



This female caribou was the first in 2022 to be captured and relocated to a maternity pen high in the Rocky Mountains in British Columbia. The large pen, nestled in forest, gives pregnant mothers a protected space to give birth and rear their newborns. Once strong enough, mom and babies are released back to the wild.

## **To save caribou, Indigenous people confront difficult choices**

A Canadian caribou herd is making a comeback—but the rescue plan is controversial.

BY NEIL SHEA PHOTOGRAPHS BY RYAN DICKIE

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In eastern British Columbia it was once impossible to count caribou.

“Our elders said that they used to be as thick as bugs on the landscape,” said Roland Willson, chief of [West Moberly First Nations](#), one of many Indigenous groups that relied upon caribou for survival. “They were always around.”

Today, [caribou](#) are so depleted that some herds can be [tallied on two hands](#). In West Moberly's rugged homeland, not far from the border with Alberta, their abundance slowly dwindled during the last century as more settlers moved west and their logging, mining, and dam projects broke up old-growth forests and reshaped the landscape. By the time Chief Willson was born, in 1966, the age of enormous herds was gone. By the time he was elected chief, in 2000, caribou in his region had been listed as federally threatened.



"My earliest memories of caribou are being told that we don't hunt them anymore because there's too few of them," Willson said. "I've never actually hunted a caribou."

The picture is grim for caribou all across North America, with herds declining from Arctic Alaska and the barren lands of the Northwest Territories to the forests of Quebec and the mountains of B.C. For a major prey species that has roamed the continent for millennia, providing food for millions of other creatures as well as cultural and spiritual nourishment for hundreds of Indigenous groups, [their decline is a slow-rolling disaster](#). Scientists do not fully understand it. Governments appear unable, and often unwilling, to address it.

So Willson and his people, along with their neighbors in [Salteau First Nations](#), took matters into their own hands. They began protecting pregnant caribou, restoring critical habitat, and hunting wolves. Now they're on the cutting edge of caribou conservation.

In March, West Moberly, Salteau, and their collaborators at the universities of British Columbia, Alberta, and Montana, released [the results of a nine-year program](#) aimed at saving the Klinse-Za herd. The Klinse-Za are southern mountain caribou, a subspecies once widely distributed through the old-growth forests of south-central British Columbia. Unlike their Arctic cousins, mountain caribou don't make sweeping migrations, or gather in herds of tens of thousands—at least not anymore.

When the project began in 2013, only 38 Klinse-Za caribou remained. Today, thanks to the efforts of the West Moberly and Sauteau, the herd has tripled to 114 animals—a feat that hasn't been achieved anywhere else.

It's a stunning comeback from the edge of extirpation, or local extinction, said Clayton Lamb, a researcher with the universities of British Columbia and Montana, who was lead author of one of the recently published papers.

"A remarkable increase. Unprecedented," he said. "With the right people and the right techniques, we've shown it's possible to recover these animals."

Lamb explained that, before the project started, the Klinse-Za had been whittled down to near oblivion by a combination of forces, including human development, fragmentation of habitat, and a rise in predators like wolves and grizzly bears. Working with scientists and private consultants—and leveraging their own traditional knowledge of the caribou and the land—the West Moberly and Sauteau oversaw a plan to address these issues as holistically as possible.





A group of three caribou from the Klinse-Za herd graze for lichen in the upper alpine region of their habitat, near the maternity pen site. When the project began in 2013, only 38 Klinse-Za caribou remained. Today, the herd has tripled to 114 animals—a feat that hasn't bee...

Lamb said that the plan aimed to boost calf survival rates in the near term while also working to restore habitat in the long term.

But before any of that could happen, Chief Willson said, “We needed to kill wolves.”

In some places, wolves are abided, even protected by law. But predator reduction, also known as culling, [is a common—and controversial—technique](#) that has been used in the U.S. and Canada. In British Columbia, wolf culling has been widely deployed as a caribou-saving measure by both the provincial government and First

Nations managing their ancestral lands.

According to Lamb, research on the Klinse-Za herd showed that calves were most likely to die from predation. They were especially vulnerable in the weeks after their birth. This, combined with the herd's dangerously low numbers, compounded the problem: If too few calves survived to reproductive age, the herd would never recover.

Wolves are not the only predator taking caribou calves—bears, wolverines, and more recently, mountain lions, also eat them. But Lamb said that when the caribou program began, wolf numbers were much higher than they had been in the past. This increase was linked to human activity, especially logging, Lamb explained, which fractured the old growth forests that caribou favor, allowing other prey species to move in.

