

11. WA Malleefowl Network: a progress update

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Abstract

The WA Malleefowl Network, a once functional means of facilitating information-sharing and coordination of activities, became largely inactive in 2009 subsequent to the withdrawal of funding support for threatened species. Despite the impressive scope and magnitude of activities conducted for Malleefowl management and conservation across Western Australia the approach tended to be somewhat disjointed, with community groups, industry, non-government organisations (NGOs) and government agencies conducting activities often with a lack of knowledge of other activities being undertaken. Recently, the Network has been reinvigorated thanks largely to the cooperative efforts of the WA Department of Parks and Wildlife (DPaW). To this end, a meeting was held in January 2014, attracting a number of attendees from a range of different environmental sectors. The meeting sought to summarise the priorities of the Network in terms of Malleefowl conservation and management, and also sought to determine what the Network's role should be into the future and the types of tasks it should tackle.

Key themes to come out of the meeting included:

1. Funding a coordinator to maintain/facilitate the Network;
2. Data sharing and collaboration (e.g. between community groups, mining companies, government and NGOs);
3. Linking with the National Recovery Team;
4. Better definition of the species' distribution;
5. Focus on specific recovery actions.

It is hoped, with the support of a diverse and skilled group of stakeholders, the Network will represent an effective forum for coordinating and facilitating effective action for Malleefowl conservation and management into the future.

Introduction

This paper, and the accompanying presentation, summarise the key developments and activities associated with the WA Malleefowl Network in Western Australia. Additionally, the paper describes current activities undertaken by selected people working with Malleefowl in Western Australia.

A Brief History

- The WA Malleefowl Network was "conceived" in 2004 as part of the Threatened Species Network, administered by World Wildlife Fund (WWF) Australia.
- The Network was driven by a WA Malleefowl Facilitator, hosted by WWF Australia.
- Between 2005 and 2009, positive communication amongst interested parties was actively maintained and the Network was involved in or supported a number of active projects across Western Australia including the following:
 - research (in collaboration with CSIRO Sustainable Ecosystems and the Malleefowl Preservation Group (MPG));
 - monitoring and training (in collaboration with the MPG, North Central Malleefowl Preservation Group, Merredin Malleefowlers and other community groups); and
 - support for funding applications (in collaboration with community groups and not-for profit agencies).
- After this time, the Network entered a hiatus as Threatened Species Network funding ceased. Community groups working with Malleefowl continued with their excellent on-ground work. However, communication between groups and coordination of activities largely ceased.
- In January 2014, DPaW hosted a meeting to gauge interest in the Network and determine a way forward.

Who is involved?

- Community Groups and Traditional Owners: The key community groups in the WA wheat belt include the Malleefowl Preservation Group, North Central Malleefowl Preservation Group and several other smaller entities. Traditional Owner Groups actively involved in Malleefowl conservation and management include Ngadju Conservation Group and Pila Nguru (Spinifex Land Management).
- Mining companies: typically, Malleefowl is intersected by mining activity associated with iron ore and gold projects, particularly in the Goldfields and mid-west WA.
- Agencies: WA Department of Parks and Wildlife (DPAW).
- Non-profit organisations: Bush Heritage Australia (Malleefowl occur on Eurardy, Chereninup Creek, Monjebup, Beringa and Charles Darwin Reserves, all managed by Bush Heritage Australia), Australian Wildlife Conservancy (Malleefowl occur on Mt Gibson Sanctuary), Birdlife Australia.
- Environmental Consultants: a substantial number of consultants are actively involved in the survey, monitoring and management of Malleefowl, primarily on behalf of industry.
- Natural Resource Management groups: Wheatbelt NRM, South Coast NRM, Rangelands NRM, Northern Agricultural Catchments Council.
- Universities: at present there are several researchers working on projects that are of specific relevance to Malleefowl conservation and management, including Tim Doherty (Edith Cowan University) and Keren Raiter (University of Western Australia).

