

Researchers find feral cat numbers not reduced when dingo numbers increase in outback

November 5 2012, by Bob Yirka



A feral cat. Credit: Luis Miguel Bugallo Sánchez/Wikipedia.

(Phys.org)—Researchers working to increase the number of bridled nailtail wallabies in Queensland Australia, have discovered that stopping the practice of culling dingoes in the area did not change the number of feral cats as hoped, the team reports in their paper published in *Wildlife Research*. Feral cats are known to kill and eat juvenile wallabies.

Wallabies are not an actual distinct genetic group, rather they are an informal class of macropod that are smaller than both <u>kangaroos</u> and wallaroos. In the area under study, the number of bridled nailtail wallabies has declined from 1000 to 500 since 1990, putting them at risk of disappearing altogether. Scientists believe their decline is linked to



reduced <u>grazing land</u> as farmers have increasingly used the land to allow cattle to graze. More seriously, an increase in <u>dingoes</u> (a type of <u>wild dog</u>) and feral cats, which both kill wallabies, in the area has led to more wallaby deaths.

To reduce the number of wallabies killed, game managers began a program of culling dingoes – they hunt full grown wallabies. This after a program of installing radio-tracking collars on dingoes showed them to be the major predator. After meeting with little success, they tried reducing the numbers that were culled to see if doing so would cause a related decrease in feral cats. After again meeting with little success they tried reinstituting culling, but this time around they installed 41 remote cameras triggered via infrared sensors. In so doing, they discovered that feral cats were not nearly as fearful of dingoes as had been previously thought as long as there were environmental avenues of escape. In such areas, the numbers of cats did not decline as the number of dingoes increased and as a result the numbers of <u>wallabies</u> killed in the area remained steady.

The researchers report that images from the cameras showed dingoes and cats in the same areas – sometimes even during the same time of day – and that no evidence could be found to suggest that the cats were avoiding the wild dogs. The only exception was during the rainy season, when dingoes are raising their pups. During that time period, it appeared the feral cats were avoiding the dingoes, though there was no evidence that their population declined. They suggest that their findings indicate that culling programs will need to be reevaluated.

More information: Dingoes affect activity of feral cats, but do not exclude them from the habitat of an endangered macropod, *Wildlife Research* 39(7) 611-620. <u>www.publish.csiro.au/paper/WR11210.htm</u>

Abstract



Context: The loss of large predators has been linked with the rise of smaller predators globally, with negative impacts on prey species (mesopredator release). Recent studies suggest that the dingo, Australia's top terrestrial predator, inhibits predation on native mammals by the invasive red fox, and therefore reduces mammal extinctions. Feral cats also have negative effects on native mammals, but evidence that dingoes suppress cats remains equivocal.

Aims: We sought to examine whether dingoes might spatially or temporally suppress the activity of feral cats at a site containing the sole wild population of an endangered macropod subject to feral cat predation (the bridled nailtail wallaby).

Methods: We used camera traps to compare coarse and fine-scale spatial associations and overlaps in activity times of mammals between August 2009 and August 2010.

Key results: Dingoes and cats used the same areas, but there was evidence of higher segregation of activity times during wet months. Potential prey showed no spatial avoidance of dingoes. Peak activity times of dingoes and their major prey (the black-striped wallaby) were segregated during the wetter time of year (December to March). We did not find evidence that cats were spatially excluded from areas of high prey activity by dingoes, but there was low overlap in activity times between cats and bridled nailtail wallabies.

Conclusions: These findings support the contention that fear of dingoes can sometimes affect the timing of activity of feral cats. However, cats showed little spatial avoidance of dingoes at a coarse scale.

Implications: Control of dingoes should not be abandoned at the site, because the potential moderate benefits of reduced cat activity for this endangered and geographically restricted wallaby may not outweigh the detrimental effects of dingo predation.

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