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on the subject of

“Yellowstone National Park Bison”

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Thank you, Mr. Chairman, for the opportunity to testify on the subject of the Yellowstone bison. I am Wayne Pacelle, president and CEO of The Humane Society of the United States, the nation's largest animal protection organization with 10 million members and constituents – one of every 30 Americans. The HSUS has worked since its founding in 1954 to protect both domesticated animals and wildlife. We maintain a 20-person wildlife department with professional scientists and advocates and work on a wide range of wildlife programs.

I want to thank Natural Resources Chairman Nick Rahall for his outstanding leadership on this issue, twice going to the floor with amendments to the Interior Appropriations bills in 2004 and 2005 to mitigate harm to these animals. Further, I wish to acknowledge the leadership and support of Representative Maurice Hinchey, who along with former Representative Charles Bass, co-authored on legislation to diminish conflicts between people and bison and to prevent as much needless killing of Yellowstone bison as possible. I would further commend Representatives Jay Inslee and Corinne Brown, along with Chairman Rahall, for communicating concerns and questions to the National Park Service (NPS) and other agencies as more and more bison were hazed and slaughtered in recent years. Finally, I extend our strong appreciation to Subcommittee Chairman Raul Grijalva for holding these oversight hearings and placing a spotlight on the tragic mistreatment of these majestic symbols of the West.

Since the early 1980s, The HSUS has been very active in wildlife issues in and around the Greater Yellowstone Ecosystem. We have submitted numerous public comments and provided testimony on behalf of the bison and we actively provide support to other groups locally involved in this issue. I have a long personal history with this issue, having gone to Yellowstone National Park (YNP) in 1988 to videotape the shooting of bison in the first “sport hunt” of bison that the state of Montana had authorized during the century.

Our regional office located in Billings, Mont. has actively participated in the Yellowstone bison issue for over a decade. Our regional director served on the Montana Governor’s Humane Bison Handling Task Force in 1997, and our representatives conducted a corral inspection at South Creek in 2003.

Since then, we have continued efforts to provide oversight of bison management and secure more humane treatment of the bison. We have worked with both YNP staff and numerous environmental groups to seek non-lethal solutions to bison management. Most recently we met with Montana Governor’s staff and state legislators in an unsuccessful attempt to convince them that the expansion of a bison "sport hunt" was essentially a state-sponsored canned hunt of tame animals.

There is ample documentation that the treatment of bison in and around YNP is inhumane and unacceptable. The primary elements that concern us include animals being run to exhaustion, corralling that does not guard against bison goring each other in a panic, animals driven onto frozen lakes that results in their falling through the ice and into frigid waters, mishandling that results in injury and death, overstocking transport trailers, and

shooting of bison at a slaughter plant because the animals were allowed to inadvertently escape their holding areas.

This deplorable set of circumstances reveals the clumsy and unprofessional handling of the animals by the state and the federal government. In short, these animals are handled like livestock rather than extremely powerful wild animals. There has been no government agency with central authority to take charge of this situation and eliminate the litany of problems associated with the mistreatment of these animals

History of Bison in Yellowstone

The history of America's treatment of the bison in the West is a painful and sad story of unbridled sport and market killing of these animals, and it provides a powerful case example of how destructive attitudes and technology can conspire to wipe out species thought to be super-abundant and inexhaustible. This species once roamed across much of the continental United States, from northern New York state to the Deep South in the east and as far west as Washington state north to Alaska and south into northern Mexico. There are even historical records of bison in the New Orleans area from the 1600s and early 1700s (Lowery 1981).

The estimated historic population of bison in the United States was 40 – 60 million animals. Due to market hunting and overexploitation for meat and hides in the 18th and 19th centuries, bison populations plummeted, particularly in the latter part of the 19th century. By the late 1800s, remnant populations were scattered across the country, most in captivity, consisting of perhaps just 1,000 animals. A handful of wild bison remained in YNP. The superintendent of Yellowstone in 1902 estimated that there were about 22 bison left in the remote Pelican Valley of the park.

Attempts were made to lure these remaining animals into enclosures using bait, but this failed. Amid growing fears that the last remaining bison in the Park would be lost due to weather, disease, or poaching, the park superintendent established an enclosed population from 21 animals purchased from herds maintained in Texas and Montana. This imported herd remained separate from the native Yellowstone herd until 1932 when the herds were allowed to intermingle. All of the bison in Yellowstone today are derived from that original founder population of 43 animals from Yellowstone, Montana, and Texas (Gates et al. 2005).

