



around THE MOUNDS

NEWSLETTER OF THE NATIONAL MALLEEFOWL RECOVERY TEAM AUTUMN 2017 EDITION ELEVEN

NATIONAL MALLEEFOWL RECOVERY TEAM

by Sharon Gillam, Chairperson



JOHN OLSEN, SHARON GILLAM, PETER STOKIE

Hello everyone and welcome to Edition 11. We're already in April and 2017 is shaping up to be another exciting year in Malleefowl conservation.

Five years down the track, and the Adaptive Management Project continues to forge ahead, with the first batch of data coming in from a few WA sites. Tim and Darren bring you up to date on the latest developments (pp 2 & 3) which include the addition of two new recruits: Liz Fenwick and Liz Kington, whom we welcome to the team. Meet the ladies and learn a little of their backgrounds (p 12).

The National Malleefowl Recovery Plan, which forms the basis from which Malleefowl recovery is directed, is in the process of being updated, and discussions are underway to begin planning for the Sixth National Malleefowl Forum, to be held in Mildura, Victoria, in August 2018.

The Iluka Malleefowl Management Committee, which advises on the allocation of offset funds, will wrap up in July this year, after seven years in operation. I'm pictured (above) with two other members of this committee, Peter Stokie (fellow Recovery Team

and VMRG member) and John Olsen (President, VMRG) at a meeting we attended last November.

Joe explains how it is possible to get volunteers excited about sorting through tens of thousands of photos from his Camera Trap project (p 3), and the value of capturing this data; while Graeme shares with us his recent trip to WA, where he trained a good number of new volunteers in the monitoring system, visiting 100s of mounds across a number of sites (p 4). This upholds the commitment that the Recovery Team has made to roll out and deliver a high quality monitoring program across the states, that continues to train volunteers in a standardised method resulting in the collection of high quality data.

Another breeding season has drawn to an end, with unpredictable weather bringing in a range of results in Malleefowl breeding activity. Once again our enthusiastic volunteers have been out in force, gathering valuable data from the mounds. Find out the results from three regions in SA - Eyre Peninsula (p 6), the South East (pp 6 & 7) and the Murraylands (p 8). And check out the latest from the Malleefowl Monarto Working Party, who plan to hold a summit in July 2017 (p 8).

Read about a successful collaboration between landholder and state agency, resulting in a concerted effort to protect not only Malleefowl, but a range of other threatened species, in a remnant patch of Mallee in north-west Victoria (p 5). The Hinton's are an inspiration, showing that a leap into the unknown can bring with it unexpected and very satisfying rewards. They join

the many landholders across the country who continue to protect valuable habitat for Malleefowl and address some of the threats that this species encounters.

Hiking for days through the Mallee to check out and ground-truth Malleefowl mounds doesn't have to be boring, as attested by Jessica Stingemore and Lis McLellan, who share their entertaining and insightful experiences of surveying mounds in the remote scrub of Charles Darwin Reserve in WA (p 9).

Be captivated by the tales of one of our early explorers in *The Mallee Post* section, with colourful descriptions of mounds and how Malleefowl eggs were 'revered' in those times (p 10). In this section we also have an article from Rod Guest, who takes us back to the days (and mounds!) of Harry Frith, esteemed Malleefowl biologist and conservationist, who did his ground-breaking research on the birds in the 1950s. And an article from recovery team member Stephen Davies, which adds to the history of the Eyre Bird Observatory (EBO), published in the last edition. Now who would have thought that one of our own members would have purchased the EBO, and for the paltry sum of \$5!!

From the recovery team, we farewell NSW representative and team member David Roshier, from the Australian Wildlife Conservancy (AWC), who is taking on new challenges with AWC in SA and NT. We also say goodbye to Jessica Pink, Commonwealth rep on the team, and welcome Simon Nally. Many thanks to David and Jessica for their valuable contributions and input into the team.

NATIONAL MALLEEFOWL RECOVERY TEAM COORDINATOR UPDATE

BY TIM BURNARD

I was off on my own African safari for the last ATM, so there's a whole year to catch up on. And what a year!

The Malleefowl has been recognised as one of the icon species in the Threatened Species Commissioner (Gregory Andrews, shown below) 20/20 Program under the [Threatened Species Strategy](#), and been featured in his [Prospectus](#) to philanthropists and businesses for sponsorship. This presents a great opportunity for the Malleefowl to secure funding at a time when we are entering into our greatest project yet.



In the past we have managed to gather up all known Malleefowl data from SA, WA and Vic (we dearly hope to include NSW soon) and then build a new monitoring system and develop the process that enables the easy entry to the database. Then we built the database to house it. Now we start the Adaptive Management Project.

After five years ground work we find ourselves heading full steam into this AM project. The past four years have seen a time of getting all the science

right. I'm new to the world of statistics but have grown to appreciate the immense value of research to establish the baselines for our experiment. When I say 'baselines' I mean things like how many sites do we need to monitor; how many cameras do we need to monitor predator activity; how many years do we need to gather data in order to be really confident (in a statistically robust way that scientists around the country can be confident with). Now we head into the real experiment of the AM Project.

Sites are being established in SA, Vic and WA. In Kalgoorlie, Jennifer Jackson (DPaW) has sent in the first camera trap data for us to test the predator activity data. Soon we hope to be receiving camera data from a number of other sites. In the Mt Gibson area (WA) Graeme managed what I think is our largest ground-truthing exercise, about 900 suspected mounds. In Dangalli/Gluepot/Calperum area (SA), Chris Hedger is placing cameras at five sites to capture predator activity.

However, perhaps the greatest step forward is the engagement of two additional staff; Liz Fenwick in Victoria and Liz Kington in WA.

The AM Project has grown and grown to a point where I am struggling to maintain the contact and assistance needed with the many partners involved. To my great relief we were able to appoint both new staff in time for the upcoming annual AM meetings in Perth and Mildura. Their main task is to help the AM

partners in whatever way possible to get sites established for Malleefowl and predator monitoring, and then get all the data up to our database.

We are confident that in the coming few years we will be able to confidently say whether fox and cat controls currently being employed, actually assist Malleefowl. Soon after establishing this we will start using the same sites and methods to understand the impacts from herbivore competitors like rabbits, kangaroos and goats.

On top of this we have been featured in two upcoming CSIRO publications. One is a book looking at successful Recovery Teams and the other a book on the best environmental monitoring programs across the country. Both show the high regard that the Malleefowl project is held in, by the country's leading scientists. Almost all of this recognition hinges on the work done by our team of loyal citizen scientists (sometimes called volunteers!).

