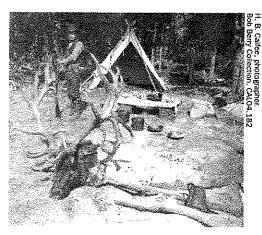


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A hunter in Yellowstone, ca. 1875, with the head of a large bull elk. Photographer H. B. Calfee labeled this photograph "I Killed Him."



Aya Hori Masuoka, late 1930s

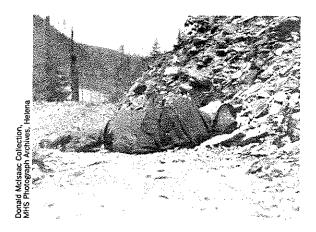


A regiment of Indian scouts assemble on horseback under the command of 1st Lt. Edward Casey, Fort Keogh, ca. 1880.

ON THE COVER (front, detail) A hunter and outdoorsman, German-born Carl Rungius (1869–1959) spent most of his career painting in the American and Canadian West and is widely regarded as the preeminent artist specializing in portrayals of wildlife. Trained at the Berlin Art Academy, Rungius emigrated to the West in 1896 in order to paint wildlife and landscapes, and his works illustrated conservation and hunting magazines. In the Foothills (n.d., oil on canvas, 30.25" x 40.25") is one of many paintings Rungius created in the field, as he believed direct observation was necessary to portray big game animals accurately. Courtesy Whitney Western Art Museum, Cody, Wyoming. Gift of Mr. and Mrs. Larry Sheerin. 2.72

(back) Japanese woodblock artist and printmaker Ippitsusai Buncho (1755-1791) created numerous actor portraits during the eighteenth century. The ukiyo-e' genre combined portraiture with decorative arts to portray actors, courtesans, and various ceremonies, often taking the form of woodblock prints or silkscreens. Buncho's *The Actor Segawa Kikunojo II as Snow Woman*, (ca. 1760-1770, woodblock print) depicts a popular Japanese folklore character, Yuki-Onna—a beautiful spirit being who inhabits the snowy mountains and has the power to cause humans to freeze to death. Snow Woman invariably appears with snow-white skin and wearing a white kimono. Courtesy Montana Museum of Art & Culture, Missoula, Permanent Collection. Gift of Mrs. Clara Jaedicke Jackson

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Some of Taft, Montana's, many casualties were buried in a graveyard behind the hospital, while others, such as this man, were left where they fell, particularly if they died in winter.

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We would like to thank the Friends of the Montana Historical Society for their generous donation of \$500 toward the purchase of photographs for *Montana The Magazine of Western History*. Your contribution is greatly appreciated!

CORRECTION The caption for the Missoula Mercantile photograph on page 52 of the Winter 2019 issue should have read, "The Missoula Mercantile Company, operating out of a deceptively humble storefront, served as a regional hub of economic, social, and political power."

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Montana The Magazine of Western History (ISSN 0026-9891) is published quarterly by the Montana Historical Society. Subscriptions are \$35 per year or \$65 for two years. Foreign orders add \$14 per year for postage in U.S. funds. Direct subscription and advertising questions to Business Manager and editorial correspondence to Editor, Publications, Montana Historical Society, 225 N. Roberts St., P.O. Box 201201, Helena, MT 59620-1201. Unsolicited manuscripts cannot be returned without return postage. Authors are responsible for the interpretation in their articles. Articles are abstracted and indexed in Historical Abstracts and America: History and Life, Santa Barbara, CA, Arts & Humanities Citation Index, Institute for Scientific Information, Philadelphia. Reproduction in whole or in part without written permission is prohibited. Periodicals postage paid at Helena, MT, and additional mailing offices. POSTMASTER: Send address changes to Montana Historical Society, P.O. Box 201201, Helena, MT 519601.



Abundance, Slaughter, and Resilience of the Greater Yellowstone Ecosystem's Mammal Population

A VIEW OF THE HISTORICAL RECORD, 1871-1885

by Lee H. Whittlesey

Hunters with remains of elk and bears, Montana Territory, 1882. While subsistence hunting by indigenous inhabitants and Euro-American settlers affected the greater Yellowstone region's wildlife populations, unregulated commercial hunting and thrill killing increased the number of mammals killed to the level of wholesale slaughter between 1871 and 1885. A study of the historical record yields evidence that the region supported an extraordinary abundance and diversity of animals, all of which continue to survive in the park to this day. L. A. Huffman, photographer. MHS Photograph Archives, Helena 981-704.

They are not slaughtered for their meat or skins but . . . simply for the pleasure of killing them.

MAJ. JAMES S. BRISBIN TO LT. G. C. DOANE, 18781

SINCE THE EARLY TWENTIETH CENTURY, the question of how many and what large mammals lived in the area of Yellowstone National Park, before and after its creation in 1872, has persisted. The question and its answers are important for the historical record and to the decisions made by park managers. For instance, in the 1990s, when the National Park Service was considering reintroducing wolves into the Yellowstone ecosystem, it wanted to find out more about whether wolves were indeed native to the park; whether the presence, abundance, and distribution of various mammal species—including wolves' prev base-could be learned; and whether it was true, as alleged by critics of reintroduction, that there had been no wolves, few elk, and few or no bison present during much of the area's history.

The topic mattered, not only because of its ramifications for wolf reintroduction, but also because it affected management of nearly all of Yellowstone's sixty-seven species of mammals and, by extension, every other living thing in the region-whether animal, plant, bacterium, or archaea. Such information had the potential to be used in the park's future management of all those life-forms. At the time, preceding studies had examined only ten to twenty historical sources. This incomplete data led to disagreement about the distribution and abundance, and even historical presence of large mammals in Yellowstone National Park and the surrounding Greater Yellowstone Ecosystem (GYE) prior to commercial hunting in the area, the park's establishment, and the implementation of predator control programs.2

While scientists collected and analyzed information from lake sediments, tree rings, pollen profiles, floodplain-sediment profiles, archaeology, and paleontology, the National Park Service also decided to engage historians Paul Schullery and Lee Whittlesey to begin researching the historical record to build a more in-depth picture of the region's ecology, including its historical wildlife populations. Their undertaking was more exhaustive than any previous attempts to mine the historical literature for

information.3 Based on the careful examination of 168 historical accounts, the authors became convinced of the following: 1) wolves were present and distributed throughout the GYE; 2) at least thirteen other predators were also present, along with many small mammals; 3) more than 90 percent of the observers who commented on the abundance of wildlife generally in the GYE stated that animal populations were very abundant; 4) elk were widely distributed throughout the GYE, and were observed in groups and occasionally in large herds in every portion of the park where such observations would be expected today; 5) northern Yellowstone Park and much of the GYE were used as winter range prior to 1882, and at times this winter range was occupied by large numbers of animals; 6) bison were present throughout the region in good numbers, depending on the year; and 7) the combination of commercial robe, hide, fur, and skin hunting, recreational hunting, subsistence hunting, and carcass-poisonings dramatically affected the wildlife scheme in the GYE from 1871 through at least 1881. This last finding led the authors to suspect that the massive slaughter of mammals for market purposes, which is generally recognized as having taken place throughout the Northern Plains, extended into Yellowstone National Park and its surrounding environs and dramatically affected its wildlife population. To reach a definitive conclusion, the authors expanded the number of known accounts from the initial 168 to 511 and added many new sources that extended the period of greatest slaughter to 1885. A look at some of the findings illuminates why consulting historical sources matters both to understanding the ecological impacts of human activities and to making sound management decisions.

Between 1871 and 1884, mammals in and around Yellowstone National Park became casualties of extraordinary human forces. While increasing numbers were killed for subsistence by Natives, miners, and other settlers, staggering numbers were subjected to an indiscriminate and substantial amount of recreational (sport) hunting or to large-scale commercial

(market) hunting that amounted to no less than a massive slaughter.4 These events have had immense and long-lasting effects on the mammal populations in the Yellowstone region. Notably, the destruction of bison in and around the park was a microcosm of the wholesale slaughter that decimated bison populations throughout the American West. On the Northern Plains, this destruction began in 1871 and led to the disappearance of buffalo from that region by 1884.5 When looking at the historical record, one is immediately struck by the extent to which early park visitors routinely "blazed away" (shot) at park wildlife. A survey of 511 primary-source documents from this period, however, also tells a surprising story of resilience in the face of indiscriminate slaughter in Yellowstone National Park. Using these firsthand accounts and observations complicates conclusions about the impacts of unfettered killing and at the same time offers a baseline for better understanding of animal distribution and abundance before and after Euro-American arrival.

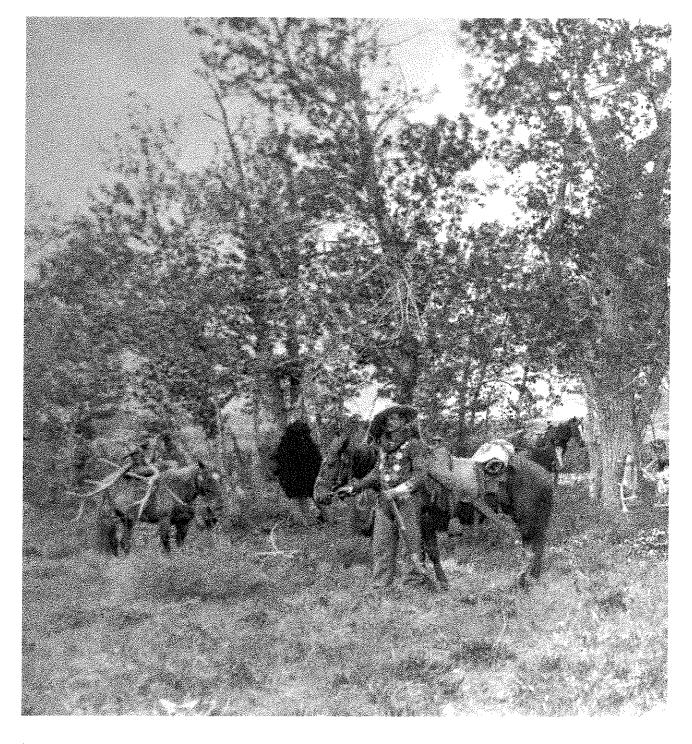
For millennia, indigenous hunters from tribes throughout the region had hunted in the Yellowstone. The Bannock (Indian) Trail, which runs west-to-east across the northern tier of the park, was created largely by early hunting parties during annual bison-hunting trips. This route continued to be well-used between 1838 and 1878 by indigenous hunters and, later, by prospectors and commercial hunters. While tribes' annual hunts did impact wildlife populations along the route, including those in northern Yellowstone Park, the immediate and cumulative impacts were minute compared to those caused by Euro-American sport and market hunters beginning in the 1870s.

Furs and gold first brought Euro-Americans through the area that became Yellowstone National Park in the early to mid-nineteenth century. As their interest in the region grew, travelers began to visit the mostly roadless, unexplored area on horseback, and virtually everyone hunted and/or fished because no prohibitions on hunting yet existed. While it is difficult to pinpoint when these hunters changed their focus from subsistence hunting to killing in greater numbers for sport or for market hunting, the shift most likely occurred in the autumn of 1871. Lieutenant Gustavus Doane, who had led the military escort that accompanied an 1870 survey of the area (the Washburn Expedition), remained a keen observer in subsequent years. Doane wrote to General William E. Strong in 1875 that "the terrible slaughter . . . has



In 1870, prospectors established a mining camp that became Cooke City (above, ca. 1890) at the eastern edge of Yellowstone National Park on land that, at the time, still belonged to the Crow Tribe. They subsisted largely on elk, bison, deer, antelope, and bighorn sheep from the Yellowstone ecosystem.

