MT GIBSON WILDLIFE SANCTUARY ANNUAL REPORT 2008

INTRODUCTION

Mt Gibson Wildlife Sanctuary (130,500 ha) is located approximately 350 km north-east of Perth in the Avon Wheatbelt Bioregion and became an AWC property in 2001, The property is a pastoral lease in the semiarid (mean annual rainfall 332mm) transitional vegetation zone between two major bioregions; the arid Eremean botanical province to the north and the mesic south-west botanical province to the south. This results in high biological diversity, including 13 vegetation associations and 27 rare or priority flora.

Initial biological surveys were conducted in 2001 and since then management has focused on feral animal control, including reduction of sheep numbers, feral goat control, fox baiting and most recently an integrated control of cats, foxes and wild dogs as part of a CRC project with DEC and the Invasive Animal Cooperative Research Centre (IA CRC) The purpose of this report is to summarise monitoring and research activity undertaken on Mt Gibson Wildlife Sanctuary during 2008.

IA CRC PROJECT

As part of the IA CRC project, pit and Elliott trapping was conducted during June and October 2008 (Table 1). In each of the four landsystem types selected for the project (Joseph: *Acacia* shrublands on yellow sandplain, Pindar: Eucalypt woodlands on red loamy sandplain, Euchre: *Acacia* shrublands on granitic breakaways, Carnegie: Saline flats) three sites of 25 pit and 25 Elliott traps were installed in February 2006 (12 sites in total). Each trapping session ran for 5 nights, except in October where weather prevented the final night of trapping. Table 1 presents the trapping results for 2006, 2007 and 2008. The trap success, number of individuals and number of species has decreased each year since the project began. Two new species were recorded in 2008; *Ramphotyphlops bicolor* and *Underwoodisaurus milii* which indicates that our inventory at Mt Gibson is not yet complete. In addition to trapping, 80km of sand track plots are monitored regularly as part of this project to gain information on feral animal activity (Fig 1). Cat, fox and dog numbers all peak in winter and all decrease after baiting events. Goannas peak in October likely due to the onset of hot weather, however this also coincides with a decrease in feral predators. This project is ongoing.