These are very exciting times for all of us in the Malleefowl family.

Threatened Species Strategy web address:

<http://www.environment.gov.au/bio-diversity/threatened/publications/strategy-home>

Threatened Species Prospectus web address:

<http://www.environment.gov.au/system/files/resources/86e2d7df-6523-44b4-bb7a-692576bd0d67/files/threatened-species-prospectus.pdf>

ADAPTIVE MANAGEMENT PROJECT REPORT BY DARREN SOUTHWELL

We welcome two new additions to the Malleefowl AM team: Liz Kington and Liz Fenwick. Both will help oversee the AM project from opposite ends of the country. Liz Kington lives near Perth and will coordinate the Western Australian AM sites, while Liz Fenwick will oversee the eastern Australian AM sites from her home city of Melbourne. Both are a wonderful addition to our team and bring a wealth of experience to the AM project. One of their first jobs is to help run the annual Malleefowl AM workshops in Perth and Mildura, which will be held in late May this year. These workshops will bring together all of the AM partner organisations to determine how each of the AM sites are progressing across the country. **Continued**



AM PROJECT TEAM - BACK: DARREN SOUTHWELL, GRAEME TONKIN, LIZ KINGTON, JOE BENSHEMESH
FRONT: TIM BURNARD, LIZ FENWICK. PHOTO SHARON GILLAM

AM PROJECT (CONTINUED) BY DARREN SOUTHWELL

For those of you who haven't already heard, the Malleefowl adaptive management (AM) experiment aims to learn about the effect of predator control on Malleefowl. Predator control is the most common and probably the most expensive management strategy for this species, yet its benefits are not entirely clear.

The project is ambitious - we plan to better understand the relationship between predator control, predator densities and Malleefowl by monitoring the number of active mounds/predator densities at about 40 AM sites across Australia. About half of these sites will be managed (treatment sites), the other half won't (control sites), so we get a clear picture of the effect of predator control on Malleefowl activity.

In recent months, the AM team has collaborated with partner organisations to ensure that enough sites are being set-up for the experiment to provide informative results over the coming years. But perhaps the most exciting news is that first camera data have been collected from two of the AM sites in Western Australia (the Die Hardy Range and Jackson Range) by Jennifer Jackson from the Department of Parks and Wildlife WA. These data were collected by motion-triggered cameras deployed at each site over the last 12 months, and have captured some great images of the local wildlife, including Malleefowl. We recently sorted these images by 'species captured' in photos and will soon analyse these data using statistical models to estimate 'predator activity' at each site.



MALLEEFOWL AT MOUNT JACKSON SITE



FOX AT THE MOUNT JACKSON SITE

VICTORIAN CAMERA-TRAP PROJECT UPDATE BY JOE BENSHEMESH

Last year VMRG volunteers went through photos from 48 camera-traps we have placed at 6 sites in Victoria and involving about 48,000 photos. That's a lot of photos, but really only represented about six months of results because the camera traps were only installed in May and downloaded in November 2015.

Nonetheless, we had so many people keen to lend a hand at processing the photos that we were able to send out the same batch of photos (usually in batches of 9,000 photos) to up to five people for sorting and thereby obtain a measure of just how variable people are in their identifications. Anybody who has tried identifying animals in camera-trap photos will know that there are ample opportunities for observers to differ! For instance, animals don't always make it easy and often a tail or nose or other bit is all an observer has to go on; sometimes the photo is too dark, or too light, or it's foggy or unclear for some other reason; and even when the photos are clear and the animal posing nicely, it's easy to miss something when you're tired and looking at so many photos, or to accidentally sort the photo into the wrong species folder.

So how variable were our observers? For the most part, observers were very consistent. Although there were differences

between observers, these were generally small and inconsequential. There were a couple of cases where people accidentally placed a bunch of photos in the wrong category, so we do need to error check our photo processing, but these errors were easily detected and corrected. And another positive result: just about everyone who processed photos is keen to do it again (it's kind of fun!).

This result is a really positive outcome and augurs well for using the camera-traps to monitor the trends in predators and competitors of Malleefowl. Measuring these trends is vital for understanding the threats to Malleefowl and also for measuring the effectiveness of management (eg. whether baiting foxes actually reduces their numbers appreciably, and whether this increases cat numbers).

Understanding how variable observers may be in photo processing is clearly important for knowing how much faith we should have in the results, and it's also important for devising strategies for correcting errors that people may make. We now have a much better idea of how to make the most of these data in the future, and of course we also have great information on the abundances of various animals at these sites. Thank you to the 25 volunteers who offered their services!



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Submissions for Edition twelve of Around the Mounds Newsletter close on **Friday 8/9/17**.

For editing, articles are best sent by **email** to Sharon or Gil as **attached** documents with photos also as **attachments**.

This Newsletter is available in colour at www.nationalmalleefowl.com.au alongside the National Malleefowl Database.

Other important websites for news, information and photos include www.malleefowlvictoria.org.au www.malleefowl.net.au

NATIONAL MALLEEFOWL MONITORING/TRAINING REPORT

BY GRAEME TONKIN



WILDFLOWERS AT MT GIBSON MINE

On Tuesday October 11, 2016 I flew out of Adelaide at 6.45am SA time and landed in Perth at 7.40am WA time. After picking up a donated mine spec vehicle from Astron in East Perth I headed for Mt Gibson Mine, arriving there at 1.30pm. Three of the volunteers also arrived about that time and the remainder of the afternoon was spent completing the mine site induction which takes about four hours. The remaining three volunteers arrived later that evening and completed their site induction the following morning. Four of the six volunteers took part in the 2015 monitoring.

The 109 mounds we were required to monitor were completed between Wednesday 12th & Friday 14th. With the benefit of the experience gained in 2015, the monitoring went very smoothly. In 2015 monitoring commenced on November 24th and heat was a real issue. Commencing six weeks earlier this year was a distinct advantage and we were rewarded with fine & mild weather and only one day was hot at around 37°C. The wild flowers were also a welcome attraction.

Our sincere thanks go to Astron for their donation of a mine spec vehicle for the Mt Gibson contract, saving in excess of \$1,000 which can now be reinvested into Malleefowl conservation.



