

Australia has a long history of poisoning its dingoes (*Canis lupus dingo*), which have an unfair reputation of preying on sheep and other livestock.

By [John R. Platt](#) on March 20, 2014



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Australia has a long history of poisoning its dingoes (*Canis lupus dingo*), which have an unfair reputation of preying on sheep and other livestock. But according to a new study, killing the country's native canines may have had unintended consequences, dramatically impacting the biodiversity in regions where dingo populations have been reduced or removed.

The study, conducted by researchers from the University of New South Wales (UNSW) and other institutions, looked at 14 forested sites in that southeastern Australian province. Half of the sites experienced dingo poisoning during the prior five years. The rest had minimal dingo control efforts. The sites were divided into seven pairs, each with one poisoning site. The researchers then studied the local flora and fauna by directly observing them, identifying footprints and capturing small mammals in baited traps.

The results were striking: In each of the areas where dingoes had been poisoned, the researchers found increased numbers of large plant-eating mammals, such as kangaroos and wallabies. These places also harbored higher numbers of red foxes (*Vulpes vulpes*), one of the worst invasive species in Australia. All of those species normally make ready prey for dingoes and they appear to have thrived in the latter's absence.



But that wasn't all. Both the herbivores and the foxes needed more food as their populations increased. The researchers found that grazing by the kangaroos and wallabies reduced the amount of vegetative ground cover available to a variety of small mammals and rodents such as possums and bandicoots. This decline then appears to have exposed the smaller animals to predation by the foxes, causing their populations to drop.

"Predation by foxes is one of the most important threats to small native mammals," the study's lead author, UNSW fellow Mike Letnic, said in a press release. "Dingoes should not be poisoned if we want to halt the loss of mammal biodiversity in Australia." He called the poisoning of dingoes "counterproductive for biodiversity conservation," although he acknowledged that either maintaining or restoring dingo populations would be controversial. "We need to develop strategies to maintain the balance of nature by keeping dingoes in the bush, while minimizing their impacts on livestock," he said.

The study was published March 11 in *Proceedings of the Royal Society B*. *Dingo photo by Pavel Sigarteu. Red fox photographed in NWS by Harley Kingston. Both used under Creative Commons license*

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