Where the Buffalo Roam... Again

The international Indigenous Buffalo Treaty and an innovative Parks Canada reintroduction scheme coincide as free-roaming bison return to the Canadian West

By Fraser Los

On a sunny day in August 2015, on the old Banff Indian Grounds near the bustling Banff townsite, with massive Cascade Mountain looming overhead, leaders of the Stoney Nakoda and Samson Cree First Nations gathered with other signatories of the Buffalo Treaty — marking their commitment to bring the buffalo back to landscapes that it hadn't been in for more than a century and a half.

The location for this historic event was deeply symbolic. For thousands of years, First Nations congregated here to camp, trade and prepare for hunting forays. And to the south of the grounds sits diminutive Tunnel Mountain — just an easy peak to climb for some, but a sacred mountain for the Stoney Nakoda, who have formally requested changing its name to

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A *FLOCK* OF BISON?
New arrivals scamper away (below), having been delivered by air (opposite); at right, a collared bison tends to her offspring

Sacred Buffalo Guardian Mountain, to honour their most revered animal instead of a train tunnel that was never actually built.

At the same time, in a remote section of Banff National Park some 60 kilometres past mountain ranges to the north, Parks Canada was kicking off its own historic bison restoration effort — a five-year, $6.4-million pilot project to bring the long-absent species back to the park. For a century, from 1897 to 1997, Parks Canada had kept some of the area's last remaining bison close to the Banff Indian Grounds, protecting them in a 120-hectare paddock. North America's largest land mammal, which had once dominated the western landscape with an estimated population of 30 million, had been relegated to a zoo-like display for tourists passing through.

Two decades after the paddock closed down, the interests of Indigenous communities and Parks Canada, along with a host of like-minded conservation groups, had coalesced around the bold idea to make free-roaming bison a reality once again. "By taking bison off the landscape and shutting them out, slaughtering them by the millions, the biological diversity has suffered," says William Snow, a member of the Stoney Nakoda First Nation who manages consultation for the Stoney Tribal Administration. "If this project is done well, everyone will see the environmental and cultural benefits of wild bison," he says, adding that he hopes the Banff project will lead to restoration efforts elsewhere.

Snow says becoming a signatory to the Buffalo Treaty — initially signed by eight First Nations and U.S. tribes on Blackfeet territory in Browning, Montana, in September 2014 — was a separate endeavour for the Stoney Nakoda, but that the Banff signing event was also a critical show of support for Parks Canada's project on traditional land. The release of plains bison into Banff National Park would not actually happen until the beginning of 2017 — deep in the park's backcountry, far away from busy roads and swarming tourists, in the rolling hills and open meadows of the Panther Valley.

"We intentionally started in an area that's more remote — the closest road a two-day walk or horseback ride or ski ride away," says Karsten Heuer, who coordinates Banff's bison reintroduction project. The 1,200-square-kilometre reintroduction zone is large considering the 16 relocated animals had come from a fenced-in area of 109 square kilometres within Elk Island National Park, near Edmonton. "It's a huge complex landscape, and the bison are still in the process of learning it," says Heuer.

Before the herd was released into its new surroundings, Parks staff (called bison stewards) started prescribed fires in the area in fall 2015 to restore native grasslands and lush new habitat. The bison spent two calving seasons, or about 18 months, in a fenced-in area within the reintroduction zone, so they could properly acclimatize to the new surroundings. And finally, in July 2018, the fences were removed, and the growing herd was free to roam, exploring the grassy hillsides and even steep mountainsides and high ridges of its new home.

Once the bison were out of the temporary enclosed area, stewards continued to use drift fencing together with low-stress herding techniques to try to keep the herd from moving beyond the reintroduction zone. (Although the majority remained close to the release site, two bulls ventured east beyond park boundaries — one had to be euthanized, and the other removed to a temporary home in Waterton Lakes National Park.)

Heuer says the project has gone as well as they could hope for — although he's quick to add that it's far too early to call the project a success. "The reason this is a five-year pilot project is to assess the feasibility of doing this long term and in other places," he says, adding that Parks Canada will undertake a full review in 2022 to decide whether to continue on with the project, shrink it or expand it.

