – Season 08-09

Monitoring of the 35 sites in Victoria (nearly 1200 mounds) commenced on October 13, with 28 sites completed, 71 volunteers involved, and nearly 1050 mounds inspected. Some preliminary observations are:

- active mounds seem to be marginally more plentiful this year, with Wyperfeld NP appearing to have less breeding mounds than other locations.
- there is an increase in active mounds in sites next to burnt areas perhaps due to birds escaping fire and moving into unburnt areas.

In Annuello FFR the VMRG monitoring site escaped a wildfire in late December 2006, but nearly 1,000 hectares was burnt immediately to the south. The site consistently had 2 or 3 active mounds annually for the past ten years or so, but this year there are 6 active mounds.

In Wathe FFR a wildfire burnt nearly two thirds of the Reserve in Nov 2007. VMRG have two monitoring sites in the reserve. One site, Torpeys, was badly affected by fire with 25% of the site reduced to ashes while 10% of the second site, Wathe, was burnt. Although numbers of breeding mounds fluctuate with seasons, the Wathe site averages 9-10 active mounds. This year there are close to 20 active mounds. In the Torpeys site active mounds average 3-4, but this year there are 8 or 9 active mounds.

The Wandown site near Boundary Bend on the Murray River had consistently high numbers of breeding mounds in the mid twenties for several years, but last year there were only four breeding mounds. The usual numbers have returned this year and increased with 30 active mounds located in recent monitoring.

The most isolated remnant population of Malleefowl in Victoria is in the Wychitella Nature Conservation Reserve. A common belief before monitoring occurred was that Malleefowl had all but disappeared from the Reserve. Over the past five years, four monitoring sites have been established, and this year for the first time all four sites were monitored. It is pleasing to note that three active mounds were monitored and Malleefowl sign observed at two other mounds across the Reserve.

Interested in helping search either Annuello or Wathe sites to make sure we are recording all nests? You may find a new nest!
Contact Secretary Ann Stokie on 5229 8648



Just checking! Training with the Palm computers and GPS for the new National monitoring system

Wildfire in Hattah Kulkyn NP/Sunset NP corridor – Peter Stokie's report continues

In late October 2008, a wildfire of nearly 1000 hectares burned through all three VMRG monitoring sites in the Hattah/Sunset corridor. Powerline site was 90% burnt, Mt Hattah site was 50% burnt, and Lendrook site at the far eastern edge of the corridor was 80% burnt.

This area carried only small numbers of Malleefowl, but active mounds were destroyed and a few escaped the fire. Whilst wildfire is unfortunate, the opportunity to study regeneration of vegetation and changing Malleefowl numbers in areas affected by fire is essential. The relatively easily accessible location of these monitoring sites and those in Wathe FFR give us wonderful opportunities to carry out systematic research over the next twenty plus years.

Captive Release of Malleefowl in Wyperfeld NP and Wychitella NCR

Following the Wathe wildfire of Nov 07, 10 eggs were collected from two burnt mounds by Whimpey Reichelt of the Little Desert Lodge for incubation and rearing for subsequent release. Seven chicks hatched and were cared for until approximately nine months. Five Malleefowl were released into the eastern edge of Wyperfeld NP by Parks Victoria, but were not radio tracked. A small monitoring site was established in the release area, but no further sightings of these birds have been made since release.

Two Malleefowl, a male and female, were released into the Wychitella NCR in a controlled procedure with DSE Animal Ethics Committee approval requiring daily radio tracking and detailed observations recorded. The female was tracked daily, travelled great distances each day, but died after five or six days. The male stayed in a relatively small area, was easily located and was tracked for nearly two weeks when radio contact was lost. It is not known if this bird survived. A report on this release is being prepared by the Wedderburn Conservation Management Network.

Malleefowl Education Kit

VMRG has produced a Malleefowl Education Kit in interactive DVD format designed

to make a substantial contribution to education and conservation for teachers and students in upper primary schools. The Kit contains a Guide for teachers, three Malleefowl videos, and PowerPoint presentations on Making Tracks and Camouflage, and 24 individual student activities.

Currently the kit is being distributed to Victorian Primary Schools free of charge on request from schools, and nearly 60 kits have been sent to schools mainly in the Mallee and Wimmera regions.

Malleefowl Neighbourhood Watch Project

This project uses an Envirofund grant to develop an information and education kit for farmers and landholders who have Malleefowl on their own or adjacent land. The program is being trialled in the vicinity of Nurcung FFR south of the Little Desert and near other VMRG monitoring sites in 2009, and will produce an education program and information for landholders.