Bison in Yellowstone Today

Presently, the three bison populations inhabiting Yellowstone are maintained at a total population level between 3,000 – 4,000 animals. Yellowstone National Park is not an island of habitat, and it constitutes just 10 percent of the Greater Yellowstone Ecosystem (GYE). The GYE covers an area of 10.8 million hectares and represents the southernmost area in North America that sustains a full complement of native predators, including wolves that were recently reintroduced and have thrived in the park. This includes 2 national parks (Yellowstone and Grant Teton) that make up about 9.5% of this area while

another 14.8% is designated wilderness areas. A total of 36% of the GYE is private land while 64% is public land (Noss et al. 2002).

Unfortunately, bison are not aware of the arbitrary human boundaries that separate YNP from the rest of ecosystem. Bison are obligate grazers and as such need access to forage throughout the year. Although animals may survive on fat stores during times of deep snow fall, bison cannot survive the winter and spring without access to range without enormously deep snow cover. During or after harsh winters bison will wander to lower elevation, sometimes across the park boundaries, in search of food and milder weather conditions (Meagher 1989).

Under current regulations, bison that cross the park boundary are either hazed back into the park or shot. This policy has resulted in nearly 5,000 animals being killed in the last 12 years, with more than 1,000 slaughtered in the winter and spring of 2005 – 2006 alone (Buffalo Field Campaign 2007). The primary reason given for this killing is the threat of disease transmission between bison and cattle, particularly the bacterial infection brucellosis.

Brucellosis, bison, cattle, and elk

Brucellosis is caused by a bacterial zoonosis whose symptoms have known to medicine since the 3rd century BC (Cutler et al. 2005). Various strains of brucellosis may infect a wide range of mammals including humans, rodent, marine mammals, ungulates, goats, sheep, and pigs. Pathology in humans includes a suite of flu-–like symptoms that may persist for years or even decades. These symptoms may be so severe that the bacterium that causes brucellosis in pigs (*Brucella suis*) was developed as a biological warfare agent by the United States (Greenfield et al. 2002).

The species that infects cattle and other ungulates is *Brucella abortus*. While humans may contract this disease through the consumption of unpasteurized dairy products from infected cattle or goats, or inhalation of the bacterium or contact with infected tissues including the consumption of raw meat, concerns with bison and brucellosis are centered on possible transmission to cattle, not humans.

Brucellosis infection in ungulates may cause the abortion of fetuses, temporary sterility, and occasionally calf mortality (Reynolds et al. 2003). Before considering the factors that make brucellosis transmission from bison to cattle extremely unlikely, we must consider how bison came to be infected with this pathogen in the first place.

As mentioned, the symptoms of brucellosis in humans have been known for millennia and were recorded in ancient Greece; hence it is obvious that this disease was known in the Old World. An examination of the evolutionary history of bison and *B. abortus* in addition to this disease's animal hosts, genetics, and biochemistry has revealed that this pathogen was introduced to the New World as an infection of domesticated cattle. Further examination of historic documents also revealed that ranched bison in Yellowstone most likely contracted the disease from cattle being kept in the park by

employees sometime around 1917, when the first recorded abortions of bison occurred (Meagher and Meyer 1994). This disease and its symptoms in bison were never recorded or mentioned by Native Americans or European Americans anywhere on the continent before the incidents in 1917. In the analysis cited (Meagher and Meyer 1994), they analyzed the possibility of disease transfer through cattle fostering of bison calves yet concluded this means of disease transfer to be unlikely because the milk feedings occurred about 13 years before brucellosis was ever detected in bison.

While transmission of brucellosis from bison to cattle can occur, as proven under controlled, experimental conditions (Davis et al. 1990), the chance of this actually happening under natural conditions is remote indeed, and there has never been a documented case of brucellosis transmission from bison to cattle in the wild. In fact, the origins of this disease in bison appear to be a result of forced proximity to cattle.

Under unmanaged conditions, bison and cattle are generally separated spatially and temporally and thus are unlikely to come into contact with each other, especially during the period of time when female bison are giving birth or when livestock may otherwise come into contact with potentially infectious materials. In fact, existing cattle grazing allotments bordering the Park are not utilized at a time when elk or bison are calving and thus may potentially abort. Hence, cattle are not present at an appropriate time or place for exposure to brucellosis from bison or elk (Thorne and Kreeger 2002).

