

BISONOMICS



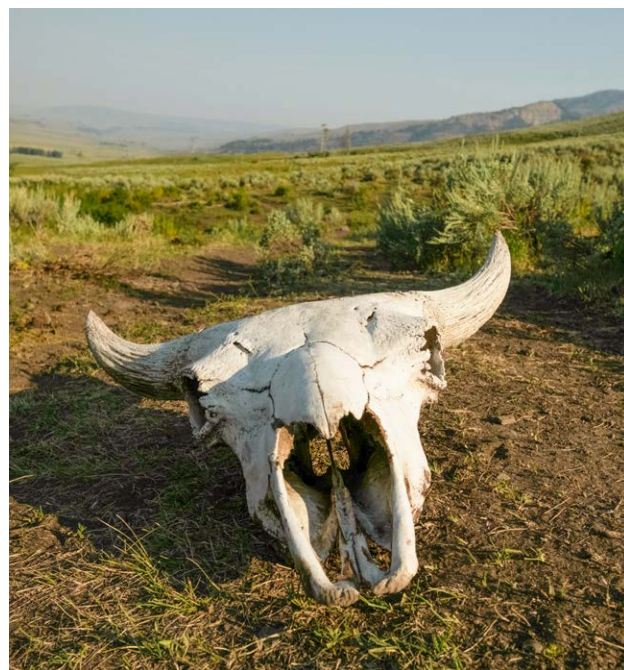


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www.perc.org/buffalonation

COVER: Charles M. Russell (American, 1864 – 1926),
The Buffalo Herd, ca. 1890. Oil on board, 19 × 25
inches. Buffalo Bill Center of the West, Cody,
Wyoming. Gift of William E. Weiss. 21.80

August 2026

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Bison or Buffalo?

Lewis and Clark never saw a “bison.” As the Corps of Discovery worked its way up the Missouri River, gazing at herds that stretched to the horizon, the captains knew the shaggy, thousand-pound-plus creatures by the same term as generations of Americans before and since: buffalo. It wasn’t until decades later that the scientific name, bison, came into widespread use, first by naturalists. In fact, the plains bison, the subspecies that is the subject of this publication, was so nice that scientists named it thrice: *Bison bison bison*. The word “buffalo” came from the French, who called the animal *le boeuf sauvage*—the wild ox. English speakers bent that into “buffalo,” the older, more familiar of the two names. Both terms are correct, and writers in the pages that follow use them interchangeably—just as Americans long have.

Whatever you call the animal, its recovery from near-eradication is one of the great conservation stories in history, and one that PERC knows well. Based in Bozeman, Montana, PERC—the Property and Environment Research Center—develops market-based solutions to conservation challenges, guided by a simple idea: People protect what they value. Few species prove the point like the buffalo. Its

comeback from collapse was driven first and foremost by private stewards—ranchers, tribal members, and entrepreneurs—and today, the vast majority of American bison live in private herds. PERC works to sustain that recovery, from piloting incentive programs that reward landowners for hosting wildlife in the Greater Yellowstone Ecosystem to championing policies that make room for bison stewardship on public lands.

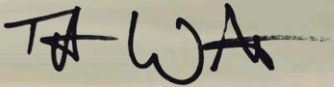
That is why PERC is proud to serve as the lead Nonprofit Partner of *Buffalo Nation*, the landmark exhibition of the Buffalo Bill Center of the West that honors our national mammal. This publication is a companion to the exhibition, chronicling the private stories—historical and modern—that have always been at the heart of bison conservation in America.

So, is it bison or buffalo? Our answer: Yes, and so much more.

Tate Watkins

PERC Executive Editor

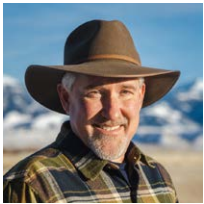
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WILLIAM JACOB HAYS, A HERD OF BUFFALOES
ON THE BED OF THE RIVER MISSOURI, 1862



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Bisonomics

Private bison ranchers turned a symbol of the American West into one of conservation's greatest success stories

BY BRIAN YABLONSKI

Roughly two decades ago, I sat in a booth at Ted’s Montana Grill in Tallahassee, Florida, with Beau Turner, splitting a plate of bison sliders. Beau is the youngest son of the late Ted Turner. He also manages wildlife projects for Turner Enterprises, which includes oversight of biodiversity projects and ranching for the nearly 2 million acres of land owned by the family.

The restaurant was decorated with dark wood, bison heads, and classic oil paintings of the West, yet Beau was there to talk about the Turners’ efforts to aid recovery of the bison—the very species we were devouring at that moment. He explained that raising bison began as a hobby on a South Carolina property in the late 1970s. It grew into a booming enterprise encompassing six western states.

Bison restoration brought its own learning curve. “We made a lot of mistakes early on,” said Beau. When the Turners first began raising bison at the Flying D Ranch, a 114,000-acre spread in southwestern Montana, calving rates dropped. So Beau learned about the importance of herd rotation, grass health, rainfall, and the critical role of people in the restoration process. Today, their herd sustains an 80 to 90 percent calving rate.

The near extirpation of the American bison in the 19th century was one of the great environmental catastrophes in our nation’s history. Resilient by nature, bison have spent the last century making a miraculous comeback. The credit mostly goes to private ranchers and conservationists employing market-based approaches. Today, restoration of the bison is an environmental success story in its own right.

Entrepreneurs to the Rescue

In the early 1800s, it was believed as many as 30 million bison roamed the Great Plains. By the end of the century, the bison was close to extinction, with roughly a thousand left. As bison numbers plummeted, sportsmen, including Theodore Roosevelt, rushed in for one last chance to hunt the now-elusive animal. “Gone forever are the mighty herds of the lordly buffalo,” Roosevelt declared.

Yet just as enterprising men helped hasten this environmental calamity through market hunting, so too did individual entrepreneurs, private ranchers, and conservation groups help bring the bison back from the brink. The bison’s recovery began with a few westerners who thought the novelty value of saving the last remaining bison might be high. The handful of wild bison that they captured eventually became the seed herds for ranches and government preserves. In

1902, Congress purchased 21 of these bison to breed with the remaining couple of dozen in Yellowstone National Park, and they eventually grew into the nation’s most iconic herd.

Then, in 1905, a group of wealthy easterners organized the American Bison Society, with backing from then-President Roosevelt, for the protection of the bison on public preserves. Members raised \$10,000 in private contributions to buy a herd for the newly created National Bison Range in Montana, and several other public herds were eventually established in other states.

With help from these entrepreneurs, many bison were preserved in public herds in places like Yellowstone, but bison restoration on public land was limited by geography and capacity. In 1914, the federal government owned just 10 percent

of the captive bison in the United States, which amounted to only a few hundred. Today, states or the federal government still manage less than 10 percent of bison in the country, with roughly 20,000 total bison in public herds—a total that has changed little in recent decades.

The real action is on America’s private ranches. In the late 1970s, about the time bison were capturing Ted Turner’s attention, there were only about 20,000 bison in private herds. Due mostly to the development of an established, if specialized, market for bison meat over the past 50 years, the Department of Agriculture estimates that there are now 192,000 bison on private ranches and farms in the U.S. Including bison in tribal and public herds, the animal’s numbers have rebounded to a total of roughly a quarter-million across the country.

A Sustainable Bison Market

Nobody understood the bison market better than Ted Turner. In fact, one might argue that he was the bison market—his roughly 45,000 bison still collectively make up the largest private herd in existence, accounting for about one in 10 bison on the planet. And his restaurant chain helped take bison meat mainstream. Yet Ted’s Montana Grill restaurants, with nearly 40 locations across more than a dozen states, represent only a portion of the meat market.

Turner died in 2026, at the age of 87. His passing closed a chapter, but the enterprise—and the idea behind it—outlive him. Turner showed that a rancher with capital and conviction could rebuild populations of a once-imperiled species on private ground, and that selling bison was not at odds with saving them—it was the very thing that helped ensure they continue to thrive. He was the most visible of the bison’s private stewards, though far from the only one, and the approach

Turner scaled up is being carried on by a new generation of ranchers.

If Ted stimulated demand, Beau has helped ensure the supply. He appreciates the role of his family’s operation in enhancing the future of these magnificent animals. “By promoting bison ranching, by promoting the bison industry as a whole, we move away from ever listing the bison as an endangered species,” he explains. “We should be proud of that. Private ranchers are definitely doing a service for bison.” The Turner family, by capturing the economic value of the bison, put itself in a unique position to help restore the animal to its native lands.

That is good for the bison, but it is also good for health-conscious Americans. As *Time* magazine once observed about the bison: “Sometimes you have to eat an animal to save it.” That logic still drives the market. Bison remains one of the leanest red meats available—lower in

fat and cholesterol than beef, and raised without added hormones—and demand has only grown as many Americans have turned toward whole, minimally processed food. Yet supply cannot keep pace. The United States harvests only about 65,000 to 80,000 bison in an entire year, while the beef industry slaughters some 125,000 cattle every single day. That scarcity, set against steady demand, has pushed bison prices to record highs, with retail prices often doubling those of beef.

Bison ranching also gives the Turners the opportunity to diversify their revenue streams from the land—including hunting, fishing, lodging, and timbering—and ultimately helps make Turner Enterprises a better business. As Beau reminded me, the goal of his family’s business goes beyond profit: “manage the land in an economically sustainable and ecologically sensitive manner, while promoting the conservation of native species.”

▼ TED TURNER ON THE FLYING D RANCH



▼ THE FLYING D



TED TURNER ▲

DAN AND JILL O'BRIEN ►
OF WILD IDEA BUFFALO



A Wild Idea

Outside Rapid City, South Dakota, another conservationist-rancher has been working to restore the bison for the better part of three decades. There, Dan O'Brien and his wife Jill own roughly 800 bison and a company they founded called Wild Idea Buffalo. Their scenic Cheyenne River Ranch includes deeded acreage as well as land leased from the neighboring Buffalo Gap National Grassland.

O'Brien has carved his own niche market for bison. Comparing what he does to a winery, he takes great pride in field harvesting the bison he ships to customers around the country. Rather than moving his bison to a slaughterhouse, Wild Idea bison are dressed in the pasture where they stood at his ranch. The harvest harkens back to an earlier time. "The concept is very sellable," O'Brien says. "It's a very spiritual, humane nature of harvest. We don't get stress or adrenaline in the meat."

O'Brien describes his customers as "environmentally conscious." His method of care and harvest is a big reason people order

his meat. A former cattle rancher who saw reintroducing bison as a way to restore his rangeland, O'Brien is also emphatic about the environmental benefits that come from raising bison. Foremost, he sees a difference with impacts to riparian zones. "In this country, water is so important," he says. "We have springs and the river. But you find cattle standing in the water, defecating and trampling the vegetation around it. Buffalo are up on the hill in the breeze."

He also sees a benefit for the adjacent national grasslands. When O'Brien leased his 20,000 acres from Buffalo Gap, he received a permit for 70 percent of the grazing rights. Where the previous owners would graze 600 cows in the summer, O'Brien only turns his bison loose in the winter, with far less impact to the grasslands. Benefits come not just from the seasonal change, but because bison graze "on the move"—missing a lot of the grasses. "We are marketing the health of the Great Plains," explains O'Brien, "and the buffalo are a big part of that."

