

WELCOME TO EL UNO

By Jason Kersten

PHOTOGRAPHS BY DAVE LAURIDSEN

In Chihuahua, 60 miles from the U.S.-Mexico border, Nélica Barajas was trying to restore the prairie to a 46,000-acre ranch. In the end, she brought back a whole lot more.

HOME COMING: Her mother was from Chihuahua and her family vacationed in Janos, so when Nélica Barajas took over management of El Uno, "it was like going back home, like the bison did." They marked the restoration of the full complement of species to the Janos grasslands.





CHANGE AGENTS: Antonio Esquer (left) manages El Uno with the help of Luis Humberto Varela Fuentes (center) and José Luis García Loya. They are the faces of conservation in Janos.

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A few years ago, the word on the street in the small town of Janos, Mexico, was that the strangers who had bought the huge ranch to the west were *narcotraficantes*—drug traffickers. After all, the property was less than 60 miles from the U.S. border, and no farming or cattle grazing was taking place there. In this largely impoverished community, the only rational explanation was that the newcomers must have been doing something illegal to pay for their nice trucks and the big hacienda with the swimming pool in the courtyard. Sure, the property's owners called themselves conservationists, but no one really believed them.

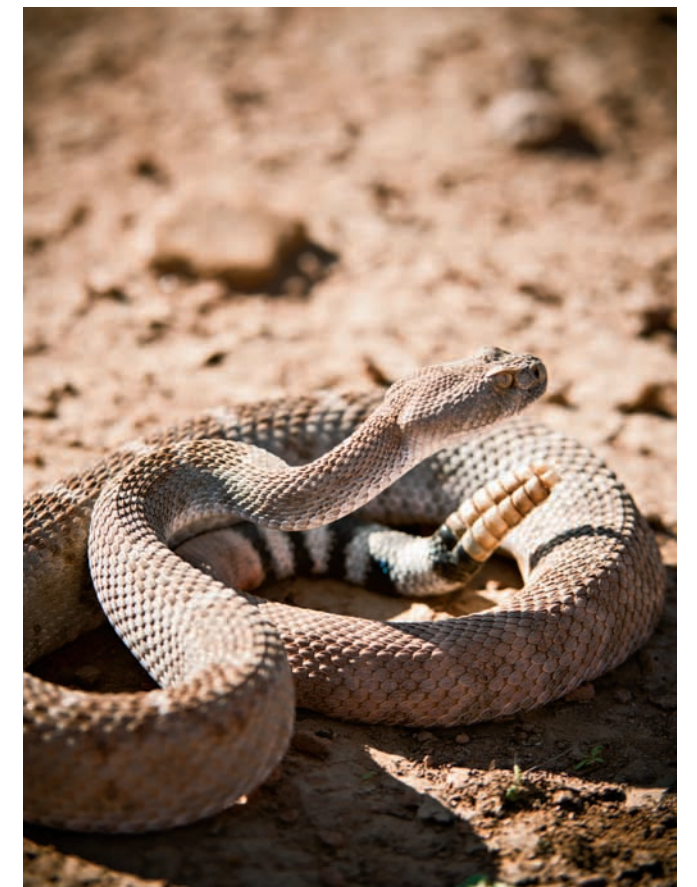
"Nobody knew what was happening there," says Nélide Barajas, a Nature Conservancy scientist and the ranch manager at the time. Besides, the whole concept of conservation didn't mean a lot to the neighbors who were busy just trying to eke out a living in the desert.

The Nature Conservancy wanted the cattle ranch for a couple of reasons. The property, nearly 46,000 acres, not only sat smack dab in the middle of the most intact grasslands in the Chihuahuan desert region, but also was right next door to the largest prairie dog colony in North America. The Conservancy had been looking for ways to protect both, and when Rancho El Uno went up for sale in 2005, even though the land was battered, severely

overgrazed and in need of restoration, the organization saw its chance. "We looked at it," says Laura Paulson, the Conservancy's lead on arid lands protection, "and thought, here's an opportunity to do something."

