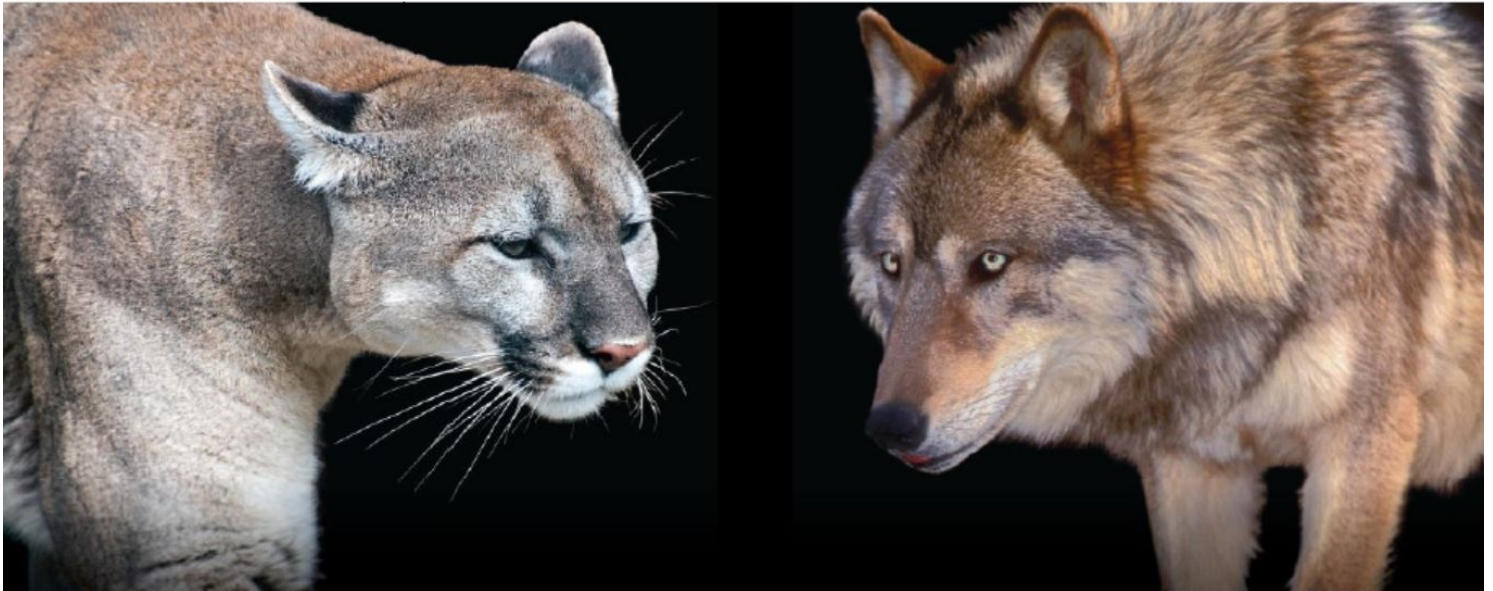


Departments

PREDATOR MANAGEMENT & CONTROL

Gentry Hale



Do Elk Fear Mountain Lions More Than Wolves?

While wolves are far more visible and vocal, cougars are the primary elk predator in much of the West.

When wolves were first introduced to Yellowstone National Park in 1995, they significantly altered the way that elk moved across the landscape. But now, elk appear to spend more time worrying about another apex carnivore. A new study conducted by Michel Kohl and Dan MacNulty, wildlife management and wildland resources professors at Utah State University, found that mountain lions are becoming the main predator influencing how elk move through the park.

The study examined the hunting patterns of the two predators and found lions typically hunt at night and favor rugged, forested areas. Wolves, on the other hand, tend to hunt around dusk and dawn in open sagebrush and large meadows.

Researchers found elk have grown wise and tend to avoid the riskiest zones of each predator during the deadliest times of day.

But that doesn't mean dodging these predators is easy. Elk make up 50 to 75 percent of mountain lions' diets in Yellowstone and up to 90 percent for Yellowstone's wolves. However, according to the research, mountain lions played a four times larger role than wolves in determining which habitats elk choose.

