

PRAIRIE SMOKE

NACHUSA GRASSLANDS Annual Stewardship Report for 2015



Dear Friends,

"Bison Mania" easily describes 2015 at Nachusa Grasslands. The animals set off a media firestorm, and a tsunami of public interest nearly overwhelmed us; vehicles were bumper to bumper in traffic jams on Stone Barn Road and the phone rang off the hook with requests for tours and information. The excitement generated by the bison ignited a new energy at the preserve, accelerating our mission of conservation and habitat restoration. Volunteer workdays swelled with record attendance, thousands of acres were burned during a robust fire season, a dozen new research projects were conducted, and several tons of hand—collected seed were used to plant over 70 new acres of high diversity prairie.

New faces appeared every week, eager to become part of the mission. Several of them took the fast track to steward and co–steward responsibilities; others joined the newly formed volunteer Bison Corps. An outstanding example of this "Next Generation" of Nachusa stewards is Jeff Cologna (pictured on the cover). For the past year he has been at the preserve

every weekend, willing to do any task that is needed, including collecting seed, managing weeds, removing trees and brush with a chainsaw — even tearing out old carpet from a recently purchased house! If these new volunteers are an indication of what the future holds, we can all rejoice and be glad.



Photo: Ferran Salat

We hope you enjoy reading this issue of *Prairie Smoke* and will come join us in 2016.

Bill Kleiman, *Preserve Manager*Cody Considine, *Restoration Ecologist & Prairie Smoke Editor*Dee Hudson and Jay Stacy, *Prairie Smoke Editors*



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SEPTEMBER 17, 2016

27th Annual Autumn on the Prairie Celebration

- Front cover: Jeff Cologna, the "Next Generation" of volunteer land stewards at Nachusa. Photo: Dee Hudson
- o Back cover photo: Charles Larry
- Background photo: "Bloodroot (Sanguinaria canadensis)" by Charles Larry
- Magazine layout design: Dee Hudson

GOBBLER RIDGE — TEN YEARS OF PERSISTENCE AND SUCCESS

By Kirk Hallowell

Cindy Buchholz makes a compelling point about time relative to prairie restoration, "On the prairie, you don't measure progress in days or months — you measure it in decades." This insight is reflected in the remarkable success that Bernie and Cindy Buchholz have realized in their decade of restoration efforts on the Gobbler Ridge unit of Nachusa Grasslands. This year ushers in the 11th planting season of their effort, which now covers the entire unit.

Bernie and Cindy began their journey on a casual visit to Autumn on the Prairie in the early 90's when the event



Photo: Barret Buchholz

included little more than some tables set up in a field. Returning years later for a workday led by Sally Baumgardner, Bernie and Cindy became intrigued with the vision of restoration and were quickly engaged by Bill Kleiman to take on a unit for

new planting. Bernie and Cindy received expert mentoring from fellow Gobbler Ridge stewards, Jay Stacy and Mary Scott. After 10 years of meticulous clearing, harvesting, planting, and invasive weed control, Gobbler Ridge and the Fame Flower unit are among the preserve's highest quality restorations.

There have been many highlights along the challenging path toward victory. Cindy cherishes the time she has spent working in relative silence, with occasional visits from passing wildlife, including fawns, hummingbirds, Ornate Box turtles and, her favorite, the diligent bumblebee. Bernie has pioneered the reintroduction of species that are particularly difficult to propagate; Bastard Toad Flax (*Comandra umbellata*), which he has introduced with hand–planted plugs, is a notable example. Bernie delights in seeing the tiny seedlings take off in a new planting, an indication that the planting is headed for success.

The Gobbler Ridge victory reflects the remarkable vision and commitment to restoration that Bernie and Cindy hold. Traveling to Nachusa from their home in Oak Park for days at a time, the Buchholzs may rack up over 17,000 miles of



Photo: Charles Larry

commuting in a single year. The Buchholzs have prevailed through many prairie—planting challenges with stunning resilience.

The future of Gobbler Ridge remains bright as Bernie and Cindy work to solidify areas that are maturing, as well as nursing areas that have endured setbacks. Their persistence, leadership, and commitment to our work and to the Friends of Nachusa Grasslands organization is truly a spectacular gift to the prairie. We wish them continued success in the decades to come.

