

ISSUE 55, SPRING 2018

# PRAIRIE SMOKE

NACHUSA GRASSLANDS *Annual Stewardship Report for 2017*





This year my colleagues have celebrated my 25 years of service at Nachusa. That is a long time but we are just beginning. Let us celebrate how we have made Nachusa Grasslands both a local project and a regional inspiration.



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Our volunteer cadre created the Friends of Nachusa Grasslands, working to support The Nature Conservancy by starting an endowment to sustain our effort. Land managers near and far come to see our results

in habitat restoration. We are leaders in prescribed fire and in restoration science. By owning and managing lands such as ours, The Nature Conservancy fosters this knowledge and our passion for getting things done. Let's keep it going!

Bill Kleiman  
PRESERVE MANAGER

This past decade has been an unbelievable ride! I am constantly amazed, inspired, and humbled by the great works from our volunteers, our energetic seasonal crew, Bill, our state chapter, and the general public, who believe in the mission at Nachusa.



© GREG BAKER

As I look to the next 10 years, I see Nachusa's momentum gaining! Bison will continue to define the project; although, we all know, the bison are but one component of Nachusa's success. They have, however, sparked a fire that has engulfed our minds and spirits. So I am holding on tight with a big smile on my face as I begin and look forward to another 10 years!

Cody Considine  
RESTORATION ECOLOGIST

SAVE THE DATE  
**September 16, 2018**  
*29<sup>th</sup> Annual Autumn on the Prairie Celebration*

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PRAIRIE SMOKE EDITORS

Cody Considine, Jay Stacy, Dee Hudson, and Eugene Baldwin

COVER PHOTOS: © DEE HUDSON/THE NATURE CONSERVANCY

# A Giant Leap for Science at Nachusa

BY CODY CONSIDINE, BILL KLEIMAN, AND JAY STACY

Nachusa Grasslands stands at a landmark crossroads.

One important early goal at Nachusa Grasslands was to buffer and reconnect our isolated remnant prairie gems. Since few (if any) reliable guides were available, we proceeded to restore agricultural fields back to prairie by the “trial and error” method. Many of our earliest attempts fell into the category of “error”; but with each failure we rethought the problem, adjusted our techniques, and tried again. Before long we were engineering prairie restorations of amazingly high quality.



© DEE HUDSON/THE NATURE CONSERVANCY

## Blanding's Turtle Research — Taking hatchling measurements.

Nachusa's stalwart 30 years of ecological management make it a premier location for restoration ecology research. The success of the project has attracted significant scientific interest from faculty and students at many universities throughout the country, as well as from state and federal agencies.

Now we are proposing a bold new hypothesis: we can restore a fully functioning ecosystem at Nachusa Grasslands, a reasonable facsimile of prairie-savanna-open woodland aboriginal remnant, suitable habitat for all the diverse life forms that once inhabited these districts.

In 2018 Nachusa will fill a full-time science position, aptly titled the Ecosystem Restoration

Scientist (ERS). The ERS will have a three-fold mission: 1. Work alongside stewardship staff and volunteers. The ERS will design and implement scientific experiments that will hone our restoration and management efforts pertaining to invasive species removal, prairie planting methods, bison grazing, and fire. 2. Coordinate plans for visiting scientists. Orienting them to the site and supporting their work will be a major benefit to external researchers. 3. Build and lead the science program. Transform our current modest science program into a high-impact research site, attracting the best and brightest scientists throughout the globe while ensuring that the most beneficial science is being conducted.

Is it a simple matter to repair an extraordinarily complex and severely damaged ecosystem that evolved over thousands of years? Of course not. Must we embrace this daunting challenge with bravery and humility? Absolutely. The futures of many beautiful plant and animal species that grace our landscape hang in the balance.

At Nachusa Grasslands, the new experimental applied science of ecosystem restoration is poised to emerge from its infancy, to take its place amongst the many varied, more established natural science disciplines. The long-range implications for Nachusa, for current and future restoration sites, and ultimately, for The Nature Conservancy, are breathtaking to contemplate.



© DEE HUDSON/THE NATURE CONSERVANCY

Sheryl Hosler and Anna Farrell set up a quadrat while conducting a vegetation survey in the Thelma Carpenter unit.



# Nachusa's New Visitor Center Opens

BY DEE HUDSON

Over the past 30 years Nachusa has attracted a modest number of mainly conservation-minded visitors. However, with the bison introduction to the preserve in 2014, a media storm was ignited. With front-page newspaper exposure and television coverage, suddenly Nachusa became a tourist destination!



© DEE HUDSON/THE NATURE CONSERVANCY

**"Bisonistas" line up along Stone Barn Road to catch sight of the iconic mammals.**

Nachusa underestimated the public's affection for bison. Shortly after the herd's arrival, the preserve was inundated with hundreds of visitors hoping to catch a glimpse of the new celebrities. At times the staff and volunteers were completely overwhelmed with requests from information-seeking tourists. So, with the new-found interest in the preserve, Nachusa recognized the need for interpretation, signage, and a new visitor center.



