

New Report Reveals Mountain Lions Mitigate Spread of Brain-Wasting Disease Plaguing Deer and Elk in Colorado

Trophy hunters kill adult mountain lions experienced in killing traditional prey, impairing big cats from removing neurologically impaired deer and elk

GRAND LAKE, COLORADO, USA, August 23, 2024 /EINPresswire.com/ -- A new report by Jim Keen, DVM, PhD, a former USDA veterinarian and infectious disease scientist, reveals that mountain lions play a key role in reducing the spread and the incidence rate of Chronic Wasting Disease in deer and elk, which is currently infecting 42 out of 51 deer herds and 17 of 42 elk herds in the state. CWD, a fatal neurological disease without a cure, is increasingly recognized as a long-term threat to the state's billion-dollar-a-year elk and deer hunting seasons.



A rogue abnormal infectious protein called a prion is the infectious agent of CWD, spreading via urine, feces, and saliva and indirectly by contact with a contaminated environment. Public health officials advise against consuming deer or elk meat from CWD-infected harvested animals because of its potential to infect humans.

The new report titled, "[Big Cats as Nature's Check Against Disease](#)," outlines how mountain lions preferentially prey on sick deer and elk offering major ecological and economic benefits to Colorado. Their predation can reduce the incidence of CWD and underscores the ability of native cats to cleanse deer and elk herds of the brain-wasting disease detected in Colorado in the late 1960s.

"With no vaccine or cure for Chronic Wasting disease, wildlife managers are struggling to find solutions," notes Dr. Keen, who is now the director of veterinary science for the Center for a Humane Economy. "Perhaps the best policy response at the moment in Colorado is to stop killing 500 or so mountain lions a year that conduct population cleansing at no cost to the state and that protect the long-term health and viability of cervid populations."



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Elaine Leslie, former Chief of Biological Services, National Park Service

The report details five lines of evidence supporting predator cleansing:

1. Predator-prey ecology & disease modeling: Mathematical models suggest that predation by mountain lions (and also wolves) can significantly reduce CWD prevalence over time.
2. Empirical observations: Field studies in Colorado show that mountain lions are more likely to prey on CWD-infected deer compared to healthy deer.

3. Laboratory experiments: Research indicates that coyotes, mountain lions, and bobcats can inactivate CWD prions during digestion, reducing environmental contamination. If not ingested by a predator, the prion can survive in the environment for years and perhaps even a decade.

4. Disease biogeography: Areas with ecologically healthy and wolf or mountain lion populations with no or low hunting pressure tend to have much lower CWD prevalence than areas without these apex cervid predators.

5. Negative spatial correlation: Maps of North America show a negative association between predator distribution and CWD occurrence.

The new report implicitly calls into question the long-standing practice of trophy hunting of mountain lions in Colorado, which is the state where CWD first began its spread in North America.

Trophy hunting of mountain lions has become more high-tech and commercialized, with guides guaranteeing kills of trophy cats, mainly for out-of-state hunters. The hallmark of trophy hunting is to kill large-bodied animals, with the seasonal take being about 500 lion a year (with 53% male and 47% female, in the 2023-24 season). The killing of mature adult males removes the most efficient animals skilled at killing traditional prey. And killing as many as 250 females, many of them with dependent young who are orphaned and die, depresses the recovery of the lion population and reduces the intensity of predation on infected deer and elk.

"You don't have to be a wildlife biologist like me to understand that mountain lions play a critical role in Colorado and Western ecology," said Elaine Leslie, PhD, a wildlife biologist in Durango and former Chief of Biological Services for the National Park Service. "These animals are an antidote to disease in deer and elk, selectively removing animals that threaten to spread disease and ensuring the protection of Colorado's biodiversity and a key part of our rural economy."