Mountain lions often hunt solo, using the cover of trees and rocks to ambush unsuspecting prey. Wolves rely much less often on the element of surprise, instead working together to outrun, corner

and overwhelm their prey. Because of this tactic, wolves are often on the move, wandering hundreds of miles in just a few days' time.

Yet for all that effort, wolf hunts only succeed about 10 percent of the time—pretty good odds for the elk. When a wolf approaches a herd, elk will likely stay put and continue grazing, especially in winter when the need to find food tends to outweigh the risks posed by wolves.

Yet they are extra cautious to stay away from forested, rugged terrain at night because they know that is where mountain lions lurk—and their hunting success rates are much higher than wolves.

Just south of Yellowstone, though, it may be that wolves should be striking fear in the hearts of lions. A 2020 study by L. Mark Elbroch and colleagues published in the *Proceedings of the Royal Society B* found that since their introduction in 1995, wolves have expanded enough in sheer number to outcompete mountain lions in and around the National Elk Refuge.

Elbroch found that wolves pushed mountain lions out of prime habitats and accounted for the majority of elk kills there. But there are also significantly fewer mountain lions in this region of Wyoming, making the predator and prey relationships different than in Yellowstone.

Farther west in the Blue Mountains of Washington and Oregon, elk contend with mountain lions, wolves and black bears (though no grizzlies). A new study there has found that cougars are by far their main source of predation.

The Blue Mountains elk herd is experiencing its lowest numbers in 30 years, down from 6,500 in the 1980s to around 4,500 today, including a big drop after the harsh 2016/17 winter.

To help understand survival and recruitment, Washington Department of Fish and Wildlife (WDFW) researchers collared 125 calves in the Blues last May. By January, only nine remained. Some calves managed to slip their collars and a few collars failed, but of the 114 that were recoverable, 77 had been killed by carnivores—and cougars claimed 54 of the 77. Black bears killed nine and coyotes killed three, while wolves were only responsible for two calves. A bobcat killed one, and the other eight predation incidents didn't provide enough evidence to positively identify a culprit, though cougars were suspected.

Although many other studies have found mountain lions wielded the largest predatory impact on elk, these might well be the most lopsided findings to date. The results took wildlife managers by surprise, and this summer, they plan to consider proposals to help increase calf survival, including boosting cougar harvest. After wildlife managers found cougars were the top predator of elk in and around Montana's Bitterroot Valley, they increased hunting opportunities for the cats. Some Washington counties are looking to follow a similar path, asking WDFW to extend the mountain lion hunting season in hopes of reducing the number of predators.

Washington does not allow hunting with hounds, which is by far the most effective technique.

"Obviously, [cougar hunting] success rates are very low so we are only asking for an extended opportunity to harvest additional cats and possibly higher quota numbers," said Jim Nelson, Garfield County commissioner in southeast Washington.

California banned mountain lion hunting entirely in 1990, and ballot measures in Oregon and Washington outlawed the use of hounds for hunting them in 1994 and '96 respectively. But other western states are taking the opposite tack, loosening restrictions, lengthening seasons and increasing harvest quotas. Utah Division of Wildlife recently approved a plan allowing almost unlimited hunting of mountain lions, which some fear could be unsustainable.

No matter what the situation, solid, research-based data is key to understanding the forces at work within incredibly complex ecosystems. When predation combines with widespread habitat of low nutritional value to elk, as in big parts of the Blue Mountains, it can have serious consequences for elk herds—and the people who love to hunt them.

RMEF's take:

Wolves are far more visible and vocal predators than mountain lions, but they rely primarily on hunting in packs to succeed. Individually, lions are unquestionably the world's most proficient elk hunters, employing almost all the same hunting tactics humans do, but with fangs and claws as their only weapons. Mountain lions and elk have constantly shaped one another since the last Ice Age in North America and share remarkable overlap in habitat from the southern Yukon to Coahuila in northern Mexico.

Ultimately, both species have the same basic needs: big, wild places with viable corridors connecting them. RMEF has invested more than \$1.2 million to fund over 70 research projects since 1989, helping managers better understand how wolves, lions, black bears and grizzlies shape populations and behavior of elk and other big game—and each other.