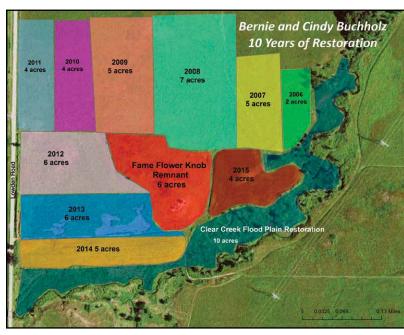


Photo: The Nature Conservancy

Each of these prairie plantings contains a minimum of 150 species planted at 45lbs plus per acre, all collected by hand. In addition, each restoration required an average of 17 hours per acre of weed management.

Bluestem Bottoms Retooled . . .

By Cody Considine and Jay Stacy

When the 56,000-pound mega earth-moving tractor arrived, I was, to say the least, nervous. Luckily, we were in the experienced hands of Chris Haring from the Army Corp of Engineers and Aleshia Kenney from US Fish & Wildlife Service, with whom we partnered in one of the more creatively conceived and beautifully executed restoration projects in Nachusa's history.



Photo: Dee Hudson

Bluestem Bottoms lies along Wade Creek, a drainage that flows east to west, due south of the Headquarters Barn and just north of the planned Bison Viewing Area. This former cornfield is the site of one of the earliest

restoration efforts at Nachusa, planted to prairie in 1987. Yet, despite major weed–removal campaigns and several extensive overseed efforts, Bluestem Bottoms stubbornly remained the most lackluster restoration at the preserve. The more we thought about it, the more we became convinced that 100–plus years of agriculture had stifled the hydrology of this ground, that we were trying to make Bluestem Bottoms into something it did not want to be, and that the land wanted and needed to be wetter. Besides, we've learned a thing or two about restoration since 1987; we're proud of our skills.

The thought of people from all over the world looking at such a scrubby representation of prairie restoration was unbearable. So in 2013, the decision was made to scrap Bluestem Bottoms, to convert it back to corn for two years, and then to start over again.

The year is 2015; enter the 550 HP Case IH Quadtrac Earthmover. For two weeks

Photo: Wes Gibson

After. Water has been captured from the Wade Creek drainage, creating a series of wetland habitats.

its mighty engine roared as it pulled soil, dug, scraped, and scooped. The result: two subtle earthen berms, each with a water control structure, which diverted water from Wade Creek and transformed Bluestem Bottoms into a latticework of prairie potholes and shallow wetlands of varying water depths. The Nachusa staff labored mightily during the hot summer afternoons of August and September, collecting the



Photo: The Nature Conservancy

seeds of 133 species of mesic, facultative wet, and obligate plants; these were processed, mixed, and spread over the entire area at a rate of 100

Before. An aeriel shot of Bluestem Bottoms in 2015.

lbs./acre (processed weight, heads and stems included). After the last seed was planted, in the wan light of a late November sunset, we gathered to survey our work. A flock of sandhill cranes alighted, by way of salute. We indulged in a round of self—congratulatory backslaps to celebrate a job well done. And we looked forward to spring.....



... WITH A SURPRISING TWIST

Ts this the end of the story? Not quite. Unnoticed in Lthe din of construction, on a tract of land adjacent to Bluestem Bottoms, working mostly at night, a family of North American beaver (Castor canadensis) quietly set up shop and began their own wetland reclamation project. They worked fast. Seemingly overnight, there appeared a marvelous consecution of earthen dams and corresponding ponds of varying water depths. Although water control structures are not part of their repertoire, beaver dams are highly adjustable; by altering dam design and texture of mud they can raise or lower water levels by the smallest of increments. So sensitive are their ears to the sound of running water that even the slightest rise in pitch indicates possible damage; if a dam is breeched, all hands pile out of the lodge and work non-stop until the problem is resolved. And they are nothing if not adaptable, using any building materials available. In an eastern Louisiana wetland, a family of beaver discovered several large



Master engineer. The beaver is considered a "keystone species" because they alter the environment, enhancing biodiversity in wetland ecosystems.

bags of dollar bills stashed by a thief after robbing a nearby casino; ever the conservationists, they carefully worked these into their mud–mortar mix, thus creating the first "money dam" in recorded history. The result of all this beaver activity: exquisitely terraced pools which provide habitat for a wide array of wetland plants and new niches for invertebrates, fish, salamanders, frogs, turtles, snakes, birds, and mammals. The ecological impact of beaver may be immeasurable.

