

Home  
on the Range?



“**T**hey were like a river,” says Jackie Legault, absently breaking off a small piece of homemade oatmeal cookie and handing it to her daughter, eighteen-month-old Chloe. The toddler is safely tucked in the back seat of the Legaults’ big farm truck, parked about fifty yards from a few dozen bison browsing on a hillside. We’re sitting smack in the middle of their Great Divide Bison Ranch in Saskatchewan, Canada, about a quarter-mile east of North America’s north-south Continental Divide and almost within shouting distance of the Canada-U.S. international border.

Jackie’s watching the bison quietly graze, doing what bison have always done—being born, cropping wild grasses, moving across the land with stolid, lumbering dignity. They are the continent’s largest land animals; plains bison can weigh up to eighteen hundred pounds, wood bison up to twenty-two-hundred pounds—a full ton. And at one time, some seventy million bison roamed the North American continent, ranging from Mexico to Alaska. For some ten thousand years, they were the continent’s reigning species, the major living element in its varied ecosystems. In free-roaming herds up to a mile wide and ten miles long, they migrated hundreds of miles in annual treks from summer grounds to sheltered winter areas, then back again. In the nineteenth century, pioneer wagon trains were sometimes forced to halt for days, waiting for one of the huge herds to plod past.

These days, though, North America’s bison are fenced in, mostly on sprawling ranches like the Legaults’ six thousand acres, some forty miles south of the small town of Ponteix. A couple of years ago, Kim Legault, Jackie’s husband, a fourth-generation farmer on these fields, quit growing grain, lentils, peas, and mustard. He sold his farm equipment and used the money to buy as many bison as he could. He now has more than four hundred animals, and he’s convinced he’ll someday do better financially with bison than he ever did growing grain.

*Overleaf: The nearly nineteen-thousand-acre National Bison Range, in western Montana, home to some 350–500 bison, is one of the U.S.'s first wildlife refuges, established in 1908*

*Former Canadian farmer Kim Legault, below, hopes to bring back the native bison—which once numbered in the millions—to his six thousand-acre Saskatchewan ranch*

Unlike cattle, says Legault, bison don't need to be fed as long as they've got plenty of Prairie to browse, and they spread out on that Prairie, never over-grazing one spot. They keep having calves for up to twenty-five years, where cattle usually quit calving after twelve years or so. Like most ranch bison, his are raised naturally on wild grasses. They eat no feed laden with antibiotics to prevent disease or hormones to speed weight gain.

And Legault believes North Americans, seized by fears of cardiovascular disease due to consumption of too much unhealthy fat, are slowly catching on to bison meat's superior nutritional profile. Bison is the perfect healthy red meat, he says, high in protein, lower in cholesterol than chicken, and carrying almost no fat.

"They are my future, and my equipment," he says, "planting with their feet." As they did for thousands of years, the bison—and the wind—are distributing wild Prairie grass seeds across fields where Legault once planted grain, fields now being restored as native Prairie that future bison will eat. "We're back to the pure, natural animal that was natural to the land," says Legault, "and which is the most natural thing to be consuming."

Legault happily spends days at a time here, replacing or repairing dozens of miles of fencing around his land, the bison his only company except for occasional deer and pronghorn antelope—other animals now coming back to his land as the Prairie returns to its wild roots.

It's early spring now, and most of the cows have calved. One is right in the middle of the messy business, tail upraised, straining. "She's alright, she's doing fine," Legault nods approvingly. "They don't need help with this either—not like cattle."

But although this pastoral scene may seem unremarkable, in truth, it's almost miraculous. A hundred years

ago, the ancestors of these beasts were within a hair's breadth of extinction.

For ten thousand years, North America's natives hunted bison, barely denting their numbers. The animals were survival staples as food and raw material for clothing, weapons, shelters, and tools. Communal groups hunted them, using buffalo pounds—makeshift corrals into which bison would be driven, or, where hilly terrain made it possible, buffalo jumps—steep cliffs over which the animals could be driven to fall to their deaths. Runners circled a herd, cutting out selected animals. One man might don a buffalo hide and head, complete with horns, to encourage the beasts to follow him. Other tribe members fanned the beasts onward by startling them with waving blankets or leaping from behind small shrubs or rock piles. Below the jump, a clean-up crew of women and children waited to finish off still-living animals, drag them aside, and butcher them.

