WOLVES:

Old fur trade records show predator has ripple effect on ecosystems

Joshua Learn, E&E reporter E&ENews PM: Monday, June 16, 2014

What does the fox say? Bring on the wolves.

A study released today unearthed historical fur trade records to find that having more wolves in an area controls coyote numbers and bolsters the number of red foxes. It could have implications for disputes over coyote control as well as the reintroduction of wild gray wolves into different states.

"It's another piece to the puzzle that should be considered that wolves work as a natural controlling measure over coyotes," William Ripple, a professor of ecology at Oregon State University and one of the authors of the <u>study</u> released today in the *Journal of Animal Ecology*, said in a phone interview.

The study looked at fur trade records going back as far as 1919, maintained by states and Canadian provinces, to get an idea of fox and coyote populations. It compared those records with historical knowledge of gray wolf ranges from Alaska all across Canada and in Maine and found that as gray wolves proliferated, they competed with coyotes but seemed to bolster the population of red foxes.

"As wolves were extirpated across the southern half of North America, coyotes dramatically expanded their range," said Thomas Newsome, a postdoctoral researcher at OSU and the other author of the study, in a release. "They were historically located in the middle and western United States, but they dispersed all the way to Alaska in the early 1900s and to New Brunswick and Maine by the 1970s.

"So essentially, coyotes have been dispersing into wolf and red-fox range in the north but also into areas where wolves are absent but red fox are present in the East."

Ripple said there could be "broader implications" for management of these species, particularly in states that are struggling with coyote control programs as well as the reintroduction of gray wolves. "It's a piece of ecological research that might be of use to some policymakers, in some cases."

The researchers said their study shows removing top predators can cause large shifts in ecosystems. "This study gives us a whole other avenue to understand the ecological effects of wolves on landscapes and animal communities," Ripple said in the release.

Conservation groups are challenging some coyote control programs because they say the programs are inhumane and ineffective overall. Coyotes are highly flexible and adaptable and have escaped numerous attempts at controlling their numbers over the years.

A debate has also been brewing over wolves' endangered status. Fish and Wildlife Service Director Dan Ashe said last week that the agency will continue with its year-old plan to delist gray wolves because the animals' numbers and range have increased over the past few years (<u>E&ENews PM</u>, June 13).

But conservationists and scientists alike have challenged this move after an independent scientific peer review found that FWS didn't rely on the best science available in making this decision.

Ripple said in the interview that shifts in wolf numbers could affect the animals that coyotes and red foxes eat as well: "The cascades may continue beyond just the coyotes and the foxes. It may extend to the prey of these species." In another study, he found that where coyotes are highly abundant, they have been known to prey on endangered species such as the black-footed ferret or the pygmy rabbit.

"This study gives us a whole other avenue to understand the ecological effects of wolves on landscapes and animal communities," Ripple said in the release.

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