We were aglow in the realization that the beaver had confirmed our intuitions; Bluestem Bottoms indeed wanted to be wetter. Then a second thought sobered us: now our efforts would be judged, not by the standard of our own recent successes, but by the handiwork of a team of master engineers who swam down the stream of time to show us

what wetland reclamation is all about. Uh-oh. It appears that a collegial competition is underway. Two adjacent and similar tracts of land two very different teams of wetland engineers. Who will restore the fairest wetland of them all? Will it be some of the finer minds that the Army Corp of Engineers and Fish & Wildlife, and The Nature Conservancy have to offer, relying on years of scientific training and experience, employing state of the art equipment? Or a family of aquatic rodents, using only their teeth and incredible muscle, guided only by instincts honed to perfection during thousands of years? Early-line Vegas betting odds: the beaver are



A sequence of earthen dams and flooded pools of varying water depths created new niches for wetland species of plants and animals.

prohibitive favorites. Perhaps our way includes features the beaver deemed unimportant; more likely, their way embraces dimensions we did not think of and do not yet understand. Whatever the case, it will be a privilege and a delight to sit at the feet of these ancient and venerable masters, to compare notes with them, and to learn from them.



Photos: Dee Hudson

Win, win for Nachusa and beaver. Beaver flooded this stretch along Wade Creek to safely harvest young willow shoots. A conservation by—product is the removal of thousands of stems of this encroaching species. The newly constructed lodge is shown on the left.

ORCHID THRIVES AT NACHUSA

By Cathy Pollack, US FISH & WILDLIFE BIOLOGIST







Photos: Dee Hudson

Eastern Prairie Fringed Orchids

Number Blooming per Year at Nachusa

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Wadsworth Seed				Lyons Seed			3	7	9	8	6	4	45	100	107	83	148	200	~425

"Many EPFO populations suffer

because of a lack of management,

but not at Nachusa. This is the one

the best management possible."

EPFO population that reliably receives

This past season (2015) marked the largest number of blooming eastern prairie fringed orchids (EPFO) (*Platanthera leucophaea*) ever at Nachusa Grasslands, with a grand total of over 425 blooming plants. Originally (1996), EPFO seed from a Lake County, Illinois, site (Wadsworth Prairie) was gathered to sow in appropriate habitat at Nachusa. This process was repeated in 2000, but using EPFO seed from a different Lake County, Illinois, EPFO site (Lyons Prairie). Once a site is seeded, it can take from six to nine

years for the first blooming plants to appear. The seed has no endosperm and therefore no means of long lasting energy. It is believed that, after initial sowing, if the seed is going to "take," it begins to grow in the soil under the prairie canopy, and, when conditions are right,

it blooms. The first blooming plant (one of only three) at Nachusa appeared in 2003, seven years after the initial 1996 seeding.

The EPFO is Federal threatened and State endangered. The US Fish and Wildlife Service's Chicago Field Office is working to recover the species. The Federal Recovery Plan (1999) indicates that we need 22 highly viable populations across its range (IA, IL, IN, OH, MI, ME, MO, WI). Periodically, a Population Viability Analysis (PVA) is conducted on all EPFO populations range—wide to determine their viability (low, medium, or high). In 1999 the PVA indicated that there were only 6 highly viable populations range—wide; in 2007 the PVA indicated we had 11 highly viable populations range—wide; and in 2014, the PVA indicates that we currently have 9 highly viable populations range—wide. Three of these

populations are in Illinois, and one of the three is at Nachusa. Nachusa can surely take pride in this accomplishment!

The criteria used to determine the viability of a population include: population size, potential habitat availability, the need for management, whether the habitat has long—term protection, and whether the population trend is increasing. As you can see from the table, Nachusa's EPFO population has been steadily increasing for years. Nachusa receives high

rankings for the criteria of "population size." The Nachusa EPFO population also receives high rankings for "potential habitat availability" and "the need for management." Management (particularly prescribed burning) of EPFO

populations is crucial to maintaining the populations. Many EPFO populations suffer because of a lack of management, but not at Nachusa. This is the one EPFO population that reliably receives the best management possible.

Because the EPFO population at Nachusa is particularly robust, staff from the USFWS has been collecting pollen from the Nachusa EPFO population to donate to smaller, less robust populations through cross pollination. It is believed that inbreeding may be affecting these smaller EPFO populations. USFWS staff also harvests Nachusa EPFO seed to augment populations that are not so lucky. Each season, 5 blooming EPFO plants are hand–pollinated and caged to ensure successful seed set in the fall (August) for harvesting and subsequent augmentation at other EPFO sites. If these efforts are successful, we would see the first blooming EPFO plants from the Nachusa EPFO seed in 6 to 9 years.

SCIENTIFIC RESEARCH AT NACHUSA

Scientific research occurs all year at Nachusa Grasslands, ranging from informal restoration experiments by stewards in their units to rigorous scientific research by distinguished researchers from universities and institutions throughout the country.