There were challenges along the way, Heuer says, with many people questioning if it could ever work — especially since a 1970s bison restoration effort in Jasper National Park failed when the animals left soon after being released. "We did things differently this time," he says. The new strategy focused on using younger animals that were held in their temporary holding zones for longer periods. Staff also

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THE RELEASE OF PLAINS BISON INTO BANFF NATIONAL PARK BEGAN IN 2017, DEEP IN THE PARK'S BACKCOUNTRY, AWAY FROM SWARMING TOURISTS IN THE REMOTE PANTHER VALLEY

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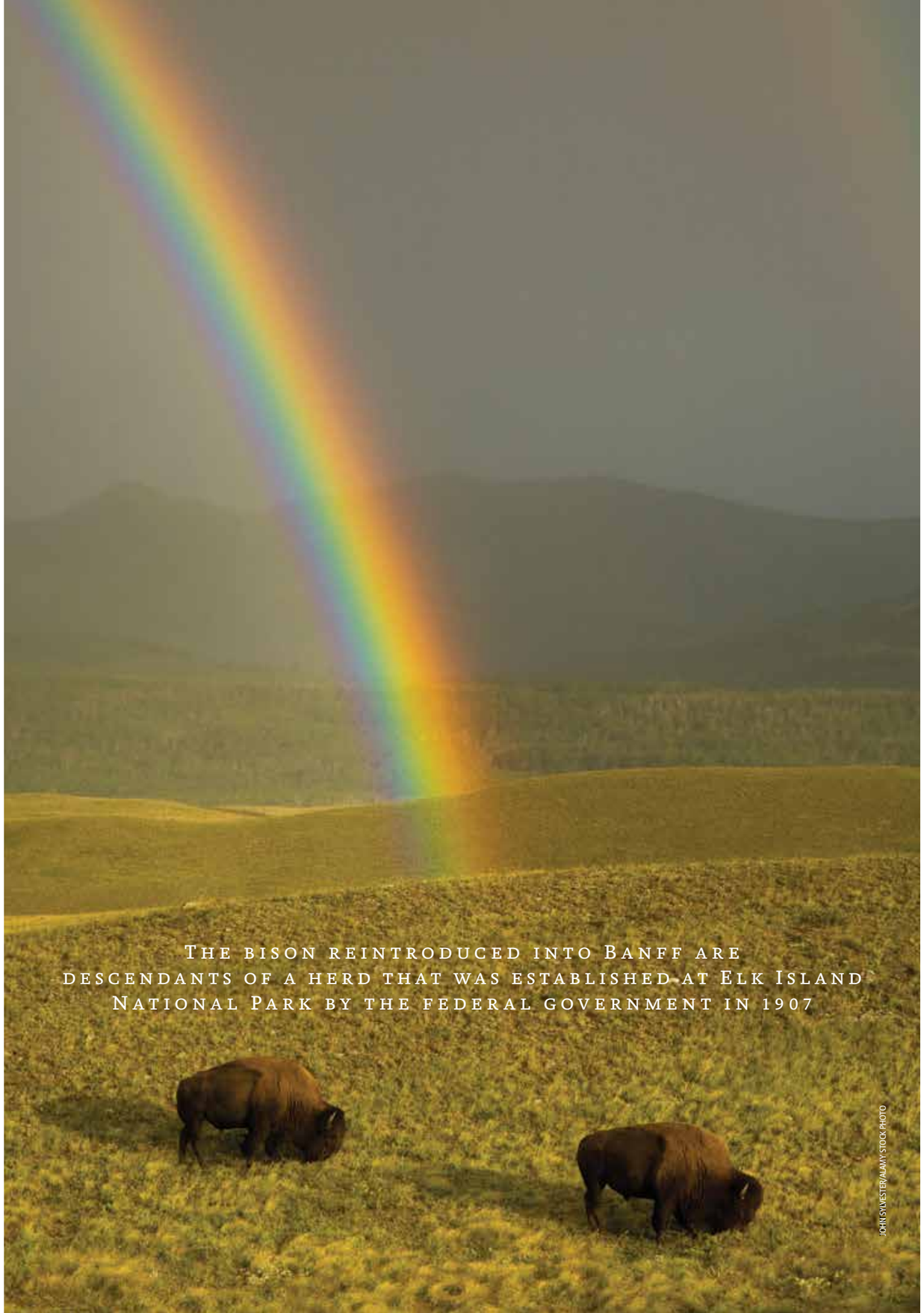

THE BISON REINTRODUCED INTO BANFF ARE DESCENDANTS OF A HERD THAT WAS ESTABLISHED AT ELK ISLAND NATIONAL PARK BY THE FEDERAL GOVERNMENT IN 1907

JOHN SYLVESTER/ALAMY STOCK PHOTO

BISON WATCHERS
Parks Canada staff track and assess the herd regularly, part of a plan for "high-level surveillance" over the five-year pilot

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received extensive training from experts in Montana on how to control herd movements, while detailed planning and feasibility studies were conducted to determine the best locations and habitat within the park. Those ideas and concepts were shared with other stakeholders, including agricultural and hunting groups, environmental NGOs and Indigenous communities, and refined based on their feedback.

