

Grassroots Conservation in Action

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The Species Conservation Project

By Jim Rachuy

n 2014, the Northwest Illinois Prairie Enthusiasts undertook a new conservation project for Jo Daviess County, the Species Conservation Project (SCP). For over 20 years we've been creating new prairies and savannas. Now we will also work to create three or more safe populations of every native prairie plant on protected, well-managed sites, in Jo Daviess County. This will be very difficult to do, but it is a goal worthy of our efforts.

To grasp the scope of the problem, consider the following. There are 617 prairie and savanna plants native to Jo Daviess County. Of these:







All photos by Jim Rachuy

• 174 species are now safe, over 80 due to our previous efforts

For example, in 1985 there were only a half dozen rattlesnake master (*Eryngium yuc-cifolium*) plants growing in Jo Daviess County. Today, there are thousands. All of them growing on our prairie restorations.

 127 species are not now safe, but can be made safe in the short-term

For example, there are now several populations of white prairie clover (*Dalea candida*). But all of these are too small to be stable and/ or are located on unprotected sites. Generally, a population needs at least 100 individuals to be considered safe—and the site needs to be well-managed.

 126 species can be made safe, but it will take a long time

For example, cream indigo (Baptisia bracteata leucophaea) lives at three protected sites in the county. However, there are so few plants that there's not enough seed to include it in our restoration projects. This plant requires "seed amplification," that is, growing more plants horticulturally to increase the supply of seed.

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Our Mission

The Prairie Enthusiasts seek to ensure the perpetuation and recovery of prairie, oak savanna, and other associated ecosystems of the Upper Midwest through protection, management, restoration, and education. In doing so, we strive to work openly and cooperatively with private landowners and other private and public conservation groups.

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Grassroots Conservation in Action

Chris Kirkpatrick, Executive Director

This winter the Board of Directors approved the 2016-2018 Strategic Plan for The Prairie Enthusiasts. Probably the most essential goal in the new plan is to support each of the 11 chapters by implementing the core programs of TPE in their communities. One new goal focuses on education and outreach efforts. This exciting opportunity will bring added support to each of our chapters. We are gearing up to improve our communications by launching a new website this spring. At the same time, we are developing a strategy to share the amazing work happening at the chapter level on the new website, in the *Prairie Promoter*, as well as in regular e-news and on social media. This winter the Board decided that a very intentional tweak to our tag line would exemplify these new and expanding communications methods. This slight yet significant change now gives us *Grassroots Conservation in Action*.

The TPE staff has heard you, the chapters, and continues to seek ways to improve support for these needs. Diane Hills, the Volunteer Coordinator for the Empire-Sauk Chapter, has also had a significant influence on our working relationship with the chapter. Her input has resulted in more involvement and name recognition for local communities through effective outreach events and activities. This has translated into more volunteer and member involvement and is making a significant impact at the chapter level. This grassroots effort manages more remnants, protects more prairies and shares our knowledge and experience with a wider audience. It exemplifies *Grassroots Conservation in Action*.

Currently the TPE Board is working to expand this level of support, outreach and engagement with all chapters. We are in the process of visiting each chapter and discovering what local opportunities and challenges exist that would benefit from the new communication tools being implemented. In addition, we want to hear what potential benefits a staff person working at the organizational level can bring to each chapter. The ultimate goal is to bring in more volunteers and members to the exciting work of each chapter and share the enthusiasm that all of us have when we connect and care for the land. We encourage everyone to participate and attend these chapter meetings. Let us hear what you think of these ideas, tell us your thoughts and needs, and let us help inspire everyone to *Grassroots Conservation in Action*.

Photo Credits - Jerry Newman (front page), Dennis Graham (back page)

President's Message

Jack Kussmaul

s most of you are aware, The Prairie Enthusiasts is a volunteer-driven organization. We have paid staff to handle all of the things required of any large non-profit organization, such as filling out government reports, applying for and administering grants, doing mailings, working with chapters to plan the annual conference, orchestrating fund raising, coordinating volunteer monitors, maintaining a website and handling record keeping. We need volunteers, however, to do the bulk of what TPE does. Here are some of the ways you may volunteer:

Work Parties. For most members this is the fun part of being part of this organization. Work parties go out to properties on a regular basis and cut brush, do burns, attack invasives, harvest seed, plant seed and do everything else required to maintain the properties as natural areas. It is a chance to be outdoors on a beautiful property spending time with like-minded friends. If you are not sure how to get involved, contact your chapter president who can tell you what work parties are coming up. Of course, if you would like to lead a work party, that would be even better!