THE MONITORING CREW AT MT GIBSON MINE

On Monday morning October 17th, I travelled with Steve (a volunteer) from Mt Gibson mine to Mt Gibson Sanctuary, arriving at 8.00am. We met up with Laura and Nicola, enviros from AWC, and then settled in to the Supporters accommodation where we would be staying for the next five nights.

The task at Mt Gibson Sanctuary was to monitor all known mounds and ground-truth the LiDAR locations on both w27 & w28.

We finalised maps and location data and headed out to w27 Mt Gibson A to do some training on monitoring known mounds and ground-truthing LiDAR locations. We worked as a team of four during the training and then split into two teams for more monitoring and ground-truthing.

On Tuesday morning Laura, Nicola & Steve continued with the monitoring & ground-truthing and I travelled to Charles Darwin Reserve, a Bush Heritage property to start and train a group of volunteers who would be ground-truthing the LiDAR locations at the two sites on the Bush Heritage property. The known mounds on w09 were not to be included in the monitoring unless they were a LiDAR location as well. The group consisted of Vanessa, Richard, Lis, Jess, Noel & Vaughan. Both Noel & Vaughan are part of the Badimaya Indigenous Ranger Program.

We spent the day in the bush covering the training for Malleefowl monitoring and LiDAR ground-truthing. Over the next three days this group would form working teams and ground-truth LiDAR locations on w09 Charles Darwin Reserve and a new site, w44 CDR South. I returned to Mt Gibson Sanctuary that evening.

Wednesday, Thursday & Friday were spent monitoring known mounds & ground-truthing LiDAR locations on w27 Mt Gibson A which is outside the fenced enclosure and w28 Mt Gibson B inside the enclosure.

Late Friday afternoon I travelled to Ninghan Station where I met up with Vanessa Westcott from Bush Heritage and the Bell family, the indigenous owners of Ninghan Station. Saturday morning we had a training session on mound monitoring and LiDAR ground-truthing and then went on to monitor around 40 LiDAR locations. We were also treated to a special visit to an Indigenous Protected Area including Warrdagga Rock.

Sunday morning we completed the ground-truthing and I then travelled to Charles Darwin Reserve.



MONITORING AT NINGHAN STATION

Monday 24th, Steve & I commenced ground-truthing the remaining locations on w44 CDR South, and late that afternoon two volunteers Bill & Sally Lambe arrived from Perth. On Tuesday Steve & Bill and Sally & I formed two teams and over the next two days were able to complete the last of the ground-truthing.

Finishing earlier than expected gave me a chance to catch up with an old school buddy who farms at Ballidu and lives at Wongan Hills.

Monday 31st I travelled on a FIFO flight to Forrestania to conduct a Malleefowl monitor training session. w45 Forrestania is the newest site in WA and is situated 80km east of Hyden, just outside the wheat belt.

Tuesday November 1st I flew back to Perth and then on to Adelaide to see my long lost wife and family.



MONITOR TRAINING AT FORRESTANIA

HELPING TO PROTECT OUR MALLEE ICON

CITIZEN SCIENCE IN ACTION BY JACINTA ALLAN-GANGE, MILDURA, VIC

Neth Hinton had never even seen a Malleefowl before she and her husband Trevor decided to make the move to a life on a remote property near Hattah. But the couple are now custodians of one of the Mallee's hot spots for the emblem bird, with 17 known Malleefowl mounds on their property – and counting.

The couple bought the block which adjoins the Hattah Kulkynne National Park from Trust for Nature seven years ago with retirement in mind, and for the past three years the 1,780 acre property has been home. Neth admits it has been, and still is, a steep learning curve.



LANDOWNER NETH HINTON

"We moved from a terrace house in Fitzroy to here and it was absolutely the right thing for us – we needed something to do when we retired and we just love it," Neth said. "We were familiar with Mildura because Trevor has family there but we had only ever driven through Hattah," she said.

"We saw the property advertised and spent two years thinking about whether to buy it or not. Then we decided on our third visit we had to have it. We weren't blind to what was ahead of us, but we were ready to learn and our neighbours were so welcoming and generous in sharing their knowledge about the Mallee. We couldn't have overcome all the hurdles involved in moving to Hattah without their support and encouragement. They also know a lot about Malleefowl and have given us a lot of advice about these great birds. In return, we give them a lot of laughs at all the mistakes we make!"

"As well, the partnership that we've developed with the Mallee CMA has been a great thing to help us protect the Malleefowl in particular". Neth said 300 acres of their property had been cropped in the past, but was slowly returning to its

natural state. The remaining 1,400 acres is Mallee scrub.

When the couple bought the property from Trust for Nature the terms of sale were that covenants needed to be established and they remain in place on the entire property apart from the area around the couple's home. "When we came to have a look at the property we were told about some rare species that were here including the Yellow-faced Whip Snake, Mallee Emu Wrens, Regent Parrots, and Malleefowl, but we didn't know where the Malleefowl nests were," Neth said.

"When we started walking around we found quite a lot of mounds – 17 nests so far, but there is a fair bit of bush here so there are probably a few we haven't found yet," she said.

Neth said Bush Tender funding had helped them do some initial work to protect the Malleefowl, such as goat and cat trapping, rabbit poisoning and fox shooting.

"Last year we approached the Mallee CMA to see if we could work cooperatively to do more to protect them," she said. With the support of the Mallee CMA's Project Officer for Land and Biodiversity Kate McWhinney, remote cameras were set up in October 2016 to monitor active Malleefowl mounds and the presence of pest species. Kate said the two cameras were left for 28 days overlooking two active mounds. "The footage showed us there were multiple foxes returning to the mounds each night to raid the nests," Kate said. "There were some amazing pictures, including an interaction in which a Malleefowl defends its mound from a fox." (The vision is available on the Mallee CMA Facebook page).



Neth said the vision gathered by the cameras was an eye-opener. We didn't realise the extent of the problem so we started a fox baiting program straight away," she said.

"We engaged a contractor to come and lay baits. We put out 30, and 18 were taken. The contractor

recommended that we bait twice a year, and we will try this and review it after 12 months."

"We have our own camera now so we can set that up and check on predator activity and know if we are having an impact. I've just got my 1080 poison endorsement and we will do the baiting ourselves from now on."

Neth said that while predators could never be eradicated completely, the couple are committed to minimising the impact of foxes on the resident Malleefowl, while doing more work on quantifying bird numbers. "They're such determined little birds, they build such amazing nest structures and we've found that Mallee people are as interested in them as we are," she said.

