



YELLOWSTONE EXPOSED

One evening, I received an email from Professor Charles E. Kay. It is a description written by a person having seen Yellowstone before and after the wolves.

When I lived in Montana, I often made a trip to northern range in Yellowstone National Park (YNP) during late November to photograph rutting mule deer and bighorn sheep, as well as post-rut bull elk. Although I have read all the scientific reports, I was still shocked to see how things have changed. Gone are the bighorns, mule deer, and bull elk. So are all the professional wildlife photographers I once met on the winter range. Once I photographed thousands of elk in the Lamar and on Hellroaring, while today there are NONE. I did see a few elk around Mammoth, but I actually saw more elk in the town of Gardiner than in YNP.

Gone too were all the wolf packs as there are few animals for the wolves to eat left in the park aside from each other. The wolves, though, have still not figured out how to effectively kill bison, and bison have clearly increased and on my recent visit were distributed from Soda Butte Creek and the Lamar all the way down to just above Mammoth.

Things have changed outside the park too. There are now 100's of elk on private ground all the way down the Yellowstone Valley and into the Paradise Valley, where there were none before the wolf came. The state wildlife agency having cut two weeks off the general elk hunt and closed the late cow hunt many years ago when wolf predation first impacted the northern herd. Contrary to what one might expect, I saw very few mule deer outside the park despite the fact that two weeks had been cut from that general season, as well as for bighorns, I saw sheep where I had never seen them before as, for instance, on the road by the airport and by the Devil's Slide. Apparently the sheep are using the roads as an anti-predator device to avoid wolves.

Luckily, I had other business to attend to, but the wildlife of yesteryear is long gone. Blame it on Climate Change, as a recent writer in the New York times did.

Introduction

When the Europeans arrived, they started to eliminate Native Americans. These Native Americans were the keystone predators and they determined the distribution and abundance of elk, deer, and other ungulates, not carnivores. As the Native Americans were eliminated, it led to an abnormal increase in elk and other ungulates, while the ungulates, in turn, destroyed aspen and willows, causing the ecosystems to collapse and change states (Kay 2013).

The plan to reintroduce wolves in Yellowstone was motivated by the wrong belief that large numbers of wolves inhabited the ecosystem before they were eliminated by predator control efforts. However, evidence suggests that there were only a few wolves in Yellowstone between 1835 and 1876 because there were few ungulate prey. Early explorers reported seeing bison only three times, none of which were in the park, and they reported seeing elk on only forty-two occasions, or an average of one elk observation per party in eighteen days. When only one of the early explorers reported having seen a wolf, the most that can be said is that wolves were rare in the Greater Yellowstone Ecosystem during the period from 1835 to 1876 (Kay 1995).

During the 1920s, the US National Park Service exterminated wolves from Yellowstone National Park, while other federal and state agencies eliminated wolves from the remainder of the Greater Yellowstone Ecosystem.

In 1933, National Park Service policy stated, “No native predator shall be destroyed on account of its normal utilization of any other park animal” (Kay 1995).

In 1963, the National Park Service biologists said they were having a terrible problem with too many elk and deer. They talked about how they really needed to get wolves in there to reach a balance of nature. They had a sort of fantasy notion that if we had a few wolves, we could effectively control them. And in turn, the wolves would control these elk and deer, and they would have the willows back.

Under provisions of the Endangered Species Act of 1973, the US Fish and Wildlife Service (1987) formulated a recovery plan for wolves in the northern Rocky Mountains including Yellowstone. The plan called for reintroducing wolves into the Yellowstone Ecosystem and was supported by the Fish and Wildlife Service, the Park Service, and various environmental organizations (Kay 1995).

In 1987, the Recovery Plan for these creatures was completed and a draft *Environmental Impact Statement* was published, recommending experimental wolf populations be reintroduced to the three areas. The statement caused activists and stockmen to gnash their teeth and slobber at the mouth. The former didn't like the plan's provisions to permit shooting troublesome wolves, and the latter didn't like wolves, period. But unheard above this cacophony were scientists who harbored serious doubts about the proposition (Kay 1993).

Prof. Charles E. Kay (1993) gives voice to those concerns. In the August issue of "Peterson's Hunting Journal" he raised the question:

If wolves are brought back, how many are enough? The Recovery Plan announced that when 10 breeding pair of wolves remain three successive years in each area, wolves would be considered recovered and be removed from the Endangered Species list.

In 1988, the Senate-House Interior Appropriations Committee appropriated \$200,000 for the National Park Service and the US Fish and Wildlife Service to address issues related to restoring wolves to Yellowstone.