“Clear cuts create better habitat for moose and deer,” he said, “which bring in the wolves. And the logging roads are what the predators use to access these areas.”

Before the arrival of European settlers, when West Moberly and Sauteau lived by hunting and gathering, there were fewer moose and white-tailed deer. Caribou were more numerous, and they coexisted with wolves in relative balance. But the explosion of moose and deer across human-disturbed landscapes in modern times has offered wolves a wider menu. More food meant more wolves. And caribou, Chief Willson said, are their easiest targets.

“Culling wolves, that wasn’t something we wanted to do,” Willson said. “But the wolf population was out of balance. There were too many. We understood that we had to decrease the population of wolves to protect the caribou.”

After the caribou program's inaugural year, West Moberly and Sauteau began the second phase of their project: building a pen for caribou cows.



Starr Gauthier and Jordan Garbitt from the Saulteau First Nations wait for a sedated caribou to wake up after transport to the Klinse-Za maternity pen. Research on the depleted Klinse-Za herd has shown that newborn calves were most likely to die from predation. If too f...

“Maternal penning” is the practice of catching pregnant caribou and transporting them to a space where they are protected from predators. This allows them a reprieve from the stress of predation, while also offering a place to safely give birth and nurture their newborns. Once the calves have their legs under them, they’re released with their mothers back into the wild.

Scott McNay, manager of the caribou program, said that when their work started, maternal pens didn’t have a good track record: They’d been tried a few times, with little success.

“We took it on because we felt there was no other approach that would work with the numbers of caribou we had,” McNay said. In other words, for a herd at the edge of disaster, penning was the only option.

McNay and his wife, Line Giguere, with guidance from the West Moberly and Sauteau, chose a pen site high in the mountains. First, they built a perimeter fence by wrapping black landscaping cloth around trees, providing the caribou with an enclosure large enough that they could forage for their natural food. Next, the team secured an electric fence outside the cloth to keep predators away. Finally, in late winter, they brought in caribou.

Klinse-Za females were captured with netguns fired from a helicopter. Then the animals were transported to the pen in large bags specially designed to keep the long-legged, intricately antlered animals safe (both male and female caribou have antlers).

Once inside the pen, the caribou were guarded around the clock by members of the West Moberly and Sauteau nations. The expectant moms were able to graze, and their diets were also supplemented by commercial pellets and lichen handpicked by the West Moberly. In June, a few weeks after they'd given birth, the cows and calves were released.

This process, repeated each year, has proven highly successful.

"One thing that's surprised me is the rate of increase," said McNay. "We've had a 14-percent rate since we started. That's the pen effect."

With the maternal pen and wolf culling operations running well, the nations also began discussing conserving caribou habitat, crucial to the herd's long-term health. In 2020, they signed an agreement with the provincial and federal governments to protect more than 3,000 square miles of mountains, forests, streams, and disturbed land—areas that have been impacted by human activity.

McNay said that restoration work within the protected area had already begun. It includes reforestation, as well as the "unbuilding" of what are called linear features: logging roads, trails, and other pathways cut during oil and gas exploration. Such features break up the caribou's range, and they create routes for humans and predators. Erasing them, at least as much as possible, McNay explained, will reduce stress on the



Klinse-Za.



Provincial wildlife veterinarian Caeley Thacker and members of the capture team watch over a sedated caribou cow, at Klinse-Za maternity pen. Caribou are caught using netguns fired from helicopters.

“Habitat restoration is by far the most important thing we can do,” he said. “We’re not going to continue wolf removal and maternal penning forever. Those are temporary measures. So it does boil down to how much range we can restore.”

According to Chief Willson, Lamb, and McNay, the project’s success speaks for itself: the Klinse-Za have been saved from what was almost certain local extinction. Lamb and McNay also point out that their teams’ work shows that wolf reduction and maternal pens can be effective short-term techniques for saving small herds that are hanging on by a thread.

Eventually, West Moberly and Sauteau hope to restore the Klinse-Za to



the point where indigenous hunters can harvest them again. For West Moberly alone, who number about 350 people, this would likely require the herd to reach something more than 3,000 animals. Willson said he does not expect to see such numbers in his lifetime. But he's hopeful his grandchildren will.

"The whole community is proud of this," he said. "It's something that should be celebrated. In saving caribou, we're saving ourselves."