▼ MATT SKOGLUND OF NORTH BRIDGER BISON



Margin and Mission

In the Shields Valley of southwestern Montana, where the Bridger Mountains rise about 30 miles northeast of Bozeman, a first-generation rancher named Matt Skoglund is doing in miniature what Ted Turner did on a continental scale: building a bison herd from scratch on native grass. Skoglund and his wife Sarah established North Bridger Bison in 2018 and today run about 250 bison across more than 2,500 acres.

Skoglund came to ranching the long way around, through conservation. He spent a decade working on bison policy before concluding that the surest way to conserve nature was through the marketplace rather than around it. "If we're going to protect the natural world, it has to happen through how we produce things and how we consume things," he says. An inspiration for him is Yvon Chouinard, the founder of Patagonia, who kept his company private so he could bend it toward a purpose. Skoglund's own version is a phrase he repeats like a creed: "No margin, no mission." The ranch is unabashedly mission-driven, he says, but the numbers still have to work.

And the numbers, he believes, are moving in only one direction. The bison business remains small. "On any given day, more beef will be killed today than bison in a whole year," Skoglund says. "This is not a crowded space." He has watched bison meat travel from curiosity to staple—"from an exotic niche meat, like ostrich 25 years ago, to everyone wanting bison now because it's so healthy and delicious." He's betting that the national turn toward whole, unprocessed food will only accelerate.

Echoing Wild Idea Buffalo's strategy, North Bridger Bison sells its meat the way a small winery sells its vintages:

directly to consumers, and entirely on its own terms. Customers buy by the quarter, half, or whole animal through the ranch’s website. About half of the Skoglunds’ clients live in Montana, and the rest are scattered across nearly every state in the country. Roughly once a week, Skoglund takes his rifle and field harvests a bison on the open pasture where it has spent its whole life. He learned the practice from another source of inspiration to him—O’Brien—and adopted it because he similarly refused to subject his bison to the stress of a long haul to a slaughterhouse. His bison spend their entire lives roaming, wallowing, and grazing on the ranch, never seeing the inside of a trailer.

Because bison are classified as livestock, ranchers like Skoglund must follow

the same rules as their cattle-ranching neighbors. At North Bridger Bison, that means rounding the herd into a corral for one low-stress day each winter to ear-tag, pregnancy-check, and vaccinate, before the animals are turned back out to grass. Even if the law considers them livestock, the herd still carries its ancestors’ wildness traits—and potential for peril. Skoglund says that the old cows are the bison he has to be most careful of, recounting a time he left his back turned to one for too long. Before he knew it, she charged him, sending him scrambling over a fence to safety. “The first thing I did,” he says, “was look around to make sure none of my neighbors were watching.”

Other than the annual day in the corral, the bison largely tend to themselves, and the land, Skoglund says, has responded.

Western snowberry and wild rose have exploded across the ranch, feeding mule deer and giving songbirds places to nest. “One of the biggest things I’ve noticed since we started,” he says, “is a large increase in the number of birds—grassland birds, songbirds, raptors.” The ranch is now the first Audubon-certified bird-friendly bison ranch in Montana.

The Skoglunds recently expanded their operation by leasing more ground, and they expect to keep growing, along with the industry around them. “There will be more bison ranchers and more bison producers in 10 years than there are today,” Skoglund says. It’s essentially the same bet the Turners made decades ago, scaled down to a single family in a single valley: that the surest path to saving the buffalo runs straight through the market for it.

Pay Their Own Way

“If buffalo are going to make a comeback, they are going to have to pay their own way,” says O’Brien. “Public herds can’t do it with their hands tied. Governments are not geared for that. Only private enterprise can get that job done.”

At roughly a quarter-million head strong in the United States, and some 400,000 across North America, the bison comeback is one of the most remarkable stories of a species recovery in the last hundred years. The bison have made their way back—without assistance from federal legislation like the Endangered Species Act—largely because private conservationists were able to market the majesty of this American icon. Yet public preserves like Yellowstone have provided a measure of protection for the bison and wildlife viewing opportunities for visitors. Those herds serve as bison ambassadors—providing opportunities to get up close, though not too close, to observe the creatures in their natural habitat. They are an economic draw in their own right. Those experiences have helped create a constituency for and a fascination with the American bison—a chance for ordinary people to experience this heritage.

Beau Turner notes the importance of public conservation, but he also talks about an advantage that goes with private conservation efforts: “I don’t want to lose people being close to the land and the creativity that comes with ownership. Ownership of the land ties you to it.”

With the future of this once endangered animal in the hands of eco-ranchers and market-minded preserves, the outlook for the “lordly buffalo” is promising—a chance to continue to return a native species to more of the lands it once roamed, and, through sound ownership incentives, to right past wrongs.

Brian Yablonski is the CEO of PERC.



▲ WESTERN MEADOWLARK

▼ YARROW



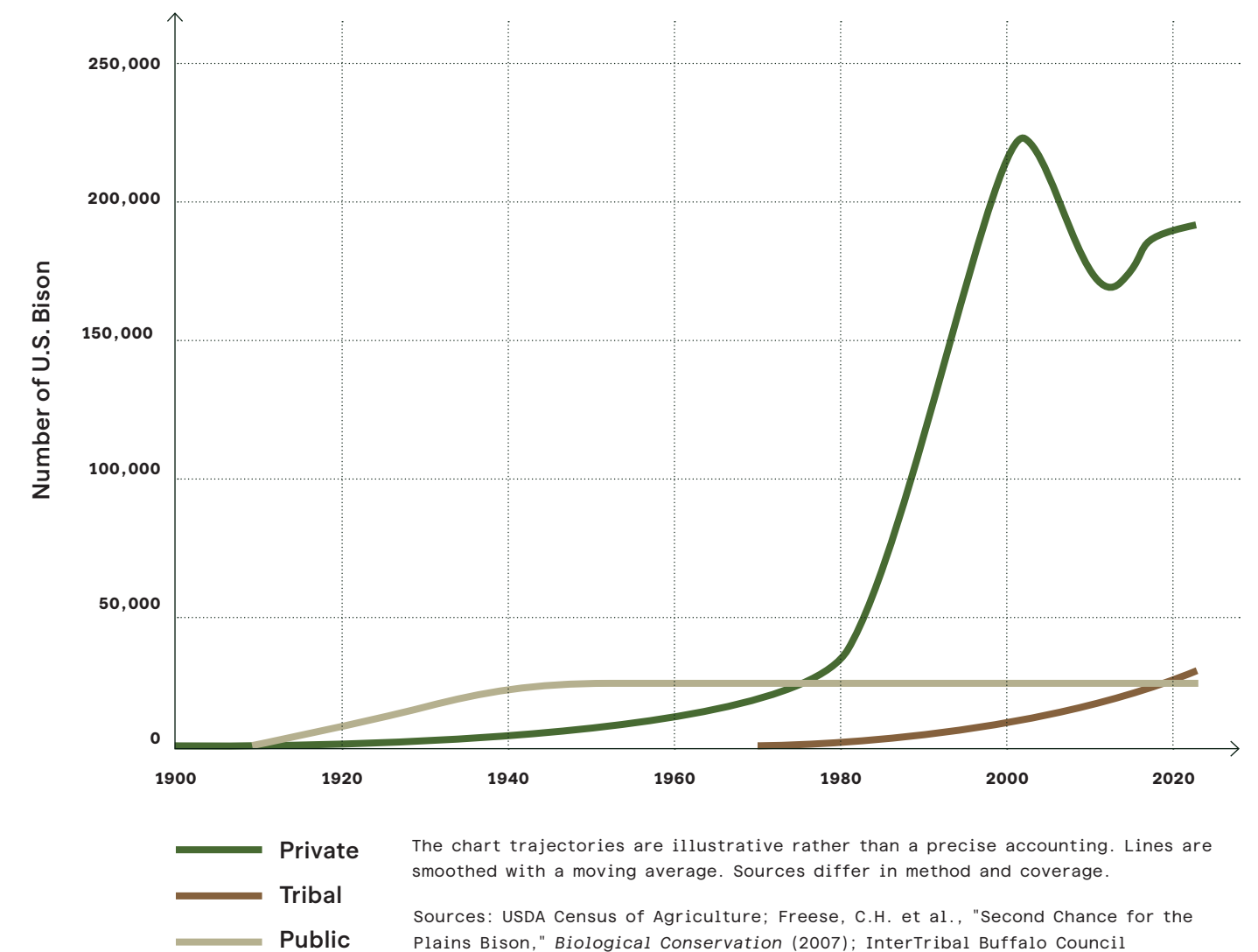
▼ NORTH BRIDGER BISON



The Bison's Uneven Return

U.S. bison by ownership type

With the species on the brink of extinction, a few enterprising ranchers captured wild bison and bred them in private herds—a foresighted gamble that would later seed America's first public herds. The number of bison in public herds leveled off at about 20,000 and has remained steady for decades. Commercial bison ranching took off much later, but the population of privately owned bison now dwarfs every other category. The number of bison in tribally owned herds remained small until Native-led restoration gathered force in the 1970s. Tribal herd populations have been climbing steadily ever since, with more than 80 tribes now managing a total of roughly 25,000 bison.



▼ GEORGE CATLIN, *BUFFALO CHASE, A SINGLE DEATH*, 1832-1833



▲ WOODY CRUMBO, *BUFFALO HUNT*, 1939



▲ THOMAS VIGIL, *BUFFALO DANCER*, 1920-1930

The Bison, the Horse, and the Cow

How economic forces helped devastate, and then save, the American buffalo on a rapidly advancing frontier

BY P. J. HILL AND TATE WATKINS

Today, more than 400,000 bison grace North American landscapes. Those magnificent animals represent a victory for people who care deeply about preservation of the species, a feat shaped by rapid economic and technological change on the western frontier.

European colonization of the continent brought two transformative technologies that had momentous ramifications for Native Americans: the horse and the cow. (The even more consequential introduction was novel communicable disease, especially smallpox.) Their arrival on the Great Plains transformed how people moved and how grass was

converted into meat. Both had dramatic consequences for the American buffalo.

Once mounted on horseback, settlers could control grazing land, and cattle were swiftly introduced to the Plains. Their numbers expanded just as quickly. Former PERC Visiting Fellow Dean Lueck has estimated that by 1880 there were four-and-a-half million cattle on the Great Plains, and 16 million by 1900. The North American bison population, by contrast, plunged from a peak of perhaps 30 million before European settlement to roughly 1,000 by 1890.

Native Americans drove much of the change by adopting the horse into the American economy and subsequently capturing, processing, and selling bison robes, the heavily coated hides especially prized on the colder Northern Plains. Yet those same Native people were excluded from the later hide trade that replaced the robe trade in the 1870s, and had little control over the bison’s eventual removal—an outcome also sought by the U.S. Army as a means of forcing Plains tribes onto reservations. While those restrictions changed the speed of population declines, they likely had little impact on the result: cattle replacing bison on the Plains.

The horse and the cow entered a world of decentralized control of resources. While Native tribes did not own bison, they did try to control hunting territories for them, especially once the robe trade became gainful. The introductions of horses and cattle upended such communal property rights, ultimately enabling widespread slaughter of the bison. The same economic forces that drove the species to near extinction, however, also seeded its recovery.

Eventually, perceptive ranchers, tribal members, and even some buffalo hunters preserved remnant populations.

Today, the bison is a revered national symbol that persists in the heritages of many tribes, for meat production to satisfy consumers, and for their conservation value. The story of the bison is not simply one of loss, but one of how changing incentives and institutions shaped both its destruction and its recovery.