A simulation model of gray wolf recovery for Yellowstone National Park was developed based on observations of wolf predation in other areas. Based upon the behavior of this computer model, they reached the following conclusion documented in "*Wolves for Yellowstone? Vol. II, Research and Analysis, United States Forest Service, forwarded to Congress, 1990.*"

A Basket of Wishes and Clashes

There is no combination of choices where wolf predation has devastating consequences to elk (*Cervus elaphus*) populations in the park. The reason is that social behavior limits wolf densities so that the wolf population cannot attain total numbers high enough to depopulate the elk herd (Mark S. Boyce, from the University of Wyoming, Department of Zoology and Physiology, Laramie, WY 82071. (p. 3-5))

Research by Will Graves on Russian wolves showed that when the wolf population went up, prey population went down.

The US Fish and Wildlife Service concluded that potential conflicts with hunting would be of no concern: "*It does not appear necessary that wolf predation requires that hunting opportunities be reduced (pp. 3-42).*"

Hunting in an area fifteen miles wide and sixty miles long north of Yellowstone has been ruined, because wolves have decimated elk in the area.

The Executive Summary on **“Potential Impact of a Reintroduced Wolf Population on the Northern Yellowstone Elk Herd”** states that the elk population would decrease somewhat, but that the decrease would not exceed 10% under the conditions modeled. The report concluded that if other factors remained within normal bounds, the relationship between predator and prey would be relatively stable and could therefore continue indefinitely (pp. 3–61)

“Effects of Restoring Wolves on Yellowstone Area Big Game & Grizzly Bears—Executive Summary, Opinions of Fifteen North American Experts.” If wolves are reintroduced, extinction of any prey species, elk, mule deer, moose, bison, pronghorn, bighorn sheep, and mountain goats, was thought to be extremely unlikely (pp. 4–54)

The report stated that there should be moderate to little change in elk behavior and distribution if wolves reintroduced. (p. 4-56)

Elk now cluster around park buildings. Elk have moved from mountains to lower levels into hay fields of private ranches.

General Impact on Ungulates, Prediction: “Since wolves prey upon weak and inferior animals, overall prey population condition would benefit from wolf introduction.” (pp. 4–68)

In the Mologo–Sheslshinskil Mezhdurech area the bodies of 63 moose killed in a five year period were examined. Of the 63, only nine had any defects. Five had defects in teeth, three defects in antlers, and one defects in its fore and hind hooves. The technical work done in a controlled area showed that the sanitizing role of the wolf in nature is overemphasized. (Graves 2007).

In 1994, there were 19,760 elk in Yellowstone; in 2010, only 4,600. Wolves have decimated many species of wildlife in Yellowstone. Now there are only about twenty to thirty moose in the park.

The Reintroduction

In 1991, Congress directed the US Fish and Wildlife Service to develop an Environmental Impact Statement for the purpose of reintroducing wolves into Yellowstone National Park (*Yellowstone Science* volume 13, number 1, winter 2005). In Janu-

ary 1995, fourteen wolves were captured from east of Jasper National Park, Alberta, Canada, and the wolves arrived in Yellowstone the same month. Seventeen additional wolves captured in Canada were released into the park in April 1996.

Again, all experts had forgotten the most important rule of evolution. It optimizes all species to adapt to their natural environment, and moving Canadian wolves to the United States is just another example of humankind's ability to mess with nature.

“Hell is full of good intentions, but heaven is full of good works.”

Robert T Fanning Jr. wrote (2007)

There are hundreds of cases of man monkeying around with the balance of nature and screwing things up. One of the best examples is the introduction of the mongoose into the Hawaiian Islands as a means for dealing with a huge and troublesome rat population. Those conscientious biologists, however, neglected to realize that the rat is a nocturnal animal, while the mongoose preys during the day. Their paths simply never cross, so today, Hawaii not only still has its rats, but it also has 100s of thousands of mongooses creating mayhem with rare ground nesting birds and other native species. This is just one example of the law of unintended consequences in dealing with wildlife. The unintended consequence to the Rocky Mountain States of the non native gray wolf is much more serious and not simply the consequence of a couple thousand extra wolves roving the countryside, but rather a much greater problem caused by the level of depredation of native species—elk and deer—than originally claimed.

Not only has the wolf program been the equivalent of a dangerous invasive species but elk counts are just in from the Lolo Districts 10 and 12 in Idaho. In District 10, the official elk count in 1995 was 9,729. The count just released is 1,473, — a population decrease of 85% from the pre-wolf program era. The adjacent District 12 yields a similar loss of 82% from its pre-wolf program days (Fanning 2007).

With the Wolves Comes the Diseases

Gray wolves are carriers of worms and parasites and pose significant danger to animals and humans. The problem in the western United States is the large wolf population, which is heavily infected with tapeworm, up to 63% carry *Echinococcus granulosus*, and regionally, it is up to 100%.