A meeting in January 2014

In January 2014, a meeting of the WA Malleefowl Network was facilitated and hosted by DPAW to discuss the top issues or priorities in relation to the conservation and/or management of Malleefowl in WA (Figure 1). The following represents the key priorities for the Network (and the National Recovery Team) to contribute to, as decided at this meeting:

- defining WA specific recovery actions and priorities, and also a list of research questions;
- feedback: report on information specific to Western Australia;
- threat abatement as a priority:
 - research into the impacts of fire to allow the consideration of Malleefowl in fire management guidelines;
 - feral predators;
- reassessment of the listing status;
- coordination and collaboration:
 - establishment of an effective working relationship between DPAW, community groups and others with the National Recovery Team;
 - guidance on monitoring site selection, collation of existing survey data;
 - data sharing and data collection and management protocols;
 - better utilisation of monitoring data to complement key recovery actions;
 - capture the potential of mining companies - many operate within known distribution, and are required to mitigate for impacts on Malleefowl - it would be preferable for them to contribute to existing programs rather than establishing new programs;
- establish a better understanding of the species distribution:
 - retain and collate “absence” data to complement presence data;
 - understand the species’ distribution in relation to habitat - presence of mounds doesn’t necessarily indicate the presence of birds.

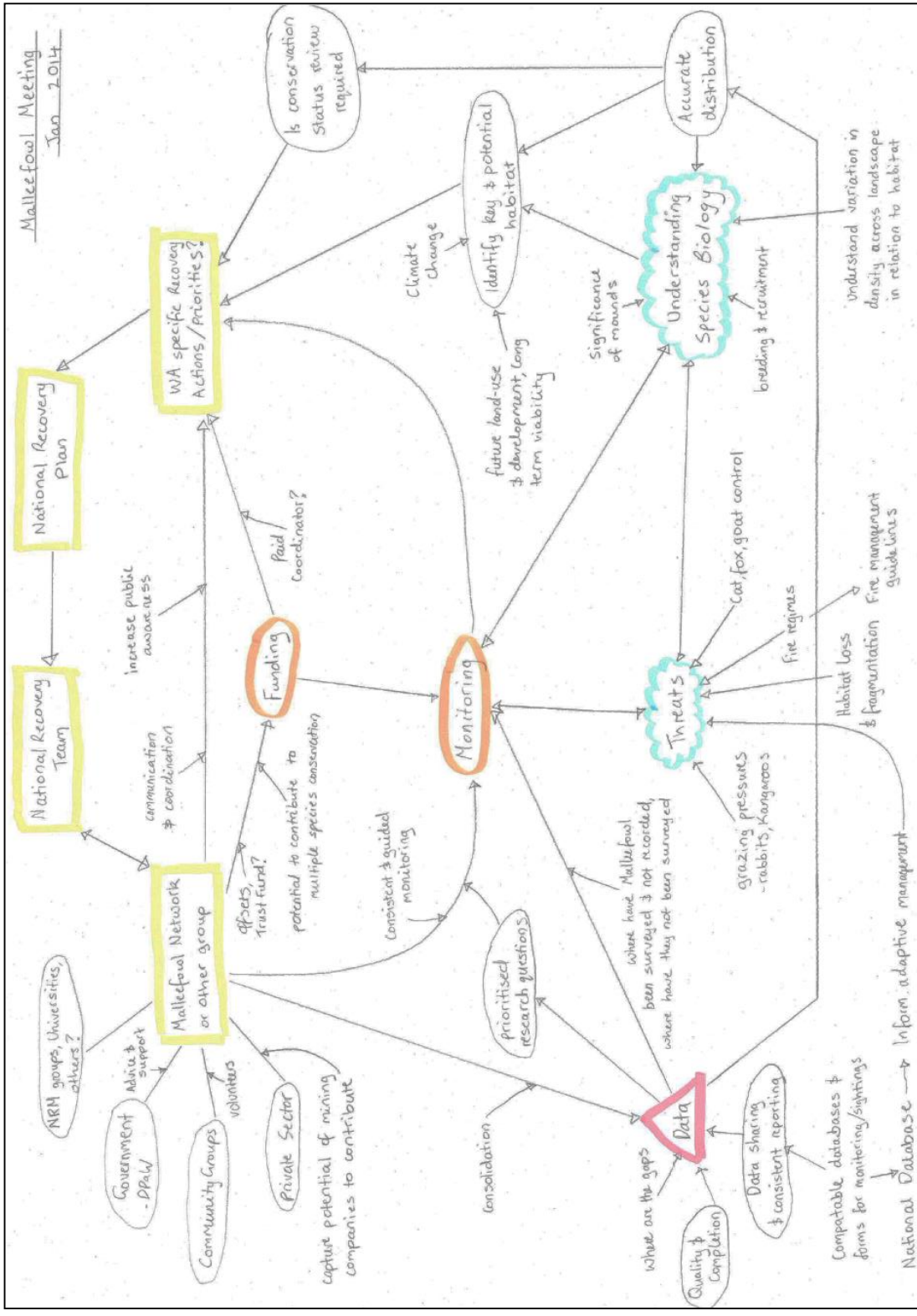


Figure 1. A diagrammatic representation of issues associated with Malleefowl conservation and management in Western Australia.

Current Activities

Edith Cowan University / Bush Heritage Australia

- Ecologists are building a predictive model of habitat suitability for Charles Darwin Reserve, Mt Gibson and neighbouring properties.
- Modelling will be based on mound surveys, camera trapping and opportunistic sightings 2004 – 2014.
- The model will aim to identify optimal areas of Malleefowl habitat with regard to vegetation types and fire history.
- It is intended for this model to be shared with landholders and land managers in the region.
- Researchers are interested to hear from anyone else working on Malleefowl and fire in Australia; please contact t.doherty@ecu.edu.au for more information.