"The birds keep a certain distance from you but they are quite tolerant of you if you approach them quietly, and it's not that difficult to watch them working the nests. We still get a kick out of it. We've learnt a bit, but the more you learn the more you realise there is more to learn."

Neth said one of the best outcomes had been an enhanced relationship with the Mallee CMA. "When we developed the relationship with them they were so generous in helping us try to deal with the issue," she said. "They just ran with it and it's been a really equal relationship, which has been a very positive experience. If it weren't for their interest in putting the cameras in place, we would never have known how bad the fox problem was."

"The more you see of the Mallee, the more you appreciate it. It's beautiful, peaceful and remote. We have the Hattah Lakes right near us; the river is close; Ouyen is a great town with pretty much everything we need and Mildura's not too far away either. It was absolutely the right decision for us and the longer we are here the more we love it."

This project is supported by the Mallee Catchment Management Authority

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MALLEEFOWL MONITORING ON EYRE PENINSULA

BY LIBBY HUNT, NATURAL RESOURCES MANAGEMENT OFFICER, DEWNR, SA

With perfect weather conditions, the annual Lock Malleefowl survey occurred in mid-February 2017. Conducted in a heritage agreement on private land the survey enabled volunteers, a local landholder and DEWNR staff, to collect vital data on the local Malleefowl population.

Due to a combination of habitat loss, predation and wildfire contributing to a decline in Malleefowl numbers, the grid surveying technique is a vital component of Malleefowl conservation across the Eyre Peninsula. This surveying technique provides an indication of population dispersal, nesting and chick activity, and interaction with other species.

To monitor the area, three teams were formed, walking over 15km, to ensure all existing mounds were revisited. Five hours of intensive searching enabled thorough data collection including tracks, scats and eggshells. Results from the survey demonstrated an active pair of Malleefowl were in the area, with one team discovering two lots of fresh chick feathers from recent hatchings.

Volunteers and DEWNR staff were excited to see active signs of



Malleefowl breeding. This site has supported at least one pair of breeding Malleefowl over the last 10 years. Natural Resources Eyre Peninsula sincerely thank the volunteers who contributed to this monitoring project.

CAROL LYDEAMORE, CHRIS MALCOM, SHERRY MALCOM, PAULA MODRA, LIZ MCTAGGART, TAYLA BOWDEN AND DARYL DOLPHIN

2016 MONITORING SEASON SOUTH EAST SA BY VICKI NATT, COORDINATOR SE SA

Monitoring of South East SA sites for season 2016 commenced October 10 at Mount Boothby and finished at Gum Lagoon (Naen Naen) on December 13. Sites covered were Mount Boothby to the north, two sites in Gum Lagoon Conservation Park, (Coola Coola and Naen Naen), the Coorong South of Salt Creek and Mount Scott Conservation Park, the most Southerly South East site.

Monitoring also took place at Desert Camp this season on October 19. Though the results were disappointing with no active mounds being found, it does give us more information on the status of Malleefowl in the South East of South Australia. Sam Rothe who lives next to the Park has been talking to local landowners in an effort to find out historically where Malleefowl occurred in the area. The goal is to eventually encourage them back into these areas with landowner support and cooperation.

Of the five original sites, in total 170 (of a possible 208 mounds) were monitored, including three mounds outside the Coorong grid. Across the

five sites, 28 mounds were found to be active, four more than 2015 and one more than the 2014 season. The Coorong had two active mounds within the grid and one active off-site nearby making a total of three, the best result for many years. The status of four mounds, 5 and 26 in Coola Coola, 47 in Mount Scott and 34 in Mount Boothby were declared

ambiguous requiring further investigation. Most of the five year mounds were not visited as they were monitored last year. Four mounds were missed. Reasonable winter, spring and summer rainfall was experienced overall for the whole region. The table on the next page gives a breakdown of mound activity for each grid.



SE SA MONITORING CONTINUED BY VICKI NATT

Season	Grid Number and Name									
	13 - Mount Scott		14 - Coola Coola		65 - Coorong		66 - Naen Naen		72 - Mount Boothby	
	Total mounds 47	Total mounds 57	Total mounds 36	Total mounds 15	Total mounds 53					
	Mounds visited	Active mounds	Mounds visited	Active mounds	Mounds visited	Active mounds	Total mounds	Active mounds	Total mounds	Active mounds
2005	36	8			23	0				
2006	39	6			31	0	14	3		
2007	39	1	54	9	32	1	14	5		
2008	40	9	54	10	32	0	10	5	46	5
2009	42	6	52	14	32	0	10	4	46	6
2010	43	6	52	9	32	0	10	4	47	10
2011	44	6	52	8	32	0	10	2	49	13
2012	46	4	51	10	32	1	14	2	49	15
2013	36	6	51	7	23	1	11	3	49	12
2014	36	5	46	9	22	0	13	3	38	10
2015	46	2	56	9/11	36	1	15	2	51	9
2016	36	6	53	8	23	2	15	3	43	8

A total of 458 hours was spent monitoring South East sites, including preparation, training and travel. (139 volunteer hours and 319 staff hours). Ten individual volunteers and thirty staff members from various organisations, including DENWR, Coorong Tatiara Local Action Plan, Green Army, Aboriginal Cultural Rangers, Nature Glenelg Trust, Friends of Coorong, Friends of Butcher Gap and the National Malleefowl Recovery Team participated this season. Both Mount Boothby and Coola Coola sites were completed in one day (instead of two) for the first time. The only downside was that we didn't get to enjoy the camping and other natural highlights after hours. A very good turnout of 24 people occurred at Gum Lagoon Coola Coola, swelled by a large Green Army contingent. Tim Burnard and Donna Higgins took on the Naen Naen grid once again, camping overnight; though Donna had her leg in plaster so could only offer moral support while Tim completed the monitoring on his own. Three volunteers monitored Mount Scott over two days, while despite some setbacks, Wendy Eason from Friends of the Coorong and a number of Aboriginal cultural rangers managed to get the Coorong site completed in a day.

Bryan Haywood, Samantha Blight and myself spent time after Mount Boothby monitoring choosing sites to place remote cameras as part of the 2015 post burn research project, designed to answer questions re the effects of fire on Malleefowl. Sam and the Green Army team then cleared the sites and placed the cameras. The first batch of photos were collected prior to Christmas by Sam and analysed. Malleefowl as well as other wildlife were caught on camera.