Successful hunts provided enough meat and pemmican (dried meat pounded with fat and berries and preserved) to feed everyone for months. Plains tribes followed seasonal migrations, and paid tribute to the bison. Ritual dances praised the animal's spirit before every hunt.

Some buffalo jumps were used for thousands of years. At Wanuskewin Heritage Park north of Saskatoon, Saskatchewan, archaeologists have discovered artifacts more than eight thousand years old—older than Egypt's Great Pyramids. In western Alberta, Head-Smashed-In Buffalo Jump has become a World Heritage Site.

In both places, Plains Cree or Blackfoot people still dance in tribute to the buffalo; now they do it for the tourists, not for the hunt.

It took less than fifty years for European explorers and settlers to hunt the bison almost to extinction.



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(Europeans also sparked the misuse, now a universal synonym, of the word buffalo for the animal.) In Canada, fevered trade, first in pemmican, then in hides bartered to fur traders and explorers, led to the buffalo's near-extirmination by the mid-1800s.

In the U.S., extirpating the bison became a deliberate strategy to subdue rebellious native people. In 1873, American secretary of the interior Columbus Delano declared "civilization of the Indian is impossible while the buffalo remains upon the plains." Two years later, General Philip Sheridan urged the U.S. Congress to encourage buffalo hunters. "For the sake of lasting peace, let them kill, skin, and sell until the buffaloes are exterminated," he said.

And they did . . . almost. Between hunters and so-called sportsmen who sat comfortably in passenger railcars, firing on herds and slaughtering hundreds as the trains passed by, tens of millions of animals were massacred. Some reports claim there were only twenty wild plains bison alive by the turn of the century—a dozen in the U.S., eight in Canada. Just 250 wood bison remained, near remote Great Slave Lake in what's now northern Canada.

With the bison gone, the native people began to starve. For some years, a few tribes on the U.S. side of the border drifted north to Canada, where the government was feeding the hungry, but eventually put a stop to the migration; the Canadians had enough problems dealing with their own starving natives. The Americans' goal, however, had been met; their Indians' resistance to white settlement had been squelched.

But while there was little furor over the plight of the natives, some people strongly disapproved of destroying the bison. Even while the slaughter continued, a few ranchers began rounding up scattered survivors to begin raising their own herds. Two Montana men, Michael Pablo and Charles Allard, spent more than twenty years putting together the continent's largest living assemblage of bison.

And one small wild herd of twenty-three animals had survived in Wyoming's newly created Yellowstone National Park.

In 1905 in the U.S., the American Bison Society formed to help secure the species' survival. (The Society disbanded twenty-five years later, after establishing a number of public herds.) In 1907, the Canadian government bought Pablo's animals, now more than seven hundred of them, and shipped them north, marking the beginning of Canadian efforts to help save the species. The descendants of those bison are today protected at Elk Island National Park in the province of Alberta.

Canada's Wood Buffalo National Park was established in 1922 to protect the last remaining wood bison, but even so, they were declared extinct in 1940. Nineteen years later, wildlife officers flying over the park's northwestern corner spotted a small, isolated herd—the world's last wood bison. Today, with perhaps four thousand alive, wood bison are still considered threatened. In the spring of 2006, thirty calves and yearlings boarded an

Aleutian cargo plane bound for northern Russia, to be reintroduced after an estimated five thousand-year absence. Part of that re-seeding involves planned exchanges of scientific research, but it's also a bid to "fail-safe" the wood bison should disaster ever befall the Canadian herd.

Meanwhile, from the relative handful of beasts rescued by ranchers and the few wild survivors of the massacres, North America's plains bison have become conservation-success poster children, numbering some five or six hundred thousand all told.

That population explosion's happened largely over the last two decades, thanks to bison ranches. Perhaps 275,000 ranched bison in the U.S. and about 250,000 in Canada are intended for North American dinner tables; ironically, the once-threatened species is again becoming prized for its meat. The world's largest herd of roughly forty thousand, owned by American media mogul and CNN founder Ted Turner, is parceled out on 2.2 million acres among thirteen ranches in various American states. His bison become burgers in his chain of thirty-nine restaurants, called Ted's Montana Grill, in sixteen states.

"The best way to save the bison is to eat them," says Dave Carter, executive director for the National Bison Association in the United States. About thirty-five thousand bison were processed in the United States in 2005, 17 percent more than went to slaughter in 2004. And Kim Legault and thousands of ranchers like him are banking on a growing North American appetite for bison.

