

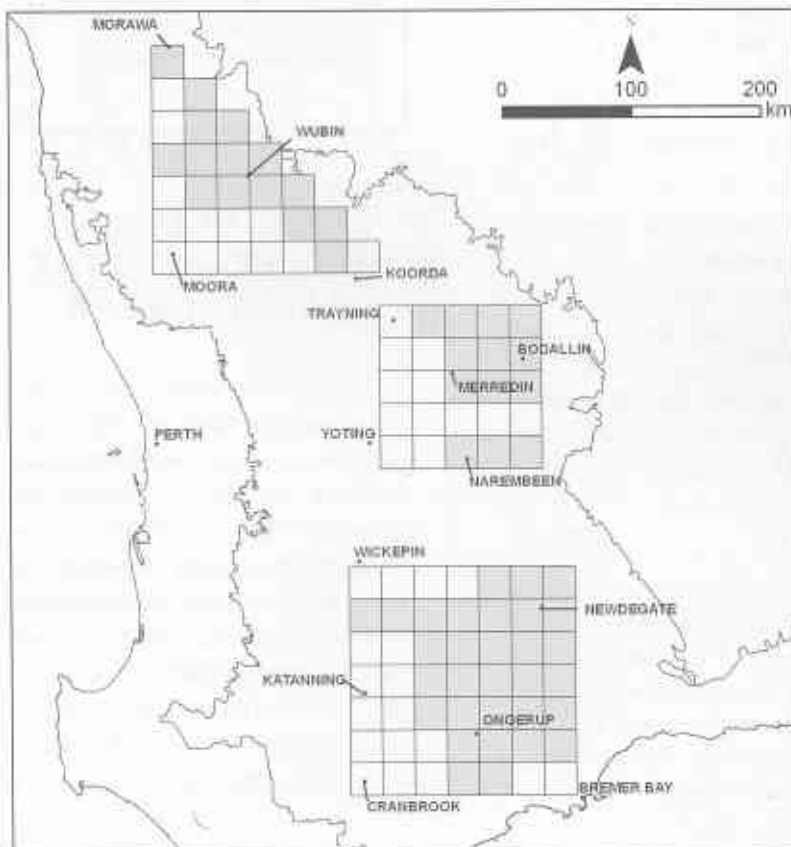
FAUNA RESEARCH

DIAGNOSING THE DECLINE OF MALLEEFOWL USING SIGHTINGS DATA

Blair Parsons

Malleefowl (*Leipoa ocellata*) occur through much of the wheatbelt and when present are fairly easy to spot as they are often seen feeding out into paddocks from remnant bushland or crossing rural roads. Most landholders who have retained malleefowl on their properties are proud of their continued presence and regard it as a sign of good environmental health of their farm. However, the malleefowl is listed as a threatened species in WA and the national recovery plan claims that the species' range has contracted by approximately 45%. Major threats to the species include land clearing, predation by foxes and cats, frequent burning of their habitat, and grazing by stock. The central wheatbelt and the south-west of the state are thought to have suffered the greatest declines, with core populations remaining in the more easterly areas of the wheatbelt. However, the pattern and extent of these declines are not well understood.

Map 1: Areas to be covered by the landholder survey. The study grid spans areas that contain many malleefowl sightings (shaded cells) and areas that do not (unshaded cells).



Understanding the extent and pattern of the decline of malleefowl and the underlying reasons for this decline is the main focus of a three year project, funded by the Natural Heritage Trust, which I started in early 2005. I am using records of sightings of malleefowl to investigate the extent of contraction of its range. The sightings records have been collected by various community organisations and government agencies such as the Malleefowl Preservation Group, CALM and the WA Museum over many years and include the locations of individual birds and both active and inactive mounds. I will use this information to identify the malleefowl's habitat requirements and key factors threatening their persistence.

More than two thousand records have been collected so far and have already provided valuable information about malleefowl distribution in the WA wheatbelt but they also reveal areas of relative abundance and areas of apparent absence. The absence of sightings may indicate a true absence of malleefowl or it could simply be that observers are sparse in these areas or they have not reported their presence. Similarly, areas with an abundance of records may simply be areas where there are many committed observers reporting their sightings to community groups.

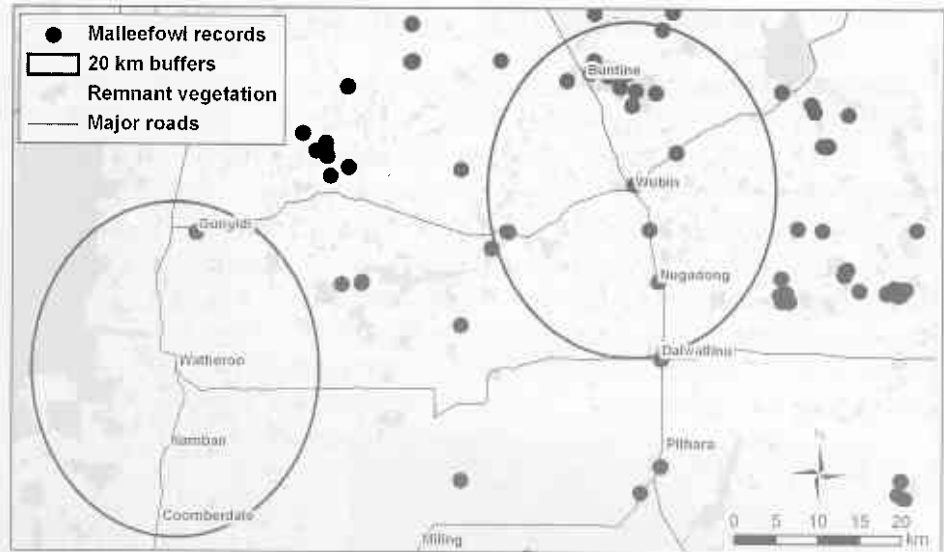
As part of the project, a survey of land managers is being conducted throughout the WA wheatbelt and will cover three zones centred on Ongerup, Merredin and Wubin (see map 1). The survey aims to determine whether areas of apparent absence are genuine or not and will also focus on determining why these patterns occur. For example, in the 20 km surrounding Wubin, 24 sightings of malleefowl have been recorded whereas in the 20 km surrounding Watheroo, which is 60 km to the west, only one sighting has been recorded (see map 2). Similarly, in the 20 km surrounding Ongerup, 56 sightings of malleefowl have been recorded whereas in the 20 km surrounding Gairdner, 50 km to the south-east, only six have been recorded. It is the intention of this study to determine why this is the case.

continued from page 12

RESEARCH

The enhanced knowledge of the distribution of malleefowl and their habitat requirements generated by community-collected sightings data will be used to guide decisions regarding their on-ground management. This might include the identification of key malleefowl habitat, prioritised opportunities for habitat reconstruction or protection, and information on the relative importance of different fire and predator management regimes.

If you have seen malleefowl or their mounds, either recently or in past times, or have information regarding the species that you believe would make a valuable contribution to our knowledge, please contact the Malleefowl Preservation Group on ph: 9828 2007 or fill in their online sighting form at <http://www.malleefowl.com.au/MalleefowlSighting.htm>.



Map 2: Malleefowl records for Wubin and surrounding areas. Note that records are common near Wubin and eastern areas, but become increasingly scarce towards the west.

Blair Parsons is a PhD student working with the Malleefowl Preservation Group and CSIRO Wildlife Research and Management, and is based at CSIRO Sustainable Ecosystems in Floreat. He can be contacted on ph: 9333 6451 or email: blair.parsons@csiro.au.