Submission on

Introduction

In order to conserve and manage the grassy woodlands of the ACT, and to restore and enhance the natural ecology, kangaroo management is essential. The lowland yellow box-red gum grassy woodland is a much diminished ecological area in Australia, because of its value in agriculture. To maintain the ecological integrity in the remaining areas, kangaroos must be managed to moderate grazing pressure and to provide a mosaic of habitats for plants, reptiles, birds and insects.

Kangaroo management is contentious, but a range of options are available or under development. The potential approaches are outlined in the draft Plan, and it is helpful to note their evaluation. Shooting is the current approach, which is effective but requires ongoing repetition to reduce population numbers to that required for ecological recovery. The development of immunological contraception is a positive alternative and should continue to be actively pursued.

The Plan allows a year by year assessment of the numbers requiring culling. Kangaroo numbers are naturally regulated by predation and starvation, with the main regulation in this region by pasture availability. Weather is thus the main regulator, affecting vegetation growth by rainfall and ground temperature. In drought years starvation is the main controller of natural populations, which in the wild is partially compensated by kangaroo migration into wetter areas at very considerable cost to other species.

The Draft Plan

The Plan is an exceptionally comprehensive account of the background research and alternative management strategies to resolve the issue of ecological restoration in the ACT urban area grasslands.

The draft Plan allows a flexible, research-based, resolution of the problem with ongoing investigation of alternative approaches to shooting. It is to be hoped that the immuno-contraceptives can be administered effectively and have the desired effects of controlling reproduction. Until the kangaroo population density is managed down to allow the immune-contraceptives to be effectively applied, this approach will be prohibitively expensive, unless an oral
application is developed using baits. It will therefore be necessary to allow
culling by shooting in the immediate future, and the draft plan allows careful
assessment of the extent to which this is necessary.

Ecological considerations

The Friends of the Aranda Bushland are a parkcare group that has been
working on environmental restoration in the area bounded by the suburb,
Caswell Drive, William Hovell Drive and Bindubi Street for more than 20 years.
Monitoring of vegetation, weed control, kangaroo numbers and pasture
recovery have been documented. It is on the basis of this experience that
these comments on the management plan are made.

The area is largely dry sclerophyll forest, falling into grassy Box Gum woodland
and a Snow Gum frost hollow in the south. The overall area is approximately
170 hectares, with about one quarter grassy woodland and grassland.

The area has a substantial kangaroo population of about 200 animals, with
little year to year variation. The main grazing resource for these animals is in
the snow gums grassland area, with less edible vegetation in the swampy and
wooded areas. In winter there is little edible forage in the forested areas, so
the grazing pressure is almost entirely confined to the grassland. The forested
areas provide protected sanctuary, both for heat and cold.

There have been no culling or other kangaroo control methods used in the
Aranda Bushland.

The grazing pressure in late winter results in almost bare ground in the
grassland area, and over the 20 years of observation the pasture quality has
markedly deteriorated. Bare ground is invaded by St. John’s Wort, Patterson’s
Curse, saffron thistle and fleabane. The kangaroo grass (*Themida*) rarely
reaches seed production, and our efforts at planting have been defeated by
the kangaroos. *Phalaris* has flourished, which is not preferentially eaten by the
kangaroos, as has sedge (*Carex*) in the wetter areas.

With the guidance of Drs Don Fletcher and Clare Wimpenny we set up
cylindrical kangaroo exclosures in 2010 to observe the vegetation growth when
grazing was removed (see attached paper). In the exclosures the *Themida*
recovered over three and more years, encouraging us to endeavour to
regenerate the grassland by excluding kangaroos from fenced areas.
Our intention is to allow the grassland to recover by fencing, then move the fenced exclosures to another area.

Exclosure three years after establishment, showing seeding *Themida* adjacent to kangaroo grazed pasture with no seed heads and little ground cover. March 2017 (photo by [unknown]

Several question arise from our data, the most important being how is the population regulated in the absence of culling? The animals rarely cross the high speed roads forming the boundary, with surprisingly little road kill. Our observation is that the animals die in late winter/early spring, and the area is littered with bones. The cause of death can be assumed to be lack of food and disease/parasitism.

The pressure of grazing has caused marked change in the vegetation, with increased weed infestation. The *Themida* is particularly suppressed, as it is the preferred food. We have also noted a reduction in grassland birds, especially finches and thornbills. Work is in progress by the ACT Environment ecologists on the reptile population.
An oral contraceptive appears to be the most humane kangaroo control, but in the meantime we will be endeavouring to reduce grazing by fencing out areas from access by kangaroos.
From: Environment  
Sent: Monday, 20 March 2017 9:17 AM  
To: Environment  
Subject: FW: Draft Kangaroo Management Plan [SEC=UNCLASSIFIED]

For you.

From: Friday, 17 March 2017 6:10 PM  
To: Environment  
Subject: Draft Kangaroo Management Plan

Dear ESDD,

I have attached my submission on the Draft Plan, which is of considerable interest to ecological management in the ACT.

, Friends of the Aranda Bushland