

What has happened to Colorado's deer?

GUNNISON, Colo. (AP) — Tom Henry stands, arms outstretched, as if trying to embrace the country he's lived in for the last 18 years and hunted in for more than twice that long.

Standing along a narrow country road west of Gunnison, he reaches toward the distant horizon, his arms marking a 90-degree arc with its farthest boundary the snow-capped peaks of the Continental Divide.

Thirty years ago, the country you see out there had some of the best deer hunting in the state, and possibly the West, said Henry, who grew up on the Front Range but spent nearly every fall in the mountains and sage-covered hills around Gunnison. "I really don't think you could go anywhere else and find the number and quality of deer you could find here."

If there is one thing most hunters feel comfortable talking about, it's the past. The good old days, particularly for deer hunting, when the hunting was better. When there were more animals and fewer hunters.

Back then, so the stories go, there were more deer growing bigger antlers, and even a casual hunter could find a near-record-book buck without much trouble.

Now, listen to any gathering of deer hunters and the growling you hear is not from empty stomachs. It comes from empty hopes of ever seeing deer as plentiful as they were even two decades ago.

"Ten or 20 years ago, you could kill a real decent buck without hunting too hard," said Jack Lowe, past president of the Colorado Outfitters Association. "Now you're darn lucky or you worked real hard if you shoot a four-point buck."

Lowe said of the 14 hunters he guided last fall, only one managed to kill a deer. And that was a "mediocre two-pointer," Lowe said.

What happened to Colorado's deer herds in the last 20 years? Have mule deer herds skidded to the edge of depletion? Are drastic changes in hunting seasons and license numbers needed to make sure enough mule deer — particularly the larger bucks demanded by hunters — live

to maturity?

The answers are as elusive as a timberline buck. While the annual harvest numbers compiled by the Colorado Division of Wildlife indicate the overall kill remains close to long-term average, there is a fast-growing sense of dissatisfaction among hunters, outfitters and wildlife watchers.

The crux of the problem is illustrated by the post-hunt population numbers published last year by the Division of Wildlife. According to the division's count, there were 530,400 deer in Colorado, including mule deer and white-tailed deer. It is that number on which the division bases the number of licenses issued for the next year for each game-management unit in the state.

Many hunters and outfitters, however, scoff at these numbers. They say the division's estimates are a far cry from reality, and that the division continues to issue too many deer licenses.

Many of these people say Colorado, and much of the West, is going through a mule deer crisis, with big-antlered bucks more than 5 years old in especially short supply.

Even the division's numbers, maligned by hunters, show a decline since the early 1980s. The division's population estimate in 1981 indicated there were 64,000 more deer in the state than there were last year; the numbers peaked most recently at an estimated 609,000 deer in 1989.

But no one can agree on why the numbers are down — or what to do next.

Division of Wildlife researcher Dick Bartmann, who has studied Colorado's deer herds since the mid-1970s, admits the division's deer-population data are inadequate. No one ever counted deer numbers, except in limited study areas, because other data seemed more important.

"Nobody is arguing (whether) deer are down," Bartmann said. "The question is, how much are they down?" He has no definite answer to the question of what's happening to Colorado mule deer, but he maintains that draconian measures, such as forbidding nonresident hunters

from obtaining deer licenses, are not yet needed.

Weather has more of an effect on the deer herds than hunting pressure, he said. One of the suspected causes of fewer deer is the state's burgeoning elk herds. No doubt elk have become the darlings of the big-game management program in Colorado, both from a revenue standpoint and hunter demand. Last fall, hunters killed a record 55,000 elk — more than three times the number harvested 30 years ago.

The wildlife division attributes \$260 million in annual expenditures in Colorado to elk hunting, compared with \$245 million to deer hunters. Elk can out compete deer for habitat, can survive on lower-quality forage than deer, are better winter survivors and physically dominate limited habitat. Elk are literally pushing deer to the edge.

Other contributing factors identified by Bartmann and other researchers include drought, severe winters, predation, disease, increasing hunter pressure, changes in land use and earlier over harvest of antlerless deer.

But there is nothing to say which one — or if any one — is the leading cause.

There has been a decline in deer from 30 years ago — but that's good, most biologists agree. There were too many deer in the 1960s for the habitat to support.

The unanswered question for the mid-1990s is why so many people say mule deer herds are way down.

Competing interests put the burden of proof on the biologists. Demands for exact population numbers, fawn survival, winter kill, predation — it becomes a clamor for information, much of which the Division of Wildlife just doesn't have.

Dick Bartmann is more forthright. "I hate to say we don't know, but we don't, and we might as well admit it," he said. He pointed out that the buck deer harvest seems to fluctuate in 10-year cycles since the early 1960s.

"But if it (deer numbers) is turning around, it's slower than usual," Bartmann said. "And if so, what is keeping them down?"

Playing God
in Yellowstone
*The Destruction of America's
First National Park*

by ALSTON CHASE



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How did they know that no animals had suffered from competition with elk? Their claim puzzled many biologists, yet was hard to challenge. It was easy to prove the potential for competition but nearly impossible to *prove* it existed, at least until it was too late. Professor Peek told me recently,

Anywhere you have a lot of elk, you see few other ungulates. This is now occurring in northeastern British Columbia, where there has been a dramatic increase in elk and a decrease of moose. In the Selway [Idaho], which is a major elk range, you do not see deer, nor do you see moose. This is not hard to understand. The elk is a strong competitor; it is gregarious, its forage habits overlap all the other major species. When you have that kind of competition from an animal so much more adaptable than any of the others, the question of competition does come into it.⁷³

But proving that the competition was there was another matter. Without collars or tags the actual number of any species could not be known. Counting thousands of animals, some hidden among trees, while flying in a Piper Cub at ninety miles an hour, even in perfect weather, involved as much guesswork as calculation. Besides, sometimes competition showed itself indirectly. Often the immediate cause of a decline was disease. How could we know when an epidemic was “natural” and when it was caused by poor nutrition or stress from competition?