To learn more about ongoing science at Nachusa, visit our website at www.nachusagrasslands.org.

Under the Radar: Soil Biodiversity

By Dr. Elizabeth Bach

rom small flowers $oldsymbol{\Gamma}$ bringing the first color of spring to the waves of russet Little Bluestem and golden Indian Grass in the autumn, the prairie is an amazing landscape to view. Beneath the abundance of diversity observed aboveground lives an even greater diversity belowground. One cup of soil may contain 200 billion bacteria, 20 million protozoa, and 100,000 meters of fungal hyphae! These diverse microorganisms feast on dead plants and animals, building



Photo: A. Borowske

Elizabeth Bach collects soil at Nachusa Grasslands.

new cells and releasing nutrients that are taken up by growing plants. Because microbes turn over dead material and feed new growth, they are often referred to as the engines that drive ecosystems.

Soil ecologist Dr. Elizabeth Bach, a postdoctoral researcher associate from the Illinois Natural History Survey, is using the latest technology to investigate soil bacteria and fungi at Nachusa Grasslands. She sampled soil across the 2015 growing season to investigate how soil microbial communities and their activities shift seasonally, just like plants. Back in the lab, she extracts DNA directly from the soil samples and sequences it to identify species of bacteria and fungi. Microbial activity is also measured through laboratory assays.

Temporal fluctuations in microbial activity may alter resources available to plants at different times in the year. For example, microbial interactions may modify competitive interactions between plant species, affecting plant diversity. In addition to promoting biodiversity, knowing which microbes use up

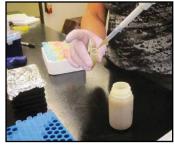


Photo: E. Bach

Bees on the Prairie

By Bethanne Bruninga–Socolar

Pollinators, particularly wild and managed bees, perform an essential ecosystem function. The majority of flowering plant species depend on these animals for reproduction via transportation of pollen between plant individuals. But bee populations have recently been declining globally due to pesticide use, habitat loss and fragmentation, and spread of diseases and pests to new



Measuring soil microbial

excess nutrients and when

they are most active could

help reduce nutrient run-

off into surface waters and

to mitigate global climate

capture greenhouse gas carbon dioxide (CO2) in soil

change.

activity in the lab.

Photo: Bethanne Bruninga-Socolar

Researcher Sean Griffin with bee traps.

areas. Protected areas such as Nachusa Grasslands play an important role in supporting native bee populations and provide an opportunity to study how habitat restoration and management techniques affect bee diversity and abundance.

In order to investigate bee responses to habitat restoration and management, Bethanne Bruninga-Socolar and Sean Griffin, graduate students at Rutgers University, have been sampling the native bee community at Nachusa in three different site types: 1) restored sites with plantings of varying ages from 1-26 years old, 2) remnant prairie sites, and 3) agricultural sites representing the pre-restoration state. Their results show that the diversity, abundance, and community composition (species identities) of bees in restored prairie plantings are significantly different from those of nearby agricultural sites, and quickly match those of remnant prairie sites, within 5-7 years after restoration. Data they collect in 2016-2017 will allow them to determine whether these results are different in prairie sites with and without bison. Bison may alter the availability of flowering plants due to their grazing habits and/ or the availability of nest sites for soil-nesting bees, which may be able to use bison wallows.



Photo: The Nature Conservancy



Photo: The Nature Conservancy

Bison Graze on Restored and Remnant Prairies

Bison selectivity towards grasses was very evident throughout the plantings and remnant prairies. In the photo above, observed at the quarter meter scale, June grass and Canada wild rye were grazed, while blooming prairie phlox, wild quinine and pale purple coneflower were left undisturbed.

Bison Hair Used as Nest Material

Unexpected surprise — the bison's winter coats which were shed in the spring provided small mammal and some birds ideal nesting material. Researchers documented almost all the small mammal nests they found were made of bison hair.

2015 AN EPIC YEAR

By Cody Considine



First Bison Calf

On April 6, the first bison calf was born on the preserve, making history. This was the first "wild" calf born on native tallgrass prairie in Illinois in 200 years. A total of 17 calves were born at Nachusa in 2015.

Photo: Charles Larry



Bison Underpass Constructed

An underpass was constructed last summer under Stone Barn Road to provide bison access to the newly fenced southern unit. The animals cautiously investigated the underpass for several weeks and first walked through around the start of the New Year. This connection increased bison habitat from 500 to 1500 acres.