But doing something meaningful to restore the grasslands—like setting prescribed burns to remove shrubs and rejuvenate the prairie—usually requires winning over the neighbors, which is challenging under normal conditions. Add to it the fact that this region of Mexico was plagued by *La Violencia*, the drug war among cartels, and Barajas seemed to be facing insurmountable challenges.

All that began to change the winter the bison arrived.



There wasn't much to show for it at first, but as the grasses slowly returned, so did the wildlife.



ON THE RANGE: The ecological reserve, which lies in the foothills of the Sierra Madre Occidental, seems like an oasis amid miles of former grasslands now carpeted with mesquite. The 30 bison that now call El Uno home “have roles no other species perform,” says biologist Rurik List.

Following the Three R's

No one had seen permanent herds of wild bison in Mexico since the 19th century. Like the great masses that once roamed the United States and were hunted to the edge of extinction, the animals had once prospered here, too, but their numbers were far fewer, most likely because of the arid climate. Except for a few cattle hybrids known as “beefalo,” including some that were brought over the border as game, bison had been completely wiped out in Mexico by the 1830s.

The loss meant far more than the absence of the prairie's most majestic animal. Bison were a crucial part of the grassland ecosystem. Cattle grazing often leaves the soil bare and allows shrubs like mesquite and Mormon tea to run rampant, but bison increase the heterogeneity of grasslands. Unlike cattle, which tend to stay close to water and graze pastures to the root, bison eat and roam, leaving enough of each plant intact that it continues to grow. Bison also play and wallow, carving depressions in the ground where water later accumulates to nourish dense islands of grass. For these reasons, biologists often refer to bison as the architects of the prairie.

But at El Uno, Barajas was the one drawing up plans. The first year, she and her team focused on bringing the property back to life by following the three R's of grassland restoration: resting it, replanting it and researching. There wasn't much to show for it at first, but as the grasses slowly returned, so did the wildlife—coyotes and owls and golden eagles.

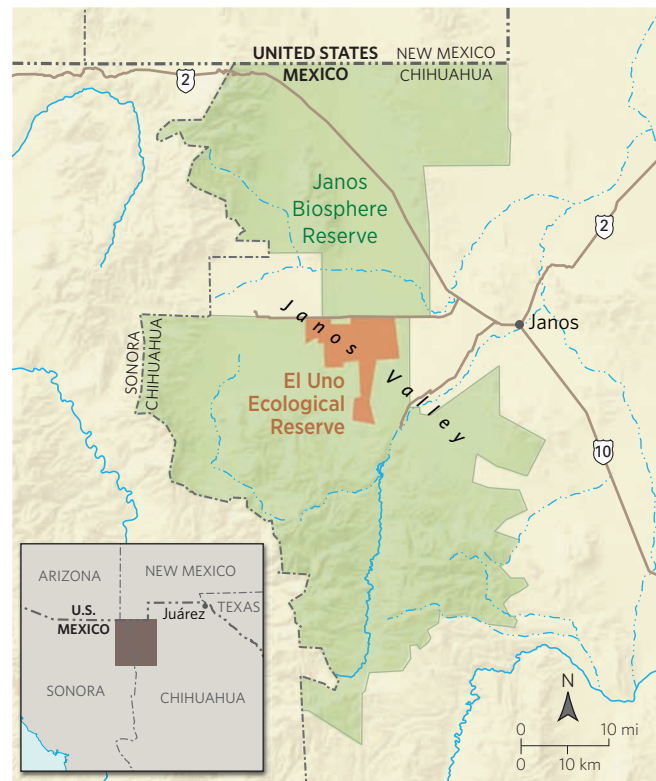
At the same time, outside El Uno's gate the landscape was being ravaged by overgrazing and intensive agriculture.

“We had a small piece of heaven to protect,” Barajas says, recalling her perspective during those early days. Then came another realization: “We couldn't hide like the last jewel in the desert. We had to open our gates and try to work with our neighbors and convert them to the right side.”

Her plan from the start had been to transform El Uno into a living laboratory, where university researchers and Conservancy scientists could study animal and plant species and the effect of cattle grazing on native grasses. But what if El Uno could also be an educational center where ranchers could learn about new, sustainable grazing methods and school kids could learn about birds and prairie dogs?