Remote cameras have also been purchased for placement in Malleefowl monitoring sites. Hopefully they will capture fauna activity, giving us an

idea on what may potentially impact on the Malleefowl population. Tim Burnard helped with their purchase and did an excellent job setting them up ready for use in the field.

'Review of Malleefowl Regional Action Plan for the South East of SA' has been finalised and sent to the Dept. of Environment, Water & Natural Resources by Bryan Haywood, Senior Ecologist at Nature Glenelg Trust. He also organised two teams to monitor Desert Camp this season as well as participating in the monitoring at Mount Scott.

Tim Burnard arranged for me to assist staff at Scotia Sanctuary in Western NSW with their Malleefowl monitoring this season. Part of the monitoring was conducted inside an electric fence designed to keep introduced feral animals out enabling native marsupials such as Bettongs, Bilbys and Numbats to live and breed. It was interesting to observe the effect these small burrowing animals

have on the soil and vegetation compared to outside the fence. The feral-free zone seemed to also suit Malleefowl as there were noticeably more active mounds inside the fence. Thanks to Felicity and the team who showed me around and made me feel very welcome.

Thanks to the Coorong Tatiara Local Action Plan, who funded my position as project officer for another year. Special thanks to Samantha Blight of Coorong Tatiara LAP as she not only made herself available to help with the monitoring but organised a Green Army team as well. Graeme Tonkin as usual has been ironing out all the problems with the technology and showing lots of patience. Thanks Graeme.

Once again a very big thank you to everyone who participated this season, especially those who volunteered their time, it was much appreciated. I hope it was an enjoyable experience.



SOME OF THE MONITORS

MALLEEFOWL MONARTO WORKING PARTY

BY KAREN ECKERMANN, COUNCILLOR, MURRAY BRIDGE, SA

The Malleefowl Monarto Working Party is a grassroots group of enthusiastic volunteers and local government representatives located just outside of Murray Bridge, a regional township situated 70kms south east of Adelaide, South Australia.

The group has met monthly over the past twelve months and achieved some significant milestones. A year ago the Working Party employed a consultant to assess a target property adjacent to the Monarto Conservation Park for suitable Malleefowl habitat. Survey findings firmly indicated that Malleefowl food sources are good to excellent; Malleefowl nesting resources are sufficient; pest animals are of concern and will need to be managed; and the Mallee habitat will provide habitat for numerous other species of mammals, birds and reptiles. It was also determined that the preservation and enhancement of existing Malleefowl habitat at Monarto South can be achieved with limited funding, including the preservation of existing remnant native vegetation and linking Conservation Parks by using existing patches of remnant native vegetation and Council unmade road reserves.

Last October, a community event at the Monarto Conservation Park, the 'Malleefowl Walk', included an informative presentation on Malleefowl habitat and food sources within the Monarto Conservation Park and adjacent properties – and was met with considerable local interest.



PARTICIPANTS IN THE 'MALLEEFOWL WALK'

The Working Party has developed promotional materials to create community awareness of the aims and objectives of the group; specifically, posters and signage at the Monarto Information Bay and Mannum Ferry, and flyers distributed at the recent opening of the Kinchina and Monarto Woodlands Conservation Parks.

The Working Party will hold a Malleefowl Summit at Murray Bridge in July 2017. Invitees will include other regional Malleefowl groups, farmer conservationists and interested parties. The Threatened Species Commissioner, Mr Gregory Andrews, has expressed interest in presenting

as the keynote speaker (TBC). Experts in pest animal control, representatives from the Monarto Zoo and the local Ngarrindjeri will be present at the Summit. In addition to an excellent array of informative guest speakers, a field visit to conservation areas at Monarto South will be offered to participants. The event is FREE and the Working Party looks forward to welcoming a diverse group of participants to Murray Bridge. For further information, please visit Facebook: [malleefowlmonarto](https://www.facebook.com/malleefowlmonarto) or k.eckermann@murraybridge.sa.gov.au to register your interest.

SA MURRAY DARLING BASIN UPDATE BY DAVE SETCHELL, SA MDB COORDINATOR

27 grids were monitored this season (586 mounds) on DEWNR reserves, private properties and Commonwealth land. This included 7 grids monitored by BirdLife Australia volunteers on Gluepot Reserve, 4 grids monitored by Australian Landscape Trust (ALT) volunteers on Taylorville Station and 3 grids monitored by ALT staff on Calperum Station.

40 active mounds were recorded, down from 44 last season, although an extra 96 mounds (including 5 year mounds) were checked last season. Only 3 active mounds were recorded north of the Murray River (2 on Calperum Station and 1 on Gluepot Reserve) which is the same total as last season.

A total of 538 hours of volunteer time was contributed to the monitoring program and I would like to pass on my heartfelt thanks to all the individuals and groups involved. We welcomed Michelle McMahon on board this season as a new volunteer.

The weather was variable across the region in 2016. Rain in May made up for a dry start to autumn, with average to above average rain during winter raising

hopes for a productive season. Rainfall in spring was generally above average but temperatures were below average. Despite this, there was still evidence that some areas missed out on the winter and spring rains. There was also a lot of evidence of mounds being prepared but then being abandoned prior to egg laying.

The Bakara, Karte and Gluepot 8 grids were the only grids to record an increase in active mounds this season. It was the best result for Bakara since 1998 and the best result ever recorded for Karte (which has been monitored annually since 2001). On the other hand, 6 grids (Shorts, Ferries MacDonald, Danggali 2, Bandon, Ettrick and Murray Bridge Army Range) recorded a decrease in active mounds. Peebinga continued its recent strong run of breeding activity, with 13 active mounds again this season. Overall the results were very variable, although I suspect the cool wet spring had a negative influence on breeding activity on some grids, whereas some northern grids seemed to have missed out on the winter and spring rains.

I'd also like to take this opportunity to thank Henry Short for his long term involvement

with the monitoring program. The Shorts grid, which is in a heritage agreement on Henry's property was one of the first monitoring grids established in SA and has been regularly monitored since 1989. More recently, Henry has hosted the Scientific Expedition Group, who monitor the Shorts grid and the nearby Bakara grid. Henry recently sold his property but he made sure that the malleefowl baton was passed on to the new owner, who is happy to continue to be involved with the monitoring program. All the very best wishes Henry but visiting your property won't be quite the same again – I hope you don't miss it too much!

A summary report will be sent to all the volunteers, landholders and stakeholders involved by the time this goes to print.