Local contractor, Bill Nordman, lowers the underpass into place with a track hoe.

Photo: The Nature Conservancy



Photo: The Nature Conservancy

The first bison navigates the underpass.



Photo: Dee Hudson



Photo: The Nature Conservancy



Photo: Dee Hudson

Bison grazing created this unburned patch.

The bison tours were popular and the line remained long all day.

Stewardship in Bison Areas

Prairie workers: Bison selectively graze

grass while Tim Sherck removes weeds.

Stewards working in bison areas stayed on a constant "bison look-out" while they managed their units. Safety was of paramount importance while in the field; if bison were nearby, the steward would relocate. Stewards and bison coexisted peacefully; the only real interaction occurred when curious bison ambled over to pay friendly social calls!

Bison and Prairie Burns

Nachusa burned prairie within the bison unit for the first time. The bison were not terribly impressed; they came over for a quick look. Each year we burn different units, which attracts the bison to different areas of fresh growth. Overtime this creates a mosaic of habitats for prairie-dependent species.

A Record Autumn on the Prairie

More than 1,400 people attended, the first time we've broken the 1,000-attendance mark.



Photo: The Nature Conservancy

Photo: Dee Hudson

A bison bull is immobilized in the squeeze chute for the veterinary examination.

South Bison Fence Completed

This was a remarkable feat that could not have been done without our wonderful fence team: Mike Saxton, Damian Considine, Dave Crites, Jocelyn Frazelle and many volunteers. They worked through rocks, mud, water, trees, changing perimeter designs, summer heat, winter cold and were still able to finish by December.

FENCE TEAM — Mike Saxton, Damian Considine, Dave Crites

and Jocelyn Frazelle were honored with bison portraits.

Bison Roundup

Our state-of-the-art design and plan made the first bison round-up a success. We worked 45 bison through the corral in less than two hours with minimal stress and no injury. Our local veterinarian, Dr. Steve Baker, pronounced all the bison healthy, with some calves tipping the scales at over 430 pounds!

A LOCAL VISION GOES VIRAL

By Gelasia Croom, Media Relations, IL TNC



Photo: Jason Whalen, BIG FOOT MEDIA

For years, county and community media, such as Ogle County News, Sauk Valley News, and the NIU and SIU newsletters, have covered the incredible comeback story of the prairie at Nachusa Grasslands. But in recent months, regional and national lenses turned to the site as news of the bison herd's historic return to the tallgrass began to circulate. Reporters from Chicago to California were clamoring to know more about the Conservancy's goals and how bison fit in; and, for the Conservancy, it was an incredible opportunity to tell not only the story of this iconic species, but also to educate media and the public about the important role the prairie plays for people and nature.

With careful precision, Conservancy staff began building momentum early on through an interview with the *Chicago Tribune* several months before the animals arrived, detailing the prep work of fence building, prescribed fire, seeding and fundraising. The reporter deftly featured volunteers and staff in a

way that introduced the team as one unit with one goal. The April 2014 article, "*Illinois preserve prepped for return of bison*," included video interviews and, for many, a first visual of the site.

This article set off a firestorm of interest and coverage — as well as an ongoing partnership with the *Chicago Tribune*, which documented nearly every major milestone of the reintroduction. Anthony Souffle, *Tribune* photojournalist, traveled with the team to Iowa's Broken Kettle Preserve, documenting the long days and nights filled with corralling, vet checks, and coordination of conservation staff and volunteers from two states. Souffle and reporter Ted Gregory

captured the moment of first return, the first calf birth and beautiful images of the animals enduring their first snowfall, all archived on the *Tribune's* Web pages. The editors even wrote an opinion piece that thanked the Conservancy for envisioning the restored prairie and returning bison to the state. The *Tribune* has a reach of some 400,000 daily subscribers and 14 million online visitors each month.

Television and radio opportunities quickly followed: NBC, ABC, CBS and FOX affiliates from nearby Rockford all packaged the story in 2015, as did CBS in Chicago and WBEZ (Chicago Public Radio) and 1590 AM, a large Chicagoland talk news station.

Bill Kleiman and Jeff Walk both traveled immediately to Chicago upon returning from the grueling 9—hour trip from Iowa to do a live, 10—minute interview with veteran anchor Phil Ponce on WTTW's *Chicago Tonight*, the flagship nightly news program of the Chicagoland PBS station. Another veteran reporter, Paul Meinke of Chicago's ABC affiliate, caught wind of the story as well. As Chicago's number one news station, the Sunday night segment in December 2015 reached over 135,000 homes in Chicagoland, paired with its 2 million online visitors. This segment was shared from the Conservancy's social media pages and it was liked almost 1,000 times on Facebook and shared nearly 800 times, reaching an additional 200,000+ people.