© DEE HUDSON/THE NATURE CONSERVANCY

**THE HAMILL FAMILY**

Jon Hamill, Nancy Winter, and Elizabeth Bramsen



© CHARLES LARRY

**Bison are more than just a keystone species. Their draw provides us with an opportunity to engage more people in conversations about who we are, why this work is important, and how they can get involved.**

The Hamill Family Foundation, long-time supporters of Nachusa, stepped forward with an extraordinarily generous \$1 million challenge; all gifts of \$5,000 or more were matched 2:1. Many individuals, couples, and corporations rose to the challenge, contributing precious funds toward building the new Visitor Center.



© DEE HUDSON/THE NATURE CONSERVANCY

**On a windy and brisk fall day 130 guests gathered together for a dedication ceremony, celebrating Nachusa's new Visitor Center. The Nature Conservancy State Director, Michelle Carr, led the guests in a champagne toast to thank the Hamill Family for their generous donation and commitment.**





© DEE HUDSON/THE NATURE CONSERVANCY

Perched on a gentle slope overlooking the vast prairie vista, the new Nachusa Visitor Center welcomes young and old.

Located at 2075 S. Lowden Road in Franklin Grove, the new Visitor Center is open to the public everyday from sunrise to sunset. The new parking lot has a clearly marked drop-off zone and spaces for bus parking. The Center is also ADA accessible and outfitted with two self-composting toilets.



© DEE HUDSON/THE NATURE CONSERVANCY

As children wait for their bus, they can play on the large boulders surrounding the pavilion, or fill their drink bottles with potable water from the Center's hand-pump.



From the Center, visitors can drive to one of the five designated trailheads and enjoy a hike to explore the unique native plants and animals Nachusa is dedicated to preserve.



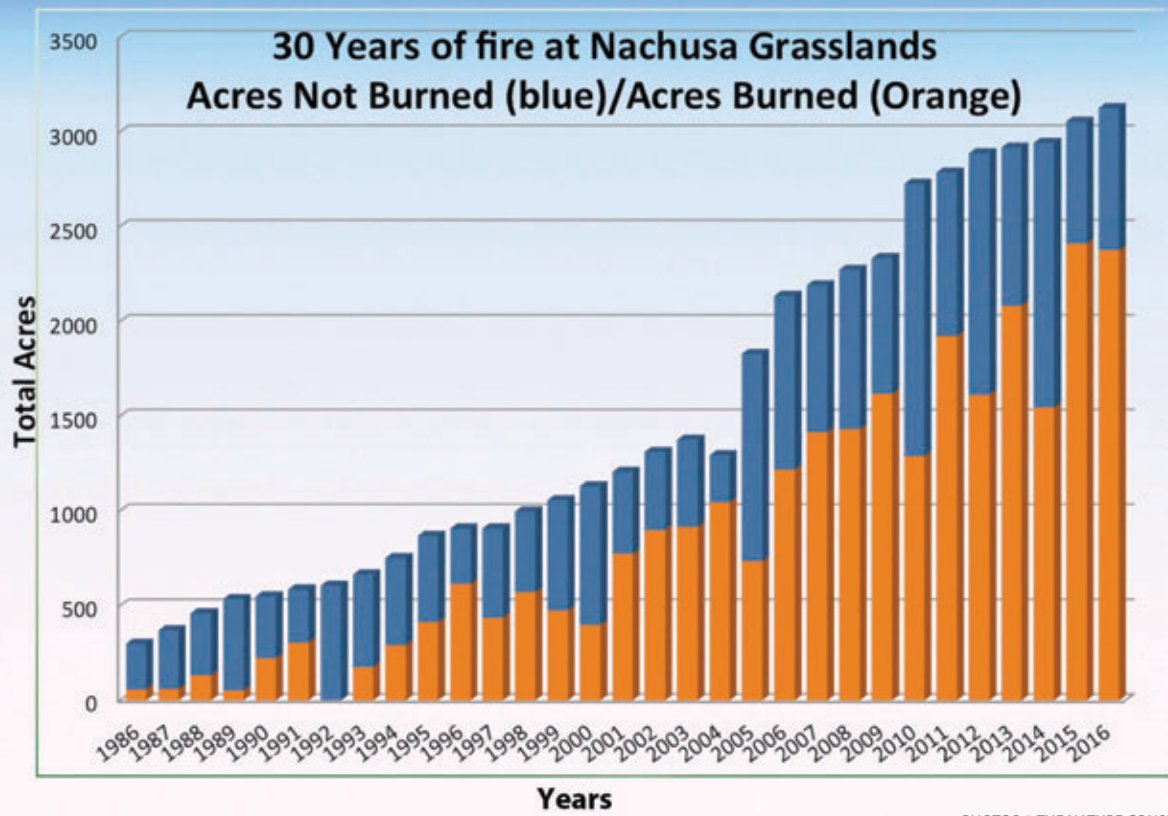
PHOTOS  
© DEE HUDSON/THE NATURE CONSERVANCY