Monitoring. All of our sites, whether easement or TPE-owned, are required to be monitored each year. The monitors visit the property and prepare a written report describing, among other things, encroachments, potential problems, changes in the property and of course what is going right. We ask that all monitors stay with a property for at least a few years to become familiar with it. If you wish to

take on a property to monitor, contact Chris Kirkpatrick. We are in need of new and additional people.

Newsletter Articles. Now that the Prairie Promoter is in color it is probably going to draw a lot more attention. If you have a story you think would be of interest to the TPE membership, write an article and submit it to the editor, currently Scott Fulton.

Accreditation. Preparing our application for accreditation is going to involve an enormous amount of work. Much of it involves going through, copying and organizing records. For example, we need to show board approval for the acquisition of all of our sites. This means taking the time to go through minutes and flagging the applicable pages. Things like this can be done by volunteers. If you would like to assist in this process, contact Chris Kirkpatrick.

Host an Event. This might consist of leading a tour of your favorite property or it could be a promotional event, such as the screening of the film "Prairie Enthusiasm!" It could be a fund raising event, such as a wine and cheese tasting – perhaps on the prairie. The options here are limited only by your imagination.

Presumably you have joined TPE because you care about saving natural areas. Now that you have joined, how about taking the next step and becoming a volunteer? I think you will enjoy both the activity and the people. Equally important, you will have the satisfaction of knowing that you are doing something of importance.

2016 Prairie Enthusiasts Photo Contest

Joe Rising

The 2016 TPE Photo Contest was held as part of the Annual Conference on February 20. The overall winner was Joshua Mayer with a photo entitled "Dickcissel on Compass Plant". The winning shot (which will be used on the cover of the 2015 Annual Report) was taken at Erbe Grasslands. Josh shared this story about his photo:

"It was my first time at Erbe, and, after taking several



photos of the flowers in the young prairie, I ventured deeper into the site and heard the dickcissel calling. I took a few photos, crept closer, took a few more and kept doing that. I liked how he perched on top of the compass plant that stood high above the prairie. The bird really put on quite the show.

I enjoy taking photographs, and I hope that others may get some enjoyment from viewing them. I also hope that my photographs may inspire others to get out there and take their own photographs as well."

Josh also said "I support TPE because I truly believe in the work that it does. You can tell that everyone involved cares deeply about the work to be done to protect these natural areas for future generations."

The TPE membership, voting at the Conference, chose the photo from a field of 6 finalists, all of whom received many votes. In all, 52 photographs were submitted by 18 photographers. Together they captured many of the wonders and much of the beauty of prairie life.

The other contest finalists were:

- Baltimore Checkerspot Joshua Mayer
- Child Enjoying Black Earth Prairie Joshua Mayer
- Great Spangled Fritillary Harvey Halvorsen
- Hummingbird on Hill's Thistle Gary Eldred
- Invasive Sumac Control Dennis Graham

Thanks to all who participated in the 2016 Photo Contest. We hope to see such great participation again next year!

One Plant at a Time - Milkweed

Marci Hess and MJ Hatfield

[Editor's Note - All photos in this article are by Marci or MJ. A PDF version of The Prairie Promoter is available on the TPE website with live links to the BugGuide references given.]

t is wonderful that monarchs and their corresponding host plants, milkweeds, are getting the attention and grant money they deserve. Yet there are a number of insects that utilize milkweeds and depend on them for various reason; many of these are less well known by the general public. By planting, encouraging and appreciating milkweeds, folks will be helping these insects, too.

Do you know how many types of milkweed are in your area? Can you name them?