Australian Wildlife Conservancy

- A large survey was conducted for Malleefowl at Mt Gibson Sanctuary. This survey, undertaken by the Malleefowl Preservation Group, encompassed two 1,000 hectare areas.
- The initial baseline survey was conducted in April-May 2010, and subsequently in October-November 2010.
- Volunteers have monitored known mounds since that time in 2012, 2013 and were scheduled to return in 2014.
- All data from the survey areas is entered into the National Database.
- One of the survey areas now lies on the inside of a newly-built predator-proof fence (feral control works inside have now commenced); the other area is on the outside of this fence.
- This fortuitous experimental design of the two areas presents opportunities for research, which may be pursued in short- to medium-term.

Keren Raiter – University of Western Australia

- Project Title: 'Mitigating Mining's Enigmatic Ecological Impacts in Australia's Great Western Woodlands'.
- PhD: School of Plant Biology, UWA.
- Supervisors: Prof. Richard Hobbs, Dr Suzanne Prober (CSIRO), Prof. Hugh Possingham (University of Queensland), Dr Leonie Valentine (University of Western Australia).
- Study Area: the Great Western Woodlands, which is the largest remaining temperate woodland in the world. This area is home to extensive mineral exploration and extraction, mainly for gold, nickel and iron ore.
- Focus: Improving our understanding of ecological impacts of mining and exploration that tend to 'slip under the radar' of formal impact assessments, including, cumulative impacts, offsite impacts, cryptic impacts and secondary impacts.
- Areas of interest:
 - spatial analysis – mapping exploration gridlines and access tracks and assessing the extent of their impacts on ecological values (e.g. mapped vegetation communities and intactness).
 - a year-long investigation of how roads and tracks in relatively undisturbed landscapes affect the activity of cats, foxes and dingoes using motion-sensor cameras and surveys of scats and prints.
 - an investigation into the effects of roads and tracks on the movement of water across landscapes: an important issue in a water-limited system.
- Relevance to Malleefowl: the project targets two of their threats – changes in predator dynamics, as well as habitat destruction or degradation in an important, intact, poorly studied and extensive portion of the species range.