As well as the ranched, or commercial, herds, about twenty thousand protected bison roam fenced public lands in small conservation herds that have popped up around North America in recent years, partly to preserve the species and partly because environmental groups and governments have been acquiring patches of Prairie, Great Plains, and high plateau to restore them as closely as possible to their original ecosystem status. That requires bringing back the animals that were the dominant



RIGHT: ©ERWIN & PEGGY BAUER/U.S. FISH & WILDLIFE; OPPOSITE PAGE: ©JUDY WAYTIUK

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*In the late nineteenth century, U.S. government policy supported the extirpation of the bison as a means to dominate the Plains Indians; today, at the Wanuskewin Heritage Park, where archaeologists have unearthed evidence of early native people's history, this young man makes an ancestral connection, below*

species on the land, and letting them be that species again. Today, forty public herds dot the United States, while Canada counts just over a dozen.

Dealing with wild bison can be challenging. A senior female usually bosses the herd, which tends to revolve seasonally around the area where her calves were born. Displaced bison with a senior female can decide to head home, even if home's a thousand miles distant.

So most new herds, like the one managed by stocky ex-cattlemán Bill Willcutt, consist of youngsters that haven't yet calved. Willcutt's animals, imported from a public herd at Wind Cave National Park, in South Dakota, are now exploring a piece of thirty-two thousand acres owned or leased by the American Prairie Foundation, a few miles south of Malta, Montana. Willcutt's job, after initially corralling the animals in their new location to get them accustomed to the area, now consists largely of leaving them alone. Two of them wear GPS collars so they can be tracked as they wander the vast "sun prairie" plateaus, gullies, and Montana breaks that make up the APF's preserve. In spring 2006, five calves were born to the tiny herd of fourteen. The APF and its World Wildlife Fund partners hope to secure more animals out of Wind Cave's 2006 roundup, aiming for an eventual herd of about three hundred.

A few hours' drive northwest of the APF preserve, the Nature Conservancy of Canada has, for three years now, stood watch over fifty plains bison "re-seeded" from Elk Island National Park into southwestern Saskatchewan's thirteen-thousand-acre Old Man on His Back Prairie & Heritage Conservation Area. Ultimately, says Bob Santo, the conservancy's director of development and communication for the region, the herd will be kept at 150 animals by sending surplus beasts to other preserves or selling breeding stock to local ranchers. Fifteen calves have been born so far, and former cattlemán and current "steward-

ship representative" Mike Doody keeps an eye on the herd, generally from a great distance. Chances of seeing them near the area's sole gravel road are usually spotty. The conservancy doesn't mind that; limited contact will keep them as wild as possible.

Eventually, these new conservation herds will have to face a painful reality, says Mark Silzer, president of the Canadian Bison Association: There may be no more ranches or reserves able to accept their excess animals. "Sooner or later, they're all going to be in the meat industry," he says.

But the most thorny problem now facing ranchers and conservationists alike is the issue of genetic purity. As far back as the late 1700s, there were happenstance bison-cattle crosses, followed in the mid 1900s by occasional deliberate crosses, called cattalo or beefalo. Canadians mostly abandoned that approach by the 1980s, but some two dozen beefalo operations are still listed in the U.S. and Australia. And many scientists say the result of all the fiddling is that bison genetics have been sorely compromised. Some years ago, eleven of the continent's public herds were tested for cattle genes. Only four—the U.S.'s Yellowstone and Wind Cave National Parks and Canada's Elk Island's two separate plains and wood bison herds—had no cattle DNA. And of a hundred private herds tested at the same time, all turned up positive for cattle genes. In the U.S., Dr. Curt Freese, director of the World Wildlife Fund's Northern Great Plains Ecoregion Program (the APF's Montana herd partner), says, "It's clear that the cattle genes are widespread, even in the public herds." And conservationists now worry that ranchers, who once rescued the bison from extermination, will begin to ruin the beasts through selective breeding that would turn wild animals into simple livestock—"cattle with humps."

In Canada, some wildlife protection organizations want plains bison declared a threatened species, arguing that the



SCIENCEBOWL ARCHIVES (NANA1406)



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number of genetically pure animals remains alarmingly small. The Nature Conservancy wasn't among the groups supporting that move, says Santo. "There just isn't enough evidence to support that. At least, that's what we think." So far, the Canadian government has rejected the request, but it stampeded many ranchers, who weren't consulted about it, into a fury. Silzer says if Canada ever accepts the argument, it will destroy the nation's bison ranchers. "Would you, as a consumer, buy meat from an animal that's been declared a threatened species?" he asks.

