Legal culling of wolves increases poaching: study

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For decades, local and national authorities in Europe and the United States have authorised the controlled killing of wolves within the framework of conservation efforts

Allowing the legal culling of wild wolves in order to discourage illegal poaching is counter-productive, researchers reported Wednesday in a study that challenges long-practised conservation strategy.

During a 15-year period when wildlife management policies in two US states flipped half-a-dozen times, growth in wolf populations slowed systematically whenever culling was permitted, even after controlling for the number of animals legally killed, they found.

"Ours is the first study to quantify this mechanism," said Guillaume Chapron, a professor at the Swedish University of Agricultural Sciences in Riddarhyttan, of the research published in the journal *Proceedings of the Royal Society B*.

"What we found is that when the government allowed culling, the wolf population grew 25 percent less," he told AFP. "And this is due to poaching."

For decades, local and national authorities in Europe and the United States have authorised the controlled killing of wolves, bears, big cats and other endangered species within the framework of conservation efforts.

In calling for the removal of protected status for grizzlies in Yellowstone Park, for example, the US Fish and Wildlife Service argued earlier this year that legal hunting would "increase tolerance and local acceptance of grizzly bears and reduce poaching."

Governments in Norway, Sweden, Finland, France and other European countries have put in place similar policies, even as they acknowledge that there was no scientific literature to back up their claims.

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In Finland, for example, 20 percent of the wolf population was legally eliminated last year, roughly 50 out of 250 individuals.

To see if this widespread approach actually works, Chapron and Adrian Treves of the University of Wisconsin took advantage of a legal tug-of-war between wildlife advocates and state governments in Wisconsin and Minnesota that resulted in twelve distinct time periods when culling was alternately allowed and banned.

Fair game

"For us scientists, it created a quasi-experiment that we would never have been able to set up otherwise," Chapron said.

But once the researchers had determined that wolf numbers declined even beyond the number culled during periods of legal hunting, they still had to figure out why.

One hypothesis was that the wolves somehow knew that they were suddenly fair game and migrated across state lines beyond the reach of hunters.

This, obviously, was more than unlikely. A second theory, however, was harder to dismiss.

People take part in a demonstration of several wildlife conservation associations, to protest against the hunting of wolves, in Nice, south-eastern France, in January 2016

Sometimes populations of big carnivores—which require large areas to hunt—hit a saturation point, something scientists call "density dependence."

It was theoretically possible that this had happened each time culling was authorised, thus accounting for the reduced rate of growth.

But that would only be true if there was less breeding, which turned out not to be the case.

"What remained—the only other plausible explanation—was illegal killing, or poaching," Chapron said.

Exactly why people might feel more inclined to kill endangered species when culling is allowed is a question for social psychologists, he added.

But other research has suggested that when governments start to dispatch big carnivores, or issue permits for other to do so, it leaves the impression that the animals are not truly in need of protection.

"Maybe the poacher is thinking, 'OK, now the state is killing wolves, so why can't I do it myself?'," Chapron said.

More information: Blood does not buy goodwill: allowing culling increases poaching of a large carnivore, *Proceedings of the Royal Society B*, rspb.royalsocietypublishing.or … .1098/rspb.2015.2939

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