Amid that brainstorming, Barajas and other Conservancy colleagues began working with the state and federal government on an ambitious plan to protect a huge portion of the Janos Valley's remaining grassland habitat by having much of it declared a biosphere reserve.

As Barajas saw it, El Uno had the potential to become both a catalyst and a model for sustainability in a valley that desperately needed it. Her plans depended on raising El Uno's profile, which meant that she first had to get university researchers and local ranchers in the door.



INTACT GRASSLANDS: El Uno sits in the middle of the new 1.3-million-acre Janos Biosphere Reserve. At about the size of Grand Canyon National Park, the reserve harbors an array of wildlife—from eagles and owls to coyotes and ferrets to diamond back rattlers. Bison are the crown jewels.

So Barajas tore down the old wrought-iron archway marking the entrance to Rancho El Uno and hoisted a new one. It reads, *Reserva Ecológica El Uno*. Barajas viewed the new name as a welcome mat, a clear sign that she had “opened the scope of work” and the doors to all. But the local people didn't come.

In the Chihuahuan desert, distances are vast, and people were not eager to drive down a remote dirt road to check out a purported ecoreserve in the middle of a drug-war zone.

She was going to need more than a new sign over the gate.

Thinking Bigger

It was an old friend, Rurik List, who hit on the idea. List, a conservation biologist at Mexico's National University, had been studying the nearby prairie dog community since 1988 and had helped document the rodent's importance as a species integral to grassland health. He had also worked on the reintroduction of the black-footed ferret, the prairie dog's main predator. But there was a much larger, central character still missing from the ecosystem—one that could help restore the grasses but also a draw a crowd.

“*Necesitamos bisontes*,” List told Barajas. We need bison.

Reintroducing bison then seemed far-fetched to Barajas. “We were talking about the largest mammal in North America,” she says. The liability issues alone were enormous. But as List's idea sank in, it began to make perfect sense. “We already had prairie dogs, golden eagles, healthy grass,” says Barajas. “It was time to start thinking bigger.”

She and List began working the phones and their connections. Barajas traveled to the United States to see how bison herds were being managed there. And the big ideas got even bigger. Why stop at one herd at El Uno? Why not make El Uno's the seed herd to provide bison to four other Mexican states where the animals once roamed?

Within a year, she had persuaded the Conservancy to move on the plan. “Nélida was definitely the initial champion,” says the Conservancy's Paulson. “She got the rest of us to rally around the idea.” Then Barajas and List got the OK from U.S. and Mexican wildlife authorities. Still, when rangers at Wind Cave National Park in South Dakota called in 2009 to tell her they would donate some wild bison and deliver the animals in three months, she was floored.

“I didn't realize everything was going to pass so fast,” says Barajas. Ready or not, the bison were coming to El Uno—and coming back home to Mexico after more than 150 years.

Bienvenidos, Bisontes!

In times past, bison herds thundered freely across the U.S.-Mexico border. This time they came by tractor-trailer. There were 23 in all, and they traveled more than 900 miles over 18 hours to get there. Barajas was waiting at the border to receive them. By now, they were her babies, and she wanted to see them through the last stretch of the journey to El Uno.

When the bison arrived at the ranch, they spent three weeks in a quarantine corral feasting on alfalfa. Then it was time for them to meet the neighbors.

Hordes of Mexican journalists and politicians reserved their places at the release ceremony, which the country framed as the centerpiece of its National Environmental Week. Mexico's environmental secretary was there, along with the governor of Chihuahua and a small army of other public officials. Everyone in town was invited as well. The party was for “the local people, not just the big potatoes,” says Barajas. More than 700 people turned out to see the bison and the permanent return of a species to Mexico.

“In the eighteen years I have worked in Janos,” says List, “the reintroduction was by far the biggest event I have seen.”

The stars of the show—20 females and three males—were oblivious. When the gates to the wide prairie opened, they were in no rush. Some brave *vaqueros* jumped into the corral and started waving their cowboy hats to flush the

BISON RECOVERY ROUNDUP

For more than three decades, The Nature Conservancy has worked to re-establish bison herds on native grasslands throughout the animal's historical range. Today, herds total approximately 5,100 head on nearly 150,000 acres of grassland.