Silzer and Carter agree selective breeding in the commercial herds is inevitable. "The food system today rewards ranchers for yield, and the meat business is such a small margin business. So yes, there would be a tendency to start selecting," Carter points out.

Even so, says Carter, "we don't want these animals to quit being bison. We love bison because they're bison. We want to keep bison distinct—as a unique species, a unique animal, and ultimately, a unique meat product."

But bison are "in this awkward position of straddling the fence between livestock and wildlife," points out Freese, "and it makes it a real conundrum—an enigma, almost—for how to manage the public herds and the private herds."

Carter says private ranchers in the U.S. who practice market-driven selective breeding do support the idea of conservation herds—"making sure that there are herds out there that aren't being tinkered with because of the meat market." And conservationists like Freese and Wes Olson, a senior warden at Elk Island National Park, a bison rancher, and the author of a recently published book, *Portraits of the Bison: An Illustrated Guide to Bison Society*, say pitting environmentalists against ranchers will not serve the bison. "The conflict in Canada has been reduced from a boil to a simmer," says Olson, "and I don't think either one can get along without the other."

Nor, it seems, can the bison. Freese says recent research shows some of the genes that make bison "wild" are disappearing, making establishing large, new conservation herds even more critical in order to preserve those dwindling genes. "But most bison, even though they have some cattle genes in them," he adds, "still act like bison. So they can fill that ecological role that bison traditionally filled."

And there are both public and commercial herds with cattle genes that also possess unique wild bison genomes not present anywhere else. To Freese and Olson, that clearly means both commercial and conservation herds need to be preserved and increased to secure the future of the animal.

The question is: how?

There's long been talk of turning a vast chunk of the central Plains area of the United States—where the human population density in some areas is as low as two people per square mile and still declining—into a vast, free-ranging conservation herd preserve, dubbed the Buffalo Commons. The idea was first proposed by two Rutgers University professors, Frank and Deborah Popper, in the late 1980s. They called the plan "the world's largest historic preservation project, the ultimate national park."

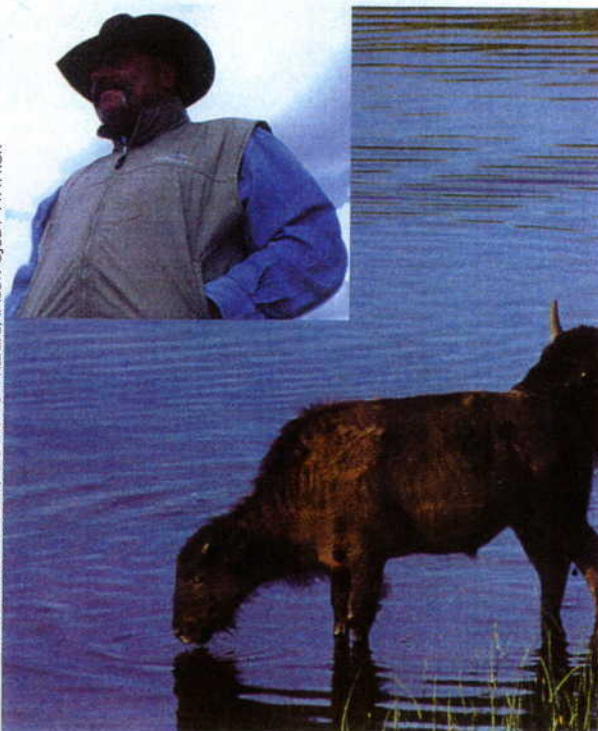
It's achievable, says Freese, with enough public support, "including the ranchers. They'd have a great opportunity to create individual areas where they could run bison cooperatively, harvest the bison in a way that's ecologically sustainable, and at the same time provide tourism."

"I love it. I would love to see that take place," says Olson. "To have the opportunity to re-create something that's gone—it has implications for all the endangered species on the Great Plains—everything from the black-footed ferret to the sage grouse." Some estimates, he says, suggest that such a commons could see as many as fifty thousand bison roaming a vast stretch of protected Great Plains and Prairie, as soon as the year 2050. One organization, the Great Plains Restoration Council, has begun the Million Acre Project, centered in South Dakota and supported by the local Sioux tribe, which the council describes as "the first step in the coming real-life realization of wild, free-roaming buffalo herds from Mexico to Canada." A number of Plains-area native tribes now raise bison and are sympathetic to the commons concept. And the state of Montana, where almost half the land is publicly owned and where the APF's little herd already roams on land directly adjacent to the million-acre Charles M. Russell National Wildlife Refuge, has formally proposed large-scale bison restoration.

