2. Is road kill the greatest threat to adult Malleefowl survival in bush remnants in agricultural areas?

Gordon McNeill, North Central Malleefowl Preservation Group, WA

Summary

Data emerging from the monitoring of sites in the central wheat belt and pastoral areas of Western Australia suggest that the loss of adult birds through road kill critically undermines the sustainability of Malleefowl populations in remnant bush reserves.

Abstract

The North Central Malleefowl Preservation Group (NCMPG) has been observing Malleefowl populations for 21 years and monitoring four sites of remnant bushland in the Dalwallinu and Perenjori Shires in the central wheat belt of Western Australia since 2007. The NCMPG has also assisted in the collection of data from a fifth site, a mining lease at Mt Gibson in pastoral country to the northeast in the Yalgoo Shire. Of the four sites being monitored in the wheat belt, Malleefowl populations are being sustained in two of the sites recording nesting activity at a rate of 9%-14% of surveyed mounds. In the other two sites Malleefowl populations appear to have reached an unsustainable level and the rate of nesting activity has dropped to 0%-2%. In the control site on the mining lease in the pastoral region nesting rates remain stable at about 8%-9%. This begs the questions: what is the same and what is different about the sites of remnant bushland in the wheat belt and what allows Malleefowl populations to be sustainable in two of the sites but not the other two? Of the known threats: predation, lack of recruitment, natural deaths, fire and lack of food source, all five sites under consideration appear to be affected or unaffected in similar ways. The significant difference appears to be in the location of the sites and their proximity to roads carrying grain, livestock and tourist traffic. A case study of one site illustrates the critical effect that proximity to these roads has on the viability of Malleefowl populations in remnant bushland.

IS ROAD KILL THE GREATEST THREAT TO ADULT MALLEE FOWL SURVIVAL IN BUSH REMNANTS IN AGRICULTURAL AREAS?

North Central Mallee Fowl Preservation Group WA

A STUDY OF FOUR SITES IN WA

Evidence from 4 sites shows that activity has noticeably diminished in 2 of the sites. Our question is WHY?

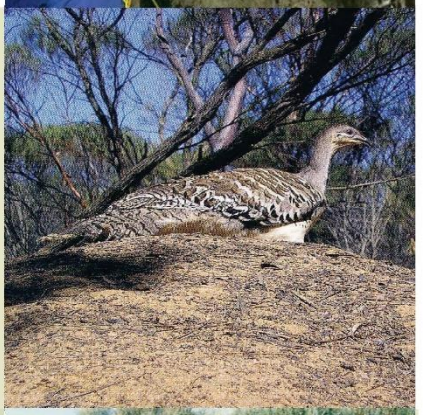
THREATS TO MALLEE FOWL

1. Predation: equal across sites
2. Recruitment: equal across sites
3. Natural deaths: equal across sites
4. Wild Fire: all remnant sites have had a long period of time since fire (estimated at 100+ years)
5. Lack of Food: all remnant sites are bounded by crop paddocks on two or more sides

6. Road Kill: the two sites most under threat are on much busier roads & have been known to lose more adult MF to road kill in the last twenty years than the other sites.

In 1993 in a crop paddock across the road from one of the most threatened sites up to 23 adult MF could be regularly counted feeding (over a distance of 2 kms). Prior to that sightings were not as great but MF were regularly sighted.

At harvest time at the end of 1993 at least 10 adult MF were killed on that 2kms of road including 3 killed together within a metre of each other. Over the years since 1993 there has been a steady death toll from road kill at the site.



Since the site was completely searched 42 mounds have been monitored. The maximum number active in any season has been 3 (down from 8 known from a previous incomplete search). In the last five seasons there has only been at the most 2 mounds active equal to about 2%. In the other site under threat which has 31 mounds there have been 0 active mounds for the last two seasons.

However, in the two other remnant bush sites the percentage of mounds active is approximately 9% & 14% respectively & at Mt Gibson outside the agricultural area the activity rate is approx. 8.5%. What does this evidence mean?