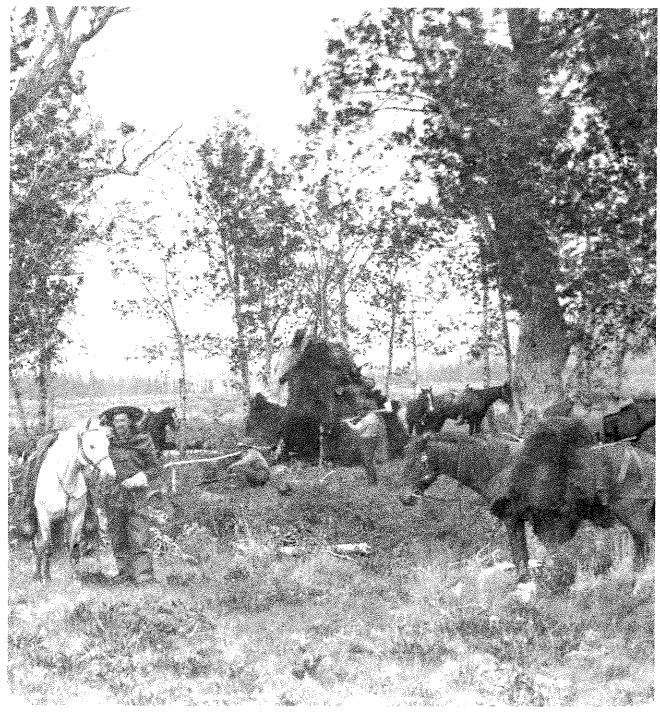
Yellowstone Gateway Museum, Livingston 2006.045.0107



been going on since the fall of 1871." This statement makes it apparent that the massive slaughter of wild-life was already underway less than six months *before* Congress declared Yellowstone the first national park on March 1, 1872. 8

Close documentation of the animals in the area began with the federally sponsored Hayden Survey of 1871, a geological and geographical exploration of the region. Rumors of abundant wildlife preceded their journey. That summer, Henry Wood Elliott, the littleknown technical artist who accompanied the Hayden expedition, wrote, "The country around and about here is truly a lovely one—the finest by all odds that I have ever been into and the wildest reports are in the air as to the quantity of game and trout in the Yellowstone basin." Observations by subsequent visitors confirmed that these "wildest reports" were true.

The 1871 Hayden Survey headquartered at the Bottler Ranch (near Emigrant in today's Paradise Valley). By that time, the Bottler brothers—Philip, Frederick, and Henry—were already involved in the robe/fur/hide/skin business in southern Montana Territory on what was then the westernmost portion of the Crow Reservation. The earliest permanent



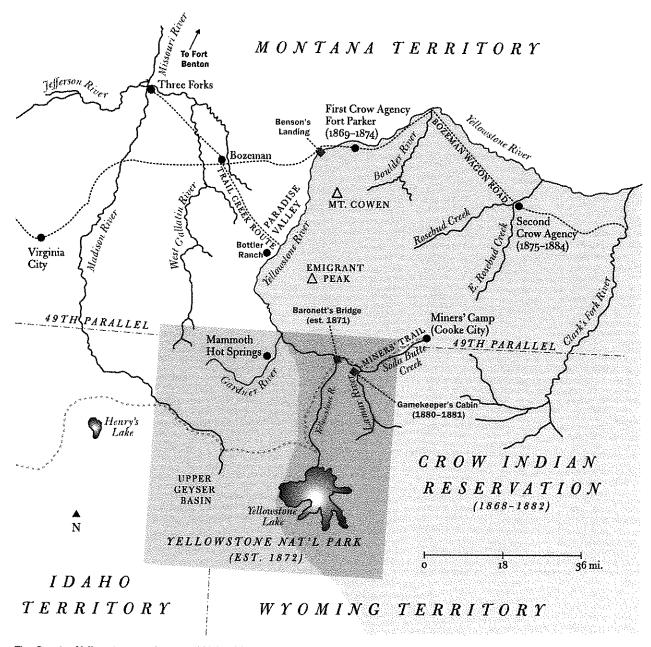
Outfitter Frank B. Tolhurst and his fellow hunters and their spoils—including elk, bear, badger, and bison hides—at their hunting camp near Henry's Lake just west of Yellowstone Park, ca. 1880. Sport and market hunters slaughtered staggering numbers of large mammals in and around Yellowstone National Park between 1871 and 1885, plundering the area's mammal populations for recreation and profit.

Whithorn Collection, Yellowstone Gateway Museum, Livingston 2006.044.7248.

white settlers in the upper Yellowstone River region, the Bottlers thrived on the valley's commercial fur and skin business. Survey member Joseph Savage, who spoke directly to Philip Bottler, noted the number of hides the Bottler brothers had sold over the past year: 301 elk skins, 250 deer and antelope skins, and 555 wolf skins for \$2,991.32 at a cost of \$397 for shipment to New York.¹⁰

Hunting, which had always been essential to subsistence, was now becoming an increasingly lucrative endeavor, as access to freighting and shipping ports facilitated the hide trade. Records of shipments of bison robes from Fort Benton illustrate the scale of the slaughter throughout the territory in the early 1870s. Fort Benton's port status allowed it to ship by steamboat huge numbers of robes, furs, hides, and skins down the Missouri River to markets in the East, and Doane referred to Fort Benton as the "headquarters of the northern robe trade" in 1872. At this time, the city nearest Yellowstone National Park was Bozeman, which served as a key distribution point for goods coming into or being exported from southern Montana Territory. The town's traders served the region's settlers, supplied nearby Fort Ellis, and controlled the Crow Indian agency trading post, making Bozeman

second only to Fort Benton in overall importance to the hide export business. Businessman Walter Cooper was one of the most significant buyers of hides and furs from the Yellowstone region, purchasing from fur and skin hunters like the Bottler brothers as well as from tribal members. A Bozeman newspaper noted in 1872 that "Indians are in town changing buffalo robes and furs for 'heap greenbacks.' Walter Cooper gets ahold of most of them." Other ports along the



The Greater Yellowstone region, ca. 1876–1882. At this time, much of the area was designated Crow treaty land, yet hunters and traders exploited the region's substantial populations of elk, bison, deer, pronghorn, bears, wolves, and sheep, and exported their hides to Fort Benton, Montana, and Corinne, Utah, by freighters or down the Yellowstone River.

Base maps: "Map of the Yellowstone and Missouri Rivers and their Tributaries" by G. L. Gillespie, U.S. Army, 1876 (MHS Research Center Library, Helena A-218) and Map of the Yellowstone National Park, 1881, by P. W. Norris (MHS Research Center Library, Helena B-305). Composite map by Laura Ferguson and Diane Gleba Hali, 2020.



The Bottler Ranch in present-day Paradise Valley served as headquarters for the Hayden Survey party. The Bottler brothers, who arrived in Paradise Valley in late 1868, were likely the region's earliest and most successful commercial hide hunters. Note the large numbers of animal skins hanging on the building at right.

W. H. Jackson, photographer, National Park Service, Yellowstone National Park, 02911

Yellowstone River, including Benson's Landing near present-day Livingston, joined these entrepots in 1877, expediting the commercial killing of mammals and adding to the pressure on Yellowstone's wildlife populations.¹¹

In the early 1870s, large bison herds still thrived along the Yellowstone River on the northern portion of the Crow Reservation (from present-day Livingston to Billings). In late November 1872, Dr. Andrew J. Hunter of Hunter's Hot Springs informed Bozeman's Avant Courier that those herds were coming upriver, and the newspaper encouraged the slaughter. "Now is the time, ye gay and festive shootists," proclaimed the newspaper recklessly, "to bring down your score or more of these monarchs of the plains. Go for them and we may soon have the exquisite satisfaction of hearing at our boarding house, 'Buffalo Rump Steak and Tongue,' and hear ourselves sweetly respond with a Yes." 12

On December 12, a writer known as "N.V.S." reported to the *Avant Courier* from what was probably Schaffer's ranch in Paradise Valley: "Several hunting parties have passed up [the river in] the last few

days. The party, of which Captain George Tiscum is the ruling spirit, is returning, crowned with success, having butchered a large number of elk and deer." The reporter also commented that "General" George Huston, an area resident who had prospected, guided, and hunted in what became Yellowstone Park since the 1860s, "passed this morning with a fast freight train [wagon train], laden with elk, deer, sheep and buffalo, en route for the Bozeman market." This legal hunting activity by Huston and many others was just what one would expect in an area where nearly everyone was hard-scrabbling to make a living and where hunters saw the potential return from commercial hunting when they could get their robes, furs, hides, and skins to a market. 13

Concern over this wanton killing of mammals, however, convinced Montana territorial officials that a law was needed to regulate hunting, and, in late 1872, legislators decided to close the season on bison, moose, elk, deer, bighorn sheep, mountain goats, antelope, and hares from February 1 to August 15 each year and made it a misdemeanor to kill these mammals out of season. For the most part, however,



Many hunters did not hesitate to kill elk in velvet or pregnant females, as this 1872 photograph of a hunt in Yellowstone National Park attests. Lack of restrictions on hunting encouraged wasteful killing, and attempts to limit the season were largely ignored. Pictured here are (left to right) Albert Peale, Frederick Bottler, and Joseph Savage of the Hayden Survey, 1872. J. Crissman, photographer, MHS Photograph Archives, Helena 981-706.

the law was ignored by settlers and not well enforced. Furthermore, no such regulation was in effect in the newly established national park, nor would any such prohibition occur in any form until 1883 (and no statute with real teeth until 1894). Thus, hunting inside Yellowstone Park was more inviting than in the GYE, even though the park's rugged terrain and deep snowfall in winter made for difficult access. 14

The impressive volume of animals killed in 1872 was just the beginning of a slaughter that lasted for over a decade. On February 21, 1873, the *Bozeman*

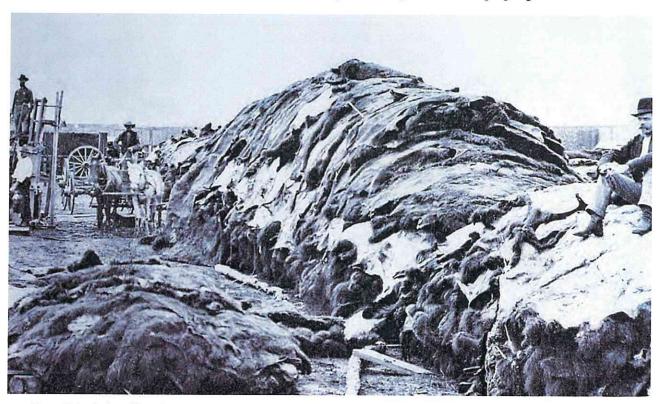
Avant Courier confirmed that slaughtering for sport rather than for food had begun farther east along the Yellowstone River, although no towns had been built there (Miles City and Coulson would not exist until 1877, and Billings not until late 1881). The newspaper also reported on the "wanton destruction" of game and the use of fish traps (seines) on the river: "If a stop is not put to this trapping and seining in five years one of the great charms of the Yellowstone . . . will be gone. The practice is in direct violation of the law and we understand that the parties engaged in it are

being watched and will be reported to the proper officers." ¹⁵

When geologist Theodore Comstock passed through the park in the summer of 1873, his observations confirmed the presence of bison in the region and noted that they occurred in numbers sufficient to draw commercial hunters. Writing for a scientific periodical, Comstock called for recognizing Yellowstone Park's importance to the "preservation from extinction" of native mammals. He placed the range of bison squarely within the area now defined as the Greater Yellowstone Ecosystem, and his report indicated pessimism for the future of bison and other animals both in Yellowstone and throughout the nation. He decried the specific slaughter in and around the park, stating that "unless prompt and vigorous measures are instituted to check the wholesale slaughter now in progress in our western wilds, the zoological record of today must rapidly pass into the domain of the paleontologist."16 Comstock's warning that bison would become extinct within ten years in the United States was presciently apt.