We are always looking for volunteers to help with monitoring, particularly with some of the more remote grids in the region. If you are interested please contact: Dave Setchell, SAMDB malleefowl monitoring program coordinator, Mallee Eco Services Phone: 0428 873 090 dhsetchell@gmail.com

A FOWL TALE BY JESSICA STINGEMORE, NORTHERN AGRICULTURAL CATCHMENTS COUNCIL, WA

Once upon a time in a land far, far away there was a very special bird that everyone was looking for – the Malleefowl!

One of Australia's curiosities, the Malleefowl does not build a nest like most other birds. Instead it uses its strong feet to scrape large amounts of leaf litter and sand from the ground and into a large pile. The eggs are then laid into a cavity near the bottom of the mound and covered over.

As the leaf litter begins to compost, it generates heat and this is used to incubate the eggs, rather than sitting on them. The male Malleefowl checks the temperature of his breeding mound regularly, and scrapes material onto or off the mound to keep the temperature just right.

During National Bird Week NACC staff joined Bush Heritage and their dedicated volunteers for a week of Malleefowl madness.

Funding from Gunduwa Regional Conservation Association WA was used to produce LIDAR imagery to detect Malleefowl mounds in the region which will allow for a more efficient method of searching larger areas.

LIDAR, which stands for Light Detection and Ranging, is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth.

These light pulses (combined with other data recorded by the airborne system) generate precise, three-dimensional information about the shape of the Earth and its surface characteristics.

The enthusiastic group spent several days hiking across Charles Darwin Reserve and checking the accuracy of the LIDAR data. While some were disappointments, on the whole most were old Malleefowl mounds and a handful were active. But alas, none of the elusive Malleefowl were seen.

Until on the drive to our final site, Bush Heritage's Regional Ecologist Vanessa Westcott pulled the car over and exclaimed "Look, a Major Mitchell Cockatoo – that is a good sign for today!" And lo and behold about one hour later I was staring face to face with a Malleefowl.

"We had been trudging our way through the thick undergrowth and out of the blue we saw a massive mound

appear. And then we saw a flicker of movement – a Malleefowl. We watched it for about two minutes before it just melted away into the bush. We were awestruck."

While the focus of the surveys was to ground truth the LIDAR data, a field trip to Charles Darwin is not complete without some sightseeing. Other marvellous curiosities sighted on the trip included an old stick-nest rat nest, gnamma holes, granite lizard traps, baby birds, salmon gums and trap-door spiders.

Fun Fact

Malleefowl are one of three mound-building birds – also known as megapodes – in Australia, and the only species that live in arid areas. The others are the Brush Turkey and the Orange-footed Scrub-fowl.

To volunteer for this project or to find other citizen-science projects, please visit the Bush Heritage website <http://www.bushheritage.org.au/get-involved/volunteer>

For another perspective, keep reading!

THE VALUE OF VOLUNTEERING BY LIS MCLELLAN

I recently had the privilege of volunteering with Bush Heritage Australia on Charles Darwin Reserve. I helped with a small field survey team looking for the elusive Malleefowl, or hopefully at least their nests.

What I would like to share is a reflection on the value and experience of volunteering. Just this morning I read an Op-Ed in the New York Times – written by the Dalai Lama and Arthur Brooks, entitled 'Behind our Anxiety: the fear of being unneeded'.

It's a great piece – well worth reading. And it struck me that this is precisely what volunteering allows: being needed (whether they know it or not) by society, by the environment, by those unable to fend for themselves, etc. As the 13th-century Buddhist sages taught, "If one

lights a fire for others, it will also brighten one's own way."

The opportunity to be in the wild places of a Bush Heritage Reserve; to be with people knowledgeable about the science and the land, and to contribute to our understanding and conservation of these special places, and their flora and fauna, is incredibly precious, and provides a wonderful opportunity to make a contribution.

We were also lucky enough to have Badimia Elder Vaughan Lane with us throughout our Malleefowl search. He graciously shared part of his Aboriginal culture and local knowledge with us, which totally enriched our experience.

And what an experience! The mornings were early; the bush was harsh – Malleefowl like to build nests in incredibly

dense, prickly and scratchy bush; and the Malleefowl were elusive. But the rewards were incalculable. Morning sunrises; sunset wine and cheese on a magnificent granite outcrop; beautiful wildflowers still in bloom; majestic york, salmon gum and gimlet woodlands; the camaraderie and satisfaction of a good job well done; the care taken by Bush Heritage of its volunteers; the sheer beauty of the bush; and that wonderful feeling of making a contribution and being needed – all added up to an unforgettable experience.

And yes, we did get to see those elusive Malleefowl in the end and discovered new active nests!

Thanks Bush Heritage. I'm already looking forward to the next time!





THE MALLEE POST ATM HISTORICAL ARTICLE

BY GRAEME TONKIN

Extracts from the book 'Australia Twice Traversed' by Ernest Giles

First Expedition, 1872 – 1873, Chambers Pillar to Lake Amadeus

Chapter 2.1 - August 1873

"I was compelled to ride in advance with a bell on my stirrup to enable the others to hear which way to come. In seventeen miles we struck a small gum creek without water, but there was a good herbage. In the scrubs to-day we saw a native pheasant's nest, the *Leipoa ocellata* of Gould, but there were no eggs in it. This bird is known by different names in different parts of Australia. On the eastern half of the continent it is usually called the Lowan, while in Western Australia it is known as the Gnow; both I believe are native names".

Chapter 2.4 - October 1873

"These hills also have the metallic clang of the Bell Rock, and are highly magnetic. In the scrubs to-day Gibson found a Lowan's or scrub pheasant's nest. These birds inhabit the most waterless regions and the densest scrubs, and live entirely without water.

This bird is figured in Gould's work on Australian ornithology; it is called the *Leipoa ocellata*. Two specimens of these birds are preserved in the Natural History Department of the British Museum at Kensington. We obtained six fresh eggs from it. I found another, and got five more. We saw several native huts in the scrubs, some of them of large dimensions, having limbs of the largest trees they could get to build them with."

