



## KILLING PREDATORS TO PROTECT LIVESTOCK DOESN'T SEEM TO WORK

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Should predators like wolves, mountain lions, and bears be killed to protect livestock? It's one of the most ethically controversial issues around—but ethics aside, evidence suggests that it just doesn't work.

So concludes a review of scientific studies of so-called predator control and its effect, or lack thereof, on livestock losses. [Published in the journal \*Frontiers in Ecology and Environment\*](#), the results are not pretty. Predator control is described as “a shot in the dark.”

The review's authors, led by environmental scientist Adrian Treves of the University of Wisconsin and biologist Jeanine McManus of Slovenia's University of Ljubljana, surveyed the literature on predator control and livestock in North America and western Europe. The literature was uneven: only a dozen studies met academic standards from which inferences could be made about their conclusions.

Of these studies—involving wolves, coyotes, Eurasian lynx, black and brown bears, and cougars—seven involved lethal methods. Of these seven studies, just two described how a decrease in livestock predation followed the killing of predators. The other studies found no effect, or even an increase in predation. Meanwhile, of five studies of non-lethal methods, such as using guard dogs or hanging warning flags, four resulted in reduced predation.

To be sure, these studies had issues. Few rose to gold-standard status; variables like weather and disease were frequently unaccounted for. The review itself isn't a conclusion so much as a reckoning with a lack of good evidence. “Until gold standard tests are completed,” write the researchers, “the resulting

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uncertainty about the functional effectiveness of killing predators should guide evidence-based policy to non-lethal methods.”

That message comes at a tense moment. In the US, the headline-grabbing slaughter of Washington’s [Profanity Peak wolf pack](#) is only the latest episode in a years-long fight over wolf management in western and upper midwestern states. Mountain lion hunting is similarly contested, as is the status of grizzly bears, black bear hunts, and coyote killing.


The new study certainly won’t be the last word on these issues. They’re messy and complex, and often as much about politics and cultural identity as rationality and evidence. Still, note Treves and McManus, the federal and state agencies usually tasked with managing these programs are supposed to use the best available science. As of now, they’re not.


“We recommend that policy makers suspend predator control efforts that lack evidence for functional effectiveness,” write Treves and McManus, and “that scientists focus on stringent standards of evidence in tests of predator control.” Of the various reasons for killing predators, habit is a bad one. —**Brandon Keim** ([Twitter](#) / [Facebook](#)) | 14 September 2016

**Source:** Treves et al. “[Predator control should not be a shot in the dark.](#)” *Frontiers in Ecology and Evolution*. 2016.

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