There are some unique characteristics of milkweeds making it an intriguing plant. Milkweeds contain cardiac glycosides which are toxic to humans and mammals. Insects can sequester these in their systems, making them unpalatable to their predators. This chemical is usually in a low enough dose that it does not kill the bird or mammal but will make them vomit. Often it only takes once for these predators to learn not to do that again! Our article in the last Prairie Promoter touched on this aspect in insects and now we find it in plants, too. Defensive systems are pretty remarkable. Do you think the plant or the insect evolved this defense first?

Another characteristic plant defense is the white, milky sap that exudes when a leaf or stem is cut. Longhorn milkweed beetles are able to feed on milkweeds and dogbanes despite the latex secretion oozing from the leaves when they are cut. The beetles sever the midvein of the leaf, disconnecting its flow to the rest of the leaf. Once this is done, the beetles can freely nibble on the leaf tips without fear of having their mandibles glued shut with this sticky protective substance. (Eisner, 2003, p284)



Leaf nibbled by Tetraopes tetrophthalmus (Red milkweed beetle)

"The cerambycid genus *Tetraopes* is the most diverse of the new world milkweed herbivores and the species are generally host specific, being restricted to single, different species of *Asclepias*, more often than most other milkweed insects" (Farrell 2001) *Tetropes* produce one generation annually. Eggs are laid at the base of the stem or into a cut in the stem. Either way, the larvae migrate to the roots, boring into the plant stem if the eggs weren't laid there. The adults feed on the leaves, flower buds, or blossoms.

Some of the other Tetraopes species you might find are:



Tetraopes annulatus http://bugguide.net/node/view/1026474



Tetraopes femoratus http://bugguide.net/node/ view/247096

Another beetle whose larvae participate in the vein cutting prior to feeding is the Swamp Milkweed Leaf Beetle (Labidomera clivicollis). Common names can be misleading as this beetle is not host-specific to swamp milkweed.



Labidomera clivicollis (Swamp milkweed leaf beetle) preparing to feed. http://bugguide.net/node/ view/893668

The Milkweed Stem Weevil (Rhyssomatus lineaticollis) feeds on the stems of common milkweed (Asclepias syriaca) and oviposits there as well. An interesting comment I read on BugGuide is that the scar length the female cuts for ovipositing is an "accurate predictor of the number of eggs laid by the adult female." Can you imagine being able to measure the slit and count the eggs laid by a 6mm insect?



Milkweed stem weevil (Rhyssomatus lineaticollis) http://bugguide.net/node/ view/492396

Milkweed leaf-miner fly (Liriomyza asclepiadis) larvae feed on the foliage of milkweed. As the name implies, they "mine" between the outer layers of a leaf, leaving colorless mines that often turn brown. Leaf-miners are interesting because one can usually tell who the insect is by the characteristics of the mine and the type of plant being mined; even the frass pattern is unique enough to offer an ID for

leaf-mining insects. Charley Eiseman and Noah Charney have a great book, *Tracks and Sign of Insects*, which show pictures of various leaf-mining activity. More photos of the larvae and the blotchy leaf-mining pattern of the *Liriomyza asclepiadis* can be found on BugGuide.



Liriomyza asclepiadis *larvae* http://bugguide.net/node/view/1177987



Liriomyza asclepiadis adult http://www.boldsystems. org/index.php/Taxbrowser_ Taxonpage?taxid=520970

Some of the more commonly found insects are the milk-weed bugs in the *Lygaeidae* family - the small milkweed bug (*Lygaeus kalmii*) and the large milkweed bug (*Oncopeltus fasciatus*). The following pictures show these insects at different stages of nymph growth and highlight their clustering habit.







Above left: Small milkweed bug (Lygaeus kalmii) http://bugguide.net/node/ view/886057

Above and right (3 photos):

Large milkweed bug

(Oncopeltus fasciatus)

http://bugguide.net/node/view/887519



In the Hemiptera order there is an aphid that uses milkweeds, the oleander aphid or milkweed aphid (Aphis nerii). The Natural History of Orange County California has fascinating pictures of various stages of this aphid, including one in the process of molting.