"To-day we came upon three Lowans' or native pheasants' nests. These birds, which somewhat resemble guinea-fowl in appearance, build extraordinarily large nests of sand, in which they deposit small sticks and leaves; here the female lays about a dozen eggs, the decomposition of the vegetable matter providing the warmth necessary to hatch them. These nests are found only in thick scrubs. I have known them five to six feet high, of a circular conical shape, and a hundred feet round the base. The first, though of enormous size, produced only two eggs; the second, four and the third, six. We thanked Providence for supplying us with such luxuries in such a wilderness. There are much easier feats to perform than the carrying of Lowans' eggs, and for the benefit of any readers who don't know what those eggs are like, I may mention that they are larger than a goose egg, and of a more delicious flavour than any other egg in the world. Their shell is beautifully

pink tinted, and so terribly fragile that, if a person is not careful in lifting them, the fingers will crunch through the tinted shell in an instant. Therefore, carrying a dozen of such eggs is no easy matter. I took upon myself the responsibility of bringing our prize safe into camp, and I accomplished the task by packing them in grass, tied up in a handkerchief, and slung round my neck; a fine fardel hanging on my chest, immediately under my chin. A photograph of a person with such an appendage would scarcely lead to recognition. We used some of the eggs in our tea as a substitute for milk. A few of the eggs proved to possess some slight germs of vitality, the preliminary process being the formation of eyes. But explorers in the field are not such particular mortals as to stand upon such trifles; indeed, parboiled, youthful, Lowans' eyes are considered quite a delicacy in the camp".

Fourth Expedition, 1875 – 1876, Port Augusta to New Norcia & Perth

Chapter 4.2 - October 1875

"Tommy and others had also found a few Lowans', *Leipoa ocellata*, nests, and we secured a few of the pink-tinted eggs; this was the laying season. These, with the turkey Mr. Young had shot on the plain, were the only adjuncts to our supplies that we had obtained from this region"

Chapter 4.3 - October 1875

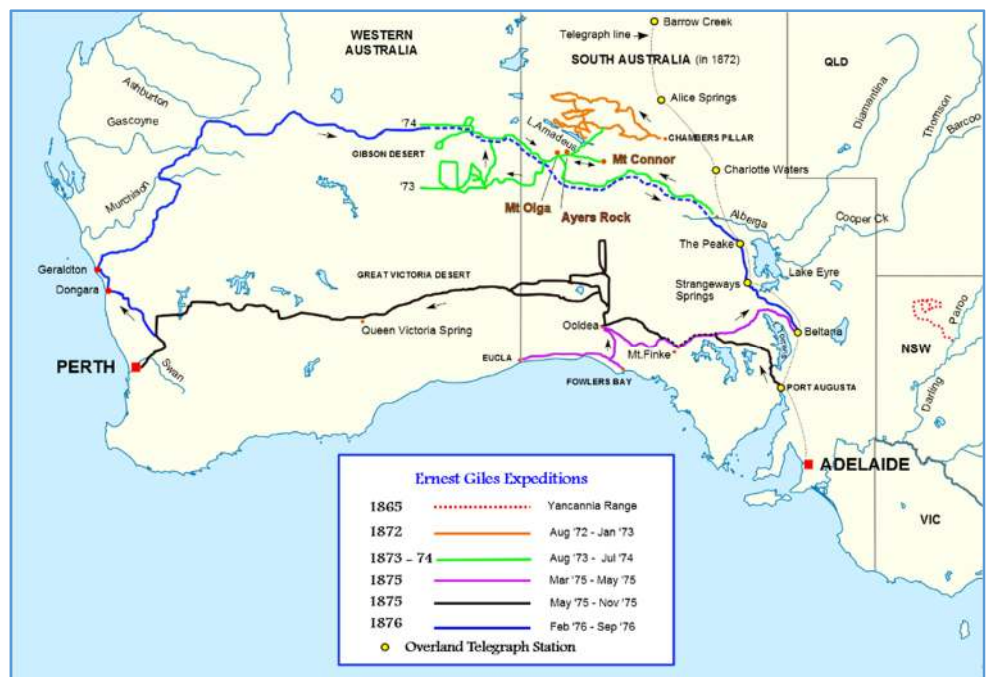
"During the morning, before we arrived here, Tommy had been most successful in obtaining Lowans' eggs, and we had eleven or twelve with us. When the natives saw

these, which no doubt they looked upon as their own peculiar and lawful property, they eyed them with great anxiety, and, pointing to them, they spoke to one another, probably expecting that we should hand the eggs over to them; but we didn't do it. At night they went away; their camp could not be far off, as we continually heard sounds of voices and could see their camp fires. Before sunrise the following morning the mercury fell to 32°; although there was no dew to freeze, to us it appeared to be 100° below zero. The only animals' tracks seen round our well were emus, wild dogs, and *Homo sapiens*. Lowans and other desert birds and marsupials appear never to approach the watering-places."

Chapter 4.4 - November 1875

"To-day we managed to get thirty-four Lowans' eggs, yesterday we had secured twenty-seven. These birds swarm in these scrubs, and their eggs form a principal item in the daily fare of the natives during the laying season. We seldom see the birds, but so long as we get eggs I suppose we have no great cause on complaint".

"The country between the cliff and Mt Churchman was filled to overflowing with the densest of scrubs; Nature seemed to have tried how much of it she could possibly jam into this region. We encamped at the foot of the cliff. We got several Lowans' - or, as the West Australians call them, Gnow' - eggs, thirty yesterday, and forty-five to-day.



MORE ATM HISTORICAL ARTICLES

FRITH'S RESEARCH SITE, NSW

BY ROD GUEST

Just a bit of a story for the photos on the right.

I'm the 'farmer' referred to in the Spring 2016 newsletter who attended the training day at Mt Hope, NSW. Whilst attending the day I mentioned that we had old research mounds from the 1950's and was informed that they would have been Harry Frith's sites.

As a youngster in the late 60's early 70's we would often go into the Mallee and look at the nests which were still in use although I never saw a bird. The last 3 birds in the Pulletop reserves were allegedly shot in the 1980's by someone who use to eat them when they were younger - so the story goes.

After the training day at Mt Hope I thought I would have a look for the site that I remembered as a kid and after 40 years I walked straight to it. To my amazement the tag was still there albeit with no number but the numbers were just readable when we were kids. As for the nest I really had to use my memory and imagination and I placed the stick cross on so hopefully next time I go there, there will be an active nest!

It was amazing that the branch the tag was on was only a branch of 70 mm diameter which I thought would have become termite-tucker long ago.

After reading Frith's book 'The Malleefowl' I found it quite interesting that he believed one of the main causes of Malleefowl decline was grazing of livestock. When we used to walk through these reserves they would be bare as the fences were not good enough to keep the sheep out and kangaroo numbers were a lot higher than pre-white man as there is water on every paddock, so this did not help with the survival of many species. It was also Frith's comment that this area was prime habitat for the birds with an average of 35 acres per pair of birds as I always believed it was 200 acres.