The April 2014 Tribune article "set off a firestorm of interest and coverage — as well as an ongoing partnership with the Chicago Tribune, which documented nearly every major milestone of the reintroduction."

Other outlets also picked up the story across the country: media in Orlando, San Francisco, Minneapolis, Tucson, and Scranton ran the story. CBS National News began to show interest, and soon a producer and crew came to Nachusa. A few months later in June of 2015, Scott Pelley, CBS national anchor, introduced Nachusa to the entire country — what took months of planning and coordination was finally revealed in a crisp, three—minute segment. And while the animals were a focal point of the piece, the message was clear to CBS' 6 million watchers: Prairies, an essential ecosystem, are rapidly disappearing, but TNC, its partners and its volunteers are working to reverse that loss. This segment was shared almost 10,000 times from the CBS website.

Reporters for Al Jazeera America's science show *TechKnow* spent two days with the Nachusa crew, documenting everything from the strategy maps hanging neatly above dusty work spaces in the barn to the GPS tracking technology that illustrated how the animals were using the site, which informs the scientists where and how to apply best practices. They zeroed in on the return of biodiversity and the symbiotic partnerships between the large beasts and the most delicate plants. And though Al Jazeera America will shutter its operations in April, it currently has some 6 million monthly online viewers.

The high–energy crew, low–maintenance shaggy creatures and a rainbow of restored prairie plants and wildlife served as catnip to amateur and professional photographers and feature magazine writers. A 19–page spread was dedicated to the learnings, successes and challenges in the niched *Landscape Architecture Magazine*. The piece appeared in the November 2015 issue, coinciding with the trade group's annual meeting

in Chicago, in which over 5,000 members, vendors and speakers received a copy. *Northwest Quarterly* and *Chicago Life* magazines also featured stories to their adventurous audiences, putting Nachusa in front of another 200,000 readers in Cook, DeKalb, Ogle, Jo Daviess, Winnebago and Boone counties.

Side by side, Friends of Nachusa Grasslands, The Nature Conservancy staff, and volunteers have crisscrossed the site year after year, filling buckets to the brim with seeds, lugging equipment and donning fireproof suits for prescribed burns — for the sake of restoration and preservation of one of Illinois' great places. As media interest in the site grew, the Conservancy's marketing team relied on those same staff and volunteers to navigate the story for reporters, television and radio hosts, producers and bloggers. And though it sometimes took a bit of creative scheduling and a pool of patience, the message is clear: the vision of restoration at Nachusa is a multi–pronged, data–driven, yet beautiful story of collaboration.

New Visitor Use Area Coming Fall of 2016

By Bill Kleiman



The visitor use area will overlook the beautiful rolling hills and sandstone outcrops of the Main Unit. Look to the north and enjoy the newly engineered wetlands complex. Hiking and exploration are available on the 60 acres of prairie surrounding the visitor use area. Enjoy the quiet and let the stress of civilization evaporate in the fresh prairie air. Then end your day with a sight to remember — a herd of wild bison backlit by a breathtaking prairie sunset!

Our visitor use planning team has been meeting for a year to plan for a much-improved Main Visitor Entrance on Lowden Road. The planning team contracted with experts that include a landscape architect, building architect, structural engineer, and interpretive designer. We plan to build this summer and have a grand opening this fall.

The new entrance will have more parking spaces, a place for a bus to drop off students, two composting toilets, a hand—pumped water spigot to bring potable water to the thirsty, and over 70 feet of beautiful interpretive panels that tell our story. These panes will be under an inviting pavilion roof to protect both visitors and our panels from the weather.

A Matching Challenge

from the Hamill Family Foundation

Inspired by the long-time dedication of Susan and Bill Kleiman, the Hamill Family Foundation has committed \$1 million to create a 2:1 challenge that will deliver an unparalleled learning experience at Nachusa. All gifts of \$5,000 and above, made by December 31, 2016, will be matched.

This special opportunity will double the impact of your gift and make it possible for all visitors to enjoy Nachusa Grasslands at its best.

Contact **Annie Santoro**, Major Gifts Manager, at: 312.580.2152

FRIENDS OF NACHUSA GRASSLANDS

Imagine spending 15,000 hours caring for one place! That is what the Friends of Nachusa Grasslands did in 2015.