# 30 YEARS of Fire

BY BILL KLEIMAN



PHOTOS © THE NATURE CONSERVANCY

## Then and Now . . .



**1992 Nachusa Fire Crew**  
Primitive tools and no safety equipment



**1996**  
Clearing a fire break by hand



**1996**  
First pumper unit and Nomex fire suit



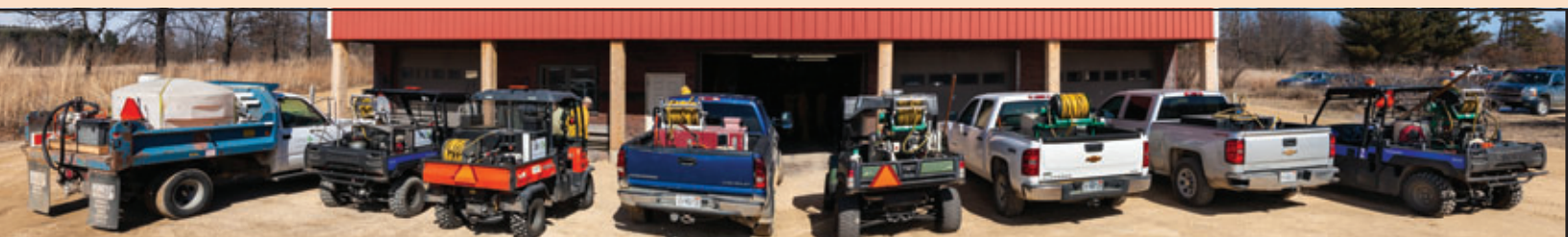
**2017**  
Larger, highly-trained crews with safety gear



**2017**  
Forestry machine creates fire breaks with ease



**2017**  
Modern UTV and sprayers



2017 Fleet



"RIVER JEWELWING" BY BOB DANLEY, FLICKR, CC BY SA-2.0

River Jewelwing Damselfly

# Jewels of the Prairie

## Damsels and Dragons

BY JOYCE GIBBONS

Of the many groups of insects found at Nachusa Grasslands, few are more easily observed than the large, colorful Odonata (dragonflies and damselflies) often referred to as “odes.” Visit any wetland at Nachusa — pond, creek, marsh, even temporary woodland pool — and you likely will spot one or more of these flying jewels.

The larval stages of odes are aquatic. Some, like **midland clubtails**, are habitat specific and can be an indicator of water quality, while others, such as **Eastern forktails**, are generalists and can be found in various bodies of water. Dragons and damsels are fierce predators, frequently preying on insects twice their size or even on others of their own species. Winged dragon adults are strong, capable fliers and may search for prey far from water, but they will return to find a mate and lay eggs. Weaker flying damselflies tend to populate vegetation along water sources such as ponds or marshes.

While Nachusa Grassland’s varied habitats have the potential to support many ode species, it wasn’t until 2013 that a survey of dragons and damsels was attempted. The effort started small, with one dedicated volunteer, Cindy Crosby. Interest grew over the next couple of seasons as additional volunteers aided in the effort, each choosing a specific area to monitor.

In the spring of 2017, the program gained momentum as Cindy led a dragonfly workshop



© JOYCE GIBBONS

Spotted Spreadwing Damselflies

on ode monitoring protocols and identification. As the summer progressed, six monitors recorded 35 different species. Nine new species were discovered and added to Nachusa’s growing list, bringing the total species count to 41!

Some of those “new” species are considered rare or uncommon in Illinois. The **springwater dancer** has a state status listing of “imperiled,” indicating that it is vulnerable to extirpation in the state. This strikingly patterned damsel was found in in two units:



© JOYCE GIBBONS

Cobra Clubtail Dragonfly ♂

Clear Creek Knolls and Big Jump. Another imperiled damsel, the brilliant blue **river bluet**, was spotted at Clear Creek. The rarest Illinois ode, discovered in 2015, was the large **river jewelwing**, a beautiful, sparkling, green damselfly inhabiting quieter areas of streams.

Also noteworthy have been sightings of **cobra clubtails**, **band-winged meadowhawks**, **Eastern red damsels**, and **sedge sprites**, all rare discoveries in Illinois. Nachusa monitors will be looking for all of the above during the ode-monitoring season in 2018. You can help by becoming a monitor-in-training, adding an additional pairs of eyes to search for dragons and damsels. We need you!