National Malleefowl Database and the Malleefowl Adaptive Management Framework

VMRG are the organising body for the DEWHA funded grant to develop the National Database and an Adaptive Management Framework for Malleefowl. Contracts have been arranged with Richard and Margaret Alcorn to develop the Database and with ARI for the AM Framework, and will be finalised within the next few months

Mallee CMA on-ground activities

Currently the MCMA are working on two initiatives to enhance Malleefowl habitat

- Improving linkages between Murray Sunset NP and the Dennyning Channel Bush Reserve through revegetation of 40 metre wide buffers to existing vegetation.
- Protection and restoration of habitat through the removal of stock from two sites of 30 and 26 hectares adjacent to Wandown FFR

Interested in being involved in Malleefowl education in your local primary school?
Contact Secretary Ann Stokie 5229 8648

Interested in helping with the Malleefowl Neighbourhood Watch project?
Contact Gil Hopkins 5383 8207



Those shapes that are hard to see are nine Malleefowl feeding together on wild sage in October 07 as reported in October 08 newsletter, Photo Keith Willis

MOUND-BUILDERS by Darryl Jones and

Ann Göth – Book Review by Gil Hopkins

Published by CSIRO PUBLISHING, Nov 2008,
(Australian Natural History Series)

Paperback, 128 pages including 8 pages colour
photographs, RRP \$39.95

Written from a scientific basis, this small book thoroughly examines taxonomy, distribution and habitat, appearance and ecology, mound-building and incubation, egg adaptations, parental 'care', behaviour, and conservation and management of Australia's three mound-building birds – the Australian Brush-turkey, the Malleefowl and the Orange-footed Scrubfowl.

The text includes early and recent scientific work and discovery of the mound-building 'megapodes', with 22 existing and some extinct species, then concentrates on Australian mound-builders, including details of vocalisations, foods and feeding, movements, moulting, life-span, breeding seasons, clutch size and hatching success, incubation periods and temperature, chick hatching and survival, recognition and social behaviour, growth, mating and mating systems, effects of egg-harvesting and hunting, and the efforts now applied in conservation and management of all three Australian species.

The three types of bird are discussed or compared for each of these topics. Although a wealth of information is provided, it is also apparent that there is still much unknown, especially about Scrubfowl. Quite a lot of the present knowledge included in the book comes from wildlife observers and naturalists, as well as scientists and research students. New and important details are included (such as mound temperatures affecting chick gender) from experiments which themselves are the result of checking on field observations. But because species are being compared under each topic it is not so simple to extract a list of characteristics for each particular bird.

Overall there is a huge amount of information in a relatively small book, making this an essential purchase for those interested in any of these mound-building birds. Language could have been simpler, and better photographs with detail of all of the birds should have been included to improve identification and understanding.



The book cover looks a bit like this!

Lowan Behold

Volume 1 Issue 1

August 1998

WELCOME

Welcome to the first edition of Lowan Behold the Journal of the Ouyen Malleefowlers. This title was the most popular in a survey of the inaugural members of the group. The word Lowan is a Victorian derivation of the Aboriginal name for Malleefowl.

The journal will be an important communication link between members of the group and articles are required for future editions.

Group Now Has Fifty Members

The Ouyen Malleefowlers group now has over 50 members and memberships are continuing to be received.

At the inaugural meeting a list of 'potentials' was compiled. Application forms were distributed to them and many have been returned from across the north-west and interstate. The interest has been phenomenal and as it is only a few months since the first steps

were taken the future looks good.

Members of the group can be involved in a wide variety of projects and exercises if they wish. With this journal keeping everyone in contact members can participate at a level that suits each of them.



Every member is encouraged to spread the word about the group to those that may be interested. They are also encouraged to submit letters or relevant material that may be interesting to their fellow Malleefowlers. A good example is the column 'My First Malleefowl' where a member's first sighting may be documented and included in the journal. Many people remember a great deal about their first

Malleefowl sighting. The species large size and excellent camouflage often arouse comment.

Field work and information sessions will be advertised in the journal and Paul Burton is requesting that those interested in a specific project RSVP before the date provided. As some projects require a minimum number of participants this will be essential.

If anyone needs membership forms or more information Paul Burton can be contacted on the address at the top of the masthead. Any new members are welcome to join the group as there are many interesting things to achieve in the near future.

Malleefowl Watch

Included with the first edition of the journal is a copy of the Malleefowl Watch data form. The forms explain themselves and members are asked to fill them in when they see a Malleefowl. The more isolated and remote the sighting the better. Happy bird watching

The first Lowan Behold published by Paul Burton in 1998 as "the Journal of the Ouyen Malleefowlers"



Wimmera Kids Conference 2008

by Gil Hopkins, photo by Ralph Patford

Each year the Wimmera Catchment Management Authority conducts a whole-day environmental education program for primary school students across the Wimmera. In 2008 the Conference was held at the Wimmera Field Days site near Longerenong College on November 6.

Ralph Patford and Gil Hopkins introduced Malleefowl and their habitat and used activities from the Malleefowl Education Kit to help students and teachers understand more about the birds, and especially about how they are camouflaged in their environment. Students then used their artistic skills to colour in pictures of Malleefowl, a task they really enjoyed.

Other activities included birds of prey, indigenous culture, Weed Warriors, Waterwatch, Bountiful Bugs, Poo travel exposed, Fire fighting and safety, wetlands, frogs, Red-tailed Black Cockatoo, local bird diversity, and endangered species. Small groups of students experienced four different activities from those available.