The story of the bison is not simply one of loss, but one of how changing incentives and institutions shaped both its destruction and its recovery.

The Horse

The rapid adoption of the horse demonstrated the economic rationality of Native Americans and their responsiveness to market incentives. Horses came from Spanish incursions into what is now the southwestern U.S. In their *Historical Atlas of the American West*, Warren Beck and Ynez Haase date the first recorded Native ownership to 1659, when the Navajos were observed on horseback. They also note that horse possession moved northward at roughly 10 miles per year, reaching the northern tribes by 1770.

The horse dramatically changed life for the Plains tribes, in terms of residence and diet. “When semisedentary Native Americans on the fringes of the Plains acquired horses in the eighteenth century,” historian Andrew Isenberg wrote in *The Destruction of the Bison: An Environmental History*, “they began to transform themselves into equestrian nomads. That transformation necessitated an almost total reliance on the bison, a new dependence on trade, and the adoption of a decentralized social structure.”



The migratory life of small bands of bison-hunting tribes initially limited the spread of communicable diseases. Over time, however, smallpox and cholera devastated some communities. Survivors lived relatively healthy lives, sustained by bison and by trade with more sedentary tribes on the periphery of the Plains.

Anthropometric data on 1,123 individuals from eight Great Plains tribes has allowed researchers to estimate their health in the 1840s and 1850s. In a 2024 paper, economists Donn Feir, Rob Gillezeau, and Maggie Jones noted that the evidence suggests “bison-reliant societies had living standards comparable to or better than their European contemporaries.” In a 2001 paper in the *American Economic Review*, Richard Steckel and Jordan Prince compared the heights of populations of the period and labeled the Plains Native Americans the “tallest in the world.”

The high living standards were the result of Native peoples’ responses to market opportunities. Horses made it much cheaper to hunt bison, enabling the growth of the

fur and robe trade. For the first few decades of the 19th century, Native Americans pursued beaver and river otter. As trappers depleted these small-mammal populations in the 1830s, bison robes replaced furs. Steamboats had ascended the Missouri River in the 1820s, cutting transportation costs and making the robe harvest a major source of tribal income. Isenberg noted that between 1825 and 1830, roughly 130,000 bison robes were shipped through New Orleans each year.

The robe market reshaped the hunt. Mounted hunters could kill bison in numbers far beyond subsistence needs, and the scale of slaughter grew accordingly. Harvesting was carried out by men and boys in the fall, once the buffalo coats had thickened. Tribal women usually transformed the harvested hides into marketable robes, a labor-intensive endeavor that changed tribal organization. Isenberg documented that one woman could prepare 10 robes a year. Women shifted labor from food preparation to robe production and became more valued in the process, including as captives in tribal warfare.



The Cow

The other pivotal factor, particularly once livestock could be shipped to eastern markets by rail, was a more efficient means of converting shortgrass prairie into meat: cattle. The swift slaughter of the buffalo may have been distasteful, even disgraceful. But in light of competition from cattle, there was little argument for maintaining bison herds as producers of meat beyond local consumption. And while Native Americans had established tribal claims to bison hunting grounds beginning in the 1700s, when cattle arrived en masse, there were no serious efforts to raise bison as livestock.

After the Civil War, cattle owners moved rapidly to populate the Great Plains. Historian Terry Jordan has recorded that “in all, over 5 million cattle were reportedly driven north between 1866 and 1884, involving the largest short-term geographic shift of domestic herd animals in the history of the world.” Even where bison still thrived, and in conditions that seemed to favor them, cattle won out. For example, the harsh winter of 1886 to 1887 devastated the open-range cattle industry. The large-scale losses did not, however, spur ranchers to replace cattle with bison, even though they were much more suited to the conditions.

Railroads were crucial to the expansion of the beef herds. The first railroad reached Cheyenne in 1867 and Salt Lake City by 1869. Lines reached Denver in 1870, Dodge City in 1872, Bismarck in 1873, and Miles City by 1881. The superiority of cattle to bison for eastern markets quickly became obvious. Cowboys could trail cattle herds to a railhead. By contrast, bison, because of their intractability, had to be slaughtered and then transported to a railroad. Getting bison meat to the rail cost roughly 30 cents per ton-mile—compared to two cents for cattle.

The fierce nature of the buffalo made the creatures difficult to handle, destructive to fences, and often dangerous to those who tried to move them. As railroads extended across the Plains and cattle herds multiplied, the economic center of gravity shifted decisively. A landscape once organized around migratory hunting and trade was quickly reorganized into settled ranching and agriculture. Within that transition, bison were not simply overhunted, they were displaced.

The Bison

Beyond the expansion of railroads, innovations in hide tanning also accelerated the bison’s removal from the Plains. Bison hides, thicker and tougher than cattle hides, had not proved suitable for industrial purposes. Then, in 1870 and 1871, European tanners perfected the tanning of bison hides into pliable leather. Economist Scott Taylor has noted that the leather became useful as soles in shoemaking and belts in industrial machinery. Previously, only haired robes were marketable—laboriously prepared in Indian villages using buffalo brain, liver, and tallow. The new techniques vastly increased pressure on the herds. Where hunters had once taken a few animals at a time for local preparation, hides could now be shipped in bulk. Hide hunters flocked to the Plains. A team—one rifleman and several skinners—could establish a stand and kill dozens of bison in a day. The primary constraint was the skinning, which had to be done the day of the kill. Otherwise, wolves would ravage carcasses left overnight by hunters.

Hide hunting swiftly diminished the herds. In 1850, there were still more than 10 million bison roaming the Great Plains. By 1874, populations had declined so rapidly that Congress passed a bill to “prevent the useless slaughter of the buffaloes,” which President Ulysses S. Grant pocket vetoed. His choice was consistent with a view shared by U.S. military leaders: destroying the bison herds would force the Plains tribes onto reservations. (In the same 2024 paper, Feir, Gillezeau, and Jones documented the lasting economic damage that the destruction inflicted on Plains tribes.) In 1889, when Smithsonian Chief Taxidermist and bison chronicler William Hornaday published *The Extinction of the American Bison*, his census estimated the total number of surviving bison in the wild and captivity to be 1,091.

Lueck has described the tribal property-rights regime that prevailed until 1870 as “common property”: Tribes aimed to govern herds by controlling hunting grounds. After 1870, he argues, herds shifted to open-access exploitation. Native Americans lost their ability to control access to bison during the Indian Wars of the 1870s; thus, the hides were taken almost exclusively by non-Native hunters.

With tribes losing control of the landscape, the replacement of bison by cattle was led by settlers. Yet where Native control persisted, numerous tribal members took up cattle ranching themselves. In *When Indians Became Cowboys*, Peter Iverson describes several Native cattle operations in the Southwest, where landscapes had not been subdivided into allotments as on the Northern Plains. In Oklahoma, Comanche leader Quanah Parker famously ran his own cattle herd and leased land to other ranchers. In Montana, both the Blackfeet and Cheyenne attempted to move into cattle ranching. But the Dawes Allotment Act of 1887, with its 160-acre parcels and checkerboarded Indian and non-Indian land, made it difficult to assemble a working ranch from fragmented allotments.

By the late 1880s, bison herds that once numbered in the tens of millions had been reduced to scattered remnants. Extinction appeared imminent.



The Remnant

As bison became scarcer, their economic, cultural, and symbolic value rose. While there was public and private sentiment to conserve the species, several intrepid entrepreneurs were the first to act. Unlike open-access hunters, early preservationists could control and grow their herds. Private ownership gave them the means and the motivation to capture those values rather than watch them vanish.

In the 1860s and 1870s, Charles and Mollie Goodnight, successful cattle ranchers in Texas, undertook some of the earliest preservation efforts by capturing bison calves. They succeeded in establishing a permanent herd, which grew to 125 by 1910. Some later supplemented the dwindling herd at Yellowstone National Park, as did animals from other private herds.

Another effort began in the 1870s with “the most enigmatic of the preservers of

the bison,” as historian Ken Zontek has called them. Pend d’Oreille Indians Samuel Walking Coyote and wife Sabine captured seven or eight bison calves in northern Montana one spring. Only six survived the trip to their home among the Flathead Indians, but those animals, plus several purchased later, formed the nucleus of what became one of the largest subsequent herds.

In 1884, Coyote sold 13 bison to Charles Allard and Michael Pablo for \$2,000 in gold, or more than \$150 per head. At the time, a decent saddle horse cost about one-third as much. By 1896, when Allard died following a fall from a horse, the herd had grown to 300 head. Pablo managed it until 1906, when he decided to sell amid increased settlement pressure on the Flathead Reservation. A purchase by the U.S. government was proposed, but Congress refused to appropriate funding. After several delays, Pablo, in disgust,

decided to sell to the Canadian government at \$250 per head for what he believed was a 300-head herd. It took three years to round up and transport the bison, which ultimately numbered closer to 700.

Other colorful figures contributed to the early conservation story. C.J. “Buffalo” Jones, a prominent bison hunter, set out to preserve the animal even as he still hunted it for a living. He captured 60 calves during four missions to the Texas Panhandle between 1886 and 1889. Those bison seeded private and public herds throughout the United States, and Jones even went on to work as a game warden in Yellowstone for several years. Frederick Dupuis, a French-Canadian who became a rancher in South Dakota, went to Montana in the early 1880s and captured a handful of napping calves. They formed the basis of a viable herd that eventually helped seed the Custer State Park herd.

The motivations of the early bison preservationists were mixed. Some saw commercial promise: Charles Goodnight called bison “the most profitable farm animal in America” and pursued cattle-bison crossbreeding, buffalo-tallow soap, and a buffalo-hair textile. While these ventures mostly failed, they signaled his conviction that the animals were worth raising. Nonetheless, scarcity drove up live-bison prices: Canada’s \$250-a-head purchase of the Pablo herd is one example. Yet financial calculation was only part of the story. Mollie Goodnight impressed upon her husband “the advisability of preserving to Texas and the nation a few of the buffalo.” And Pablo’s roundup turned up more than twice the 300 head he had assumed he was selling, a discrepancy that no rancher tightly managing a commercial herd would tolerate. Private ownership did not supply the motive to conserve bison—it supplied the means for people to act on diverse motives.



▲ KARL BODMER, *HERDS OF BISONS AND ELKS ON THE UPPER MISSOURI*, 1832-1834



The Legacy

The conservation of the bison by private parties preceded government efforts by several decades. Even in Yellowstone, there was no concerted effort to maintain bison—nor the resources to do so—in the park’s early days. The persistent presence of buffalo at the park’s founding in 1872 was practically accidental. Hornaday’s 1889 census recorded 200 head in the park. By 1902, poachers had reduced them to just a couple dozen, before the park herd was replenished from private sources.

It wasn’t until 1905 that concerted public preservation began. That year, Hornaday and President Theodore Roosevelt founded the American Bison Society. Between 1905 and 1914, private bison herds seeded public preserves that were established in Oklahoma, Montana, South Dakota, and

Nebraska. By 1935, the society declared its work of securing bison populations complete and effectively dissolved. It marked a milestone along the path from the brink of extinction toward recovery.

The legacy of the bison is one of rapid adaptation. The introduction of settled ranching and agriculture to a hunter-gatherer world caused a seismic shift in the use of shortgrass prairie on the Great Plains. Bison numbers plummeted from 30 million to about a thousand. Yet successful private efforts conserved a permanent population, and continued tribal, private, and public stewardship of the species has ensured bison remain common today, although primarily in herds that do not freely roam across vast areas as they once did.