© JOYCE GIBBONS

Lyre-tipped Spreadwing Damselfly ♂



# Take a Hike!

*Five Trailheads Encourage Hikers to Explore the Preserve*

## Big Jump

**TRAILHEAD:** Located on the west side of Lowden Road, 2.6 miles north of the Visitor Center.

**PARKING:** There is a small lot. Do not block any entrances or gates.

**WHERE TO HIKE:** Hike either on the mowed lanes or off-trail. There are 350 acres to explore.

### WHAT CAN BE SEEN ALONG THE HIKE?

Take a walk back in time, up and over a dramatic succession of remnant prairie hills. Explore a picturesque creek that meanders through a small limestone canyon, reminiscent of the Wisconsin Dells. After years of burning and removing woody encroachment, oak-hickory savanna groupings are beginning to emerge. Search out the stunning rock outcrops. Rare prairie plants dot the slopes.



© DEE HUDSON/THE NATURE CONSERVANCY

## Clear Creek Knolls

**TRAILHEAD:** Located on the east side of Lowden Road, 1.4 miles north of the Visitor Center.

**PARKING:** There is a small lot. Do not block any entrances or gates.

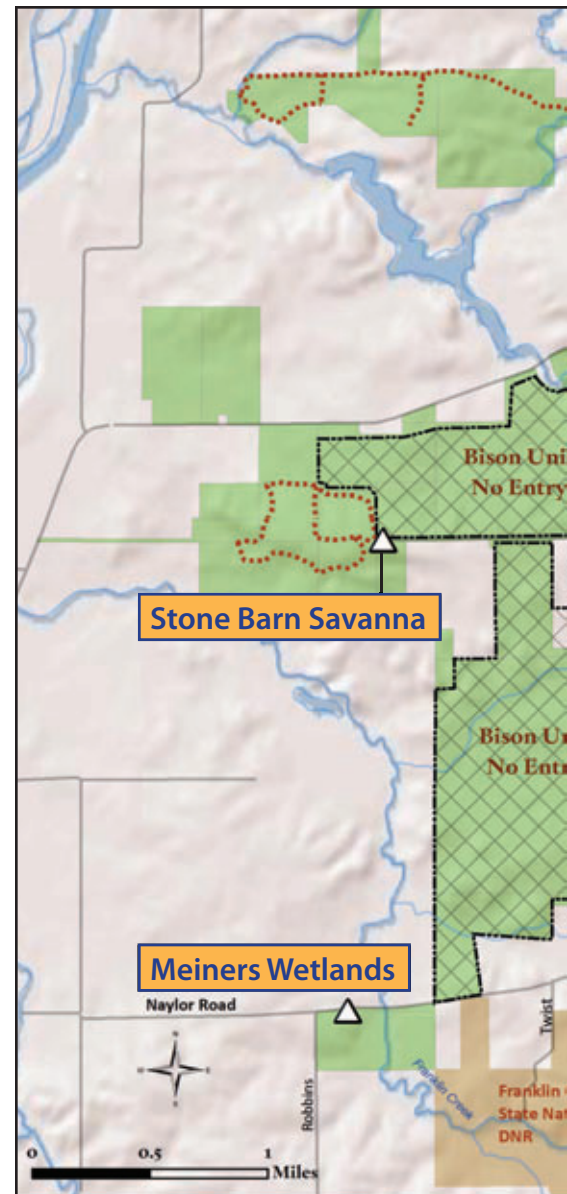
**WHERE TO HIKE:** Hike either on the mowed lanes or off-trail. There are 300 acres to explore.

### WHAT CAN BE SEEN ALONG THE HIKE?

Enjoy a walk through 10 years of sequential prairie plantings, from two to 12-years-old. These are some of the best prairie restorations on the planet! Hike up the remnant prairie hill and explore the lichen and moss on the sandstone outcrops (Please do not walk on the sandstone, for it crumbles easily). Kick off your shoes and wade across the creek or use the strategically placed stepping stones (cross when stones are exposed above the water). Notice the soft, sandy bottom of this spring-fed creek. Continue the hike east of the creek and, from the top of the hill, enjoy the expansive 360-degree view.



© DEE HUDSON/THE NATURE CONSERVANCY



## Meiners Wetlands

**TRAILHEAD:** Turn right out of the Visitor Center. Drive 1 mile south to Naylor Road. Turn right. Drive 1.25 miles; the lot is on the left.