By late 1873, residents in the vicinity of the park, including some who lived within its boundaries,

had begun to worry about the impact of the ongoing slaughter. On November 14, Harry R. Horr, a resident at Mammoth Hot Springs, wrote a letter informing Secretary of the Interior Columbus Delano that "there are several parties now in the Park engaged in killing game solely for their skins. They leave the Elk and Deer where they are slain simply taking the tongues & skins." He further explained that "if this indiscriminate slaughter of game in the Park is allowed to be pursued, in two years the game will either be killed or driven out of the great Park." Horr suggested that Jack Baronett, who lived in the park near Tower Fall, be authorized by Secretary Delano "to act in the premises and keep hunters from slaughtering the game. Besides myself he is the only one who will hibernate in this National Park." In response to Horr's letter, Secretary Delano responded with his own missive on December 12, thanking him for bringing his "attention to the wanton killing of game within the limits of the Yellowstone National Park, by certain parties." He assured Horr that "the attention of Congress will be invited to the subject in a few days, when an appropriation will be asked for to enable this Department to provide for the proper government of



Bison hides being shipped out of Montana, unknown location, 1874. Visitors to Yellowstone Park, as well as some area residents, decried the violent destruction of bison populations and warned of the species' inevitable extinction. By 1884, bison were virtually extinct on the Great Plains. J. R. Douglass, photographer. National Park Service, Yellowstone National Park 07098

Right, a hunting camp in Upper Geyser Basin, Yellowstone National Park, Wyoming Territory, 1874. Commercial hide hunters and sport hunters earned a reputation for being rough characters who were unscrupulous when it came to observing regulations or killing in moderation.

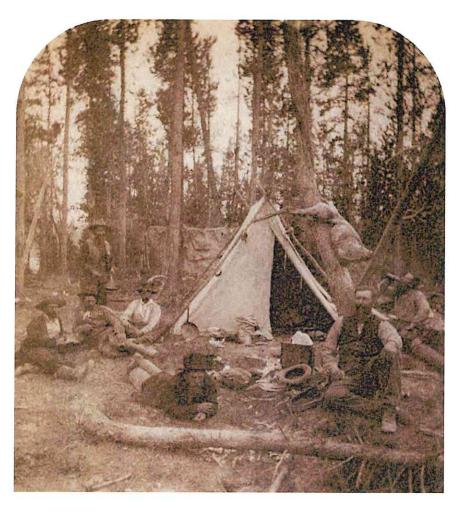
H. B. Calfee, photographer. Museum of the Rockies, Bozeman x85.3.1038

the Park. When Congress shall have made such an appropriation, your suggestions will receive due consideration." But neither appropriation nor action was forthcoming.¹⁷

Other Montana residents had also brought the matter to the attention of Secretary Delano, but with similar results. On December 9, 1873, seventy-one citizens sent a letter recommending the

establishment of a local administration and staff for the park: "We are urged to this request by the vandalism that is rapidly denuding the park of its curiosities, driving off and killing its game, and rendering it a disappointment to all those who desire to see this grand domain left in a state of nature." Since management objectives for the park remained inchoate, however, laws to protect animals and staff to enforce those laws would have to wait for the future.

Meanwhile, as more people moved into the region to take advantage of both prospecting and hide-hunting, the scale of the slaughter intensified. These hide hunters were a rough lot, who had drifted into the mountains around the Yellowstone Plateau during and after the destruction of the buffalo herds on the Northern Plains. Yellowstone historian Aubrey Haines noted, "Many of these had become determined poachers who would have given men of nerve and experience a bad time." They often claimed legitimate food-gathering to cover their commercial endeavors, and were known to stuff game-animal



carcasses with strychnine in order to attract and then kill predators—whom they regarded as a source of furs and as competition—before abandoning the area and leaving meat rotting on the ground.¹⁹

On May 25, 1874, Horr sent another letter to the Secretary of Interior: "I again inform you that the game in the Park is being rapidly killed & caught.... I regret that Congress has not given you power to punish these vandals. If the killing of game & destroying the beauties of certain portions of the Park is carried on for another season, then this will [two words unclear] a Park in name." Despite these voices of protest, the very next year was one of the worst for the animals in Montana Territory. It opened with hunters preparing for spring hunts by traveling into the less snowbound areas, such as east down the Yellowstone River.

In May 1875, the *Bozeman Avant Courier* reported, "The trade in robes and furs this season has been almost double that of any former season, and Mr. [Walter] Cooper thinks that as soon as it is generally

known among trappers and hunters that a good market is open for them at the Crossing, which is now the case, that the fur trade on the Yellowstone will exceed any point in the Territory." Indeed, Cooper and other dealers at Benson's Landing believed commercial hunting at their location was soon to become number one in the territory. On June 11, the paper reported that "[Leander] Black's train returned Saturday evening from the Crow Agency loaded with robes, and left Wednesday with dressed lumber for Virginia City." For many subsequent days, the paper carried an advertisement from Cooper featuring his firearms, "giant and blasting power, pocket and belt cutlery, [and] fishing tackle," and stating, "cash paid for Hides, Furs and Robes." Two weeks later, the paper announced, "The cost of robes, furs and skins shipped from Bozeman this season amounts to the neat little sum of \$60,000. The principal shipper, Walter Cooper, has forwarded fully one half of the amount and will doubtless send off more before the close of the season." Sixty-thousand dollars converts into today's dollars as between \$1,250,000 and \$142,000,000, or, in actual income value of the commodity represents the equivalence of \$19,800,000!21

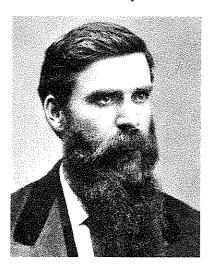
The Bozeman Times also reported that "large quantities of hides and robes are coming in from the Yellowstone region." On June 1, 1875, the paper noted, "Saturday the [Frank] Grounds party sold about 7,000 pounds of hides—elk, deer, etc.—and a quantity of fine furs; all of which will be shipped east." With numerous hunters and freighters profiting in the exploitation, it is no wonder that little had been accomplished to regulate or prohibit it within the park.

That summer, scientist George Bird Grinnell, who was not many years away from becoming one of the nation's most famous naturalists, traveled through the park as part of a military and scientific expedition. During the trip, he collected information from locals who knew the hide-hunting scene (probably the Bottler brothers, George Huston, and perhaps Bill and Buck Buchanan—all of whom lived in the area around the park). Afterwards, Grinnell lamented,

The terrible destruction of large game, for the hides alone, which is constantly going on in those portions of Montana and Wyoming through which we passed. Buffalo, elk, muledeer, and antelope are being slaughtered by thousands each year, without regard to age or sex, and at all seasons. Of the vast majority of the animals killed, only the hide is taken. Females of all these species are . . . eagerly pursued in the spring, when just about to bring forth their young. . . . It is estimated that . . . not less than 3,000 elk were killed for their hides alone in the Valley of the Yellowstone, between the mouth of Trail Creek and the [Mammoth] Hot Springs. 23

Accompanying Grinnell on the expedition was Captain William Ludlow, who also gathered accounts as to the number of animals in the park. His informants estimated between 1,500 and 2,000 elk alone had been killed just around Mammoth Hot Springs. Like Grinnell, Ludlow found it reprehensible that only the skins were taken:

From this number, representing an immense supply of the best food, the skins only were taken . . . the frozen carcasses being left in the snow. . . . A continuance of this wholesale and wasteful butchery can have but one effect, viz, the extermination of the animals, and that, too, from the very region where he has a right to expect protection, and where his frequent inoffensive presence would give the greatest pleasure to the greatest number. ²⁴



One of the traders who profited most substantially from the hide business was Bozeman's Walter Cooper (left, ca. 1875), who bought hides from the Yellowstone region and shipped them to eastern markets. The transactions enriched traders and hide hunters alike, rendering powerless efforts to control the immense flow of hides, furs, robes, and skins being freighted out of the Yellowstone country. Emsberger & Ray of Auburn, N.Y., photographers. MHS Photograph Archives, Helena PAc 99-69.3

The man who would become Yellowstone Park's second superintendent, Philetus W. Norris (right, ca. 1875) was himself a legendary hunter who had a reputation for killing more bears in the park than anyone else, yet he abhorred and opposed the wasteful killing of game animals.

National Park Service, Yellowstone National Park 02958



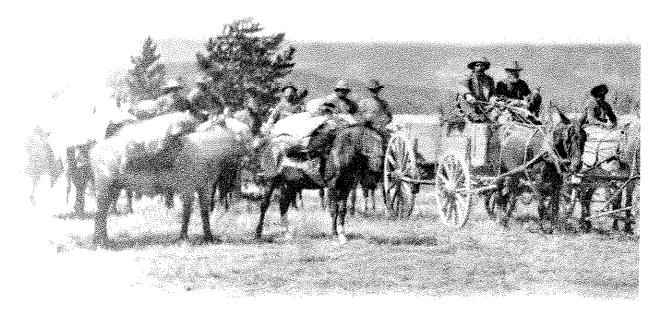
Interestingly, even with these high numbers of large game animals killed, Grinnell observed, "The so-called 'Mountain Buffalo' was abundant in the Yellowstone Park." Indeed, the sheer volume of observable wildlife still present, as well as the numbers of kills, indicated the presence of a significant number of animals still in the vicinity and within the park itself.

The observations of other visitors to the park in 1875 corroborated the findings of Grinnell and Ludlow. That year, General William E. Strong also traveled through the area while on a lark with military personnel and other politically connected VIPs. Strong's party was guided by Lieutenant Gustavus Doane, who had spent considerable time in the park since leading the Washburn Expedition in 1870. During this weeks-long trip, Doane talked incessantly to Strong about the decimation of animal herds he had

witnessed over the preceding five years. Strong converted Doane's testimony into an important statement about the ongoing slaughter in the park:

[T]he large game has been slaughtered here by professional hunter[s] by thousands, and for their hides alone. When the snow falls... the elk, deer, and sheep leave the summits of the snowy ranges and come in great bands to the foot-hills and valleys, where they are met and shot down shamefully by these merciless human vultures.²⁶

Strong's account also provided shocking descriptions of the manner in which the animals were killed and the carnage left behind: "[W]hen the snow is deep . . . one hunter will frequently kill from twenty-five to fifty of these noble animals [elk] in a single day. . . . Their carcasses and branching antlers can be seen on every hillside and in every valley. Mountain sheep and deer have been hunted and killed in the same manner for their hides." The number of animals from Fort Ellis to Yellowstone Lake had thinned considerably. Strong speculated that the populations were healthier in more remote parts of the park but feared "few years will elapse before every elk, mountain sheep, and deer will have been killed, or driven from the mountains and valleys of the National Park. Already the hunters are looking to the eastern shore of the Yellowstone, and without doubt this coming fall and winter immense numbers of elk



will be shot in this region for the paltry sum paid for their hides."²⁷

Calling it an "outrage and a crying shame," Strong demanded that Congress or the Department of the Interior take action. Jack Baronett, who, like Doane, was one of the most knowledgeable guides in the region, informed Strong that the hunters "who are doing this cruel and outrageous work" were known locally, perhaps suggesting it would be feasible to distinguish between sport and commercial endeavors, and thus stop the latter. Although Strong urged "in the name of humanity, let this kind of hunting be stopped," it would take another six to eight years before meaningful action took place. 28