The same forces that nearly erased the bison from the Plains ultimately created the conditions for the species’ survival. They have not diminished since. Today, roughly nine in 10 of North America’s bison live in private hands—many of them descendants of animals captured by ranchers, tribal members, and conservationists who acted before any government would. The bison’s recovery began with private efforts. It still depends on them today.

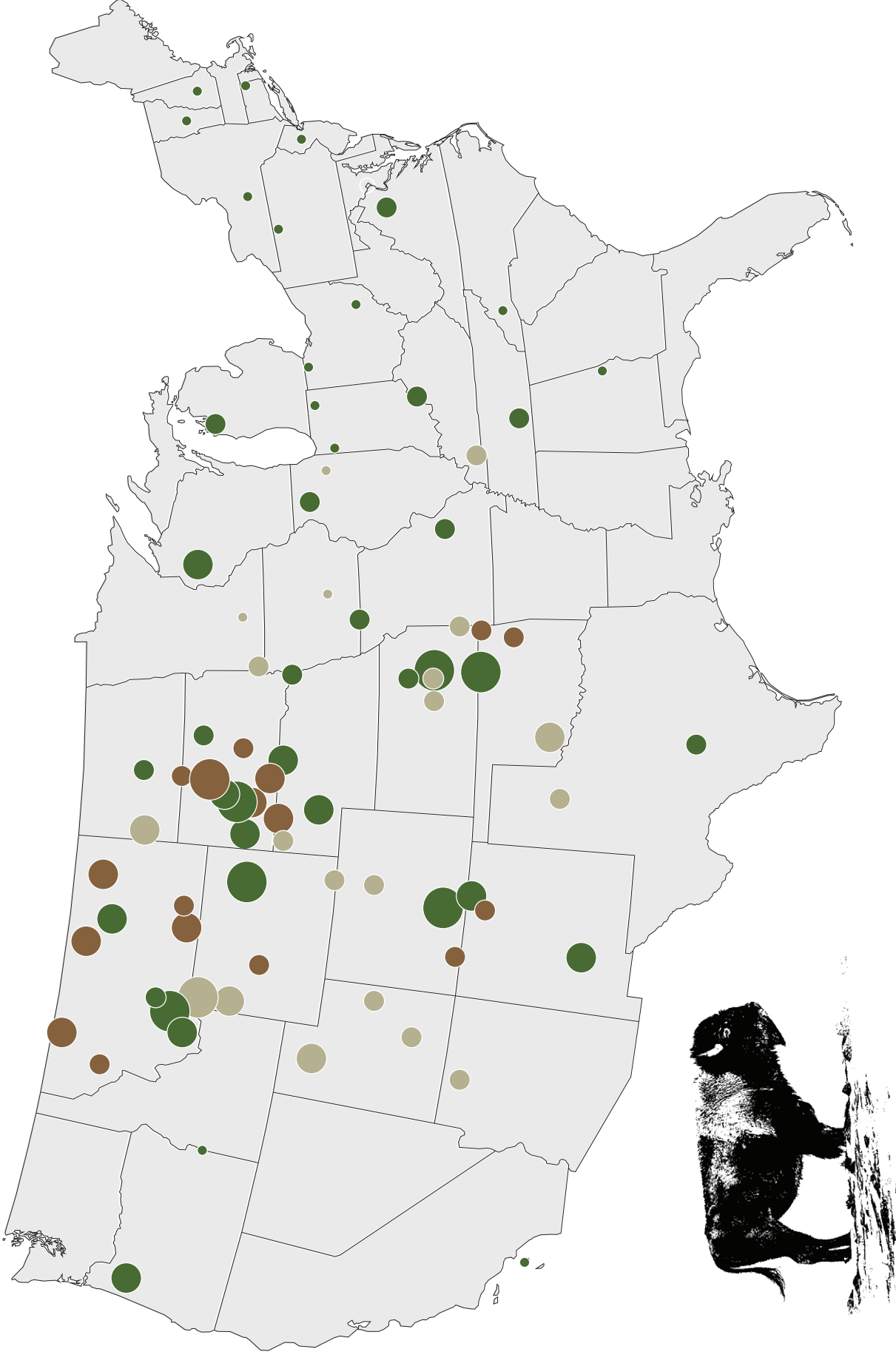
P.J. Hill is a senior fellow at PERC, a professor emeritus of economics at Wheaton College, and a third-generation Montana cattle rancher.

Tate Watkins is the director of publications and a research fellow at PERC.

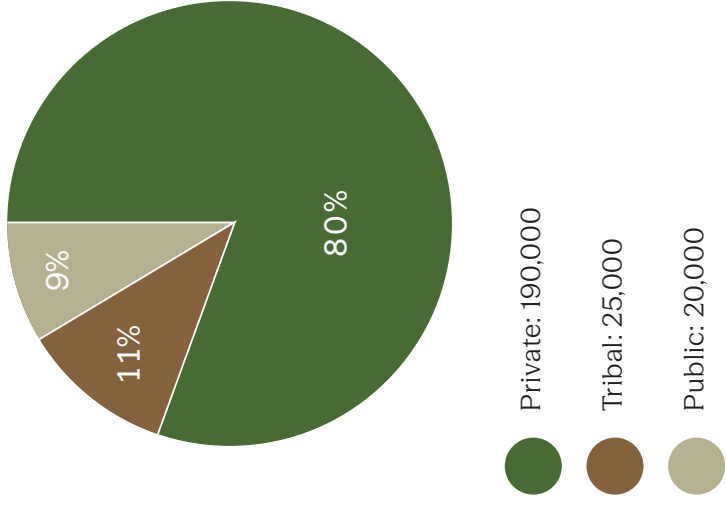
Where the Buffalo Roam

Mapping a selection of America's private, tribal & public bison herds

More than a century after they were driven to near-extinction, some 400,000 bison roam North America once more—and the vast majority are privately held. This map plots a selection of herds of the lower 48 states, colored by ownership type. Dot size reflects herd population.



U.S. BISON BY OWNERSHIP



Private: 190,000
Tribal: 25,000
Public: 20,000

HERD SIZE



Bison are raised on private ranches in 47 states—all but Delaware, Massachusetts, and Rhode Island—with the largest populations in South Dakota, Nebraska, Montana, North Dakota, and Colorado. Texas has the most operations of any state, nearly 300 ranches, most of them small.

BY THE NUMBERS

400,000

Approximate number of bison in North America today, with nearly a quarter-million in the U.S.

45,000

Bison managed by Turner Enterprises, across multiple ranches

4,000

Bison at Turner's Flying D Ranch, the largest private herd

5,300

Bison in Yellowstone National Park, the largest public herd

2,000+ lb

Weight of a bull bison, which can stand more than six feet tall

>80

Tribes in the InterTribal Buffalo Council

25,000

Bison managed across dozens of herds by InterTribal Buffalo Council members

>90%

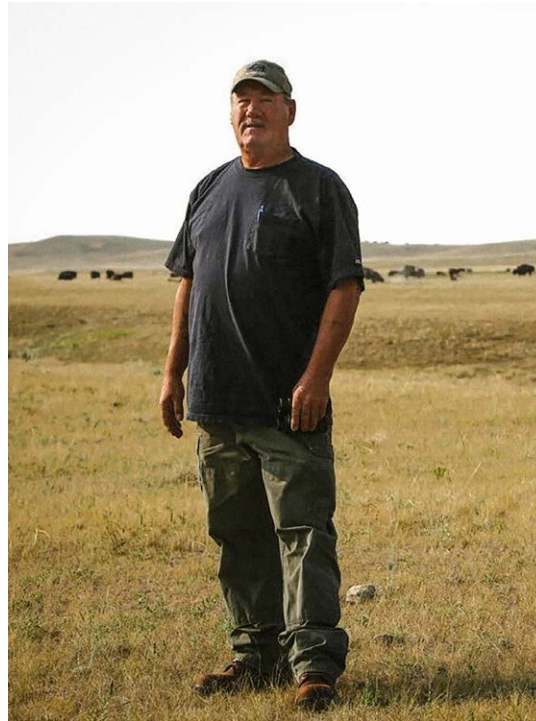
Share of bison in private or tribal ownership

1 in 3

Ratio of private bison operations citing conservation as a motivation—even as most raise commercial cow-calf herds

2016

The year Congress named the bison as the U.S. national mammal



Reclaiming Bison on Fort Peck

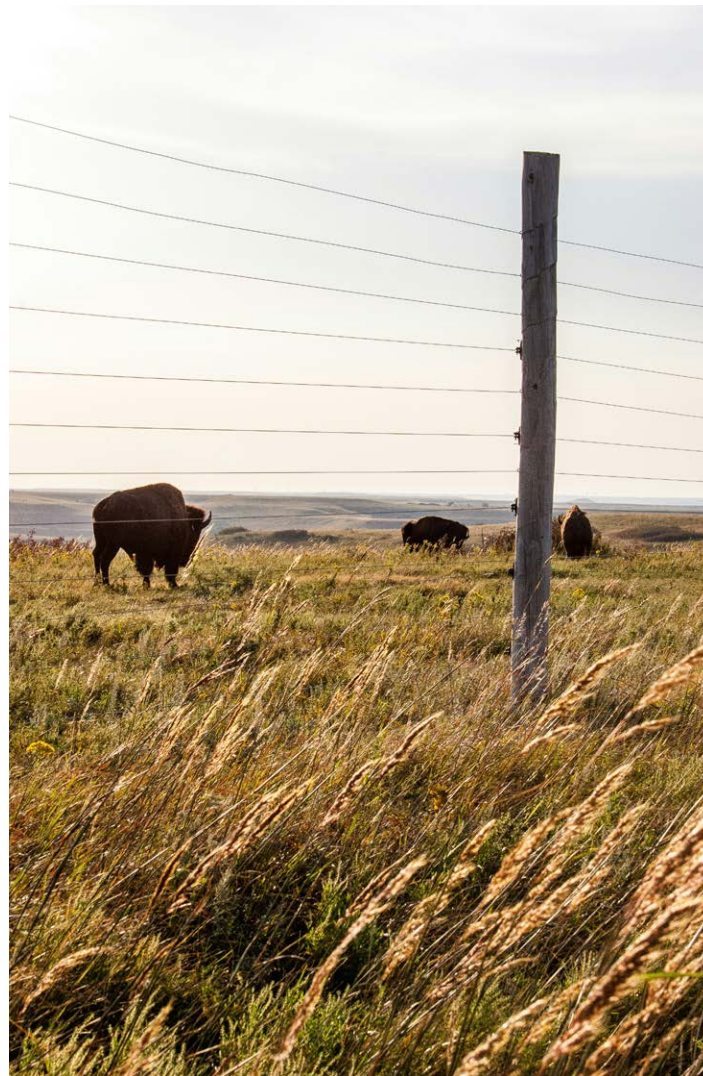
The reservation in northeastern Montana built one of the largest tribal bison herds in the country—and demonstrated what tribal stewardship can achieve

BY KARLA HERNANDEZ

“I’ve been working with bison for over 27 years,” says Robert Magnan, the Fort Peck Reservation’s buffalo program manager, “and I’m still learning from them. They’re still teaching me.” The Fort Peck program, now home to one of the largest tribal herds in the country, manages more than 800 bison on 33,000 acres of grassland on the reservation. Magnan has overseen the herd’s management and operations for nearly 15 years. For him, bringing the buffalo back to Fort Peck has been a blessing, though it has come with its share of trial, error, and lessons learned.