Milkweed aphid (Aphis nerii) http://bugguide.net/node/view/734078
See also http://nathistoc.bio.uci.edu/hemipt/Oleander-Aphid.htm

It seems no matter what plant we pick, there's a moth or two that use it! The moths sequester the secondary metabolite (compounds not directly related to primary functions) of the milkweeds, making them unpalatable to bats. Dogbanes have this same chemical; the *Euchaetes egle* (Milkweed tussock moth) is munching a dogbane leaf in the photo below. The bright colors of the caterpillars warn predators of their bad taste, but the adults warn with clicking sounds (Simmons and Conner 1996). Tussock moths are not to be handled without protection; they have urticating hairs between the soft ones which can irritate your skin. *Cycnia collaris* is a tiger moth who feeds on milkweeds; its caterpillar is a brilliant orange while the adult is white with a bright yellow edge.



Euchaetes egle caterpillar munching on a dogbane (Apocynum sp) leaf.



Euchaetes egle skeletonizing a milkweed. These are earlier instars (developmental stage) than the single one to the left.



Cycnia collaris http://bugguide.net/node/ view/486058

Pollinators of milkweeds are diverse, ranging from bees, wasps, flies, ants to beetles. To ensure they are pollinated sufficiently, milkweeds have a mechanism in their flowers allowing them to capture and trap an insect for a period of time (Jolivet, 1998, p189). This trapping is caused by a sticky substance and results in the pollinia sac attaching to the insect. The larger insects can carry this sac to the next plant, completing pollination. Small insects can suffocate if they cannot get free from this. Many of these smaller insects are careful and only dip their tongues into the blossoms. Have you found an insect caught inside a milkweed blossom?



A Geometrid moth stuck on a milkweed blossom. http://bugguide.net/node/view/1184772



Augchlora sp on Asclepias syriaca

We did not include the monarch (Danaus plexipllus) in this article because most of you are familiar with them. The Xerces Society has many good resources about this butterfly and its relationship to milkweeds; one in particular is an article in their 2011 newsletter, Wings. A PDF can be accessed via this link: http://www.xerces.org/wp-content/uploads/2008/06/Wings_sp11_milkweed.pdf

Spring is around the corner! We're hoping this kindles some excitement and you'll enjoy exploring milkweeds in more detail.

Resources

Eisner, Thomas. 2003. For Love of Insects. Cambridge: The Belknap Press of Harvard University Press.

Farrell, B.D., 2001. Evolutionary Assembly of the Milkweed Fauna: Cytochrome Oxidase and the Age of Tetraopes Beetles. Molecular Phylogenetics and Evolution 18(3): 467–478.

Jolivet, Pierre. 1998. Interrelationship Between Insects and Plants. Washington DC: CRC Press.

Simmons RB, and WE Conner, (1996). Acoustic cues in defense and courtship of Euchaetes egle Drury and E. bolteri Stretch. Journal of Insect Behavior 9: 909–919.

Species Conservation Project continued from page 1

Alternatively, we could buy seed but at a cost of 55 cents per seed. Still, it will be 8-10 years before these plants mature sufficiently to produce seed.

190 species lie somewhere beyond our present abilities or resources to make safe

For example, whorled yellow loosestrife (Lysimachia quadrifolia) was found at one site ten years ago and is no longer there. Downy yellow foxglove (Aureolaria grandiflora pulchra) is extremely rare and parasitic on the roots of oaks trees; no one knows how to grow it. Hoary puccoon (Lithospermum canescens) has one good site, but the seeds are very difficult to collect, you can't buy the seed and no one knows how to grow this one either.

Obviously the Prairie Enthusiasts' "Species Conservation Project" will be technically difficult and take years to complete. Nonetheless, we're moving forward. We've created:

- Three gardens just for native prairie plants. These are used for public display and for seed augmentation. The results have been moderate but very useful. We could use many more of these, but required labor is daunting.
- Two "plug gardens," that is, plots with thousands of home grown plugs overseeded with a regular mix of prairie seed. These have been near complete failures. The plugs, we discovered, couldn't compete with the other plants starting from seed.
- Twelve "short prairie plots" varying from 400 to 4,000 ft. These plots have a few carefully chosen Eurasian grasses (as background) and one or two small native species. The goal is to turn scattered, hidden, little plants (which are difficult to collect seed from) into easy, reliable seed sources. More

- short prairie plots will be needed for savanna, sand, and wetland species.
- Fifty-three "Species Conservation Plans" that detail how to conserve a single species. Each plan includes a description of the current status of the species, a list of restrictions on how the seed can be used, a list of actions to be taken to improve its status, and a journal of our conservation efforts. Each year we'll create 50 more plans until all are completed.
- 108 tasks to be completed this fall and next spring. Many of these are overseedings (moving a limited amount of seed from one place to another) designed to expand existing populations. Other tasks involve monitoring threatened populations, inventorying sites for rare plants, and dealing with threats to existing rare plants.