When future park superintendent Philetus W. Norris visited Yellowstone in 1875, he, too, heard first-hand accounts of the slaughter within the park: "The Bottler Bros. assure me that they alone had packed over 2,000 elk skins from the forks of the Yellowstone, besides vast numbers of other pelts, and other hunters at least as many more. . . . As the only part of most of them saved was the tongue and hide, an opinion can be formed in the wanton, unwise, unlawful slaughter of the beautiful and valuable animals in the Great National Yellowstone Park." Norris added that although plenty of game animals could still be found in the more remote areas within the park, they

would become extinct if not protected by an authority inside the park. In 1877, after his appointment as park superintendent, Norris—himself a noted hunter—would write that over two thousand elk, deer, antelope, and hundreds of moose and bison had been killed since 1870, and nearly all for their hides and tongues alone, while an "incalculable" amount of the "most wholesome, nutritious, and delicious" meat was wasted.²⁹

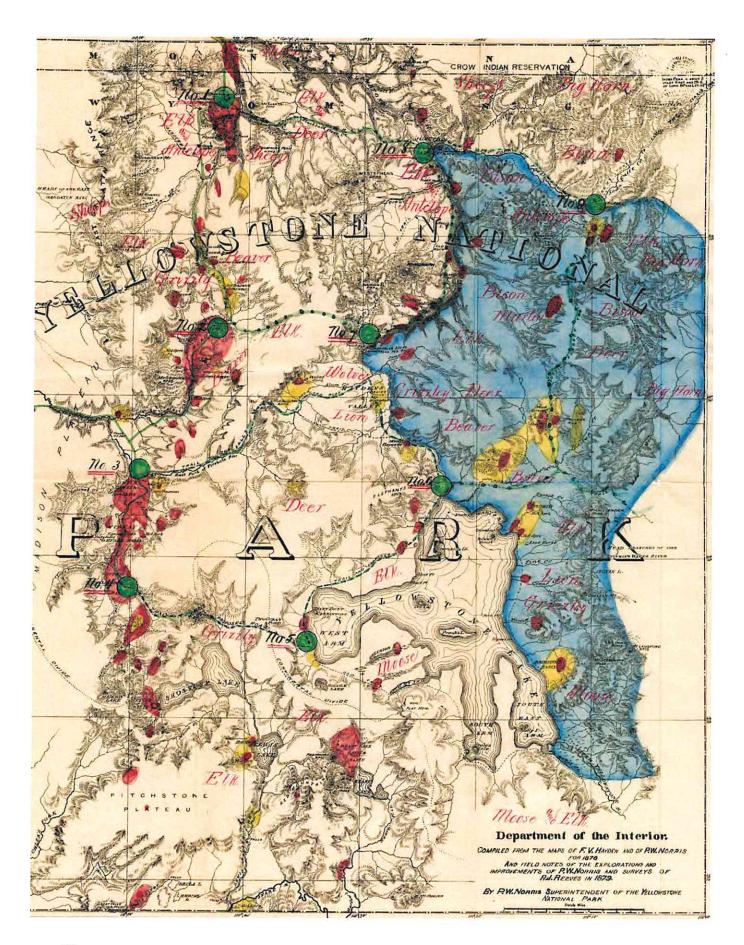
Many of the hides from Yellowstone-area mammals slaughtered in 1875 ended up being shipped that August from Bozeman to Fort Benton, where they were purchased by Joe Goewey for resale to eastern markets. The number of robes and hides taken from the Greater Yellowstone Ecosystem was shocking:

Twelve thousand four hundred and fifty buffalo robes; 33,980 pounds of deer and antelope skins; 26,800 pounds of elk skins; 6,201 pounds of beaver skins; 1,600 pounds of tanned deer skins; 800 pounds of tanned elk skins; 125 cross fox skins; 490 red fox skins; 350 kitt fox skins; 680 martin skins; 75 lynx skins; 68 wolverine skins; 1,680 wolf skins; 520 coyote skins; 128 fisher skins; 375 mink skins; 6,000 muskrat skins; 375 badger skins; 225 bear skins.³⁰

As superintendent and road builder, Norris (second from right) took the first wagons to Upper Geyser Basin in 1878.

That year Norris surveyed the park's wildlife, particularly game animals and large predators, and documented the numbers of animals killed. National Park Service, Yellowstone National Park, 02946





Lieutenant Doane reported to the Bozeman Times in 1875 that the total "[bison] robe crop of the season was estimated at 45,000" and explained that 45,000 dressed robes represented 135,000 dead bison. Doane also compared that amount to the Crow Nation's take during that autumn of 10,000 bison, which they made into 2,000 robes, noting that generally five female bison skins made a robe. Because of the overlap of the Crow Reservation with Yellowstone Park, we can be relatively certain that a significant portion of the bison hunted by the tribe came from the region in and around the park.³¹

If one uses Lieutenant Doane's formula to convert the 12,450 bison robes accounted for by Grinnell, Ludlow, Strong, and Norris into individual animals, their total represents 62,250 individual buffalo taken from in and around the park in 1875 alone! From this enumeration, one can begin to surmise the damage that was being inflicted on the mammal populations in the region. Multiply this amount across a decade and factor in untold numbers shipped by wagon trains from places other than Bozeman and Fort Benton and the numbers quickly become staggering. 32

As the slaughter continued into the spring of 1876, a growing number of concerned citizens and officials encouraged conservation while a smaller contingent of hunters and traders continued to favor unrestrained market hunting. On April 20, 1876, the Bozeman Times reported, "Animals, such as elk, deer[,] antelope, bear etc., abound in the region of the National Park, and were they properly looked after and protected from destruction, would be of vast national importance and interest in after times. . . . Yet no one takes any interest in anything that belongs to the park. Everything is held in common and taken away with impunity or wantonly destroyed without compunction or responsibility." The newspaper argued that "with proper policy," Yellowstone Park could become "the last permanent abode of the buffalo, elk, and many other species of animals now existing in North America, which may become annihilated everywhere else." The only real

reprieve during this period, however, seems to have been motivated more by fear of Lakotas and Northern Cheyennes during and after the conflicts of 1876, than by any scruples about killing the animals, and it was only temporary.³³

In the fall of 1876, Grinnell used his platform as editor of Forest and Stream-a journal geared toward sports hunters and outdoor enthusiasts-to bring attention to hide hunting, which he described as "quite a new thing in the territory, having been initiated, as has been said, only three or four years ago." Grinnell's article, "Large Game in the Territories," drew attention to the number of animals killed, and it also pointed critically to how little was gained by the hunter: "An elk skin is worth from \$2.50 to \$4, and to secure that pitiful sum this beautiful life is taken, and the 300 to 500 pounds of the most delicate meat is left on the ground. A buffalo hide is worth \$1.50 in September and \$2 in October, and \$2.50 in November, and at those prices many men can be found to do the work of butchery." The article had no immediate impact on regulations in the park, but did stir the magazine's elite readership into taking eventual action in support of conservation policy.34

Echoing Forest and Stream, in 1878, an editorial in the Daily Graphic of New York reported on the slaughter. It was accompanied by garish drawings of the destruction of animals. "The splendid game in the so-called National Park, on the Yellowstone, is being recklessly destroyed by hunters, simply for the pleasure of killing. . . . It is the duty of the prosecuting authorities of the Territories in which the Park is situated to see that such criminal and wanton waste be punished and repressed." Such articles aimed to inform eastern readers of the situation and put into contrast the implications of unrestrained destruction on what they may have assumed were healthy populations.

In 1877, Norris was appointed superintendent of the park, a position he would hold until 1882. With the perceived Sioux threat diminishing by then, the slaughter in Yellowstone and its environs resumed in full force. The *Avant Courier* speculated, "This

(opposite) Superintendent Norris compiled this remarkable map of Yellowstone National Park between 1877 and 1882, using data from earlier surveys as well as his own observations and those of topographer R. J. Reeves. Norris wrote in the key, "The names of Bison, Elk, and other animals show their native haunts and where still abundant," indicating plentiful mammal populations at the close of the 1870s. Norris identified the blue-shaded area as a game preserve.

Created by P. W. Norris, 1877–1884. YNP Museum Collection, Yellowstone Heritage and Research Center, Gardiner, MT, YELL 23004

promises to be the best season, for furs and robes both as to quality and quantity, ever had on the Yellowstone." However, not having forgotten the "wanton slaughter of the beautiful and valuable animals" seen during his previous trip, Norris almost immediately issued a list of "Rules and Regulations" for the park. He had no authority to issue such rules (which had also been proposed by his predecessor), as that power rested solely with the Secretary of the Interior. Nevertheless, whether by assumption or direction, Norris published them where they would be noticed by both hunters and hide buyers: in the Avant Courier. The first of these rules addressed the killing of animals within the park: "All hunting, fishing or trapping, within the limits of the Park, except for purposes of recreation, or to supply food for visitors or actual residents, is strictly prohibited; and no sales of fish or game taken within the Park shall be made outside of its boundaries." Toothless though these regulations were (any hunter within the park could simply cite the allowed exceptions if questioned), they probably did have a minimal effect. Norris understood part of his duties to be that of "arousing public sentiment against destruction of animals," and he certainly hoped that he could enjoin locals to help him in his crusade for wildlife by appealing to their pride as "steadfast protectors."36

Norris's visit to the headwaters of the Yellowstone River in the park that summer of 1877, however, did not reassure him that hunters in the park were taking his appeals for preservation seriously. Instead, he witnessed some of the slaughter's most dramatic results when he visited his friend Jack Baronett on the east side of the Yellowstone River (today's Lamar Valley). His observations confirmed the abundance and diversity of animals found in the valley, but also pointed to the extent of their slaughter:

As it has been for two years the haunt of all the trappers and hunters of the mountains, many acres of the rocky point [on east side of river] was [so] strewn with the fragments of the pelts and carcasses of elk, bison, bear, beaver, foxes, wolverines and other animals that the effluvia [stench] even in this climate was... too unpleasant for enjoyment as in the days of yore.³⁷

Near the end of the winter season, Norris reported that his appeals to the hunters had been met with the assertion that as long as no one kept them from doing it, they would continue to hunt within the park, but that if police were put into place, they would likely quit. Some locals probably thought Norris naïve or a fool for even reporting this, and perhaps he was stating it merely for the sake of good public relations, but, apparently, he was effecting some change on locals. In April 1878, 181 Bozeman-area citizens signed a letter to the Secretary of the Interior, requesting "an appropriation for its protection and improvement, trusting that you will be promptly sustained in this most meritorious measure."³⁸

Even though public sentiment seemed to be moving against the slaughter, the prospect of making money eclipsed that proposition. On June 5, 1878, Major James Brisbin of Fort Ellis, the military post east of Bozeman, penned a letter to his military superiors regarding the deplorable destruction of wildlife. On July 21, apparently in response to Brisbin's letter, Lieutenant Doane added his thoughts about the controversy in a letter to the commanding officer at the fort and urged for regulation within the park, for if "an inforcement be had of any law or regulation which would stop entirely the use of arms in the Park, the whole region would soon swarm with the natural animals and birds of the Country, as it has every requisite for such occupation . . ." Doane's perception, based on nearly a decade of direct observation, was that "most of this game has been destroyed" already, although significant bison populations remained on Mirror Plateau (east of Yellowstone Lake) and in other remote sections, such as an area north of the park referred to as the "buffalo tables" by James Gourley, one of the first prospectors who made the Cooke City gold strike in 1870.39

In 1879, however, Superintendent Norris offered a more optimistic view of events in his report:

I have not allowed the killing of bison, and so checked the wanton slaughter of elk, deer, sheep, and antelope, mainly for their pelts and tongues, by the mountaineers.... I am confident these choice animals have increased, rather than diminished, in numbers within the park since my management



Inspired by similar articles in Forest and Stream magazine, New York's Daily Graphic aimed to shock eastern readers with accounts of the slaughter in Yellowstone and to motivate them toward supporting conservation measures.