Since the 1800s, the buffalo and Native American tribes have followed similar arcs—removed from their lands, confined, and nearly erased. Today, the Assiniboine and Sioux tribes of the Fort Peck Reservation are reclaiming both the buffalo and the aspects of their cultures that nearly disappeared alongside them. In 1987, Fort Peck tribal elders decided it was time to restore vital cultural practices by bringing the buffalo back home. Two years later, the tribes purchased over 100 bison from the Fort Belknap Reservation, about 100 miles west of Fort Peck, and set aside 5,800 acres of land to start a cultural herd and program in northeastern Montana.

Early on, the costs of managing the herd pushed the Assiniboine and Sioux tribes—two distinct tribal nations who share the Fort Peck Reservation—toward a revenue-generating solution: bison hunting. Hunters came regularly, and proceeds followed for the tribes—but so did a reckoning. “Our elders came back and said we lost the purpose of why we brought the bison back,” says Magnan. “The hunts stopped, and the focus returned to culture.”



But as Fort Peck focused on its cultural program, a separate conflict was unfolding that would eventually bring legal battles to the reservation. In Yellowstone National Park, wildlife managers stopped aggressively limiting the bison population in the mid-20th century, and its numbers subsequently grew into the thousands. In 2000, in response to concerns about potential disease risk to livestock, the federal government and Montana state agencies developed the Interagency Bison Management Plan. Since the plan took effect, there has been no documented brucellosis transmission from bison to cattle. Federal, state, and tribal partners eventually began working to transfer bison to tribal lands across North America, including Fort Peck. The InterTribal Buffalo Council, a collection of more than 80 tribes dedicated to creating and maintaining sustainable bison programs, later officially joined the plan as a member.

In the spring of 2012, Montana Fish, Wildlife, and Parks transferred 61 certified disease-free Yellowstone bison to Fort Peck, with an agreement to send half to the Fort Belknap Reservation once its pastures were ready. The tribes of Fort Peck and Fort Belknap agreed to the split, “but that’s when the legal fight started,” says Magnan. Critics filed suit, arguing that the bison transfer violated a

Montana law that requires landowner approval and a management plan for any bison transfer. In 2013, the case reached the Montana Supreme Court, which ruled unanimously that the law had been misapplied—tribal lands are neither public nor private property, meaning tribes are beyond the statute’s reach. Once the legal battles were settled, Fort Peck formally separated its herd into two: a business herd used to generate revenue to cover the costs of bison management, and a cultural herd, made up of the Yellowstone-sourced bison, for tribal hunting lotteries and food distribution.

With the cultural herd established and the legal disputes in the past, Fort Peck turned its attention to expanding the buffalo program’s reach. In 2017, the reservation built its own quarantine facilities to help Yellowstone National Park certify bison as brucellosis-free. This partnership evolved into the Buffalo Conservation Transfer Program, through which bison complete a two-phase quarantine process. “Bison spend two years in Yellowstone and one year at Fort Peck,” says Magnan. “We’ve been running it for nine years, and to date we have distributed brucellosis-free buffalo to 27 reservations across 16 states, including Alaska. Last year we made our first international bison transfer to Canada.”

"The buffalo are providing for us again. It has become one of our most important tools for food sovereignty."

— Robert Magnan



▲ ROBERT MAGNAN



▼ BISON ON FORT PECK



The return of the buffalo to Fort Peck and the herd's subsequent expansion have meant more than numbers and legal victories; they have meant the return of a crucial aspect of the tribes' cultures. "Cultural practices that had faded are coming back," Magnan says. "Our people used to follow the buffalo and model their way of life on theirs. If we could return to that, we'd be more resilient as a people." To help restore those practices, the tribes started a hunting lottery that benefits tribal members who draw tags and improves the health of bison pastures by managing herd numbers. Demand for the lottery has only grown among members of the Assiniboine and Sioux tribes. "Last year we issued 50 tags so tribal members could harvest one bison themselves," says Magnan. "People argue when they don't get picked, which tells you how much demand there is. That's a good feeling."

Alongside the cultural importance, returning bison to Fort Peck has presented a meaningful opportunity for the Assiniboine and Sioux tribes to use the buffalo again as a food source. During the

Covid pandemic, as well as a later federal government shutdown, the reservation's bison program was able to process some of its animals to feed over 70 people. "The buffalo are providing for us again," adds Magnan. "It has become one of our most important tools for food sovereignty."

As the Fort Peck bison continue to flourish and grow, the path forward will require careful land management and close monitoring of environmental review processes in the state of Montana. According to Magnan, Fort Peck aims to grow its herd to 1,500 bison roaming 150,000 acres of pasture, which would be enough to provide a sustainable food source for the community while keeping the land healthy. "We have to stay within our carrying capacity," he adds. "People sometimes ask why we cull bison from the herd, as if it contradicts our values. But taking animals is what keeps the land and the herd in balance. The buffalo take care of us, and we have to take care of the land that takes care of them."

Management of the herd and transfers of animals from it are now under pressure from outside the Fort Peck Reservation. An ongoing Montana lawsuit challenging Yellowstone's bison management plan leaves future transfers in the state uncertain. The complaint argues that the National Park Service failed to consult with the state of Montana. If successful, the suit could shrink the pool of Yellowstone bison available for tribal transfer. "If that happens, our transfer program dies," says Magnan. "All the work we've done would come to a halt."

Yet what Fort Peck has already built stands as a model for what tribal stewardship can accomplish. Tribal sovereignty gives the Assiniboine and Sioux strengths that many federal and private conservation actors don't have: cultural reverence, traditional ecological knowledge, and relationships with members of other tribes. Unlike federal agencies or private conservation groups, Fort Peck answers to its own people—not bureaucratic processes or outside approval. "We don't have to go through the same red tape,"

says Magnan. "People told us we'd need state and federal approval to process and distribute our own meat. We said no—we're not reselling it, we're giving it to our people." That autonomy, however, has its limits. Land acquisition remains a persistent obstacle. Neighboring landowners who are willing to sell their property often price it beyond what the tribes can offer, leaving potential pasture expansion for Fort Peck out of reach.

Still, Magnan remains clear-eyed about what Fort Peck is trying to build, and why it matters beyond the reservation. "What happened to our people and what happened to the buffalo followed the same pattern," he says. "Now we have a chance to help restore and sustain the buffalo like the way they once sustained us. All we're asking is to be allowed to do that."

Karla Hernandez is an associate editor at PERC.



BISON

THUNDERSTORMS

An ecological rainmaker returns to the prairie

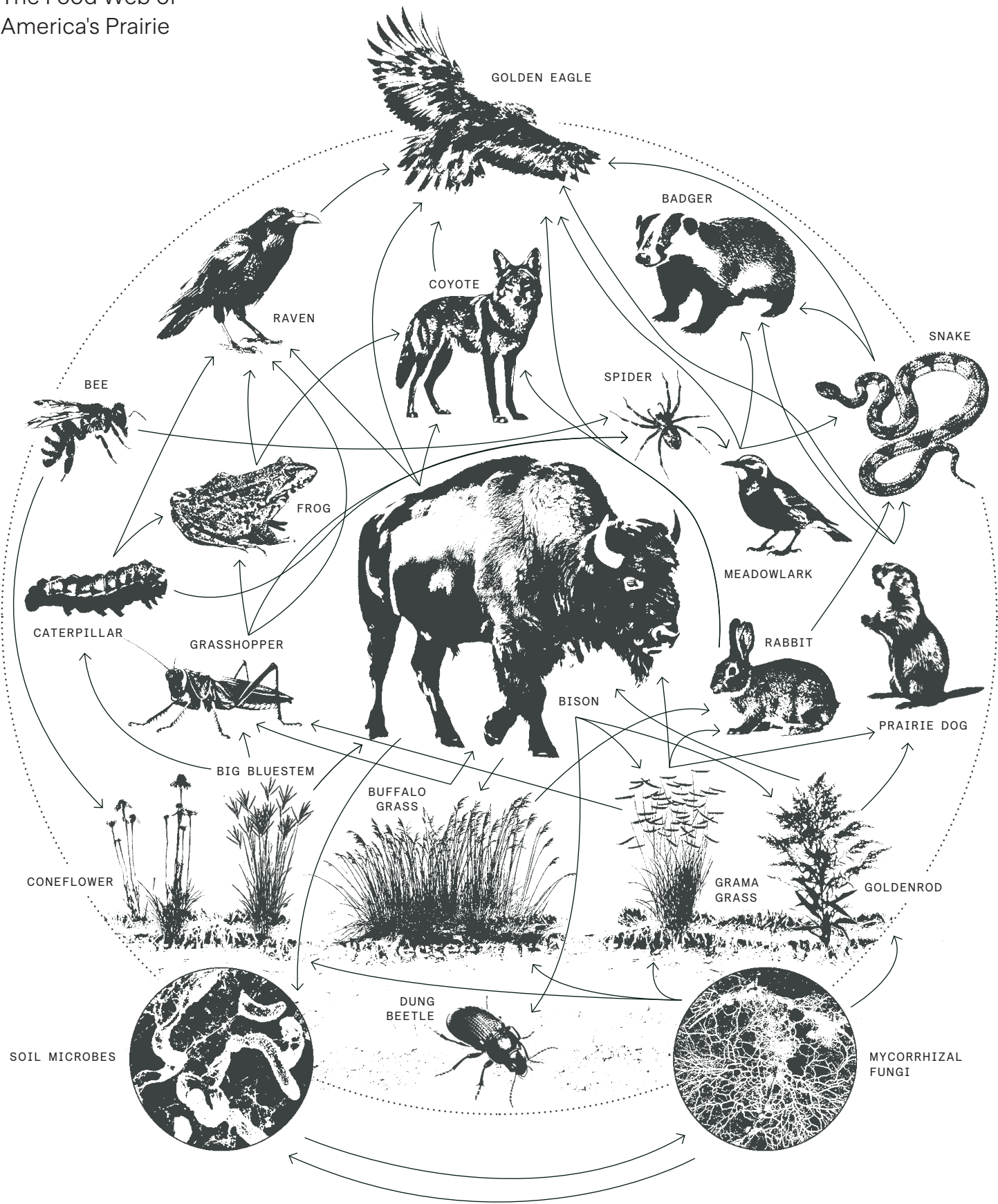
BY SOPHIE GILBERT

Ask a first grader to draw a bison, and they'll probably sketch you a brown beast with shaggy shoulders, a stylish goatee, and horns—pretty much a weird, hairy cow. Ask a historian, and they might draw a vast, rolling herd, perhaps being hunted by Native Americans, settlers, hide traders, or the U.S. Army. But ask an ecologist to draw you a bison, and you'll get a more complicated picture. It includes a whole lot of other creatures, so many that the bison looks like an afterthought, a tiny brown meatball at the center of a sprawling spaghetti diagram. But the small scale reflects their outsized ecological importance, achieved through relationships with many other organisms.

The bison emerges as a central node in an intricate web moving nutrients and energy around the community of living things within the ecosystem. Bison connect to grasses and forbs by feeding on them. But they also link to things far beyond: to soil microbial communities, prairie dogs and badgers, deer and elk, pronghorn and cattle, coyotes and wolves, and many more, through processes including competition, nutrient deposition, soil disturbance, and, eventually, provision of their carcasses as food.