As expected, there were some fears from the agricultural industry because bison can carry diseases such as bovine tuberculosis and brucellosis, which are transmissible to cattle. But Heuer says the Elk Island herd had been disease-free since the 1970s and other translocations from that area had not resulted in any disease transfer. That, and the fact they "committed to high-level monitoring and surveillance in this five-year pilot," he says, satisfied a lot of the concerns.

The ecological benefits of bringing bison back, he says, far outweigh the minimal risks from disease or other concerns. Now that they're back on the landscape, albeit in a much smaller area, Heuer and other biologists are monitoring closely to see how their presence restores ecosystem processes. "They've got big wide mouths shaped like lawn mowers, so they consume vast amounts of vegetation and redistribute those nutrients," he explains, adding that many grasses co-evolved with bison and are healthier when grazed in this way.

Also, because bison actively and persistently rub up against trees, it leads to tree mortality at the edges of meadows, which expands those habitats — a boon for meadow-loving birds and other small mammals. And by rolling around in depressions in the earth, called wallows, bison pack the soil down so much that water remains for longer after it rains, often creating little wetlands for amphibians to lay eggs where they couldn't before. "We're also seeing the bison trampling down and opening up really old trails," says Heuer. "Some of those trails have led us to wallows formed by their ancestors, which you can discern by the shape of the earth. In one case, we found old bison bones and a skull beside a trail that was rediscovered by a new bison."

The bison's ecological benefits carry on in death as well. When a hulking 900-kilogram beast dies — whether by accident, starvation or predation — it's a major feast for scavengers and predators in an often food-deprived habitat. "For a grizzly bear stumbling across a bison carcass in fall, that could be the difference between a female having cubs or not during hibernation," says Heuer. "We've also seen ravens carrying bison fur — the second most insulated after muskox — in their beaks during nesting season, no doubt to line their nests."

Those extensive and varied ecosystem benefits help explain why Indigenous people have long had such a deep reverence for the animal. Heuer says it was important for restoration planners to include Indigenous-led spiritual ceremonies as a key part of the project. "We looked to our Indigenous partners to bless Banff National Park before the bison came," he says, and had similar ceremonies on Elk Island before they left. "And just before we released them into the wild, we had several representatives from Treaty 7 Nations do the final blessing," he adds. "A lot of thought went into this project, but I think part of the reason it's gone so well is because of those spiritual aspects."

That reverence for free-roaming bison is certainly not confined to Indigenous people, and there's a rich history when it comes to preserving the animal in North America. With enthusiastic support from then U.S. President Theodore Roosevelt, the American Bison Society was founded in 1905 to save the imperilled species from extinction. That early effort to redress an environmental catastrophe in many ways set the stage for the conservation movement we know today.

Plains bison were considered an iconic symbol of the west long before their populations collapsed, but they were casualties of the settlers' mindset of boundless development and dominion over nature. The resulting over-hunting reduced the population from tens of millions to under 1,000 within a generation. By the late 1800s, wild bison were just a memory in Canada, and one meagre herd remained in Yellowstone National Park.

As people began to realize that ecosystems and wildlife populations had limits, a new conservation ethic took hold, leading to further changes in perspective and government policy. That sense of responsibility to restore what had been lost, and preserve what remained, led to more protected areas and new mandates to protect wilderness and wildlife for its own sake, not just as tourist attractions. Although parks like Banff and Yellowstone were created earlier, the plight of plains bison and other declining species made their importance clearer than ever.

In fact, the bison being reintroduced into Banff are descendants of a herd that was established at Elk Island National Park by Canada's federal government in 1907 — purchased from a Montana rancher who had one of the last and largest herds of surviving bison. That same herd was used for an earlier reintroduction effort in 1969 by Saskatchewan's provincial government. A group of 50 bison were relocated originally to the Thunder Hills region, but they moved soon after to the southwest corner of Prince Albert National Park, where they remain today.