In the last 10 years sheep have been removed from most farms in this area and it is amazing how nature has sprung back. We have native grasses back and we have *Antechinus* living in our yard and we see *Dunarts*. In a survey conducted by a Canberra university this spring they counted 32 *Dunarts* in their traps. This shows that we have a healthy Mallee environment and maybe one day Malleefowl could be re introduced into this area which has a rich historical past of Malleefowl research. If anyone would like to see the Frith site I would be more than happy to show them.

My contact - 0427 487601



EYRE BIRD OBSERVATORY, WA BY STEPHEN DAVIES

For at least ten years before 1976 Dom Serventy had been saying to me that we should establish a field station for naturalists. I had looked at various places but none were really suitable. In the early 1970's Dick Tomlinson (then Chief Vermin Control Officer, APB) asked my advice about keeping starlings out of WA. I strongly endorsed the need to do so and this led me to make several expeditions onto the Nullarbor, the front line of the starling's invasion. On one of these trips I decided to look at the Eyre Telegraph Station. I had heard years before from Kaye Vollprect of its existence - she had been there with her father in the 1950's. So Terry Knight and I drove down and looked.

On the way back to Perth I realised that it met all the requirements that were needed for a bird observatory of the kind Dom had in mind, and so I set about convincing others of it. First I had to find out who owned it. It was on a title separate from the Nuytsland Nature Reserve and was originally owned by the PMG (Commonwealth).

When they finished with it they sold it, by conveyance, to Mackie, who owned Madura Station and other pastoral interests on the Nullarbor. He began to demolish it and use the materials for his stations, but soon he 'sold' it at a table in a café to another pastoralist. There were no documents. Soon after this 'sale', Mackie died - he was found dead in Kings Park - and his deceased estate was unable to sell the site - Nurina Location 14. However, materials were taken from the telegraph station and it was 'sold' again. When I came along I eventually tracked down the latest 'owner' and 'bought' Eyre for \$5, receiving a signed Transfer of Land form.

When I took this to the Lands Department they would not accept it without the original conveyance - which would of course be in Mackie's name. So I contacted Mackie's estate, WA Executor and Trustee Co, but they said it would cost \$100 even to open the file. By this time I had convinced the RAOU Council and the WA Department of Fisheries and Wildlife that it should be a Bird Observatory run by RAOU, so I then asked Fisheries and Wildlife to resume it. Which they did

and a lease for the place was agreed in 1984. Up till then the RAOU had occupied it by grace and favour, but the stimulus for a formal lease was the impending restructure of F and W to WA Conservation and Land Management.

The reconstruction was in 1977 and Syd Baker the first caretaker, followed by John Martindale as the first warden, followed by Nick Dymond and then Peter Congreve..

Note: Dom Serventy and Stephen Davies both worked for the CSIRO in WA at the time of the EBO purchase.



EYRE OBSERVATORY - PHOTO GRAEME TONKIN

NEW MEMBERS OF THE NMRT ADAPTIVE MANAGEMENT PROJECT

LIZ KINGTON, WA



I'm Liz Kington and together with Liz Fenwick from Victoria, I have been contracted as a Project Officer for the University of Melbourne and National Malleefowl Recovery Team partnered Adaptive Management (AM) Malleefowl project happening across southern Australia, where the Malleefowl still 'hang out'.

Our work will involve making sure that the AM project gets the data it needs from the field through community and

government monitoring of Malleefowl mounds in the chosen paired sites. We are also keen to build the capacity of the Malleefowl preservation communities, spread the word about this important project and ensure that future AM project work is funded.

It's great being part of this important biodiversity conservation experiment that will bring real insights to our management efforts. I've come from 12 years working in Landcare with one of the 54 regional Natural Resource Management (NRM) groups (or CMAs as they are known in the east). Wheatbelt NRM covers the Wheatbelt landscapes of Western Australia where large-scale land clearing for agriculture has also created salinity problems and biodiversity loss. I was there from the beginning of a new era in Australian Landcare and it has taught me the value of our community as the backbone to building a resilient future environment. I skilled-up in project management, marketing, communications, and strategic planning, and so I bring NRM industry experience to this new role.

Prior to my work in the NRM sector, I obtained a multi-disciplinary PhD from the University of WA, where I looked at the policy environment surrounding dryland salinity problems in Western Australia and its management intractability. This got me interested in resilience theory and adaptive capacity and so I'm super excited to be now employed in the largest land-based adaptive management project in Australia.

I live on the edge of the WA Yilgarn plateau, in the regional Avon River town of Toodyay, where I hobby farm a variety of woolly and feathered friends, including emus. I love to Samba, and every year organise for Perth's energised community to 'Activate the Wheatbelt' through tree-planting parties. For the past three years we have been revegetating land between bushland reserves in known Malleefowl country.

Contact Liz at:
lizk@nationalmalleefowl.com.au

LIZ FENWICK, VIC



I have a background in scientific research; attaining my PhD in Biochemistry at Monash University, and then working in Germany at a Max Planck International Research Institute. On returning to Australia, I continued research as well as developing clinical biochemistry

knowledge at the Prince Charles Hospital in Brisbane. During this time, I developed an awareness of the abyss that then existed between information technology developers and the information needs of health sector professionals.

Joining IBM at their national Health Industry Centre provided an opportunity to assist developers and implementers of information systems and to address and communicate the needs of the health sector. My career at IBM covered national and international networks in health and other private and government sectors and I worked in sales, marketing and systems engineering roles.

Then I branched out on my own and became a health industry consultant, providing strategic planning, project management and information technology advice to public, private, not for profit and government agencies. Education programs were also developed for information systems training, and a much sought

after aged-care program for visitors from Japan was developed in conjunction with a number of Australian health care agencies.

I have a life-long love of Country and passion for wild-life diversity. With a growing awareness of the impacts of Climate Change to our environment, I have worked more recently in initiatives which address renewable energy systems, energy efficiency and sustainability in community, residential, engineering and business sectors. I am currently the Vice-President of the Committee of Management at the Port Phillip EcoCentre in St Kilda, a Board member of LIVE (Locals Into Victorias Environment) and have volunteered for the Malleefowl monitoring group as well as the Anglesea Indigenous Plant propagating group (Angair).

I am a keen bird photographer and traveller and I revel in open-water swimming.

Contact me at:
lizf@nationalmalleefowl.com.au