Ngadju Conservation Group and GondwanaLink

- Norseman's Ngadju community are protecting and conserving the Vulnerable Malleefowl and caring for key sites in the Great Western Woodlands of WA.
- Funding: Rangelands NRM's Caring for our Country Sustainable Environment Program, managed by Gondwana Link.
- Aim: To build capacity of the Ngadju community to manage their traditional lands, threatened species, with an initial focus on Malleefowl.
- Increased knowledge of critical Malleefowl habitat is needed across the Great Western Woodlands.
- Initiatives to date:
 - An initial fire management program; a project mapping water trees; two significant knowledge documentation programs with CSIRO; and development of a Conservation Action Plan.
 - Ngadju will also be trained in Malleefowl surveying techniques, undertake surveying of Malleefowl presence and habitat within the Great Western Woodlands.
 - The Malleefowl is a useful flagship species which will help Ngadju develop initial skills before doing similar work with more cryptic threatened species.

Cliffs Asia Pacific Iron Ore Pty Ltd

- Cliffs have been surveying for and monitoring Malleefowl since 2003, and as of 2013 a total of 299 mounds have been recorded in 4,000 hectares of survey area.
- Monitoring is undertaken as per the Manual for National Malleefowl Mound Monitoring with results uploaded to the National Database.
- During mining exploration, staff have discovered Malleefowl using sumps created for exploration work for establishment of new mounds. This may have the potential to manipulate birds near roads; however, if reintroducing the species into an area where all the old mounds are hard and degraded, fresh, loose earth might facilitate successful reproduction.

Table 1. Number of active Malleefowl mounds recorded during monitoring at Mt Jackson Iron Ore Project

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
No. total mounds	36	70	91	120	92	111	52	231	101	117	151
No. active mounds	4	2	9	9	1	3	8	15	9	13	31
% Active mounds	11.1	2.9	9.9	7.5	1.1	2.7	15.4	6.5	8.9	11.1	20.5

Karara Mining Ltd

- Recent annual monitoring identified 11 active mounds. One of these mounds was observed within 600 metres of mining activity and was subsequently monitored using motion cameras, during which a hatching event was observed.
- Birds tending this mound were identified as suitable to track using a GPS/UHF tracking device.
- The bird was caught successfully by Bold Park Bird Banding group using a specifically designed trap. A tracking device was attached and a band was applied to one of the individual's legs.
- This bird was released successfully, unfortunately the tracker detached after 20 minutes.
- The bird was thought to have abandoned the mound. However it returned after ten days and subsequent to its return it tended the mound every second day in preparation for breeding.
- A second attempt at fixing a transmitter (on a different bird tending a different mound) is expected to produce better results due to refined attachment methods.

Where to from here?

- Funding a coordinator to maintain / facilitate the WA Malleefowl Network.
- Data sharing and collaboration (e.g. between community groups, mining companies, government and non-government organisations).
- Establishing stronger and more active links with the National Recovery Team.
- Better defining the species' distribution within Western Australia.
- Focusing on WA-specific recovery actions to achieve on-ground outcomes.

Acknowledgements

- Dr Manda Page, Rebecca Kay, Abby Thomas, Jennifer Jackson – DPaW
- Those who responded to requests for information:
 - Tim Doherty - Edith Cowan University
 - Keren Raiter – The University of Western Australia
 - Laura Ruykys - Australian Wildlife Conservancy
 - Jeremy Shepherdson, Kylie Wilkinson – Cliffs Asia Pacific Iron Ore Pty Ltd
 - James Sansom – Karara Mining Ltd
 - Mike Bamford – Bamford Consulting Ecologists.