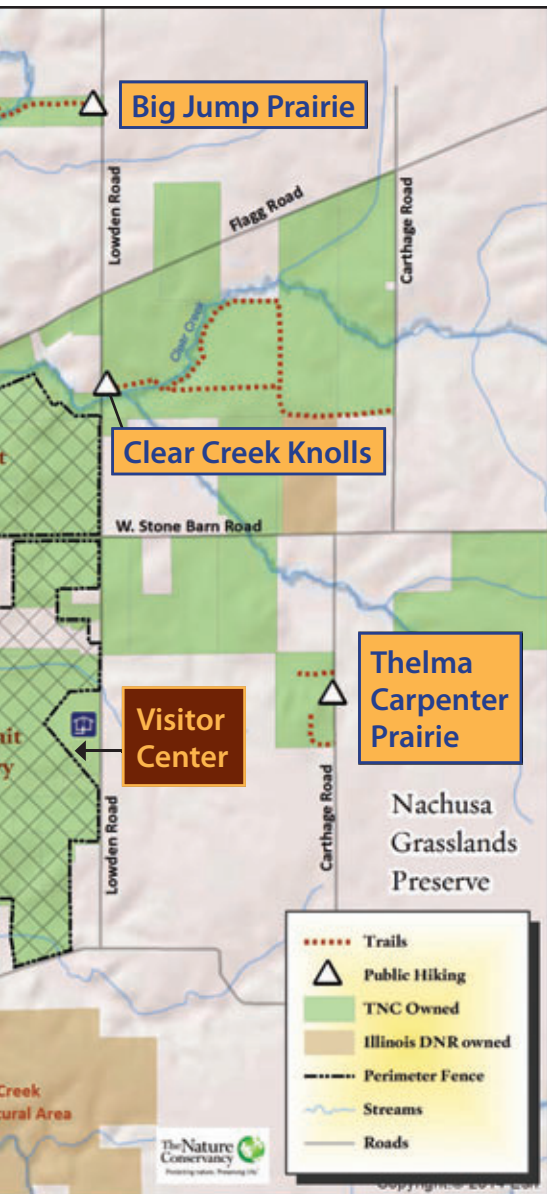
**PARKING:** There is a small parking lot.

**WHERE TO HIKE:** Hike off-trail, for there are no mowed lanes to follow. There are 60 acres to traverse.

### WHAT CAN BE SEEN ALONG THE HIKE?

Hike into this outstanding 80-acre unit that is a remnant wetland, bur oak savanna slopes, and a habitat nestles next to the north edge of Franklin State Nat DNR. This area is home to fox, muskrat and mink; even the American Badger, a species in Illinois, has been sighted here.





© AARON LANGE/THE NATURE CONSERVANCY



© DEE HUDSON/THE NATURE CONSERVANCY

...t boasts varied habitats: a beautiful  
...nd a restored upland prairie. This rich  
...anklin Creek State Natural Area. The unit  
... American bittern, an uncommon heron

## Thelma Carpenter Prairie

**TRAILHEAD:** Turn left out of the Visitor Center and drive .75 miles north to Stone Barn Road. Turn right. Drive 1 mile to Carthage Road. Turn right. The pull-off is on the right in .65 miles.

**PARKING:** There is pull-off parking in the grass. Do not block any roads, entrances, or gates.

**WHERE TO HIKE:** Hike off-trail up the hill or along the mowed lanes. There are 65 acres to explore.

### WHAT CAN BE SEEN ALONG THE HIKE?

Hike throughout 35 acres of rolling, dolomite hill prairie. On the north and south ends of this attractive unit, 30 acres of beautiful planting restorations greet the eye. Explore! Thelma Carpenter Prairie is a species-rich treasure, filled with leadplant, shooting stars, downy gentian, alum root, cream false indigo, goat's rue and many more! With the stunning topography, this unit is a delight to hike.



© DEE HUDSON/THE NATURE CONSERVANCY

## Stone Barn Savanna

**TRAILHEAD:** Located 2 miles from the Visitor Center. Take Lowden Road north to Stone Barn Road (1st road). Turn left and drive until the road dead ends.

**PARKING:** Park alongside the road where marked.

**WHERE TO HIKE:** Walk through the opening in the fence and hike either on the mowed lanes or off-trail. There are 250 acres to explore.

### WHAT CAN BE SEEN ALONG THE HIKE?

Hike west through lovely oak savanna, past breathtaking rock outcrops, along beautiful prairie restorations, to a pristine remnant wetland filled with rare native plants, frogs, and turtles. Watch and listen for red-headed woodpeckers along the way. Don't miss this hike!

**DOWNLOAD** the "Prairie State Hikes" Smart Phone App to use along this trail. See the website for details.



© CHARLES LARRY

Lupines



# Prairie Restoration: A New Approach

## Herbicide Tolerant Prairie Restoration Method

BY CODY CONSIDINE

It could be said that the Achilles' heel of tallgrass prairie restoration is weed management. Our restoration goals explicitly state: "create restorations with plant community compositions that are indistinguishable from high-quality remnants". Weed populations within restorations decisively separate successful plantings from failures. So far we've been able to suppress weeds in our plantings; however, with each new year comes a new prairie planting, and thus more acreage to manage. Over the past several years we have hired larger crews, added Arc Collector mapping software, and purchased bigger mowers and a herbicide boom-sprayer to deal with the increasing weed pressures.