A bison's ecology is defined by its relationships to other living things, yet most bison today are privately owned and constrained by fences, rather than free-roaming. Some of the relational threads that once connected bison to their ecosystems, and to people, are either broken or missing. Yet even a frayed web has value. And where bison threads remain, they still bind.

The Food Web of America's Prairie



From the Ground Up

From their teeth to their guts, grazing animals like bison are specialized to eat grass, as well as forbs and other plants. But just as surely, grass has adapted over eons to be grazed. Buffalo grass (*Bouteloua dactyloides*), a warm-season, fast-growing species, has evolved to be extremely resilient to herbivores eating it, as well as to drought. One of its primary adaptations is being able to regrow and spread via underground runners, called stolons, which over time produce a thick, tough mat of roots, matched by a large patch of soft, gray-green foliage aboveground that can quickly resprout from the base even after heavy grazing.

Rapid regrowth is a good trait to have, because a herd of bison can cause considerable damage to grass. They crop its blades short, and they trample it with all of the pressure brought to bear by 2,000 pounds concentrated onto four sets of

hooves, multiplied across an entire herd. Bison diets are roughly 80 percent grass in the shortgrass prairie, mostly because that's the dominant vegetation. But the grass gets something in return. As these shaggy eating machines move across the prairie, not only are they grazing, they are also disturbing the soil by wallowing and raining down nutrients in their feces and urine. The bison thunderstorm rolls in, tramples, crops, wallows, and fertilizes, then leaves a churned and fecund zone of opportunity in its wake. Where dominant grasses are heavily grazed by bison or cattle, or burned by wildfire for that matter, other prairie plants can better compete. Where wallows create bare dirt, rare plant species that specialize in newly disturbed habitats can colonize. Outside of the wallows, the buffalo grass resprouts from its stolons, supercharged by the gift of nutrients.

Buffalo grass and other prairie plants are well-adapted to these bison thunderstorms thanks to a long history with heavy herbivory. Bison are the last of a mega-herbivore menagerie that once roamed the Great Plains. Most died out following the last ice age, including mastodons, North American camels, and other massive grass-eaters. But unlike most of the other mega-herbivores, bison abundance increased greatly in the warming climate conditions following the ice age. During the same period, dominant prairie vegetation shifted from cool-season to warm-season grasses, which are highly resilient to intense herbivory. By the time Europeans arrived, bison were distributed in a wide, vertical "bison belt" that extended from Alaska all the way south to Mexico and covered almost 60 percent of the continent, spreading from the Rocky Mountains eastward to the Atlantic.



▲ BUFFALO GRASS

Diminished Yet Consequential

The rise of ecological research trailed the massacre and decline of free-roaming bison. We are left trying to piece together a picture of how bison interacted with their past grassland and prairie ecosystems by studying much smaller and more sedentary modern herds. Most shortgrass and tallgrass prairie that were once bison strongholds have been converted to agriculture. And most remaining prairie will never feel a bison’s hoof and are instead managed with cattle grazing, sometimes with the addition of prescribed fire. But today’s diminished herds reveal that bison can impact entire ecosystems, if they are given sufficient time and space to throw their weight around.

The vast majority of plains bison roaming North America today are privately owned, held by commercial ranching operations, tribal governments, or conservation groups. Unlike domestic cattle, most are pastured

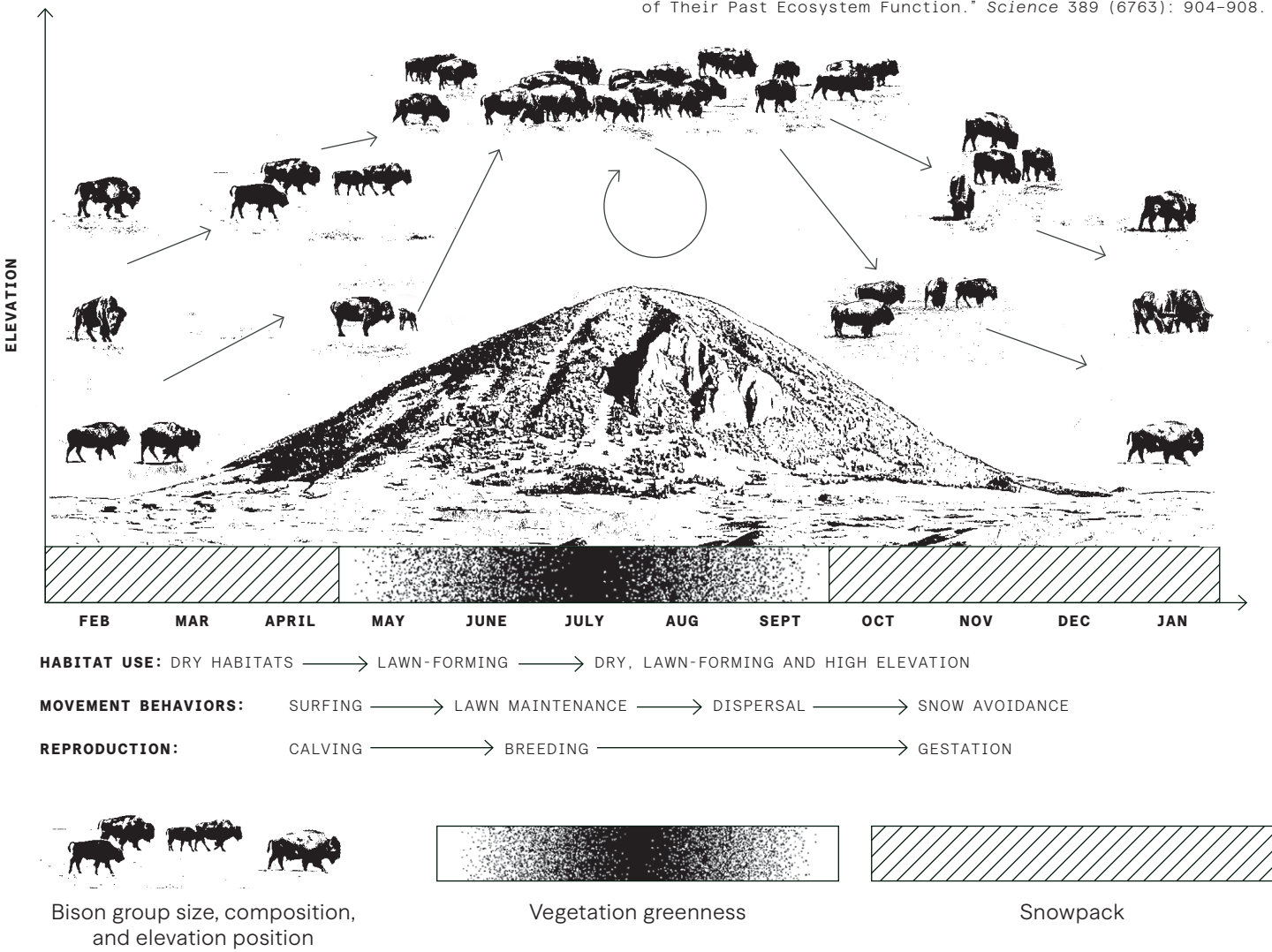
on rangeland year-round, although they are constrained by physical fences, unlike their wild forebears. Across studies, bison exhibit more movement, less time grazing, and less time spent near water than cattle. Similarly, bison select foraging patches at much larger scales than cattle, even in private herds. For example, research led by the University of Montana found that bison grazed patches of 20,000 to 30,000 acres at a time at American Prairie (a private conservation herd in Montana) and Grasslands National Park (a public herd in Saskatchewan), an area larger than most private ranches in the western U.S. For comparison, cows in the same study used patches of only 120 to 1,000 acres, despite similar stocking densities. Modern bison herds average fewer than 200 animals—far too small to support the full breadth of bison ecological processes, unless herds and acreage grow dramatically.

Bison migration is another factor constrained for today’s private and public herds alike. Long-distance movement is one of the species’ defining behavioral and ecological differences from cattle, and they would travel much farther if untrammelled. For example, the Yellowstone bison are the only migratory herd in the lower 48 states. From just a couple dozen tenuous survivors of the 1800s slaughter, the herd has grown to thousands strong. Yellowstone bison now migrate from low-elevation winter range to higher summer areas, increasing grass growth and protein content along their route by grazing and fertilizing. Yet even this herd, which appears quintessentially wild, is controlled in numbers, behavior, and ecology. The herd size is capped by human culling, and private land near the park constrains winter range, although conservation agreements have increased the amount of available habitat, and transfer programs to tribes decrease herd density.



Bison Migrate on the Green Wave

Source: Geremia, C., Hamilton, E. W., and Merkle, J. A. 2025. “Yellowstone’s Free-Moving Large Bison Herds Provide a Glimpse of Their Past Ecosystem Function.” *Science* 389 (6763): 904-908.



Some ecological evidence suggests that the herd is too numerous, exceeding historic densities and resulting in deterioration of riparian condition within the park.

Yet despite restrictions on herd size, range, and movement, today’s bison still perform many other behaviors distinct from cattle that yield ecological benefits. They still graze, horn, and wallow as their instincts dictate. They move rapidly and widely within the limits of their pasture boundaries, reducing grazing pressure on any one patch of prairie and boosting many kinds of grassland biodiversity, from birds to beetles. Bison-grazed prairies also show increased resilience to

drought, an increasingly relevant metric for conservation and livestock production alike in our changing world. All of these documented ecological functions of bison in private and public herds are manifesting despite higher stocking densities than would likely have occurred under wild, unrestricted conditions in the past.

Perhaps all bison exist somewhere along a continuum of ecological function. The wider bison can roam, the more of their ecological functions they can fulfill. Many conservationists say that bison are ecologically extinct because they can no longer graze across the enormous scales they once did. Yet for some private

herds, their size and movements may be approaching many if not most “bison functions.” For example, Turner Enterprises grazes 45,000 bison or so across a dozen massive U.S. ranches, while The Nature Conservancy owns approximately 6,600 bison across 11 different locations. These herds are managed to benefit ecosystems and biodiversity. And while these private rangelands, and the pasture management units within them, are likely still not large enough to allow bison to fully manifest their ecological functions, there are undoubtedly major components of ecological “bisoning” that are occurring at scale for large private herds such as these, and on smaller operations to lesser degrees.



Broadening the Bison Belt

What is the potential future for bison, numerically and ecologically? After all, the plains bison’s scientific name—*Bison bison bison*—conjures up abundance as its primary characteristic. Of the American bison alive today, perhaps 25,000 are in tribal herds, with another 30,000 in public or private conservation herds. Most, however, are in for-profit herds, which have leveled off at fewer than 200,000 over recent years. Eighty-two percent are in the western U.S., in herds of 200 on average. In the East, commercial herds usually number fewer than 50. And while most managers of private herds report managing for ecological values, these herd sizes of dozens to hundreds are unlikely to achieve massive ecological benefits.

Even the smallest herd serves a function that ecological accounting rarely captures: connecting people to land. Simply encountering wildlife in a captive zoo setting can spark a connection with nature for people that manifests in a greater commitment to conservation action.

Likewise, seeing a bison herd even behind fences can be a memorable experience, for children and adults alike—a reminder of their wild and free ancestors—and can help people develop lasting attachments to particular landscapes, and a stake in conserving them.

