Fresh look at the wolf-grizzly relationship

An essay on the Yellowstone study that shows these predators' fascinating survival dance.

High Country News, Op-Ed - October 23, 2013 by Paul VanDevelder

A study by Oregon State University ecologist Bill Ripple has, for the first time, linked the welfare of wolves to the welfare of grizzly bears in the Yellowstone National Park ecosystem. This was big news when the story broke in August, which means that either the story hit during the doldrums of the 24/7 news cycle, or that grizzly bears and wolves have been promoted to front-page fodder by the mainstream press.

My guess: It was probably a bit of both. My reaction to the stories about this new study was a resounding, "Duh." I've been reading and writing about wildlife recovery for a very long time, so this kind of biological symbiosis seemed a given.

I reached Bill Ripple about a week after the study was published in the Journal of Animal Ecology, just as the newspapers began reacting to his findings. Most treated the story as if Bigfoot had been caught on a security camera stealing candy bars from a 7-11 store, i.e., as a huge and unexpected surprise.

Wolves and grizzlies: How could this be news? I asked Ripple. Weren't these creatures top predators that coexisted on the American High Plains for thousands of years? Yes, he said, adding that his study's findings have as much to do with politics and the courts as they do with critters in the wild. How so? I asked.

The impetus for Ripple's study came in 2011, when the U.S. Fish and Wildlife Service removed the wolf from the endangered species list. Wolf killing resumed immediately after an 85-year hiatus; 1,500 wolves have already been killed in Idaho alone. At the same time, the U.S. Fish and Wildlife Service decided to delist Yellowstone's grizzly bears, though the 9th Circuit Court of Appeals wasn't buying it. The court ruled that the federal agency had not adequately explained how the demise of the whitebark pine, a principal high-country food source for the bears, would not threaten their already precarious existence. These concurrent events prompted a "green fire" moment for Ripple — a reference to Aldo Leopold, the father of the modern conservationism, who described the light he saw in the eyes of a dying mother wolf. That green fire led Leopold to the realization that predators were intrinsic to the natural world.

Though Ripple said he had studied Yellowstone wolves since their reintroduction in the mid-1990s, he decided he needed to make a closer and more detailed investigation of the relationship between wolves and grizzlies. What he discovered turned out to be very old news. The symbiotic relationship between the wolf and the grizzly was documented in petroglyphs on cave walls. These two beasts of the Northern wild have been engaged in a fascinating survival dance that began at the end of the last Ice Age.

Ripple's findings stand on the shoulders of his earlier work on the ecological effects of wolves and elk, which found that the re-introduction of wolves to Yellowstone reduced the size of the elk herd, and, in turn, relieved foraging pressure on berry-bearing shrubs that comprise a critical food source for other species, including grizzlies. Surprise #3,474: All of these relationships come back to food and how one species impacts the food sources of another.

"We developed four different data sets to show that the re-introduction of the wolf to Yellowstone has had much deeper and more far-reaching effect on the flora and fauna of that ecosystem than we realized," said Ripple.

As wolves reduced the size of the elk herd in the Yellowstone ecosystem, chokecherry, serviceberry and huckleberry flora began to rebound and flourish in a long-term phase of "passive restoration," Ripple said. In time, and as other food sources declined, berry production might become more and more important as a source of nutrition in the grizzly bears' diet.

It's humbling, Ripple added, to realize that the cascading effects of wildlife management, or mismanagement, roll in both directions. If too many wolves are killed, the consequences could affect many other species.

"But if we let passive restoration run its course, we might just see some remarkable things happen," said Ripple. The riparian environment could once again become vibrant nurseries for birds, beaver, and a number of smaller critters. If you kill too many wolves in Yellowstone, however, their population could drop below the threshold essential to maintaining a vigorous and resilient ecosystem.

If that happens, we might as well paint over the petroglyphs, cage the animals, pave the parks, dam the last free-flowing rivers, turn the last old-growth forests into toothpicks and stop pretending that we cherish the wild.

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