Daily Graphic, July 11, 1878**

thereof. But with the rapid influx of tourists and demand for such food this [slaughter] cannot long continue...

He noted that, despite the massive numbers of animals killed since 1875, their overall numbers had "not seriously diminished, and but for the unprecedented severity of the past winter would have greatly increased; their increase hereafter, however, is assured if properly protected." Yet the superintendent possessed neither the money nor the manpower to prevent the killing of the park's animals. Still, he praised Montana officials for protecting four counties in the region from overhunting, and he used that as a springboard to renew his calls to his supervisors and anyone else who might listen for permanent protection of park animals. 40

The following year, Norris turned his attention to the park's dwindling pronghorn population, noting that "they were once numerous in the open valleys of the Upper Gardiner River, the open grassy region thence to the Forks of the Yellowstone, and up its East Fork to the Soda Butte." Norris was not alone in his assessment of the precariousness of the pronghorn population. A visitor to the region recalled,

While traveling down the Yellowstone in the winter of 1880, in the month of February, the snow being deep, sleighs were used by the stage company in place of wagons. There was a crust on the snow, strong enough in places to hold my weight. The driver and I discovered a band of antelope in the road some distance in advance of us. . . . There being about fifty, they occupied a long space in the road.... We noticed the legs of nearly all these animals were badly lacerated, this being caused by traveling and breaking through the hard crust. These animals traveled in advance of us some miles, never attempting to leave the sleigh track. We finally met two hunters, and the animals bounded off through the snow a short distance and stopped. The hunters got down from their horses, and the work of slaughter began. Before we passed the next ridge, a quarter of a mile distant, five antelope had been killed and the remainder were scattered around, none beyond rifle

range. These animals had scarcely life enough left to run from the hunter, even if the depth of snow and crust had not rendered such a thing impossible.⁴¹

On December 23, 1880, the Avant Courier made a rare front-page mention of Yellowstone National Park. It featured a report by Secretary of the Interior Carl Schurz, who had visited the park and confirmed that the unrestrained slaughter in Yellowstone extended throughout the American West. Schurz declared that the time had come "to preserve in some locality specimens of the more notable wild animals of that region," and he suggested that "the Yellowstone Park appears to be a very suitable place for that purpose." Using his authority as Secretary of the Interior, Schurz proposed a moratorium on hunting within the park and stated that a bill to enforce such regulations and to impose a penalty for their violation would be submitted to Congress, although it was not until 1883 that a law prohibiting such killing went into effect. 42

Meanwhile, the media brought attention to the on-going, nationwide slaughter of bison. The Sioux City Journal reported in May 1881 that "one hundred thousand buffalo hides will be shipped out of the Yellowstone country this season." The paper determined, "For such boats as ply the Yellowstone there are at least fifteen full loads of buffalo hides and other pelts. Reckoning one thousand hides to three [rail] car loads, and adding to this [quantity] fifty cars for the other pelts, it will take at least three hundred and fifty box-cars to carry this stupendous bulk of peltry East to market." The journal attributed this amount to the easy pickings created by a bad winter that "caused the buffalo to bunch themselves in a few valleys where there was pasturage, and there the slaughter went on all winter. There was no sport about it, simply shooting down the famine-tamed animals as cattle might be shot down in a barn-yard." Furthermore, the article noted, "To the credit of the Indians it can be said that they killed no more than they could save the meat from. The greater part of the slaughter was done by white hunters, or butchers rather, who followed the business of killing and skinning buffalo by the mouth, leaving the carcasses to rot."43 Likely, some of the bison killed were from the greater Yellowstone Park region, where bison populations remained, albeit greatly depleted.

The newly hired park gamekeeper Harry Yount believed that the scale of the slaughter of wildlife in 1881 was much reduced, in part because of the weather that winter. He toured the park and its environs and made note of where wildlife—including deer, elk, antelope, bison, moose, bighorn sheep, wolverines, martens, and foxes—were wintering, but noted that some of the herds were small. Yount, now honored as the national park's first ranger, recommended in his reports that the park be protected by an adequate police force. Unable to prevent the slaughter, he quit later that year, having done "all one man could possibly do under the circumstances." 44

Undoubtedly, the ongoing profitability of commercial hunting continued to hamper conservation efforts. The Northern Pacific Railroad's progress into Montana Territory also enabled and even encouraged tourists to experience the thrill of killing large numbers of animals, particularly bison and elk, with impunity. When New York sport hunter H. Banard Leckler traveled to Yellowstone in 1881, he hunted with fervor and gaiety: "Hunting and fishing in the Adirondacks, Maine, or Florida, is child's play compared to what one has in and around the [Yellowstone] National Park.... Game of all kinds, and plenty of it, is in the Park; but it will not be there many years; only very few I am afraid, as it is being slaughtered by the thousands in the surrounding country. The hunting trip should not be delayed, but should be enjoyed now while it can be made in its perfection."45 Leckler's regret at the rapid rate at which Yellowstone's game animals were being decimated was secondary to the joy he felt at the abundance of wildlife still available to kill inside the park. Leckler's 1881 account (published in 1884) indicated Yellowstone's animal populations were still robust in remote and mountainous areas; a similar observation was made by General Philip Sheridan during a trip through the park in 1882.

That the Yellowstone region retained significant quantities of most animals into the early 1880s can also be determined from the amount still killed for commercial purposes. "Angler," writing for Forest and Stream, noted the numbers of hides that were commercially shipped by just "one house" in Bozeman from October of 1881 to July of 1882: "Elk skins 45,000 lbs., deer skins 35,000 lbs., antelope skins 5,000 lbs., mountain sheep skins 960 lbs., moose, three skins only, bison none."



As Yellowstone Park's first gamekeeper (1880–1881),
Harry Yount documented the decline in animal
populations in two reports and attempted unsuccessfully
to persuade the Interior Department to provide a force
for policing the park and preventing poaching.

National Park Service, Yellowstone National Park 02951

In June 1881, the Avant Courier also reported on the large piles of animal hides stacked along the Yellowstone River near "Sweet Grass" (a reference to Sweet Grass Creek that comes into the Yellowstone River from the north at the present location of Greycliff, Montana), awaiting pickup by steamboats during high water. Although bison had been slaughtered by the thousands during the previous ten years, the estimate of one hundred thousand buffalo hides shipped from the area in 1881 and the numbers mentioned in the Sioux City Journal are both startling. Such numbers underscore the intensity of the hide-hunting trade and convey an impression that an abundance of animals, including bison, remained in the area at the time. Dr. William Hornaday, the Smithsonian's naturalist and the most noted authority on bison at the time, reported in 1889 the decline of the shipments from Fort Benton after 1882, corroborating "Angler's" account. A letter to Hornaday from

The actual number of game animals that either bit the dust of the prairie or yielded up their lives among the mountains must be something awful to calculate. "CARL," The Sun, 1885

I. G. Baker & Co., traders at Fort Benton, provided detailed information about the numbers of bison that company shipped from the Yellowstone Park region between 1876 and 1884:

There were sent East from the year 1876 from this point about seventy-five thousand buffalo robes. In 1880 it had fallen to about twenty thousand, in 1883 not more than five thousand, and in 1884 none whatever. We are sorry we cannot give you a better record, but the collection of hides which exterminated the [northern] buffalo was from the Yellowstone country on the Northern Pacific, instead of northern Montana.

In sum, Fort Benton authorities confirmed to Hornaday that the final extermination of bison in the "northern herds" occurred alongside killings along the Yellowstone River, namely within the Yellowstone country.⁴⁷

Furthermore, a writer known only as "Carl," who had accompanied an 1877 military party up the Yellowstone River from eastern Montana, recorded the vast seas of bison that he saw that year. In an article published in New York's The Sun nearly a decade later, Carl stated that although the rest of the nation's herds of bison were largely decimated during the period 1870-1877, the populations in Montana and Wyoming (because of their remoteness) were still the target of commercial hunters along the Yellowstone River, though largely outside of the park. The writer claimed that the hunting continued into the early 1880s, and he estimated that roughly 524,000 bison and 310,000 antelope and deer were killed during these years. Aptly titled "No More Herds of Bison," his article concluded by saying, "In 1883 there was a marked falling off in the supply of robes and skins. Nevertheless 100,000 buffalo robes were shipped from Glendive alone.... In 1884, there was no crop at all to speak of, and in 1885 there can be none, as there

are no living bison in the northwest to furnish any more robes. In a word, the buffalo is extinct" (except for the ones remaining in Yellowstone National Park, he observed). ⁴⁸ The accuracy of Carl's numbers is hard to determine without knowing the sources for his information, but it is reasonable to assume that at least a small percentage of these animals came from Yellowstone Park and its immediate environs, where bison populations remained in ever-shrinking pockets. Therefore, Carl's account can be added to the observations of others who noted the presence (and decimation) of bison within the park in the third quarter of the nineteenth century.

From later sources, it appears that Yellowstone National Park's animals were so depleted by the time hunting in the park was outlawed in 1883 that tourists seldom saw them along the park's main roads. 49 Visitors and later park management assumed incorrectly that the animals had not been abundant in the first place, or that they had all been killed, but extensive research into the documents that include the park's backcountry proves that even prior to the hunting ban, the park's animal populations were surprisingly abundant, and afterward remained robust in most instances.⁵⁰ For example, guidebook writer Henry J. Winser wrote an entire section on the park's wildlife, which he called "Fauna of the Park." His description of hunting regulations made it clear that his account dated from just after January of 1883, when the Interior's first no-hunting rule was promulgated. Importantly, Winser noted, "Wild animals exist in the Park in large numbers and in great variety." Surveying locations throughout and adjacent to the park, Winser catalogued seeing bison, elk, bighorn, moose, antelope, bears, wolverines, mountain lions, foxes, "coyotes, badgers, otters, beavers, minks, martens, sables, ermines, rabbits, hares, moles, mice, rats, muskrats, porcupines, rock dogs, squirrels, chipmunks and skunks." At the same time, he observed, "Wolves have become quite scarce. They still, however, rove in many portions of the



Hunting for subsistence in the park was legal until 1883, while fishing remained essentially unrestricted until the 1950s. Here, Almon L. Loomis (standing), an employee of F. Jay Haynes's photography business, and another man show the results of their hunting and fishing efforts in Yellowstone National Park, 1882.