Long-Term Effects from CWD Spread on Deer and Elk Hunting

Even major hunting groups recognize the long-term threat of CWD to the health of prey populations. [CWD is “the biggest threat to the future of deer hunting”](#) according to the Teddy Roosevelt Conservation Partnership, while the National Deer Association calls CWD “the most serious long-term threat to the future of wild deer and deer hunting that we face today”.

“These predators are often seen as competitors with hunters, but they appear to play a vital role in stemming more extreme spread of CWD,” noted Dr. Keen. “In short, if you want to protect hunting and other forms of wildlife-associated recreation associated with deer and elk, then protect mountain lions and allow them to deliver their gratis predator-cleansing services. Mountain lions are a deer and elk hunter’s best friend.”

When CWD becomes endemic and highly prevalent in deer and elk populations, as it has in parts of Colorado, Wyoming, Wisconsin, and Pennsylvania, it threatens to slowly erode cervid productivity and may make deer and elk hunting unsustainable. According to population models, CWD may, over a 50-year horizon, substantially reduce or even end hunter take in large parts of Colorado. The direct economic value of deer and elk hunting and wildlife watching likely exceeds a billion dollars annually in Colorado; that means that passing a lion hunting ban would provide billions in practical services and value in the decades ahead.

“Since all human efforts to control CWD to date over the past 50 years have failed, maintaining ecologically viable apex predator populations represents our best hope at controlling CWD,” noted Col. Thomas Pool, a lifelong hunter and rancher from southwest Oklahoma and former chief of the U.S. Army Veterinary Command. “Ending trophy hunting of mountain lions in Colorado is critical to maintaining the billion-dollar deer and elk hunting and wildlife watching economies across Colorado.” Dr. Pool is senior veterinarian with Animal Wellness Action.

“Mountain lions also have the effect of limiting densities of deer and elk that would otherwise swell deer-auto collisions and deer depredation losses in the agriculture and forestry sectors,” added Delia Malone, a working field ecologist on Colorado’s West Slope where she conducts ecological and biological surveys as she has for several decades.

Report author Jim Keen, DVM, PhD, director of veterinary science at the Center for a Humane Economy, is a former infectious disease researcher with the U.S. Department of Agriculture and worked at the U.S. Meat Animal Research Center in Clay Center, Neb. He was also a faculty member of the University of Nebraska School of Veterinary Medicine and Biomedical Science. As a USDA scientist, he deployed to respond to infectious disease outbreaks, including virulent Newcastle disease, Foot and Mouth disease, and African Swine Fever.

For More Information

Link to the new report, “Big Cats as Nature’s Check Against Disease”:

<https://bit.ly/NaturesCheckAgainstCWD>

Link to the [Dropbox of assets for reporters:](https://bit.ly/CATs_MountainLions)
https://bit.ly/CATs_MountainLions

ABOUT:

Cats Aren't Trophies (CATs)

CATs is a ballot measure for Colorado voters in November to vote "YES" to protect mountain lions, bobcats and lynx of Colorado from ruthless trophy hunting for heads and trapping for fur, while maintaining professional management by Colorado Parks and Wildlife for individual cats that pose a risk to humans and domestic animals, including livestock and pets. Colorado Parks and Wildlife (CPW) has stated its neutrality on the measure, explaining that the agency "will diligently implement all laws passed by the Legislature and the Governor or by the voters."

Animal Wellness Action is a 501(c)(4) whose mission is to help animals by promoting laws and regulations at federal, state and local levels that forbid cruelty to all animals. The group also works to enforce existing anti-cruelty and wildlife protection laws. Animal Wellness Action believes helping animals helps us all. Twitter: @AWAction_News

The Center for a Humane Economy is a 501(c)(3) whose mission is to help animals by helping forge a more humane economic order. The first organization of its kind in the animal protection movement, the Center encourages businesses to honor their social responsibilities in a culture where consumers, investors, and other key stakeholders abhor cruelty and the degradation of the environment and embrace innovation as a means of eliminating both. The Center believes helping animals helps us all. X: @TheHumaneCenter

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