Known as the Sturgeon River plains bison herd, the population has declined recently — dropping from about 500 in 2005 to under 200 — because of a combination of disease, wolf predation and especially increased hunting when the bison roam beyond park boundaries. It's estimated about 30 bison were harvested each year — an unsustainable amount given the small population numbers — mostly by Indigenous hunters exercising their traditional rights.

Gord Vaadeland, the executive director of the Saskatchewan chapter of Canadian Parks and Wilderness Society, has been working to preserve that population since the mid-2000s and says with all the fanfare for Banff's reintroduction, it's important not to lose sight of Sturgeon River bison. "The herd in Prince Albert has all the same factors — a protected area surrounded by ranchers and farmers, First Nations and conservation groups who want this to succeed," he argues. "It's basically what Banff is trying to become, so if we can't make it work in Prince Albert, we can't make it work in Banff."

Although Vaadeland is optimistic about the continued success of both restoration efforts, he says it's not going to be quick or easy. The Banff bison stewards will need to deal with animals roaming beyond park boundaries. "As soon as a bison leaves Banff, it's going to be news, and that will happen," he says. Although bison will be protected from hunting within a 24,000-hectare region to the east of the park — a new rule instituted by the Alberta government in August 2018 — ranchers along the eastern slopes may not be so tolerant of bison mingling with their livestock. "But in Banff, there's already a 30-kilometre buffer zone," says Vaadeland, referring to the distance from the reintroduction zone to the eastern park boundary. "In Prince Albert, there's just a 30-metre buffer zone. And we're making it work here."

Vaadeland believes a future with free-roaming bison is achievable, but he says it's possible only if done in full partnership with First Nations, or better yet, if they lead it. In August 2019, when the Mistawasis Nehiyawak became the first Treaty 6 First Nation in Saskatchewan to sign the Buffalo Treaty, efforts to preserve the Sturgeon River herd received a much needed boost. "Hunting is a sensitive issue because it's a treaty right," says Vaadeland, who believes hunting is essential but has to be managed at sustainable levels. "Having the Chief and Elders show their support for bison restoration is very important. When they talk to hunters, it makes a huge difference."

The perspective from Indigenous Elders, which taps into the bison's deep historical connections with plains culture, has already had a major impact on efforts to restore the species in the wild. Leroy Little Bear, an Elder from the Blood Indian Reserve (Kainai First Nation) near Lethbridge, Alberta, is well aware of the animal's ecological benefits — he often says a bison is the "best environmentalist" we could have. But he also views the species through a cultural and spiritual lens. "We have religious societies that revolve around the buffalo," he says. "That's the cultural importance of buffalo for us — we still have those songs, stories and ceremonies, but we don't see the buffalo out there."

HERD MENTALITY
The bison spent 18 months (two calving seasons) fenced in so the herd could be properly acclimatized to the new conditions