The deer and elk become infected with hydatid cysts in the lungs and liver before these big game animals come into the valley bottoms where they spend the winter.

It is fairly common in the west that elk and deer dwell around ranch buildings, farm buildings, and close to rural towns. Under those circumstances, there will be animals dying throughout the winter and the offal of these animals left outside. Rural dogs from nearby towns and ranches will surreptitiously go out and feed on the infected offal. When that happens, within a few weeks, the tapeworm develops in the gut of the dog, and the dog begins spreading millions and millions of eggs into yards, around homes, and on verandas, and of course, because we allow dogs into the house, also in our homes.

Wolf Reintroduction Changes Ecosystem

There is a flood of stories and videos convincing the greater audience how healthy Yellowstone is after the wolf reintroduction in 1994 and 1995. Yes indeed, wolves do change the ecosystem, and as one example, beavers spread and built new dams and ponds. These dams had multiple effects on stream hydrology. They even out the seasonal pulses of runoff, store water for recharging the water table, and provide cold, shaded water for fish, while the now robust willow stands provide habitat for songbirds.

We also know that a vast web of life is linked to carcasses abandoned by wolves. Among others, wolverines benefit from wolves' leftovers even though they are capable of killing prey animals by itself. The raven is a typical visitor preying on wolves' leftovers.

This all is called a trophic cascade, where a keystone predator causes a major reduction in the herbivore population, which then causes a major rebound in the associated plant community. What happened in Yellowstone was that wolf predation significantly reduced the numbers of mule deer, elk, and moose.

Charles Kay wrote (2013)

This, though, creates a problem because wolf advocates have repeatedly stated that wolves have no major impact on ungulate numbers or hunting opportunities! How can they have it both ways? Because wolf supporters have been talking out both sides of their mouths at the same time. To date, this fraud has been successful because the media, the public, and even federal district court judges are ecologically incompetent. In other words, a lot of people have been using the term keystone predator in regard to wolves, without knowing what that term actually means.

Now, however, you know the truth. A keystone predator is one that significantly reduces the numbers of its prey, elk and deer, in the case of wolves.

Tables are slowly turning from the time with abundant reserves of prey animals toward an opposite condition. As prey become scarce, wolves have to switch from their traditional prey animals, such as moose and elk, to smaller animals. Beavers are probably among the first to go, and as prey disappear, the wolves starve, intensify their attacks on livestock, attack visitors, and finally kill each other or leave the park.

However, it may take some decades before Yellowstone's ecosystem reaches its negative minimum, but it will happen as it has in other places around the world.

David L. Mech wrote (2012)

*Either the elk reduction or the behavioral changes are hypothesized to have fostered growth in browse, primarily willows (*Salix* spp.) and aspen (*Populus* spp.), and that growth has resulted in increased beavers (*Castor Canadensis*), songbirds, and hydrologic changes. The wolf's image thus has gained an iconic cachet. However, later research challenges several earlier studies' findings such that earlier conclusions are now controversial, especially those related to causes of browse regrowth.*

Toby Bridges wrote in an article on "lobowatch.wordpress.com":

It is no secret among the residents of the Greater Yellowstone Area that the National Park Service and the US Fish and Wildlife Service have been less than honest about the impact wolves have had on the park and the area in general, or how those involved with the Northern Rockies Wolf Recovery Project have manipulated science to achieve a fast track to a successful wolf recovery.

Summary

The federal and state agencies responsible for this program promised that there would be a finite, manageable number of wolves. The entire program, built on the Mark S. Boyce computer model using predictive science as the cornerstone, promised seventy-eight to one hundred wolves over a 10 to 20 year period, maximum!

The computer model obviously failed in estimating what happens to the states around the Park. From Yellowstone, the wolves have spilled over into Wyoming, Idaho, Utah,

and Montana and have become a huge problem. According to US Fish & Wildlife Service, the number in these states is slightly more than 1,500, but they did not lie.

There are less than 150 wolves in Yellowstone!

At that time, a simulation model of gray wolf recovery for Yellowstone National Park was developed based on observations of wolf predation in other areas. The outcome was:

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Russian data reveals that, on average, a gray wolf kills one deer a week, or ninety saiga (Eurasian antelope), fifty to eighty boar, or eight to ten moose per year, yet the same animal in Yellowstone would supposedly rein in its appetite and only kill one deer every twenty-three days.

Why such a significant difference? I don't feel there was any kind of responsible evaluation at all, and the consequence is significantly lower elk counts in high density wolf areas throughout the mountain West.

The conflict remains.