The idea riles many cattle ranchers, though—since in many areas, it would be their land returning to the bison.

And while humans ponder—and argue over—their future, the bison are busy doing what bison have always done—being born, browsing the wild grasses on one small piece of Prairie or Plains after another, on ranches and conservation ranges, moving across the land.

In spring 2006, an hour's drive east of Old Man on His Back, an hour north of the APF's small herd, adjacent to Kim Legault's Great Divide Bison Ranch, and a couple of miles from the small southern Saskatchewan village of Val Marie, Canada's Grasslands National Park released seventy-one young bison—and one incidental new calf from a teenage mom they didn't know was pregnant—



RIGHT: ©PHYLIS COOPER/U.S. FISH & WILDLIFE; INSET: ©JUDY WAYTIUK

*Former cattleman Bill Willcutt, inset, now manages a new herd of fourteen bison on Montana's "sun prairie," two of which wear GPS collars because of their ability to range widely, and in Nebraska's Fort Niobrara National Wildlife Refuge, several bison pause to leisurely refresh themselves, right. While they'll never reach their numbers of over a century ago—measured in bones, opposite—might these hearty, adaptable Plains icons recover from their date with extinction?*

into its forty-five-thousand acre West Block tract of mixed Prairie grassland habitat. Soon after, a second calf was born. The park hopes for an eventual herd of about three hundred animals, and Val Marie villagers have watched with fascination as the bison return, hoping the animals will draw more tourists—after all, the village is now virtually surrounded by small bison herds that will grow.

But there's another reason for the interest.

**T**here's something about bison that seizes the imagination of everyone who sees them, something about their poignant, harrowing history that clutches the heart—"maybe a big chunk of collective guilt, that we almost killed them all," muses Olson. "I don't know what it is."

In Val Marie, Lise Perrault, eighty years-plus, long ago turned the basement of her tiny bungalow into a museum-cum shrine—a third of it dedicated to cowboy artist/writer Will James, the rest to bison. Paintings, posters, weavings, coins, postcards, stuffed toy bison have overwhelmed her shelves to litter the floor. She delightedly shows every single piece to any stray visitor lured in by her small hand-painted sign and the bison skulls ringing her little flower garden.

"I just love them," she says. "I don't know why. Anything with a bison on it, I'll buy."

In the afternoon, after visiting Perrault's museum, I decide to make a return trip to Grasslands National Park for one last look at their young bison. But I don't quite make it back to see them. I stop to stalk the park's colony of Richardson ground squirrels for photos—unsuccessfully; the little rodents are surprisingly canny. And I dawdle to take pictures of the few crumbling human habitations in what was once cattle range, and is now falling back, with human help, into native Prairie. So I run out of time to visit the bison once more; I have to return to Val Marie to get fuel before the gas station closes.

But I find myself making one more unscheduled stop. Driving the dry gravel road, kicking up dust in a blonde

rooster plume against the bright blue Prairie sky, I watch the wide landscape rolling out to either side, and before me.

It is empty.

Yes, there are prairie dogs here, rare black-footed ferrets and burrowing owls, foxes, all manner of hawks and eagles, pronghorn antelope, white-tailed deer, ducks, snakes, and hundreds of other species. But I think about what Jackie Legault said a few days before, her blue eyes dark with anger at what our species so nearly destroyed, not so long ago.

They would have been like rivers. They were the living core around which the rest of the ecosystem revolved. And years from now, thanks to a peculiarly human need to make right what we have done wrong, and despite puzzlement and wrangling among ranchers and conservationists over how to deal with the results of our original destruction and our efforts at restoration, perhaps they will come back again. The Legaults' ranch is just a few miles east of here. To the south, behind me, the young bison in Grasslands National Park and at the American Prairie Foundation are already beginning to calve. An hour to the west, at Old Man on His Back, more calves are born yearly.

My vision suddenly blurring with tears, I find myself pulling over to the side of the road to stop. And I know exactly why I'm weeping. It's not because of the gravel dust.

It is still empty here.

But give them some time, and the space they need. And they will be back. ■



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