Samuel H. Ordway Memorial Prairie, South Dakota

Year reintroduced: 1978
Size of herd: 280
Acres grazed: 3,600

Medano Zapata Ranch, Colorado

Year reintroduced: 1985
Size of herd: 1,400
Acres grazed: 48,000

Niobrara Valley Preserve, Nebraska

Year reintroduced: 1985
Size of herd: 600
Acres grazed: 19,500

Cross Ranch Preserve, North Dakota

Year reintroduced: 1986
Size of herd: 180
Acres grazed: 3,050

Konza Prairie Biological Station, Kansas*

Year reintroduced: 1987
Size of herd: 275 to 325
Acres grazed: 2,480

Tallgrass Prairie Preserve, Oklahoma

Year reintroduced: 1993
Size of herd: 2,100
Acres grazed: 23,464

Smoky Valley Ranch, Kansas

Year reintroduced: 2000
Size of herd: 100
Acres grazed: 3,110

Slim Buttes Project Herd, South Dakota

Year reintroduced: 2005
Size of herd: 70
Acres grazed: 565

Broken Kettle Grasslands, Iowa

Year reintroduced: 2008
Size of herd: 46
Acres grazed: 500

El Uno Ecological Preserve, Mexico

Year reintroduced: 2009
Size of herd: 30
Acres grazed: 4,600

Tallgrass Prairie National Preserve, Kansas**

Year reintroduced: 2009
Size of herd: 16
Acres grazed: 1,100

Dunn Ranch, Missouri

Year reintroduced: 2011
Size of herd: 30
Acres grazed: 1,200

*Management: Kansas State University Foundation and the Conservancy

**Ownership: U.S. National Park Service and the Conservancy

ONLOOKERS: Opening the gates of EL Uno to local school kids and the children of Mennonite farmers has been among Barajas' "favorite moments." The Conservancy lends the kids binoculars and teaches them how to focus on animals, like barn owls. The hope is that experiences at EL Uno will convert the next generation, and their parents, into better land managers.



Bringing back a keystone prairie species was a bold statement of the Conservancy's intent to restore the grasslands.

animals out. A bull finally led the way. Within seconds, to whistles and cheers, the bison were charging past a line of photographers toward the golden carpet of prairie.

The return of a permanent wild bison herd to Mexico marked a major victory for El Uno Ecological Reserve. Bringing back a keystone prairie species was a bold statement of the Conservancy's intent to fully restore the Janos grasslands. In fact, just a week later, the Mexican government decreed that a 1.3-million-acre area surrounding El Uno—about the size of Grand Canyon National Park—was under federal protection as the Janos Biosphere Reserve.

Barajas never doubted that the bison would play a critical ecological role. She was overjoyed that they were also playing the role of conservation ambassador.

Everything Comes From Grass

Based on the look of the herd at El Uno now, it's hard to believe that bison had essentially vanished from Mexico. On a sweltering day in July, the animals grazed, oblivious to the heat. Glorious with a tableau of desert grasslands and mountains behind them, they looked as though they'd walked straight out of a Western.

"They will approach, but they won't take food from your hand," said Barajas. "These are wild animals." The bison are massive, but the herd is still fragile. One disease could wipe them all out.

A big bull lumbered in, grunting warily, followed by the other animals. The herd's new mothers stuck to the fringes, russet-colored calves nursing beneath them.

Ten calves have been born and survived over the past two years. Each birth has been greeted by Conservancy employees with nearly as much anticipation as the arrival of one of their own children, with El Uno's staff e-mailing daily updates and photos of "their babies." Appropriately, the first calf was named Uno. Antonio Esquer, the reserve's current manager, has held calf-naming contests for some of the others—another effort to involve the local community.

Now that Barajas has moved on to other projects and passed the baton to Esquer, one of his top jobs is to make sure the herd stays healthy and grows; the future of bison in Mexico depends on his successful management at El Uno.

Among other challenges, organized crime has come so close to the reserve—more than a dozen executions took place in Janos last year, three of them just beyond El Uno's fence line—that some research projects had to be suspended.