Since 1986, hundreds of volunteers have invested untold hours and considerable money protecting remnants and planting prairie. In 2008, committed stewards took the next big step by creating Friends of Nachusa Grasslands, a not–for–profit 501(c)(3), which provides for the long–term protection of this beautiful and rare site.

Stewardship

Volunteers are the heart and soul of restoration at Nachusa, whether it is harvesting and planting seed, removing non–native species, conducting prescribed fires, leading visitor tours, monitoring plant and animal species, or taking photographs. Volunteers have helped make Nachusa a leader in grassland restoration.

We welcome you as a new volunteer, and offer an informal — yet highly effective — mentoring culture to help you get started. Please see our website for information: *nachusagrasslands.org*.

Preparing for the Future

Friends of Nachusa Grasslands is also funding endowments that will permanently support restoration at Nachusa and provide for its long–term protection. Our goal is to endow

\$3 million with annual distributions going primarily toward Nachusa's operations. Thanks to robust support, we are nearly one—third of the way toward our goal. Will you help us grow our endowments in 2016?

Science Grants

To encourage science and education at Nachusa, Friends awards grants to qualified candidates conducting research significant to habitat restoration and management practices. In October, Friends presented its first science symposium, with presentations by our grant recipients to a capacity crowd.

In 2016 we are awarding a total of \$20,000, divided in varying amounts among ten researchers. Their work will delve into everything from bison research to bees; grassland birds to small mammals.

For more details on these research projects, please visit *nachusagrasslands.org*.

Support the Friends

Interested in keeping Nachusa Grasslands flourishing? Want to make a difference in the world? We welcome your participation and support! Consider volunteering, support us financially through donations, or become a "Heritage Hero" by including Friends of Nachusa Grasslands in your estate plan. Details at *nachusagrasslands.org*.



Photo: Ron Cress

Photo: Dee Hudson



Photo: Mark Jordan

SUPPORTERS. Friends members enjoy a potluck dinner in the Headquarters Barn.

SCIENCE GRANTS. Researcher Heather Herakovich studies grassland birds.

STEWARDSHIP. Saturday workday volunteers remove brush in the Tellabs East Unit.

SAVE THE DATES!

June 18...... Friends Prairie Potluck

"Homecoming — 30 Years

of Stewardship"

July 30...... Friends Annual Meeting

October 22 Friends Science Symposium

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Friends of Nachusa Grasslands Photography at Nachusa Grasslands

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AVAILABLE STEWARDSHIP UNITS

By Dee Hudson & Jay Stacy





Nachusa Grasslands 815.456.2340

Jay Meiners Wetlands

This outstanding 80–acre unit boasts varied habitats: a beautiful remnant wetland, bur oak savanna slopes, and a restored upland prairie. In addition, there is a 30–acre agricultural field for those who might want to try their hand at cornfield–to–prairie restoration! The potential plant species list for this unit rivals any on the preserve. This rich and varied habitat nestles next to the north edge of Franklin Creek State Natural Area. The unit is home to fox, muskrat and mink; even the American Bittern, an uncommon heron in Illinois, has been sighted here.

Though this unit has wonderful features, there are still many tasks to challenge a steward:

- Seed collecting to diversify the upland prairie restoration.
- Weed management in the restoration, on the savanna slopes, and in the wetland.
- Removal of exotic shrubs and weedy trees on the savanna slopes.
- For those who have learned the floral components of the prairie and techniques of restoration, a chance to plant raw agricultural land back to prairie.

For more information about other available units at Nachusa Grasslands, please visit our website: **www.nachusagrasslands.org**

QUEEN OF THE PRAIRIE

By Jay Stacy

The ink was barely dry on her L Environmental Science degree when Jocelyn Frazelle was hired onto the 2014 Nachusa Summer Crew. She excelled in every aspect of her duties as a Restoration Technician: plant identification, weed management, seed collection, operation of heavy equipment (tractors and skid loaders), and bison fence building. Bill and Cody took note of her solid work ethic and leadership potential, and they lobbied successfully to keep her on in the fall. Jocelyn spent the winter of the 2014-15 perfecting her sawyering skills alongside the grizzled veterans of Nachusa's "A-Team" chainsaw crew, leveling large trees along miles of fencerow and woodland edge, all in



Photo: Kirk Hallowell

preparation for the South Unit bison fence construction. In the spring of 2015, Jocelyn was certified in prescribed fire and promoted to 2015 Crew Leader, supervising an assemblage of five enthusiastic, vigorous, educated young men. In the first year of "Bison Mania," when Bill and Cody could ill afford additional demands on their time, Jocelyn ran the crew like clockwork with hardly any oversight, directing an impressive weed management campaign and supervising the collection of over

1½ tons of seed from 203 species of upland and wetland plants. Poundage records for several key conservative species were shattered along the way. Jocelyn accomplished all the above with her trademark quiet efficiency, and with a gentle, sweet laugh that disarmed and welcomed one–and–all. Her name is enrolled in our hearts with the names of a select group of young wonderworkers, who for the past 30 years have reshaped Nachusa into the amazing place that it is.