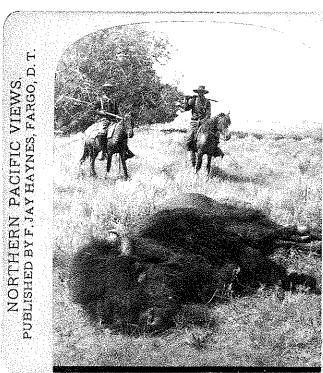
F. J. Haynes, photographer. MHS Photograph Archives, Helena H-00790

Park." Winser's account included an enumeration of birds, fish, and reptiles as well.⁵¹

When Egerton K. Laird of England visited Yellowstone Park in 1884, he praised the new regulations, saying "the prohibiting of game being shot in the Park is a capital rule" and acknowledged that, even with the law in effect, guides and others working in the park had shot 1,500 elk near Mammoth, and even an army general had killed an elk, apparently not aware of the prohibition. As Laird pointed out, these restrictions extended only to game animals; hunters were still permitted to kill fish, "clawed animals," and "any animal destructive to game" and were compensated in cash for the skins of predators. Like Laird, a traveler identified only as F. F. F., exploring Yellowstone in September of 1884, mentioned that animals were hard to see on the park's main roads, suggesting the past decade or more of hunting had depleted these populations. Nonetheless, the traveler observed "plenty of ducks, geese, swans, and pelicans" near the waterways and emphasized that the backcountry still contained a profusion of game animals more readily found after the tourist season ended. Apparently, the area around the park was still inhabited by plenty

of large mammals as well, as F. F. F. and his fellow hunters killed pronghorn, sheep, and elk just west of Yellowstone near Henry's Lake.⁵²

George Bird Grinnell also returned to Yellowstone in 1884, this time with geologist Arnold Hague in order to promote Senator Vest's proposed expansion of the park. Traveling from Beaver to the park's western boundary, Grinnell visited Lower Geyser Basin, Mary Mountain, Canyon, West Thumb, Lewis Lake, Beula Lake, and Jackson Lake before riding up Pacific Creek to Two Ocean Pass and down Atlantic Creek to Yellowstone Lake, Nez Perce Ford, and back to the west entrance. West of Henry's Lake, he encountered George Rea, an outfitter for hunters and one of the earliest settlers in the area. Rea informed Grinnell that most "game is still quite plenty here" and mentioned specifically the abundance of elk, deer, and black bears, as well as noting the scarcity of grizzly bears and mountain sheep-two species that had once been hunted in great numbers. In a fourteen-chapter article chronicling the trip, Grinnell described impressive observations of animals, including elk, deer, foxes, pronghorn, a wolverine, and a porcupine, and signs of beavers, wolves, bears, bison, and moose-adding





PUBLISHED BY F. JAY HAYNES, FARGO,

D. T.

NORTHERN PACIFIC VIEWS

Yellowstone Park photographer and avid hunter F. Jay Haynes (left) poses next to one of the last bison killed in Montana Territory, ca. 1882. By the winter of 1884–1885, sport and market hunting had obliterated the formerly massive bison populations throughout their vast native range, including the Greater Yellowstone Ecosystem.

Almon L. Loomis, photographer. Bob Berry Collection, HAY01.1200

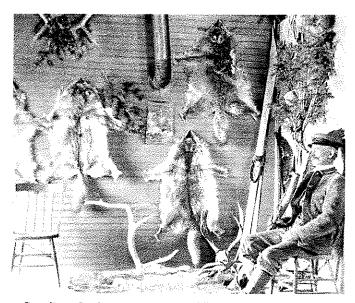
24

weight to others' accounts of the distribution and abundance of most large mammal species in the Yellowstone region.⁵³

Placing particular emphasis on the presence of animals throughout the greater Yellowstone area, Grinnell advocated the expansion of the park, saying, "It is a country abounding in game, from which, if efficiently preserved, all the territory adjacent to the Park may perpetually be stocked with the wild animals peculiar to the Rocky Mountains." In conjunction with Superintendent Norris's little-known, colored map, Grinnell's careful observations and those of Winser, Laird, and F. F. F. demonstrate that both game animals and predators, though diminished by over a decade of intensive commercial slaughter, remained prevalent in Yellowstone's backcountry in 1884.

The 1882–1884 accounts also support conclusions that the slaughter of animals within the park continued in a significantly diminished form during those years, because the park's civilian superintendentsderisively called "rabbit catchers"-were in place to fight the battle against poaching. Even though they only numbered about ten and had very little money with which to combat illegal hunting, their presence indicated the need to protect wildlife in the park. Historian Haines has offered other anecdotal accounts that bolster that proposition, too. Then, on August 17, 1886, the U.S. Army arrived to take over the park's administration. With its bigger budget and robust workforce, the army's presence eventually brought an end to the killing of game animals in Yellowstone, even if such prohibitions did not extend to predators until much later. A decade would pass before Arnold Hague and Ernest Thompson Seton would report recovering mammal populations within the park.⁵⁵

Ironically, the massive slaughter throughout the region we now call the Greater Yellowstone Ecosystem—by depriving the region of so many animals, particularly in its most accessible areas—would, by the 1920s, result in some researchers concluding that there had never been large numbers of animals in the park at all.⁵⁶ Yet hundreds of primary-source documents and their accompanying thousands of historical observations belie that theory. The accounts of animals killed and hides shipped, along with direct observations of those that traveled in and around the park, demonstrate that an abundant and diverse pop-



Despite enforcing measures to prohibit hunting of large game animals, Yellowstone Park both allowed and encouraged the unrestrained slaughter of predators and scavengers until the early 1930s. Here, Cush Jones, a hired hunter, displays the pelts of various predators on the wall of his dwelling in Mammoth,

ca. 1903. National Park Service, Yellowstone National Park, 16218

ulation of mammals inhabited that ecosystem. Furthermore, the park possessed natural features that served to protect the animals before the enforcement of protective regulations, which likely contributed to the resilience of these populations. Those nineteenth-century authors, if they could return to Yellowstone today, might proclaim the park and its surrounding environs to be the only places that resemble what the region looked like in 1870.

In our bid to build a more complete picture, we spent incalculable hours finding and examining hundreds of primary-source documents. We learned that reaching conclusions based on this kind of (inherently unscientific and often subjective) material necessitated examining all known accounts from a given party, because the accounts sometimes disagreed with each other or added completely new material. We also learned that accumulating a mass of this kind of source material eventually allowed us to formulate meaningful general impressions of the presence and relative abundance of various species of animals, and, in the case of some animals, could permit arguable hypotheses regarding their comparative abundance then and now. While the discovery of each new source might, by itself, mean little to the big picture, the accumulation of hundreds of sources



Heaps of elk carcasses covering the Northern Pacific Railway platform in Gardiner attest to the unbridled slaughter that continued just outside Yellowstone long after big game hunting was prohibited within the park's boundaries. By 1911, when this photograph was taken, many park visitors were unaware of the historical abundance and diversity of species that the great Yellowstone region had once supported.

Whithorn Collection, Yellowstone Gateway Museum, Livingston 2006.044.1967

eventually reveals a demonstrable consistency important to the historical record. As we have previously noted, "Anecdote multiplied often enough becomes something very much like data." ⁵⁷

The preponderance of the historical evidence shows beyond a doubt that there was a great diversity of mammals throughout Yellowstone National Park and the Greater Yellowstone Ecosystem. We now know which species were abundant, which ones were rare, and which ones were not present at all. Finally, we even know more about their distribution than we ever thought possible from the use of historical accounts. This knowledge about the ecological impacts of human activities can help current and future park managers by giving a more accurate

view of the ecosystem in earlier days and providing a framework for restoration.

Lee H. Whittlesey has written numerous articles for Montana since his first one in the fall of 1980. He is the author of fifteen books, three currently in press and others that include Death in Yellowstone (1995, 2014), Myth and History in the Creation of Yellowstone National Park (with Paul Schullery, 2004), and Storytelling in Yellowstone (2007). Whittlesey has a master's degree in history from Montana State University, a law degree (JD) from the University of Oklahoma, and two honorary doctorates from Idaho State University (Science and Humane Letters) and Montana State University (History).

Abbreviations used in the notes include Montana Historical Society Research Center and Archives, Helena (MHS); and Montana The Magazine of Western History (Montana). Unless otherwise noted all newspapers were published in Montana.

Abundance, Slaughter, and Resilience (WHITTLESEY)

1. Major James C. Brisbin, quoted in Gustavus C. Doane, Battle Drums and Geysers: The Life and Journals of Lt. Gustavus Cheyney Doane, ed. Orrin H. and Lorraine Bonney (Chicago: Swallow Press, Inc., 1970), 127.

2. See, for example, C. E. Kay, "Yellowstone's Northern Elk Herd: A Critical Evaluation of the 'Natural Regulation' Paradigm" (PhD diss., Utah State University, 1990); R. B. Keigley and Frederic H. Wagner, 'What is 'Natural'?: Yellowstone Elk Population-A Case Study," Integrative Biology: Issues, News, and Reviews 1:4: 133-48; C. K. Skinner and W. B. Alcorn, "History of the Bison in Yellowstone Park," unpublished report, 1942-1951, Boxes N-115, N162 (RG01-Bison), Yellowstone National Park Archives, marked "599.73584/S6283," U.S. Department of Interior, National Park Service, Heritage and Research Center, Gardiner, MT; Troy R. Mader, Unnatural Wolf Transplant in Yellowstone National Park (Gillette, WY: Common Man Institute, 1989), 6.

3. The original Schullery-Whittlesey study was Paul D. Schullery and Lee H. Whittlesey, "The Documentary Record of Wolves and Related Wildlife Species in the Yellowstone National Park Area Prior to 1882," in Wolves for Yellowstone? A Report to the United States Congress, vol. 4, ed. John D. Varley and Wayne G. Brewster, (National Park Service, 1992), 1:4 to 1:174.

4. Richard C. Rattenbury, Hunting the American West: The Pursuit of Big Game for Life, Profit, and Sport, 1800-1900 (Missoula: Boone and Crockett Club, 2008), xvii.

5. Dan Flores, "The Great Contraction: Bison and Indians in Northern Plains Environmental History," in Legacy: New Perspectives on the Battle of the Little Bighorn, ed. Charles E. Rankin (Helena: Montana Historical Society, 1996), 16–18. For the story of bison in that larger slaughter, see Theodore Comstock, "The Yellowstone National Park—I; Its Scientific Value," American Naturalist 8 (Feb. 1874): 72–75; William T. Hornaday, The

Extermination of the American Bison (Washington, DC: Government Printing Office, 1889), originally published in Report of the National Museum 1886-87, 369-548); Martin S. Garretson, The American Bison: The Story of its Extermination as a Wild Species and its Restoration under Federal Protection (New York: New York Zoological Society, 1938); Frank Gilbert Roe, The North American Buffalo: A Critical Study of the Species in its Wild State (Toronto: University of Toronto Press, 1951; 2nd ed., 1970); Tom McHugh, The Time of the Buffalo (New York: Alfred A. Knopf, 1972); David A. Dary, The Buffalo Book: The Full Saga of the American Animal (Chicago: Sage Books, 1974); Mary Ann Franke, To Save the Wild Bison: Life on the Edge in Yellowstone (Norman: University of Oklahoma Press, 2005); Patrick J. White et al., eds., Yellowstone Bison-Conserving an American Icon in Modern Society (Yellowstone National Park: Yellowstone Association, 2015); and Andrew C. Isenberg, The Destruction of the Bison (Cambridge, UK: Cambridge University Press, 2000).

6. Lee H. Whittlesey and Sarah E. Bone, The History of Mammals in the Greater Yellowstone Ecosystem, 1796-1881: A Multi-Disciplinary Analysis of Thousands of Historical Observations. 2 vols., unpublished manuscript. This yet-to-be-published book is the culmination of twenty-five years of research spent locating more than five hundred primarysource accounts of animals observed in Yellowstone National Park and the Greater Yellowstone Ecosystem, 1796-1881; we also recorded those sightings in a computer database and analyzed what those observers saw, in Lee H. Whittlesey et al., "Historic Wildlife Observation: Using Historical Accounts (1796-1881) to Inform Contemporary Wildlife Management in the Yellowstone Area," www. nps.gov/yell/learn/historyculture/ historic wildlife.htm, which is the shortened version. The complete version is L. H. Whittlesey, P. D. Schullery, S. E. Bone, A. Kline, P. J. White, A. W. Rodman, and D. E. Hallac, "Using Historical Accounts (1796-1881) to Inform Contemporary Wildlife Management in the Yellowstone Area," Natural Areas Journal 38:1 (Jan. 2018): 99-106.