How did they know the decline of browse was due entirely to dry weather and suppression of fire and not to grazing?

No one doubted the importance of weather or the benefits of fire to rangeland. Some scientists were surprised by the certainty with which park biologists concluded that the decline of browse was *entirely* caused by these factors.

Although some years in the late nineteenth century were slightly colder and damper than average, long-term studies showed that Yellowstone was not drying out. Indeed, according to Richard A. Dirks of the Department of Atmospheric Science of the University of Wyoming, “No long-term trends are evident in the data from Yellowstone Park.”⁷⁴

The record for fire was similar. Forests in the entire West had the same fire history as Yellowstone. Why had aspen and willow not disappeared everywhere? Park biologists provided little evidence to support their view. Houston, J. R. Habeck, Professor of

67. Captain F. T. Arnold, Acting Superintendent, Yellowstone National Park, to Secretary of the Interior, April 5, 1916, Yellowstone Archives, box no. 89; Report of Elk Census by Vernon Bailey, March 2-14, 1916, reporting 11,564 elk, Yellowstone Archives, box no. 89; letter from Colonel L. R. Brett, Acting Superintendent of Yellowstone, to the Secretary of the Interior, May 5, 1916, Yellowstone Archives, box no. 89.
68. Houston, *Northern Yellowstone Elk*, pp. 12-15. In 1933 Aldo Leopold cited these early counts as examples of "a dependable census" (Aldo Leopold, *Game Management* [New York: Charles Scribner's Sons, 1933], p. 144).
69. Interview.
70. James M. Peek, "On Counting Elk," *Bugle*, vol. 2, no. 1, 1985. In an interview with Yellowstone Park biologists in February 1984, I was told that they could not estimate the efficiency of their elk counts.
71. Houston, *Northern Yellowstone Elk*, pp. 12-15.
72. Houston, *Northern Yellowstone Elk*, p. 14; *Superintendent's Monthly Reports*, March and April, 1920; U.S. Weather Bureau, "Annual Meteorological Summary"; Edgar H. Fletcher, "Climatic Features of Yellowstone National Park," *Scientific Monthly*, vol. 25, October 1927, pp. 329-336.
73. Interview; Ian McTaggart Cowan, "Range Competition Between Mule Deer, Bighorn Sheep and Elk in Jasper National Park, Alberta," *Twelfth North American Wildlife Conference*; Edward P. Cliff, "Relationships Between Elk and Mule Deer in the Blue Mountains of Oregon," *Fourth North American Wildlife Conference*.
74. Richard A. Dirks, "Climatological Studies in Yellowstone and Grand Teton National Parks," 1974, Department of Atmospheric Science, University of Wyoming; Arthur V. Douglas and Charles W. Stockton, "Long-Term Reconstruction of Seasonal Temperature and Precipitation in the Yellowstone National Park Region Using Dendroclimatic Techniques," prepared for the National Park Service, Yellowstone Library, June 1975; Charles W. Stockton, "A Dendroclimatic Analysis of the Yellowstone National Park Region, Wyoming-Montana," prepared for the National Park Service, Yellowstone Library, 1973. Results of the tree-ring analysis were not consistent with the historical record, and showed that summers since 1850 were on the average drier throughout the northern Rockies than those earlier. This drying, however, would not explain the decline of vegetation that has occurred in Yellowstone since 1930.
75. J. R. Habeck, comments on Douglas B. Houston's "Wildfires in Northern Yellowstone National Park," reviewed for *Ecology*, October 13, 1972. Quoted with permission of the author.
76. Houston, "A Comment on the History of the Northern Yellowstone Elk"; Caughley, "What Is This Thing Called Carrying Capacity?"
77. National Park Service, *Final Environmental Statement, Yellowstone National Park Master Plan* (Denver: Midwest Regional Office, 1974), p. 30.
78. Federal Trade Commission survey, 1982; Consumer Preference Corporation survey, 1977; *Livingston Enterprise*, October 14, 1982.
79. National Park Service, "Wilderness Recommendation, Yellowstone National Park," August 1972; Bruce M. Kilgore, "Fire Management Programs in National Parks and Wilderness," presented at the Symposium on the Field Effects of Fire, October 19-21, 1982, Jackson, Wyoming; Bruce M. Kilgore, "Restoring Fire to National Park Wilderness," *American Forests*, March 1975; Bruce M. Kilgore, "Fire Management in the National Parks: An Overview," *Proceedings, Tall Timbers Fire Ecology Conference No. 14*, 1976; National Park Service, "The Natural Role of Fire — A Fire Management Plan for Yellowstone National Park," 1983, Yellowstone Park files; National Park Service, "Final Environmental Assessment, Natural Fire Management Plan for Yellowstone National Park," 1981, Yellowstone Park files.

7. NATURE TAKES ITS COURSE

1. Interviews with Swenson and Nelson.
2. Douglas B. Houston, *The Northern Yellowstone Elk* (New York: Macmillan, 1982),