A new approach to prairie restoration at Nachusa was launched in the fall of 2017. We set up a small experiment within the new 2017 planting to test what we have termed the Herbicide Tolerant Prairie Restoration (HTPR) method. The HTPR method was inspired by our own experiences and by the observations of our colleagues at Fermilab, who have cataloged the effects of Transline herbicide on native plants. The HTPR method uses Transline and a successional planting approach to restore high diversity prairie while minimizing weed management inputs.

The background: In 2014 we re-planted Bluestem Bottoms (Planting #21) after it was no-till farmed for two years. We discovered that two years of agricultural spraying was not sufficient to suppress large populations of red and sweet clovers. Since this planting was a misrepresentation of our restoration



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**2017 Crew Planting: 83 acres planted with 4560.83 lbs of seed. A record 240 species were planted in four habitat mixes.**

work (and was inconveniently located next to the new Visitor Center!), we boom-sprayed the entire planting with Transline to eradicate the clovers. Three applications were necessary: two in 2016 and one in 2017. In the 2017 growing season we found 72 surviving native species and zero red and sweet clovers. This result, coupled with results from Fermilab, led us to develop the HTRP method.

Will the HTRP method work, or will it not? Either way, this is what experimental applied science is all about. I believe that the HTPR method will enable us to restore larger acreage much more efficiently. The HTRP method may revolutionize the way we plant prairie at Nachusa!

### How the HTPR method works:

Initial Planting (fall)	Plant Transline-resistant prairie species (72 species identified so far).
1 <sup>st</sup> Growing Season	No management. Give native plants a year to establish.
2 <sup>nd</sup> Growing Season	Boom-spray the entire planting with Transline (boom-spraying is far more efficient than sweeping with backpack sprayers). Evaluate later in the growing season. Apply another round of herbicide if necessary.
3 <sup>rd</sup> Growing Season	Evaluate. If weeds persist, apply another round of Transline. If weeds have vanished, plant native species susceptible to Transline that were left out in the initial planting.
4 <sup>th</sup> Growing Season	Planting should be weed-free and only require monitoring by the crew.





# Middle Rock Conservation Partners

*Nachusa Staff and Volunteers Help Launch a New Conservation Group*



A vital new conservation group in Ogle and Lee counties is dedicated to protecting and managing wildlife habitat for species in greatest need.

Middle Rock Conservation Partners (MRCP) was founded in April 2017. MRCP are people with a passion for protecting natural resources: our water, soil, air, plants, and animals. We share a concern for the health of our planet and we are taking constructive action.

The group formed from a decade of informal partnering among agencies, landowners, and volunteers, all focused on improving natural areas in Lee and Ogle counties. The original effort was initiated through the National Wildlife Conservation and Restoration Program.

We see an opportunity to have a far greater impact than what we had with the loosely organized predecessor group. Incorporation allows the group to receive tax-deductible donations, to be eligible for a far wider array of grants and other funding opportunities, and to take ownership of key sites.

MRCP's mission is to (1) encourage and conduct conservation stewardship, especially prescribed fire and weed management; (2) build strong relationships between members and their affiliated organizations that will benefit natural resources and encourage personal growth for participants; (3) protect sites of significance through purchase for short or long-term ownership.

To volunteer or learn more, visit the website: [www.middlerockconservationpartners.org](http://www.middlerockconservationpartners.org).

## An Extraordinary Legacy

*Everybody needs beauty as well as bread, places to play in and pray in, where Nature may heal and cheer and give strength to body and soul alike. ~John Muir*

Carol and Paul Soderholm can attest to the power nature has on mind, body, and soul. Over the past several decades they have created a remarkable place called the Edward F. Vassallo Land and Water Reserve, named in honor of Carol's son. In the fall of 2017, they gifted the 130-acre reserve to The Nature Conservancy, along with an endowment to help manage the property. Their vision and legacy ensures this special place will provide future generations "a place to play in and pray in, where nature may heal and cheer and give strength to body and soul alike."



ALL PHOTOS © DEE HUDSON/THE NATURE CONSERVANCY



# Friends of Nachusa Grasslands

BY BERNIE BUCHHOLZ



Since 2008, the Friends have pursued goals with the same whole-hearted dedication required for successful prairie restoration. Like plantings, positive results are gradually emerging.

## Encouraging Stewardship

Volunteers are the heart and soul of prairie restoration at Nachusa. Using social media, we have greatly increased our recruitment efforts. New volunteers join our veterans to participate in Saturday workdays. Our stewards greet and orient the new recruits during workday mornings. As a result, many novice volunteers go on to participate in workdays year-round.

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

## Preparing for a Secure Future

Friends of Nachusa Grasslands is 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 primarily going toward Nachusa's

operations. We are pleased to report that we are nearly halfway to our goal.