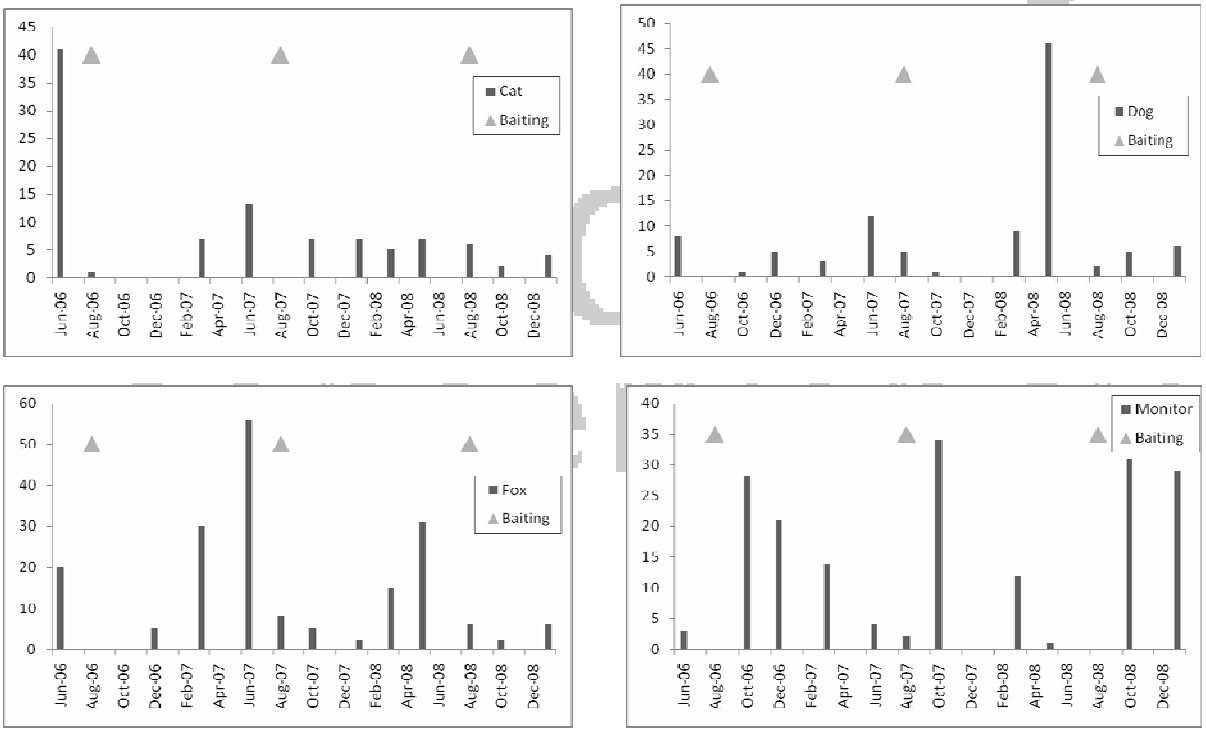

Figure 1: Total track counts for cats, dogs, foxes and goannas on Mt Gibson, and baiting events.

Table 1: Summary of trapping results at Mt Gibson in 2006, 2007 and 2008.

Species	No. trapped 2006	No. trapped 2007	No trapped 2008
Brachyurophis semifasciata	0	1	0
Cryptoblepharus plagiocephalus	1	1	0
Ctenophorus cristatus	1	0	0
Ctenophorus reticulatus	3	0	2
Ctenophorus scutulatus	21	3	1
Ctenophorus sp.	1	0	0
Ctenotus mimetes	59	35	11
Ctenotus pantherinus	1	6	1
Ctenotus schomburgkii	26	31	19
Diplodactylus granariensis	1	3	1
Diplodactylus intermedius	2	0	0
Diplodactylus maini	1	0	0
Diplodactylus pulcher	4	9	0
*Diplodactylus squarrosus**	0	3	0
Egernia inornata	0	1	0
Gehyra variegata	0	9	0
Heteronotia binoei	1	0	0
Lerista muelleri	1	1	0
Lialis burtonis	1	0	0
Menetia greyii	1	4	2
Mus musculus	59	17	4
Neobatrachus kunapalari	8	0	1
Neobatrachus pelabatoides	1	4	0
Neobatrachus wilsmorei	1	0	1
Nephrurus vertebralis	1	0	0
*Ningaui yvonneae**	0	1	0
Notomys sp.	n/a	4	1
*Notomys alexis**	n/a	1	0
Notomys mitchelli	63	71	28
Pogona minor	7	5	3
Pseudomys hermannsburgensis	46	22	19
Pseudophryne occidentalis	1	0	0
Ramphotyphlops bicolour	0	0	1
Rhynchoedura ornata	0	1	0
Sminthopsis crassicaudata	13	2	6
Sminthopsis dolichura	85	35	30
Sminthopsis gilberti	1	0	6
Sminthopsis sp.	1	0	1
Strophurus assimilus	1	3	0
Suta fasciata	1	0	0
Underwoodisaurus milii	0	0	1
Varanus caudilineatus	8	3	0
Varanus gouldii	1	0	0
No of species	**33**	**26**	**20**
Total animals	**423**	**279**	**139**
Trap nights	**6450**	**6000**	**5400**
% Trap success	**6.5%**	**4.6%**	**2.5%**

BIRD SURVEYS

Birds Australia WA undertook a survey at Mt Gibson in June 2008. They surveyed the 12 sites selected for the IA CRC project (described above). Each site was surveyed for 1hr in the morning and 1hr in the afternoon by 3-4 experienced bird watchers. Seventy five species were recorded.

Similar opportunistic observations of Malleefowl were recorded in 2008 as 2007.

CONCLUSION

Data collected in 2008 indicates that the predator control programs undertaken as part of the IA CRC project are generally successful in keeping predators at a low density at Mt Gibson and are providing insights into future approaches to integrated predator control strategies. However, the decrease in mammal and reptile numbers and species over the past two years, inspite of predator control programs, is disappointing. In 2009 we hope to increase the trapping efforts on Mt Gibson to improve the inventory and better understand distribution and habitat use. In addition projects relating to Malleefowl and fire regimes are planned for 2009.

FURTHER INFORMATION

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