Tribal herds hold great promise for scaling bison ecologically while restoring relationships with people. Beginning in the 1990s, Native American and First Nations governments in the U.S. and Canada organized and collaborated to restore bison, primarily on indigenously managed land. These tribal herds have grown to more than 30,000 animals across all of North America, and are still expanding, unlike the stagnant aggregate numbers of commercially managed bison.

This growth is the result of cultural, spiritual, nutritional, and economic benefits that bison bring to tribal communities. Given the huge acreage managed by tribes and their members, there is much more restoration potential.

In the future, increasing drought and shifting beef markets could make bison more competitive with or complementary to cattle production. Bison are hardier than cattle and, with enough pasture, capable of self-sufficiency year-round. They also eat lower-quality forage, and graze farther from water, making fuller use of arid land than cattle. And bison grazing itself can bolster drought resilience in the prairie plant community, another potential economic upside for bison.

As long as there is growing demand for bison meat, there are market incentives for the private herds to continue to grow in size. And growth in numbers may lead to more opportunities to manage bison so that their ecological function grows more capacious. After all, they can be so much more than big, hairy brown cows. Bison thunderstorms, or at least buffalo showers, could once again move across landscapes. The shortgrass prairie, at least, wouldn’t care whether they were wild or not.

Sophie Gilbert is a wildlife ecologist and senior researcher at PERC.





Neither Wild nor Tame

How bison classification shapes ranching, tribal management, and conservation efforts

BY KATIE DOYLE

The way bison are classified can change once an animal crosses a state border or, in some cases, a property line.

In fall 2025, Wyoming rancher Mitch Benson sighed and watched out his window while a roaming bison wandered through his alfalfa field. The animal was too big and strong to handle the way he would a neighbor’s stray cow or horse, so instead of corralling, feeding, and watering it until its owner could pick it up, Benson watched the large mammal bed down in his crop for the night. This was not an isolated event. Previously, bison from Benson’s neighbors had torn through their fences, damaged crops and infrastructure, and, on one occasion, charged two neighbors.

Benson called the district brand inspector to officially identify the animal and start the process of returning it to its owners, but quickly realized he was on a jurisdictional merry-go-round. The bison had no brand or identifying mark, leading Benson to believe it belonged to the neighboring Wind River Reservation, which classifies and manages its bison as wildlife. The lack of a way to identify the animal, however, left the brand inspector with no authority to determine its owner. Benson then turned to the state wildlife agency, which has a policy to address bison that stray out of national parks or

wildlife management areas. But because this animal had escaped a private enclosure, it was considered livestock—and therefore not under the authority of the state wildlife agency. Caught in a gray area, Benson was left to deal with the wandering bison—and the damage it caused—on his own.

Whether American bison are designated as livestock or wildlife may appear to be a simple matter, but the decision has wide-reaching implications. The way bison are classified can change once an animal crosses a state border or, in some cases, a property line, leading to complex management even within state lines. The classification affects a range of people, from tribal members, landowners, and ranchers to wildlife managers, hunters, and government officials. Episodes such as the one that played out on Mitch Benson’s place highlight the need for states to clarify gray areas around how bison are designated in policy and treated in practice. Growing interest from conservation groups and tribal nations to see bison freely inhabiting western landscapes, similar to the way their ancestors did, only adds to the need for clarity.



The majority of bison in the West exist on privately owned ranches and are classified as livestock. These animals are sold in meat and hide markets, and their skin, bones, hair, and horns are sometimes used for things like home decor, furniture, crafts, or tools. Bison ranchers follow similar identification, disease-testing, and transportation regulations that cattle ranchers do, with exceptions that account for the size, strength, and demeanor of buffalo. Additionally, bison that are classified as livestock are subject to state livestock board “estrays” policies, which outline the protocol to follow when a livestock animal breaches its containment.

While each state has differing specifics, in general, when a livestock animal is found wandering, a brand inspector identifies and then notifies its owner, and the livestock board or the animal’s finder keeps it in a holding facility until the owner can retrieve it within a specified amount of time. Escaped

bison, however, pose a larger risk than most other types of livestock because of their size, strength, and potential to transfer disease to cattle, so the process used to identify and return a cow, horse, or goat to its owner is not conducive to a buffalo. When a buffalo breaches its bounds and poses a health or safety risk to livestock or people, the animal can legally be destroyed.

Although relatively rare, several herds of wild bison exist in the United States. Such free-ranging bison are not considered livestock, are often not bound by fences, are not regularly in contact with humans, and are responsible for finding their own food, water, and shelter. Among these is the well-known Yellowstone National Park herd, whose ancestors escaped eradication at the end of the 19th century and were preserved in the park. Similarly, various government agencies supervise bison on federal lands and in state parks across the country.

In eastern Utah, state biologists manage a free-ranging population of bison in the Book Cliffs. These animals are managed as a big-game species akin to deer and elk, meaning the herd is open to hunting according to state regulations. Since the herd is not bound by fences, bison occasionally wander across the border into Colorado. In late 2025, the Colorado state legislature classified free-ranging bison as big-game wildlife, creating opportunities to hunt them, while fenced bison on ranches are still designated as livestock.

Although bison wandering from Utah into Colorado are currently few and far between, the legislation created clear policy guidelines in anticipation of a larger population eventually settling there. Colorado’s designation demonstrates the growing recognition that as bison populations expand, so does the need for clarity in their classification. As Utah wildlife biologist Clint

Sampson puts it: “There is no crystal ball when it comes to bison.” The uncertainty is most consequential for a growing class of animals that are treated as wildlife by herd managers, but that states, by default, designate as livestock.

So-called “conservation herds” are owned by tribal nations or conservation groups that strive to manage bison as wildlife for their cultural, historic, and ecological qualities. In the United States, approximately 25,000 bison are managed in tribal herds, with thousands more managed by conservation organizations such as The Nature Conservancy and American Prairie. Managers typically prefer to treat these herds as wildlife rather than livestock, as they want to see them exist on the landscape in ways that mimic how their ancestors did. But the fact that such animals are in practice treated as wildlife by land managers yet in state statute designated as livestock can create

legal or policy confusion, especially in cases of escape.

The bison that entered Benson’s property was a member of the Wind River Reservation’s tribal buffalo herd. While inside tribal fences, the animal was classified as wildlife, but it shed that classification once it left its enclosure, becoming an escaped privately owned animal, or an estray. Currently, the best way to tell who such a bison belongs to is to judge by the location where it was found, a rule of thumb that may become ineffective as populations grow and ranges expand. Benson noted that there are nearby property owners who raise bison unrelated to the tribal herd, so while he assumed that the animal came from Wind River, he did not want to release it to an owner he and the brand inspector could not confirm. The incident was ultimately resolved when the Wyoming Game and Fish Department director authorized a tribal buffalo manager to enter the property and

haze the animal back into its enclosure. After the incident, Benson wrote a letter to Wyoming Governor Mark Gordon expressing his concern and frustration. “If the State and its State Agencies do not bring resolution to this issue ... I will be left with no other choice but to defend my privately owned deeded land, livestock and my livelihood,” he wrote. Still, he spent the weeks that followed fixing damaged fences, which he considered a cost of doing business, and he decided not to submit a bill to the owners of the animal.

Since European colonization of America, bison have held a complicated position in the United States. A range of factors are pushing against the status quo that has been upheld for decades, emphasizing the need for livestock-or-wildlife designation issues to be directly addressed in each state. As long as wildlife, cattle, and humans share the landscape, there will always be a need to adapt law and policy to changing dynamics.

Katie Doyle is a conservation associate at PERC.





A Long Shadow

For a century, one disease has hung like a cloud over the West’s most iconic animal. A Colorado lab, a federal rule change, and a shift in science are beginning to lift it

BY TATE WATKINS AND TRAVIS BRAMMER

In a laboratory at Colorado State University, Jennifer Barfield has spent more than a decade solving a problem that has vexed bison managers for the past century. Barfield studies animal reproduction, and the bison she works with descend directly from Yellowstone National Park’s wild herd. They also carry brucellosis, the disease that could threaten cattle if infected bison wander outside the park.

Working with the U.S. Department of Agriculture, Barfield developed a method to “wash” the bacteria that causes brucellosis out of bison sperm and embryos in vitro, resulting in calves that are free of the disease yet still genetically Yellowstone bison. The achievement “allowed for the successful breeding of bison directly descended from the Yellowstone herd,” she told *The Colorado Sun* last year, without the disease that ranchers and wildlife managers fear. The breeding program created the Laramie Foothills Bison Conservation Herd, a closed, certified-brucellosis-free herd near Fort Collins that has sent more than 125 animals to 11 tribes since 2015.

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A Disease That Came with Cattle

Nearly everything about how bison are managed in the Greater Yellowstone Ecosystem reckons with brucellosis. Caused by the bacterium *Brucella abortus*, the disease triggers miscarriages and premature births in cattle, horses, elk, and bison alike. The disease is not native to North America. It arrived with European livestock, was identified in American cattle by 1910, and reached Yellowstone’s bison within seven years—most likely from dairy cows that hotel concessionaires kept in the park’s early days.

For most of the 20th century, brucellosis was a national problem, moving through cattle herds across the country until a decades-long eradication campaign all but wiped it out. By the late 2000s, the

entire United States was effectively free of cattle brucellosis, with one exception: the Greater Yellowstone Ecosystem, where the disease continued to circulate in wild elk and bison. The region is now the last reservoir of *Brucella abortus* in the country. That’s why Yellowstone’s bison are so heavily monitored and tested—and so often captured and killed when they leave the park—for fear that one will carry the disease across the boundary into a cattle herd.

The cost to a ranching family from brucellosis is real. A single positive test can force the quarantine of an entire herd—at a cost of nearly \$150,000 for a herd of 400, by one estimate—or, worse, depopulation, the slaughter of every animal. For ranchers living on margins

of \$40,000 or less per year, who have worked for generations to build cattle herds suited for their geography, the threat keeps families awake at night. That risk shapes how welcome wildlife is on private land. States are also deeply motivated to prevent transmission. Too many transmissions and a state risks losing its USDA-certified brucellosis-free status, which could limit cattle sales for all ranchers within the state.

The irony is that while cattle brought brucellosis to the ecosystem, public sentiment often scrutinizes wild ungulates as the primary vector of the disease. Yet wild bison have never been documented transmitting brucellosis to cattle under natural conditions. Elk have, some two dozen times.

Tools Catch Up

Slowly, solutions are catching up to the problem. Barfield’s clean herd is one example. So is Yellowstone’s Bison Conservation Transfer Program, which quarantines and certifies disease-free bison for restoration to tribal lands rather than sending them to slaughter. And in 2024, federal regulators proposed removing *B. abortus* from the Select Agents list—a roster of dangerous pathogens whose handling restrictions had stymied research into better vaccines and diagnostics. PERC filed a public comment in strong support, building on an earlier comment from 2020, arguing that removing it from the list would boost research efforts and lead to better tools that serve ranchers and wildlife alike.

None of the progress has made brucellosis disappear. But after a hundred years, it’s no longer the last word on what is possible for Yellowstone’s bison.