Although the USDA may claim that bison are more likely to pass brucellosis to cattle than are elk due to their gregarious nature, this argument does not apply in the area around Yellowstone where elk are artificially concentrated over food. In fact, this feeding practice is recognized as the primary reason that elk can successfully serve as a reservoir for *B. abortus* (Godfroid 2002). In fact, elk that had been congregated around feeding stations have been implicated in the most recent transmission of brucellosis to cattle from wildlife in Idaho (USDA website). As of this winter, nearly 7,000 elk were counted in the northern region of the Park and across the border on adjacent lands (Yellowstone National Park 2007). The park estimates that at least 15,000 elk winter within the park with nearly 30,000 present within its borders during the summer (YNP website).

Considering that the vast majority of cattle in the GYA area are vaccinated against brucellosis as calves and the chance of transmission from bison is highly improbable, the policy to test and vaccinate wild, free–ranging bison simply does not make sense. It is a severe overreaction by state and federal authorities who disregard the public's interest in balancing concern for livestock production with the imperative to protect wildlife in the America's first and most famous national park. Such actions can be equated to combating rabies in pet populations by attempting to test and vaccinate free–ranging bats, foxes, skunks, and raccoons. In both of these cases, the financial and logistical costs of such actions, in addition to the excessive stress caused to these animals, far outweighs the infinitesimal risk of actual disease transmission. It is a radical overreach, and it should be discontinued.

Current Treatment of Bison in Yellowstone

The NPS, USDA and its Animal and Plant Health Inspection Service (APHIS), the U.S. Forest Service, and the State of Montana completed an Environmental Impact Statement for the Interagency Bison Management Plan for the State of Montana and Yellowstone National Park in November 2000. Under this plan, animals within the park boundaries are subject to capture, testing, and vaccination for brucellosis. If animals test positive, they are shipped to slaughter. If animals leave the park, efforts are made to haze them back into the park. If these efforts fail, the state allows hunters to shoot the animals.

The Yellowstone bison roam a unique ecosystem and are one of the few remaining bison herds that is not known to have ever been interbred with cattle. Moreover, these are large, powerful wild animals that are not accustomed to close human contact and hence will make all efforts to avoid capture. Forcing these creatures into pens and into restraints is excessively stressful and may jeopardize the survival of young animals subject to unnecessary handling.

As mentioned, the bison that cross the park boundary are subject to hazing and killing. The animals that venture outside of YNP are not in any real danger of coming into contact with cattle. Additionally, federal and state authorities do not just target females, but also male bison, despite the fact that these animals pose absolutely no risk of transmitting brucellosis to cattle. They do not have placental material, and therefore pose no risk of transmitting brucellosis to cattle. In contrast, the elk that roam throughout Forest Service grazing allotments outside of Yellowstone are not subject to such a severe no-migration policy even though they are known to carry brucellosis. This inconsistency is very difficult to reconcile – one wildlife species that does demonstrate an exposure to brucellosis is allowed to range freely outside of YNP, and the other species with brucellosis exposure is subject to a strict no-migration policy.

The livestock industry would just as soon see no large ungulate populations, or wolves, outside of the park, since any ungulates competes for grass during a small portion of the year with cattle. That is the subtext for this controversy. But the elk have a stronger political lobby of hunters and wildlife watchers and the task of eliminating them from Forest Service lands would be a very difficult political and logistical exercise. They have instead chosen to draw the line with bison and do not want to see any competition from this species. The brucellosis issue is at worst a red herring, and at best an overblown overreaction by the livestock industry.

What should be done

Bison are large roaming ungulates that require vast tracks of land with suitable forage to exist and flourish. While there are an estimated 200,000 to 300,000 bison living in North America today, the vast majority of them are in a semi-captive state. Best-guess estimates conclude that there are only about 12,000–15,000 free-roaming bison left on the continent. In comparison, according to the National Agricultural Statistics Service, there are nearly 100 million cattle living in the United Stats at present a number which meets or

exceeds the historic numbers of bison estimated to have inhabited the whole of the North American continent.

The Yellowstone bison draw to tourists from around the world that seek to experience the wild character of the unique GYE landscape and its robust complement of native wildlife species. Is there one place in our nation where we can allow them to roam, or must we subvert bison protection to cattle interests in every single ecosystem in the United States?

Bison should be permitted to traverse the borders of Yellowstone in search of food in the winter and early spring. There is no biological, ecological, or even economic reason why these animals must be corralled in Yellowstone National Park and treated like a group of shaggy, unowned cattle. The animals roam principally on America's public lands, and they deserve protection.

Thank you for the opportunity to testify

NOTES

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