MILES TO GO: A ranch hand at El Uno walks the property, keeping tabs on the bison herd and on the prairie itself. His other job, perhaps even harder, is convincing other local ranchers that they can raise healthy grass and profitable cows.

And there have been some painful setbacks. Though the herd has grown to 30 animals, two adult bison have died, one of a cattle-related disease; a third animal simply disappeared.

Like Barajas, Esquer considers the bison family. But he's also close to the community. A native of the neighboring state of Sonora, he's a natural at working with local ranchers. This is critical, because although the Janos Valley is now part of a biosphere reserve, 80 percent of the land is privately owned. Ranchers and farmers are supposed to follow strict regulations regarding water use, crop selection and wildlife protection, but enforcement is nonexistent.

Esquer's goal is to demonstrate that sustainability is good not only for the reserve, but also for the ranchers' own

bottom lines. "To get effective conservation, we need to work as a partner with the owners of the land, because the final decision of what happens on that land depends on convincing the owner," he says. Or as Barajas puts it, "We are teaching them that their product should be grass, not cattle, because everything comes from the grass."

El Uno and partners like Pronatura Noreste are trying to win over the community through a host of programs. To help neighbors rest their fields, El Uno runs a "grass bank," allowing ranchers to graze their cattle on the Conservancy's healthy prairie lands in exchange for following sustainable practices on their own land. In addition, El Uno hosts workshops designed to teach progressive farming techniques. One major initiative is *Pocas Vacas Gordas*, "Few Fat Cows," which encourages ranchers to run smaller herds on healthier grasslands that produce bigger individual animals.

"El Uno has given us a seat at the table," says Rosario Álvarez, head of the Conservancy's efforts in Mexico. "We're not coming in to talk about theoretical things about how to manage a property or your cattle. We're doing it every single day. It gives you a completely different level of conservation."

Jesus Manuel Martinez, who runs a 250-acre ranch a half-hour's drive from El Uno, was an early beneficiary of the workshops. At 60, he's an elder in the community and an enthusiastic convert. He says he saw quick results after following some new grazing practices he learned.

"Now there are seasons when I don't put cattle in the field," Manuel Martinez says. "And now I have good grasses." He has also stopped poisoning prairie dogs.

Instead, he's working with researchers at the National University of Mexico to introduce the prairie dogs' natural predator—the endangered black-footed ferret.

Manuel Martinez has been an important entrée into the larger ranching community for Esquer, but El Uno's manager is still trying to find inroads into other local groups.



CLICK: Bison are helping to restore grasslands in Mexico. Watch the video at nature.org/bison.

BISON V. BUFFALO

Bison are North America's largest land animal, measuring up to 6 feet tall at the shoulder and as long as 12 feet from nose to tail. A bull can weigh more than 2,000 pounds. American bison (*Bison bison*) are frequently referred to as buffalo, which are actually different animals entirely—the Asian water buffalo (*Bubalus bubalis* or *Bubalus arnee*) and African buffalo (*Syncerus caffer*). American bison are most closely related to the European bison, or wisent (*Bison bonasus*). It, too, was hunted nearly to extinction and is now classified as a vulnerable species.



Bison Ambassadors

By some estimates, Mennonite immigrants now own a third of the land in Chihuahua. And most are farmers who practice irrigation-heavy agriculture in the middle of the desert. Frequently they buy land after it has been overgrazed, clearing the mesquite and creosote and then tapping into the water table to irrigate their crops. They often leave when the wells run dry. It's not unusual to come upon abandoned homesteads that are being swallowed up by blowing desert sands.

Involving Mennonites in programs at El Uno remains a big challenge, but the arrival of the bison may have provided an opportunity to do just that. During the first months after the bison welcoming, Mennonite families drove to El Uno every weekend in trucks filled with kids eager to look at the animals.

Once inside the reserve, no one is an outsider. The beauty of the bison and the grasslands belongs to all. And these days no one has any doubt about what's going on at the ranch.

"You should see them in the winter," Esquer says of El Uno's bison ambassadors. "We came out here one day and there was snow on the ground. They were feeding on the grass. At their feet were the prairie dogs. Above them, golden eagles were circling.

"It was the whole thing, the whole ecosystem, all right there." ■