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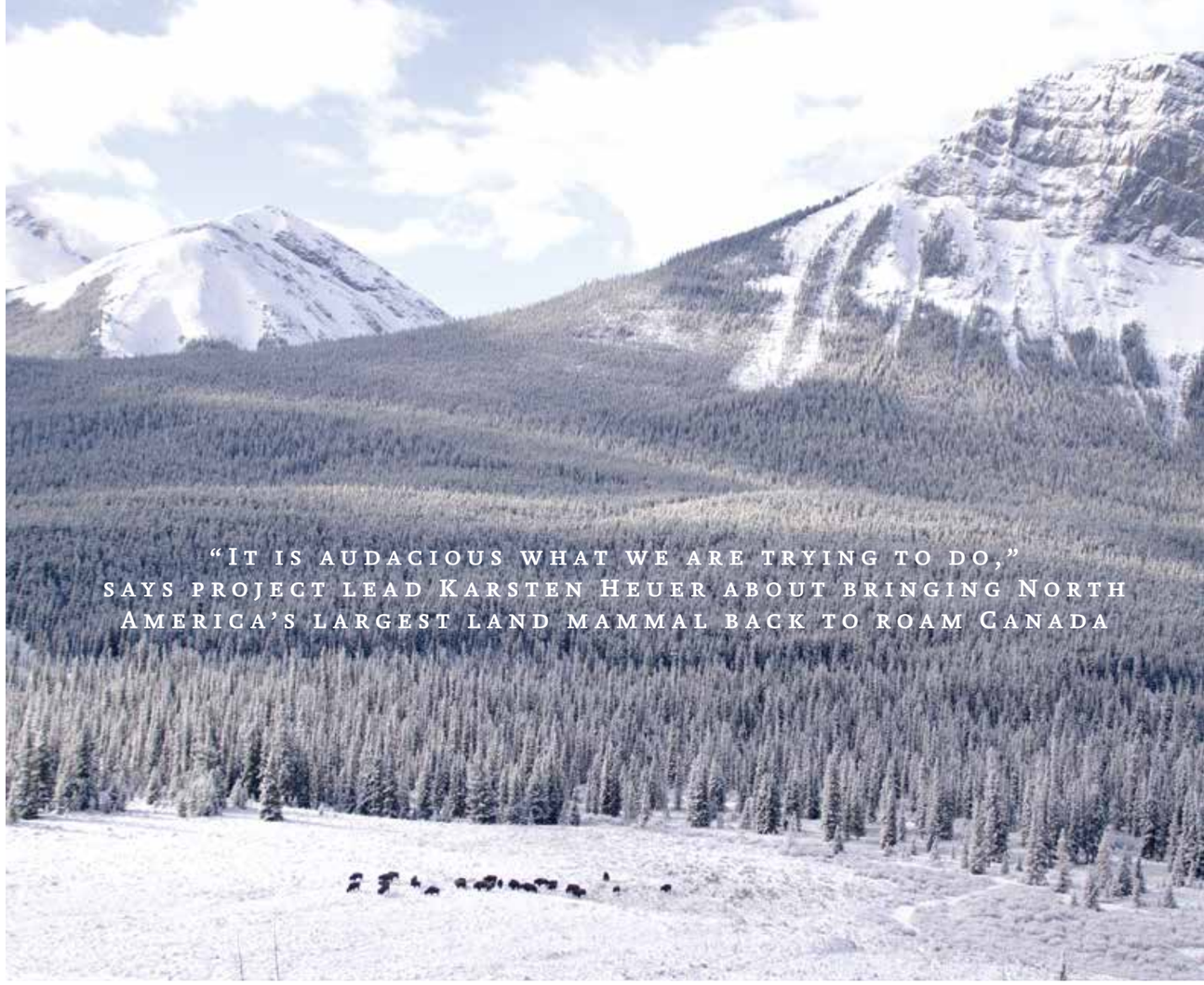

"It is audacious what we are trying to do," says project lead Karsten Heuer about bringing North America's largest land mammal back to roam Canada

Little Bear had earlier organized a series of "buffalo dialogues" across the West, where Elders gathered together to discuss the importance of the buffalo, and he says one concern kept coming up for all who participated — they feared young people were losing their connection with the buffalo. "The Elders wanted youth to fully understand the relationship between people, in our case the Blackfoot, and buffalo — how closely related we are," he recalls. "At the end of those dialogues, we were all of one mind. We wanted the buffalo to come back."

The ultimate objective, says Little Bear, is for bison to roam free across their historical range, not just within a protected area. "But our Elders are realistic," he says, "and they know we're not going to do this in one shot. Any reintroduction, wherever it happens, helps toward our lifelong dream of seeing the buffalo roaming the plains again. And Banff might just be the beginning of free-roaming buffalo."

For Karsten Heuer, the Banff reintroduction project has been a learning experience in many ways. "It's audacious what we're trying to do," he says. "We're trying to bring North America's largest land mammal back to Canada's first national park, in an era when there's more than a million people living in a growing city an hour away." Such a plan would be inconceivable, he says, if visionary conservationists hadn't pushed an equally audacious idea to create large protected areas like Banff National Park many years ago. "We need institutions and protected areas like this that have both the land base and the mandate to try these things," he says.

The most important thing to recognize, according to Heuer, is that none of this would be needed if we hadn't let bison nearly go extinct in the first place. "We're spending a lot of time and effort trying to bring something back, and it's completely avoidable, or could have been," he says. "Whether it's grizzly bears, whitebark pine or any other imperilled species — it comes down to humanity making some sacrifices. And with bison in Banff National Park, the sacrifices we're making now cost a lot more than the sacrifices we could have made 150 years ago just to keep them on the landscape."

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