## Awarding Science Grants

Friends of Nachusa awards grants to qualified candidates conducting scientific research significant to habitat restoration and management practices. In October 2017, Friends sponsored its third science symposium. An enthusiastic crowd attended the event. There were presentations by our recent grant recipients and past Nachusa researchers. The symposium was held at the Nachusa Headquarters Barn.

In January 2018, thanks to a challenge grant and the generous support of individual donors, \$40,000 was divided in varying amounts among 12 researchers. Their work will delve into studying bison, Blanding's turtles, bees, butterflies, grassland birds, and more topics. For more details on these research projects, please visit our website.

## Supporting Friends

Please help keep Nachusa Grasslands flourishing. Consider volunteering or supporting us financially through donations. You can also become a "Heritage Hero" by including Friends of Nachusa Grasslands in your estate plan. For options, please visit our website.



© TIM NGO

**STEWARDSHIP: Saturday Workday**



© DEE HUDSON/THE NATURE CONSERVANCY

**SCIENCE GRANTS: Blanding's turtle**



© DEE HUDSON/THE NATURE CONSERVANCY

**FRIENDS ANNUAL MEETING**

## Save the Dates!

**June 16** . . . . . Prairie Potluck

**July 28** . . . . . Annual Meeting

**October 20** . . . . . Science Symposium

## Follow us on Social Media

### Facebook:

- Friends of Nachusa Grasslands
- Photography at Nachusa Grasslands

**Twitter:** @nachusa

**Instagram:** nachusa

## Connect with Us

Sign up for PrairiE-Updates:  
[nachusagrasslands.org/newsletters](http://nachusagrasslands.org/newsletters)

**Website:** [nachusagrasslands.org](http://nachusagrasslands.org)

**E-mail:** [NachusaGrasslands@gmail.com](mailto:NachusaGrasslands@gmail.com)

**Phone:** 708.406.9894



# Meet Nachusa Stewards

BY MARK JORDAN

Nourished by the fresh air and the beautiful, ever-changing scenery, Nachusa's stewards work alongside one another as advocates for land conservation. Meet three incredible volunteers that contribute to the story of Nachusa.



© JAMES HIGBY

## BETTY HIGBY

Betty grew up on a small dairy farm at the end of Nachusa Road, which was adjacent to a railroad track lined with intriguing acres of what she now recognizes as being remnant prairie.

She and her husband Jim have lived in Dixon since their marriage in

1968. Betty enjoyed 15 years teaching in the public schools and in a Montessori school, followed by 26 years in technology, retiring in 2008 as Director of Systems and Strategy for a large insurance company.

In 2010 Betty discovered Nachusa Grasslands. A little time with stewards Jay Stacy, Mike Adolph, and Bernie Buchholz, and an invitation to join veteran stewards Hank and Becky Hartman in their work—and she was hooked!

Betty continues to work with Hank and Becky, and is now also steward of her own unit, the smaller knob just West of Leopold Knob, fondly called Little Aldo. Betty's work on Little Aldo is two-fold. First, she removes the tenacious invasives such as red clover and bird's-foot trefoil. Second, Betty studies the remnant vegetation growing atop Little Aldo to determine the species needed to restore the aprons and draws of this knob. Her goal is to restore these remnant aprons with the diversity of native plant species that would have been present during presettlement.

## CHARLES LARRY and EMMYLOU STUDIER

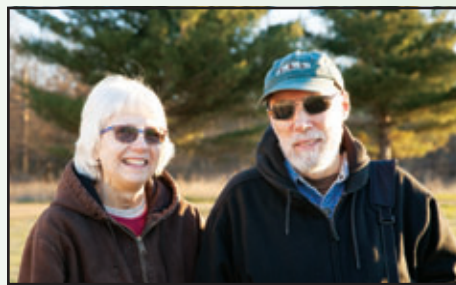
In 1992 Charles Larry and Emmylou Studier drove from their home in Dekalb to first visit Nachusa Grasslands. At that time, it was about a quarter its

current size, and both Charles and Emmylou were working at Northern Illinois University. Charles was a librarian and Emmylou a credential analyst. On a hike at Nachusa on September 2, 2007, they encountered Hank and Becky Hartman, who told them of the need for volunteers to conduct a restoration monitoring project called Photo Points. Following a tour and an introduction to the restoration process by Bill Kleiman, Charles and Emmylou volunteered and are now regulars at Nachusa.

Charles continues to photograph and Emmylou occasionally volunteers at Saturday Workdays. Emmylou completed Master Naturalist training at the University of Illinois Extension and has become the steward of the Coneflower East Unit, where she seeds and weeds for the enhancement of the area. Charles monitors and repairs the bison fence enclosures, which allows him opportunities to photograph the beauty and diversity of Nachusa. His photos are frequently found on the Friends of Nachusa Grasslands website and Facebook page, the Photography at Nachusa Grasslands Facebook page, and in The Nature Conservancy in Illinois' newsletter.