7. Aubrey L. Haines, The Bannock Indian Trail (Bozeman: Arteraft Printers and the Yellowstone Library and Museum Association, 1964, 1973), 7; and Joel C. Janetski, Indians in Yellowstone National Park (Salt Lake City: University of Utah Press, 2002), 100.

8. Although fur traders (1807-1819) and fur trappers (1822-1840) hunted the region for commercial and subsistence purposes and had an impact on beaver and other fur-bearing animals, their numbers were relatively few and their tenure brief. Lt. Gustavus C. Doane in Gen. William E. Strong, A Trip to the Yellowstone National Park in July, August, and September 1875, ed. Richard A. Bartlett (Norman: University of Oklahoma Press, 1968), 105. See, generally, Aubrey L. Haines, "The Yellowstone Crusade," in The Yellowstone Story: A History of Our First National Park, 2 vols. (Boulder: Colorado Associated University Press, 1977, 1996), 2:54-99; and James B. Trefethen, Crusade for Wildlife: Highlights in Conservation Progress (Harrisburg, PA: Stackpole Co., 1961), especially 66-70.

9. Haines, Yellowstone Story, 1:84-87. Letter, Henry W. Elliott to Professor Spencer Baird, July 16, 1871, Incoming Correspondence, 1850-1877, Record Unit 52, Box 30, Smithsonian Institution Archives, Washington, DC, emphasis added. As for the term "Yellowstone Basin," a comparison of sources (especially Doane in Bonney and Bonney, Battle Drums and Geysers, 262, 522; William A. Jones, The Reconnaissance of Northwestern Wyoming, Including Yellowstone Park (Washington, DC: U.S. Government Printing Office, 1875), 22; and Doane in Strong, A Trip to the Yellowstone in 1875, 104, makes it clear that these early authors were referring to present-day Yellowstone National Park.

10. A. L. Babcock, An Illustrated History of the Yellowstone Valley (Spokane: Western Historical Publishing Company [1907?]), 547; A. W. Bowen & Company, Progressive Men of the State of Montana (Chicago: A. W. Bowen & Company, 1902), 542; Joseph Savage, "From the Yellowstone Expedition," (Lawrence, KS) Western Home Journal, Aug. 1, 1872. See also Lee H. Whittlesey and Paul D. Schullery, "How Many Wolves Were in the Yellowstone Area in the 1870s? A Revealing Account from 1872," Yellowstone Science 19:1 (Mar. 2011): 23-28, which includes the Jackson photo on page 9.

11. Helen F. Sanders, A History of Montana (Chicago and New York: Lewis Publishing Co., 1913), 1012; "Indians are in Town," Bozeman Avant Courier, Apr. 24, 1874. The newspaper ran under the name Avant Courier from 1871–1872, and then the Bozeman Avant Courier from 1872–1882. "The Fur Trade," Bozeman Avant Courier, Jan. 8, 1877. Steamboats

using the Yellowstone River as a shipping channel for goods (including robes, furs, hides, and skins) during the years 1877–1881, was also mentioned in the unsigned article titled "The Progress of Montana—How the Civilizing Process Has Advanced—The Eras of Savage Warfare, the Stage Coach, the Railroad, the Ranch, and Now Agriculture," New York Times, Aug. 11, 1889. Goods were loaded at Benson's Landing (near present-day Livingston) and sent downstream to Horace Countryman's trading post at the mouth of the Stillwater River, where Kiser and Company loaded furs onto steamboats.

12. "The Buffalo Are Coming," Avant Courier, Nov. 28, 1872.

13. N. V. S. "From the Yellowstone," Avant Courier, Dec. 12, 1872. Lee H. Whittlesey, "Visitors to Yellowstone Hot Springs before 1870 [including George Huston]," GOSA Transactions: Journal of the Geyser Observation and Study Association 4 (1993): 208. For a brief biography of Huston, see Robert V. Goss, Pack Trains and Pay Dirt in Yellowstone: On the Trail with Whispering George Huston (Gardiner, MT: privately published, 2007).

14. T. W. Mussehl and F. W. Howell, Game Management in Montana (Helena, MT: Montana Fish and Game Department, 1971), 9. See also generally, H. D. Picton and T. N. Lonner, Montana's Wildlife Legacy: Decimation to Restoration (Bozeman, MT: Media Works Publishing, 2008); regarding the law that made it a misdemeanor to kill out of season, see William T. Hornaday, quoted in Roe, The North American Buffalo (1970), 807.

15. "Violating the Law," Bozeman Avant Courier, Feb. 21, 1873.

16. Theodore A. Comstock, "The Yellowstone National Park—I. Its Scientific Value," *American Naturalist* 8 (Feb. 1874): 72-73, emphasis in original.

17. Letter, Harry R. Horr to Secretary of the Interior Columbus Delano, Nov. 14, 1873, Microfilm 62, Roll 1, Records of the Office of the Secretary of the Interior relating to the Yellowstone National Park, Letters Received 1872–1882, National Archives, Washington, DC; Letter, Delano to Horr, Dec. 12, 1873, RG 48, Microfilm 62, Roll 6, National Archives, Washington, DC.

18. Letter, J. V. Bogert and seventy other Bozeman citizens to the Honorable Secretary of the Interior, Dec. 9, 1873, which became Attachment F in Secretary of the Interior, Letter from the Secretary of the Interior transmitting a bill amendatory of and supplementary to the act entitled "An act to set apart a certain tract of land, lying near the head-waters of the Yellowstone River, as a public park," Feb. 21, 1874, referred to the Commit-



Above, Baronett's Bridge at the western edge of the Lamar Valley, where the carcasses of innumerable deer, elk, and bison were left to rot by hide and sport hunters. Jack Baronett, who built and resided near the bridge, witnessed the wanton killing throughout the 1870s, but Congress failed to appropriate funds to hire him or anyone else to prevent the

senseless slaughter. W. H Jackson, photographer. National Park Service, Yellowstone National Park 14836

tee on the Public Lands and ordered to be printed, 43rd Congress, 1st Session, House of Representatives, Ex. Doc. 147, 6-7, and reprinted in *Bozeman Avant* Courier, Dec. 12, 1873.

19. Haines, Yellowstone Story, 1:294. Hunters lacing carcasses with strychnine in order to kill predators was common throughout the American West. No complete study of this phenomenon is known, so we are left to wonder not only about the number of wolves and other predators killed in this fashion (which must have been massive) but also about birds of prey (eagles, ravens, magpies, hawks, owls, gulls, and others) that must have died in huge numbers. To get at least an idea of the scale of coyote poisonings, see Dan Flores, Coyote America: A Natural and Supernatural History (New York: Basic Books, 2016).

20. Letter, Horr to Secretary of the Interior, May 25, 1874, Microfilm 62, Roll 1, Records of the Office of the Secretary of the Interior relating to the Yellowstone National Park, Letters Received 1872–1882, National Archives, Washington, DC.

21. "The Yellowstone," Bozeman Avant Courier, May 28, 1875. For more on Cooper, see Sanders, History of Montana, 1012; "Local Matters," Bozeman Avant Courier, June 11, 1875, emphasis added; advertisement: "Walter Cooper Breech and Muzzle Loading Double Guns," Bozeman Avant Courier, June 18, 1875; and "Local Matters," Bozeman Avant Courier, June 25, 1875. This can be a complex calculation, depending upon whether one is interested in purchasing

power, real price, labor value, income value, or economic share of the original figures, www.measuringworth.com/uscompare/relativevalue.php.

22. "Bozeman Items," Bozeman Times, June 1, 1875.

23. George B. Grinnell, "Zoological Report," in William Ludlow, Report of a Reconnaissance from Carroll, Montana Territory, on the Upper Missouri to the Yellowstone National Park and Return, Made in the Summer of 1875 (Washington, DC: U.S. Government Printing Office, 1876),

24. Ludlow, Report of a Reconnaissance, 37.

25. Grinnell in Ludlow, Report of a Reconnaissance, 71, emphasis added. The other important bison reference by Grinnell is the one in his "letter of transmittal," which was attached to the Ludlow Report. In it, Grinnell wrote, "It is estimated that during the winter of 1874-1875, not less than 3,000 elk were killed for their hides alone in the valley of the Yellowstone. . . . Buffalo and mule deer suffer even more severely than the elk, and the antelope nearly as much." This is an indirect, but still important, reference to bison within the park, which is also quoted by Michael Punke in his biography of Grinnell, Last Stand: George Bird Grinnell, the Battle to Save the Buffalo, and the Birth of the New West (Harper Collins/First Smithsonian Books edition, 2007), 102.

26. By 1875, Doane was considered by many to be the best living authority on the park. See Kim Allen Scott, Yellowstone Denied: The Life of Gustavus Cheyney Doane (Norman: University of Oklahoma Press, 2015); Strong, in A Trip to the Yellowstone in 1875, 104-5.

27. Strong, in A Trip to the Yellowstone in 1875, 104-5.

28. Ibid., 106. See also Lee H. Whittlesey, "A History of Large Animals in Yellowstone National Park before 1882," (unpublished typescript, Jan. 1992), 10–11, Yellowstone Research Library, Heritage and Research Center, Gardiner, MT.

29. Philetus W. Norris was the second superintendent of Yellowstone National Park, 1877-1882. For more on Norris see Whittlesey and Bone, The History of Mammals, generally, and Haines, Yellowstone Story, 2:449-50; P. W. Norris, "Meanderings of a Mountaineer, or, The Journals and Musings (or Storys) of a Rambler over Prairie (or Mountain) and Plain," n.d., prepared from newspaper clippings (1870-75) and handwritten additions, annotated about 1885, HM 506, The Huntington Library, San Marino, CA; and P. W. Norris, Report upon the Yellowstone National Park to the Secretary of the Interior by P. W. Norris, Superintendent, for the Year 1877 (Washington, DC: U.S. Government Printing Office, 1878), 842.

30. "The Fur Trade," Bozeman Avant Courier, Aug. 6, 1875.

31. Gustavus C. Doane, "The Buffalo: Its Ranges and Numbers," Bozeman Times, May 11, 1875. The Crow Tribe did not cede the YNP portion of their reservation to the United States until 1880 (ratified 1882). Paul D. Schullery, "Yellowstone's Ecological Holocaust," Montana 47:3 (Autumn 1997): 21, 25. According to historian Helen F. Sanders, by 1875 Bozeman became Montana's second most important game-shipping point, and that fact suggests many of these mammals came from the GYE and YNP. See Sanders, A History of Montana, 1012.

32. Doane, "The Buffalo: Its Ranges and Numbers"; Hornaday in Roe, The North American Buffalo (1970), 448. For estimates of the numbers of hides, skins, furs, and robes shipped by wagon from Bozeman south to Salt Lake City before 1877, see Brigham M. Madsen and Betty D. Madsen, North to Montana! Jehus, Bullwhackers, and Mule Skinners on the Montana Trail (Logan: Utah State University Press, 1998), 24, 210.

33. "The Yellowstone Park," Bozeman Times, April 20, 1876; Haines, Yellowstone Story, 2:56-58.

34. Grinnell et al., eds., "Large Game in the Territories," Forest and Stream 7 (Oct. 12, 1876): 152. For Grinnell generally, see Punke, Last Stand: George Bird Grinnell, especially 10; and Grinnell, "Large Game in the Territories," 152. See generally, John Taliaferro, Grinnell: America's Environmental Pioneer and

His Restless Drive to Save the West (New York: Liveright, 2019), J. B. Trefethen, An American Crusade for Wildlife (Missoula: Boone & Crockett Club, 1975), and J. F. Reiger, American Sportsmen and the Origins of Conservation (Corvallis: Oregon State University Press, 2000).

