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THE BASICS

Yellowstone's Wolves Save Its Aspens

By CHRIS CONWAY

Aspens may be symbols of the West, but over the last half century, they've been disappearing from the Lamar Valley of Yellowstone National Park. The reason is not a mystery. The elk that winter there were eating the young aspen shoots before they had a chance to grow.

But over the last few years, the trees have been making a comeback. Scientists credit the wolves that were reintroduced to Yellowstone in 1995 after an absence of nearly 70 years.

Wolves eat elk, of course, at an average of one elk per wolf per month in winter, according to park statistics. But the return of aspens to the Lamar Valley is not simply the product of the old ecological formula, predator eats prey.

It may also have something to do with fear, according to a new study by scientists at [Oregon State University](#).

Despite the presence of wolves — more than 50, in at least six packs — at least 6,500 elk roamed the study area, more than enough to continue the plunder of the aspens.

But the study found that an “ecology of fear” has helped to restore balance to the valley, protecting young aspen shoots from browsing elk for the first time in decades.

William J. Ripple, a professor in the university's College of Forestry and an author of the study, said aspens were recovering in areas where it would be difficult for elk to escape a wolf attack.

“We think these elk need to balance the risk of being killed versus eating in their favorite places. So it's a trade-off between food and risk in an ecology of fear,” he said.

Another of the authors, Robert L. Beschta, an emeritus professor at the university, likened the situation to doing research in grizzly bear country, something he has done.

“When I'm in bear country, I change what I do,” he said. “I become more careful when I enter blind areas, places I can't see. We think elk are doing something similar. In tight situations where it's difficult for to an elk to see or escape a wolf, we're seeing increases in the vegetation growth. It's like they're afraid to go there.”