Photo: Kirk Hallowell

Jocelyn fabricating fence materials for the South Bison Unit.

NEW STEWARDS

Jolunteers donate their time, talent and resources to care for Nachusa and help the preserve achieve its goals. These "new faces" join a strong community with a common purpose, to conserve and restore habitat. The restoration work is ongoing and Nachusa welcomes and mentors all willing hands and hearts. Please visit The Friends of Nachusa Grasslands website (nachusagrasslands.org) to discover the varied volunteer opportunities.

Brian Bielema BISON CORPS

Along with my ongoing timber rattlesnake study

VOLUNTEER



and my interest in hunting, I wanted to have a pursuit that required walking for my health as I got older. I read an article in the local paper about the Nachusa Grasslands bison project. A sidebar requested volunteers to do fence checks and other Bison Corps duties. After a lifetime of working on conservation issues and being a member of The Nature Conservancy since 1977, I contacted Bill Kleiman and volunteered. So I now visit Nachusa weekly and check the fence, gates, water and minerals. I always walk and it can be quite challenging with all the variable Midwestern weather. I usually spend 3-5 hours walking several miles each visit.



**If you are interested in joining the bison corps, contact Bill Kleiman or Cody Considine.

Keith Kauffmann

Stewardship Volunteer

I grew up milking cows and chopping weeds in soybean fields on a farm in central Illinois. After college and grad school, I became a plant breeder. I spent most of my career developing corn hybrids for US farmers. I have always been impressed with The Nature Conservancy's emphasis on sound science and flexibility in finding

ways to protect vulnerable habitats in a crowded world. I came out for a couple Saturday morning workdays to cut honeysuckle and pick seed. It did not take long for me to figure out that I liked

> Nachusa and the people who work and volunteer there. Within a few weeks. I was completely hooked.



Sheryl Honig

Stewardship Volunteer

Sheryl thinks EVERYONE would enjoy a weekly jaunt on the prairie, learning from experts, basking in the fresh prairie air, working hard among the plantings! It is the highlight of her week! Sheryl can now recognize many species of native prairie plants and is learning which species live together in various plant communities. Sheryl says "I'm just astounded that I get to do this for FREE! I am so grateful to have



such access to these generous experts and this breathtaking place!"

Paul Swanson Stewardship Volunteer

My first visit to Nachusa was to look for macroinvertebrates in Wade Creek with Mary Vieregg and a number of other cold-water tolerant volunteers. It was a great day! I have had a number of meaningful experiences at Nachusa. Susan Kleiman helped me find some

good spots to listen for frog calls as part of a frog-monitoring program. Jay Stacy showed me Cup Plant, Porcupine Grass, and Prairie Gentian, Since then he has helped me identify and learn



the names of countless other prairie plants. It is a joy to be a part of the work being done at Nachusa.

Jeff Cologna

Stewardship Volunteer

Jeff Cologna is a leader within the U.S. Cellular Product and Innovation organization located in Chicago. Jeff focuses on strategic investing and developing commercial relationships with venture capital-backed, privately held companies. Jeff discovered Nachusa in early May 2015 after a decade-long search for an organization and cause that resonated with him. After two Saturday workdays, Jeff completely fell in love with the mission and was in awe of the amazing people who had the vision to protect Nachusa. He continues to be humbled by all the people who currently carry on the mission.

"The little box turtles now have nearly four thousand acres they can roam. Soon the bison will help bring back dung beetles to much of this area, providing a favorite food of the box turtles. Each animal and plant are components of an interlocking web of life slowly being restored to the native grasslands. From the snail case caddis flies in the creeks, to the shaggy brown bison on the prairie, Nachusa provides a home to life nearly lost from the Illinois landscape. It is great to see the sun rise over the waving fields of native grasses and flowers, welcoming the return of a new day, and shining brightly on remnants of the past."

~Paul Swanson

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A Sedge Wren (Cistothorus platensis) sings from the Prairie Cinquefoil (Potentilla arguta) seed head. Gobbler Ridge Unit

Photo: Dee Hudson