35. Quoted in Haines, Yellowstone Story, 2:57.

36. "The Fur Trade," Bozeman Avant Courier, Jan. 8, 1877; Letter, P. W. Norris to Secretary of the Interior, April 18, 1877, RG 48, Microfilm 62, roll 1 (1872-1882), Patents and Miscellaneous Division, Letters Received, fold. 1877, National Archives, Washington, DC; Haines, Yellowstone Story, 2:471; Letter, N. P. Langford to Secretary of Interior Columbus Delano, Feb. 17, 1874, RG 48, Microfilm 62, roll 1, Patents and Miscellaneous Division, Letters Received, 1872-1882, National Archives, Washington, DC; P. W. Norris, "The National Park," Bozeman Avant Courier, June 7, 1877; and Norris, Report upon the Yellowstone . . . for the Year 1877, 840.

37. Norris, "Meanderings of a Mountaineer." Norris's "days of yore" referred to his previous trips to this very spot in 1870 and 1875 when no (or at least not as many) smells were present, and he listed elk and bison as the first two animals on his list of carcasses.

38. Norris, Report upon the Yellowstone . . . for the Year 1877, 842-43; Letter, Citizens of Montana Territory to Secretary of the Interior, April 1878, RG 48, Microfilm 62, roll 1, Patents and Miscellaneous Division, Letters Received, 1878, National Archives, Washington, DC.

39. Brisbin in Doane, Battle Drums and Geysers, 127; Letter, Gustavus C. Doane to the Commanding Officer, Fort Ellis, Montana Territory, July 21, 1878, RG 79, Series E-1, Box 66, fold. 1878, National Archives, Washington, DC. Gourley was one of the original five prospectors who made the Cooke City gold strike in 1870. These men traveled often through the areas at the heads of Buffalo Fork and Slough Creek, 1866-1875, where buffalo remained in large numbers, and which Gourley named the "buffalo tables." According to P. W. Norris's colored map, mammals and other animals remained in the park as late as 1884. Norris drew his map onto the existing map, "Dept. of the Interior, Compiled from the Maps of F. V. Hayden and of P. W. Norris for 1878 and Field Notes of the Explorations and Improvements of P. W. Norris and Surveys of R. J. Reeves in 1879." There is no date for Norris's additions, but they were likely added between 1879 and 1884. Map, YELL-23004, Yellowstone Research Library, Gardiner, MT.

40. P. W. Norris, Report upon the

Yellowstone National Park to the Secretary of the Interior by P. W. Norris, Superintendent, for the Year 1879 (Washington, DC: U.S. Government Printing Office, 1880), 21–22, 39.

41. Ibid., 40. Note that Superintendent Norris, for all the considerable good he did in preservation, shot a lot of animals himself, especially bears. Nevertheless, his influence on getting protection for game animals was considerable. Angler, "The Big Game and the Park," Forest and Stream (Feb. 22, 1883): 68.

42. "Yellowstone National Park, Result of the Visit of Secretary Schurz," *Bozeman Avant Courier*, Dec. 23, 1880.

43. Sioux City (IA) Journal as quoted in Hornaday, Extermination, 503.

44. Harry C. Yount, "Report of the Gamekeeper," in P. W. Norris, Fifth Annual Report of the Superintendent of Yellowstone National Park (Washington, DC: U.S. Government Printing Office, 1881), 62-63; Haines, Yellowstone Story, 2:58.

45. H. Banard Leckler, "A Camping Trip to the Yellowstone National Park, Chapter XIX: Disposing of our Outfit at Butte City," *American Field* 2 (May 10, 1884): 456.

46. Philip H. Sheridan, Report of an Exploration of Parts of Wyoming, Idaho, and Montana, in August and September 1882, Made by Lieut. Gen. P. H. Sheridan (Washington, DC: U.S. Government Printing Office), including reports by James H. Gregory and W. H. Forwood; Angler, "The Big Game and the Park,"

47. "An Immense Collection of Hides," Bozeman Avant Courier, June 2, 1881; Andrew Garcia, Tough Trip through Paradise 1878–1879 (Caxton, ID: Caxton Press, 1967), map on p. xxi; Letter, Mssrs. I. G. Baker & Co. to Hornaday, quoted in Whittlesey and Bone, "The History of Mannals," 438; Hornaday, Extermination, 506.

48. Carl, "No More Herds of Bison; Hide Hunters and Sportsmen Have Wiped Them Out at Last," (New York) The Sun, May 17, 1885. This was reprinted unauthored in a slightly abridged form as "The Buffalo Extinct; Millions of Them Killed in Seven Years,' Boston Globe, May 23, 1885. Although it has not been extensively studied, some shipping of hides and furs occurred on the new Northern Pacific Railroad as it reached into Montana Territory in 1881, 1882, and later. For example, bison historian Martin Garretson, without telling us from whence he obtained them, listed the numbers of railroad-shipped bison in 1881 as 50,000 hides; in 1882, as 200,000 hides; and in 1883 as 40,000 hides. Martin S. Garretson, The American Bison:

The story of its extermination as a wild species and its restoration under federal protection (New York: New York Zoological Society, 1938), 152.

49. Two guidebook writers, W. W. Wylie and Herman Haupt, stated this to have been the case, and in part two of our complete book we have also mentioned "grand-daddy's" (a stagecoach driver's) 1883 anecdote of seeing very few animals on the park's main roads that year. W. W. Wylie, Yellowstone National Park, Or the Great American Wonderland (Kansas City: Ramsey, Millett, and Hudson, 1882), 85; and Herman H. Haupt Jr., The Yellowstone National Park (St. Paul: J. M. Stoddert, 1883), 171.

50. "Game Features of the Yellowstone Park," Bozeman Avant Courier, Jan. 11, 1883; and Edward Pierrepont, Fifth Avenue to Alaska (New York and London: G. P. Putnam's Sons, 1884), 276-93.

51. Henry J. Winser, The Yellowstone National Park, a Manual for Tourists (New York: G. P. Putnam's Sons, 1883), 85-87, emphasis added.

52. Egerton K. Laird, A Trip to the Yellowstone National Park in 1884 (Birkenhead, UK: Willmer Brothers & Co., Limited, 1885), 21-22, 26-27, emphasis added; F. F. F. "A Modern Pilgrimage to the Mecca of the Sportsman and Tourist [in 1884]," American Field, six parts, Oct. 10, 348-49; Oct. 17, 372-73; Oct. 24, 397-98; Oct. 31, 421-22; Nov. 7, 445-46; and Nov. 14, 469-70, quote from Oct. 24, 1885, 397, emphasis added; also see Oct. 31, 1885, 421. Lee H. Whittlesey, Storytelling in Yellowstone: Horse and Buggy Tour Guides (Albuquerque: University of New Mexico Press, 2007), 92-93.

53. Grinnell's little-known account is [George B. Grinnell], "Through Two-Ocean Pass," Forest and Stream 24 (Jan. 29, 1885): 3-4. See also editions of Feb. 5, 12, 19, 26, March 5, 12, 19, 26, and April 2, 9, 16, 23, 30. This author is at work on an extended biography of George Rea.

54. Grinnell, "Through Two-Ocean Pass," 3. Grinnell's statements (in conjunction with those of F. F. F., Pierrepont, Laird, and Winser and observations by Gourley and Norris) lend further credence to the idea that the backcountry's inaccessibility protects animals (as biologist Adolph Murie later reminded us), as do the presence of many more animals in Superintendent Norris's mapped "game preserve" east of the Yellowstone River and, indirectly, in James Gourley's "bison tables" just north of YNP "between Hellroaring and Mill Creek." Adolph Murie, Ecology of the Coyote in the Yellowstone, Fauna of the National Parks series no. 4 (Washington, DC: U.S. Government Printing Office, 1940), 2; James Gourley, "The Expedition into the Yellowstone Country 1870, or a Reminiscence of James A. Gourley," typescript, 1929, 1, Yellowstone National Park Research Library, vertical files, Gardiner, MT.

55. See Haines, "Of Rabbit Catchers," in Yellowstone Story, 1:292-326. See Arnold Hague, "The Yellowstone Park as a Game Reservation," in American Big Game Hunting: The Book of the Boone and Crockett Club, Theodore Roosevelt and George Bird Grinnell, eds., (New York: Forest and Stream Publishing Company, 1893), 240-70; and Ernest Thompson Seton, "Mammals of the Yellowstone National Park," Recreation 8 (May 1898): 365-71, both quoted extensively in Whittlesey and Bone, The History of Mammals, vol. 2.

56. A prominent one was Milton P. Skinner in "The Predatory and Fur-Bearing Animals of the Yellowstone National Park," Roosevelt Wild Life Bulletin 4:2 (June 1927): 2-10. The much longer story about the continued (and misplaced) public devotion to the idea that during the great slaughter of western wildlife the animals were "pushed back up into the mountains" from the plains is also debunked if not completely destroyed in The History of Mammals, vol. 2.

57. Schullery and Whittlesey, "The Documentary Record of Wolves," 1–21. Some scientists might raise an eyebrow at our uncommon methods, but those at the Yellowstone Center for Resources at YNP have reviewed and approved our work.

A Japanese Picture Bride in Montana (TOLBERT)

1. Michael Lewis, Becoming Apart: National Power and Local Politics in Toyama, 1868-1945 (Cambridge and London: Harvard University Press, 2000), 2-4, 120-21.

2. Port of Tacoma immigration form, Nov. 17, 1911, Washington, Passenger and Crew Lists, 1882-1965 (AncestryLibrary. com); Yoko Hori Henneman interview by Seattle businessman Sam Takahashi, mid-1990s, as told to author Oct. 6, 2018, telephone interview; Ronald Takaki, Strangers from a Different Shore: A History of Asian Americans (New York: Penguin Books, 1989), 48.

3. Takaki, Strangers from a Different Shore, 43-44 and 50-51; Yuji Ichioka, The Issei: The World of the First-Generation Japanese Immigrants, 1885-1924 (New York: The Free Press, 1988), 164-65.

4. Densho Encyclopedia, http://encyclopedia.densho.org/Picture_brides/; Barbara F. Kawakami, *Picture Bride Stories* (Honolulu: University of Hawai'i Press, 2016), 210.

5. Roger Daniels, Asian America: Chinese and Japanese in the United States since 1850 (Seattle and London: University of Washington Press, 1988), 131; Ichioka, Issei, 165.

6. Takaki, Strangers from a Different Shore, 47-48; Michiko Midge Ayukawa, "Good Wives and Wise Mothers: Japanese Picture Brides in Early Twentieth-Century British Columbia," BC Studies 105-6 (Spring/Summer 1995): 110; Ichioka, Issei, 168.

7. Department of Commerce, Bureau of the Census, Sixteenth Census of the United States: 1940, Population Schedule, Whitefish City, Ward 2, sheet 9A, 178 (AncestryLibrary.com); Aya might also have been widowed once in Japan, as a "w" was marked on her 1911 U.S. marriage certificate, although relatives wonder if that was an error in her ability to understand English on her first day in the United States. Parish registers for the Church of the Holy Communion, vol. 2, Diocese of Olympia Archives, Tacoma, WA, 135; Ibid.

8. "Find Japanese Body on Wedding Anniversary," Tacoma Times, Nov. 19, 1913.

9. Ronald E. Magden, Furusato: Tacoma-Pierce County Japanese, 1888-1988 (Tacoma: Tacoma Longshore Book & Research Committee, 1998), 17; Harry



A Japanese bride in Montana. Courtesy Esther Premo and Judy Aya Williamson