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▲ LAKE YELLOWSTONE HOTEL



Views From the Ground

Bison and brucellosis form a century-old knot. We asked leaders across the ecosystem to weigh in by telling us about the current state of the connection between bison and the disease

It's important to note that brucellosis was brought by cattle and infected wildlife like bison and elk. It has for the most part been contained to the Greater Yellowstone Ecosystem. There has never been a documented case of bison giving cattle brucellosis in a natural environment, but over 30 cases of elk transmission to cattle. The management has yet to follow the science. Livestock diseases are of great concern to bison conservation, such as malignant catarrhal fever and *Mycoplasma bovis*, which are fatal to buffalo, and arguably more detrimental to bison than brucellosis is to cattle. The Yellowstone Bison Transfer Program has been successful at ensuring that live buffalo, certified disease-free, can be restored to tribes, despite them coming from brucellosis-exposed populations. This is a success story that should be amplified and supported as a way to ensure healthy animals, with desirable genetics, can be restored to tribes and reservation communities.

Jason Baldes, executive director of the Wind River Tribal Buffalo Initiative and vice president of the InterTribal Buffalo Council



Bison have long been the reservoir for brucellosis in the Greater Yellowstone Ecosystem. At present, the bison herd is over 60 percent seropositive for brucellosis. The Interagency Bison Management Plan controls bison management both inside and outside Yellowstone National Park boundaries. Outlined within this plan are spatial and temporal criteria that must be followed when bison leave the park. These outlined criteria stop commingling of bison and cattle outside the park, thereby preventing a bison to cattle transmission of disease. However, the wild elk and controlled bison freely transmit the disease of brucellosis between them. Since the bison are managed and the elk are not, the elk become the vectors for disease transmission to cattle. Due to the transmission risk to cattle and the trade implications, the Designated Surveillance Area was created. Within the area, cattle operations are bound by rules and regulations that affect no other cattle operations in the state. If and when a transmission of brucellosis occurs and is detected in a cattle herd, there is a lengthy and expensive quarantine that takes place, possibly prohibiting that cattle operation from existing in the future.

Druska Kinkie, Paradise Valley, Montana, rancher and chair of the Paradise Valley Working Lands Group



The current Yellowstone bison-brucellosis connection is a tragic irony. Cattle originally brought this nonnative disease to the ecosystem, yet wild herds now bear the burden of containment. While wild bison carry a transmission risk, the threat they pose is far smaller than that of wide-ranging elk. Still, we have to address the severe financial and regulatory anxieties of cattle producers head-on. It requires collaborative, science-based solutions that balance wildlife preservation with ranching livelihoods. The growing partnerships between the National Park Service and tribal buffalo projects are demonstrating how to make this balance a reality.

Arthur Middleton, professor of wildlife management at UC Berkeley, co-director of the Stone Center for Environmental Stewardship, and a trustee of the Buffalo Bill Center of the West



As a rancher in the Greater Yellowstone area, we have a large concern with the bison and their infection with brucellosis. The Yellowstone area is the last reservoir of brucellosis in the United States. The public lacks a great deal of perspective when it comes to knowledge about this disease, and its effect on all types of livestock, but most of all, the effect on humans. This has been a major health concern in the past and it has prompted all the rules and protocols in place today. The management of bison has great ramifications on the future of Montana's brucellosis-free status.

Alan Redfield, Paradise Valley, Montana, rancher and member of the Montana Board of Livestock



Advances in science have reshaped our understanding of disease risk, yet it remains an important consideration in the Greater Yellowstone Ecosystem. Elk—not bison—are the primary source of brucellosis transmission, and decades of collaborative management has successfully prevented transmission from bison to cattle. Today, the conversation has expanded to restoring bison to suitable habitats, including tribal lands where ecological and cultural renewal is benefiting people and wildlife. Partnerships among tribes, agencies, nonprofits, and ranchers are effectively reducing conflicts and creating new opportunities for restoration, demonstrating that healthy bison populations and thriving communities can coexist.

Scott Christensen, executive director of Greater Yellowstone Coalition

Sharing the Costs of Living with Wildlife

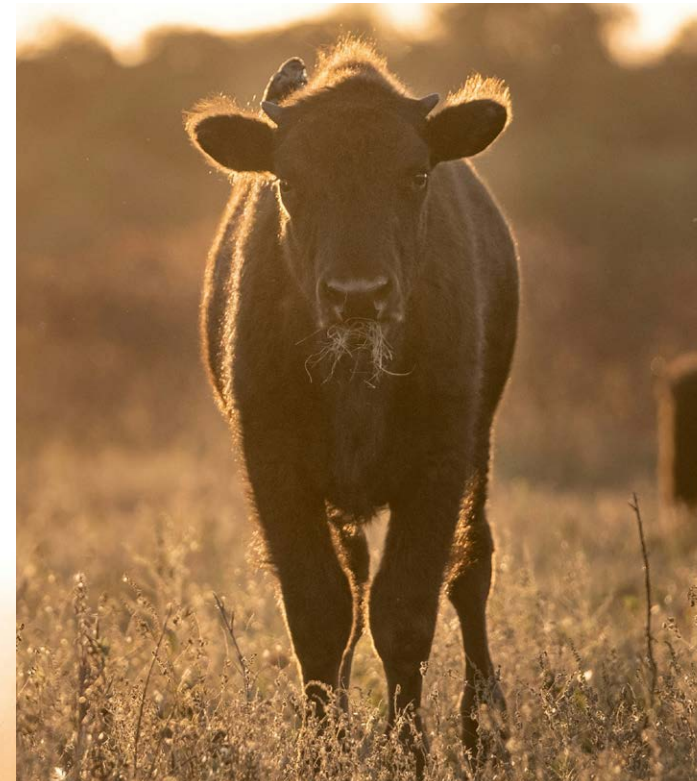
PERC's brucellosis compensation funds help ranchers absorb the risk of hosting migratory wildlife

The heaviest costs of brucellosis fall on ranchers, and those costs shape how much wildlife they can afford to tolerate. In Montana's Paradise Valley, thousands of elk spend the winter on private ranchland, and a single brucellosis case can saddle a rancher with a six-figure quarantine. Recognizing that ranchers were bearing that risk largely alone, in 2023 PERC launched the Paradise Valley Brucellosis Compensation Fund—the first of its kind. Financed privately by conservationists, hunters, and community partners, the \$150,000 fund covers 75 percent of a rancher's quarantine-related costs after a positive test, with the cost-share structure designed to keep ranchers invested in prevention.

The model has since crossed the state line. After learning of the Paradise Valley fund, in 2025 a coalition of landowners and conservation groups, with support from Wyoming's wildlife and livestock agencies, worked with PERC to launch the East Yellowstone Brucellosis Compensation Fund. The fund covers ranchers in Park County, where the Cody and Clarks Fork herds—some 10,000 elk—winter on working ranches. It offers protection tailored to Wyoming's ranching community, accounts for other state-specific programs, and covers 60 percent of a rancher's quarantine costs.

The logic behind both funds is simple: Before conservationists can ask ranchers to live with the wildlife of the Greater Yellowstone Ecosystem that could devastate their livelihood, we must first find ways to share the burden. It's a reminder that easing the brucellosis problem is not only a matter of science, but of incentives.





When Bison Conservation Becomes Grounds for Losing Grazing Permits

BY JONATHAN WOOD

The bison was saved by visionary ranchers. More than a century later, the federal government aims to use the Taylor Grazing Act—the 1934 law that has governed the American West ever since—to prevent bison ranching from restoring the American prairie. Bowing to politics, the Bureau of Land Management has used a short-sighted and ahistorical interpretation of that law to declare that ranching and conservation are fundamentally in conflict. In doing so, it not only set back voluntary conservation but also planted the seed for future threats to ranching on public lands.

In 2001, the nonprofit American Prairie Foundation set out “to create the largest nature reserve in the continental United States.” Its plan: to conserve three million acres of prairie grasslands in central and northeastern Montana, reintroduce and graze bison, and manage the land to maintain and enhance ecological integrity. If it reaches that goal, it will have created a reserve larger than Yellowstone National Park.

What makes American Prairie different from many other environmental groups is that it seeks to pay for conservation rather than demand it from others through the legal or political processes. Over the last 20 years, it has purchased more than 150,000 acres of private land from willing sellers. In eastern Montana, ranches typically have privileges to graze neighboring federal lands. When American Prairie purchases a ranch, it pays for the leases too. In a recent purchase, for instance, the organization acquired rights to roughly 2,000 acres, of which 1,762 were private acres and 320 were leased public acres.

Despite its voluntary, market-based approach, American Prairie has been a political and cultural lightning rod in Montana. Signs reading “Save the Cowboy, Stop American Prairie Reserve” dot roadsides. A Montana state senator once wrote an op-ed expressing his desire to “legislate” American Prairie “out of existence,” and followed up with attacks on the group’s property rights and nonprofit status. To many, the group threatens the fragile economy and culture of small, rural communities.



Some of the damage was likely self-inflicted. When a project starts with a map with an oval around the area it aims to conserve, it's reasonable to expect families who have lived there for generations to perceive you as telling them to get out. That sense seemed to be confirmed when the founder, in an interview with *National Geographic*, said, "Time is on our side." Local ranchers (perhaps uncharitably) took that to mean that the group didn't need to worry about ranchers' concerns because it could wait them out. American Prairie now credits "the good stewardship of landowners in northeastern Montana" with making this region so special. But first impressions are hard to overcome—especially in a state where second-generation residents can still feel like newcomers.

In a recent decision, the Bureau of Land Management chose to take a side in this simmering conflict, announcing that American Prairie cannot graze bison under any of its federal grazing

permits. It did so by adopting an unprecedented and strained interpretation of grazing law to legally bar conservation ranching.

The Taylor Grazing Act authorizes the BLM to lease federal land "to graze livestock." Under both federal law and state law, bison are livestock in Montana. But the BLM announced that eligibility turns on the agency's judgment about the grazing's primary purpose—if the rancher is motivated by conservation, their leases are forfeit. In effect, the BLM rejects the notion of conservation ranching by defining conservation and ranching as in conflict with each other. That's a disservice to the real conservation ranchers do across the country every day.

There's nothing in the Taylor Grazing Act that requires this subjective analysis, and it appears that the BLM has never asked any lessee about their purposes for grazing or for information needed to implement such a vague standard. Ordinarily, a new

standard like this would be developed through regulation with the benefit of public input. In this case, however, the standard was rushed to invalidate a specific holder's permits, which makes unintended consequences all but inevitable.

The decision opens the door for a future administration to demand intrusive information about ranchers' operations and motivations—and to deny leases based on its subjective evaluation of that information. A ranch's small profit margin, for instance, might be deemed evidence that the operation is primarily motivated by tax strategies, lifestyle preferences, or other considerations rather than mere production.

The new standard may have other, more immediate consequences. The Departments of Agriculture and Interior recently agreed to work together "to sustain and protect America's ranching heritage." A key plank of their plan is to use grazing as a wildfire

risk-reduction strategy. "To further enable fuels reduction," the agreement explains, the agencies will make vacant allotments available for grazing "in advance of the allotment's typical wildfire season." But under the agency's new rationale, this appears to be an improper conservation purpose for grazing federal lands.

Perhaps American Prairie's decision to concentrate on an area with such a high proportion of public lands—which PERC co-founder Richard Stroup was fond of calling "political lands"—made it inevitable that its project would become mired in political conflict. But it's nonetheless unfortunate. It would be better for the organization, the ranchers who oppose it, and both bison and cattle if competing demands for these lands were resolved instead through markets, compromise, and cooperation.

Jonathan Wood is vice president of law and policy at PERC.

PERC is proud to serve as the lead Nonprofit Partner of *Buffalo Nation*. This publication is a companion to the exhibition, chronicling the stories of private stewardship that have always been at the heart of bison conservation in America.



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