Along with their stewardship skills, all three of these stewards have more to offer the prairie. Charles and Emmylou bring artistic perception, while Betty's writings, drawings, and paintings capture the wonder and beauty of the prairie plants and landscape. Betty also is a major planner and organizer for the annual Autumn on the Prairie event.

Emmylou, Charles, and Betty exemplify the words of Pope Francis, "We are stewards, not masters of our earth. Each of us has a personal responsibility to care for the precious gift of creation." Betty says, "Having this opportunity feels like coming full circle, building on the botanical interests that were nurtured during those early years on the farm and on that little remnant tall grass prairie nestled



© DEE HUDSON/THE NATURE CONSERVANCY

next to it. It is heartening to have the beauty of what I love now be what I do." Charles and Emmylou add, "We are fortunate to be part of such a grand project." And Nachusa is fortunate to be cared for by Betty Higby, Emmylou Studier, and Charles Larry.



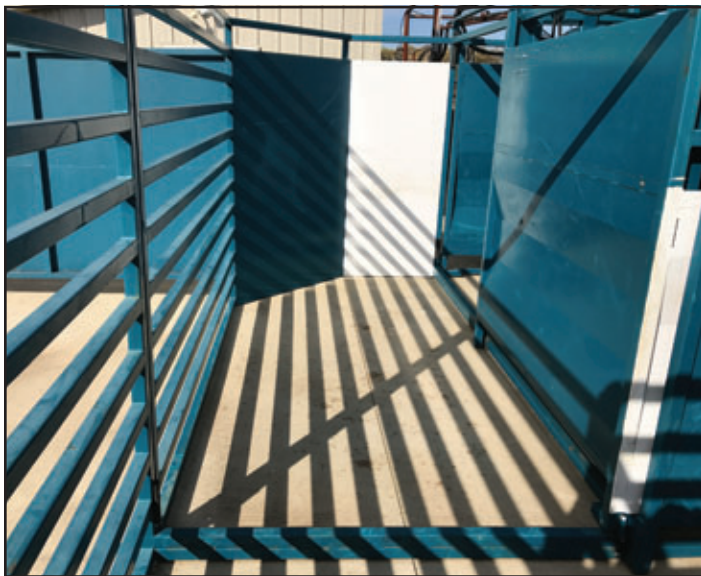
# You Can Lead Bison to the Corral . . .

*But You Can't Make Them Go In*

BY CODY CONSIDINE

“Resilient” is how I would describe the 2017 bison roundup team. Here is an example of one of the challenges they faced that day: the absence of clouds made for a beautiful day, but the sun cast shadows throughout the corral. As a result of the interplay between light and dark, the animals were very reluctant to enter the cube (area of corral leading into the chute). The photo below illustrates how dramatic the shadows can look to bison.

The shadows create an illusion on the ground resembling a cattle guard, which bison know they



© CODY CONSIDINE/THE NATURE CONSERVANCY

cannot cross. Temple Grandin, in her *Humane Livestock Handling Book* writes “...a distracting detail like a daily patch of sunshine in the main alley can cause animals to balk or turn around . . . The wrong lighting can ruin the performance of a well-designed facility.” At a recent conference I had the opportunity to consult with Temple in person; I showed her the photo (left) and described what the animals were doing. Without hesitation she said, “Nope, those animals will not go in!”

This year we learned how shadows affect bison behavior. In the future, when we can afford to make changes, we will improve our operations.

We plan to build a roof over the working area and install lighting within the cube and squeeze chute to eliminate the potential for shadows. The roof will also allow us to work safely during inclement weather.



© CODY CONSIDINE/THE NATURE CONSERVANCY

Cody leads the bison into the corral with the cube feeder.

## CURRENT HERD

<i>Roundup</i> . . . . .	95
<i>Bulls</i> . . . . .	43
<i>Cows</i> . . . . .	54
<i>2017 Calves</i> . . . . .	22
<b>Total Bison</b> . . . . .	<b>100</b>

## 2017 Restoration Technicians



© DEE HUDSON/THE NATURE CONSERVANCY

Summer Crew. L-R: Phil Nagorny, Sandra Vaughn-Pottorff, Cody Cassidy, Kaleb Baker, Avery Parmiter, Nathaniel Weickert, Sebastian Schafer (volunteer), and Leah Kleiman (volunteer)



© BILL KLEIMAN/THE NATURE CONSERVANCY

Fall Crew. L-R: Phil Nagorny, Cody Cassidy, Leah Kleiman (volunteer), Daniel Crosby, Avery Parmiter, Nate Scott, Nathaniel Weickert, and Sandra Vaughn-Pottorff



# 2017 Donors

## To The Nature Conservancy's Nachusa Grasslands

### **\$500,000+**

Ms. Susan L. Christensen\*  
Hamill Family Foundation  
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### **\$99 and under**

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Genevieve and Robert Jarosz

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Old Field Goldenrod

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