Sites receiving Species Conservation Project seed this year include Casper Bluff, Hanley Savanna, Horseshoe Mound, Lonetree Farm (rural Stockton) and Wapello Preserve, both in natural areas and in numerous special plots.

Next year, we'll start using plasticulture—planting plugs into landscaping fabric—to speed up the production of rare seed. Our newest plot will be located at Lonetree Farm and





will be fenced, partly shaded for growing savanna plants, cover around 6,500 ft, have an automated watering system and be designed to last decades.

If you have gardening skills and a yen to help Mother Nature, stay tuned. There will be plenty of opportunities to help. Hopefully, within a decade, we'll be able to provide good homes for another 150 species of native prairie and savanna plants.

Here are some additional statistics about the plants the Northwest Illinois chapter works with:

- Number of species used in seed mixes = 147
- Number of species used in overseedings = 162
- Number of species not used for either = 308

How common are these species?

	Few	Some	Many	Total
Rare	137	125	53	51%
Occasional	64	113	85	42%
Common	3	34	3	7%
	33%	44%	23%	617 species

That is, over half of the plants that NIPE works with are rarely encountered and three-fourths of those sightings are of just a few individual plants.

How conservative are these species?

	Species	Percent
Pioneer (weedy)	29	5%
Colonizer (after the weeds)	79	13%
increaser (under stress)	161	26%
Decreaser (under stress)	159	26%
Conservative	189	30%

That is, we work with 29 "antique weeds" and 79 "matrix" plants needed to create a new site, but more than half of our species can grow only in mature natural areas. Hence...the Species Conservation Project.

Historic Plants of the Prairie Bluff Chapter

By Tom Mitchell

A few plants have come to our attention during the 2015 growing season that have interesting histories at the Wisconsin State Herbarium in Madison.

One fine day in May we were out weeding at Muralt Bluff Prairie when we spotted a plant we thought might be an



Prairie dandelion (Microseris cuspidata) Photo by Steve Hubner

early goat's beard. Taking a closer look, Steve Hubner said no, this is prairie dandelion, (Microseris cuspidata, C=9), a plant of special concern in Wisconsin that has been found in only eight counties. It had most recently been spotted at Muralt by Jared Urban of

the WI State Natural Areas crew, in the same location and also a spring after a prescribed fire. We had seen it only once before, at Rock River Prairie where Rob Baller and Peg Bredeson had marked the location of a few plants. The Wisconsin State Herbarium cites six specimens from Green County, all collected on June 30, 1933, by Alvin L. Throne, from a "dry hill" near Albany. Mr. Throne (1897-1975) was a notable scientist who taught biology at Monroe High School in 1923-24, and then spent 39 years at UW-Milwaukee and its predecessor institutions.

An uncommon plant that drew the attention of photographers at Muralt in May was Seneca snakeroot (*Polygala senega*, C=8), which has increased in numbers as a result of our mowing an aspen clone. This white-flowered member of

the milkwort family, a perennial, was used by Native Americans to cure snake bites. Ted Cochrane collected it at this spot in 1988 and his herbarium notes that it was found "near woods" with needle grass, blue-eyed grass, prairie violet, shooting stars and smooth blue aster.



Pink milkwort (Polygala incarnata) Photo by Steve Hubner

An exceedingly rare pink milkwort (Polygala incarnata, C=10) occurs at our Vale Prairie and just two other sites in Wisconsin, according to Cochrane & Iltis. The first herbarium specimen was collected in Crawford County on August 8, 1914, by R.H. Denniston near Bridgeport, and the next populations were found near Arena in Iowa Country in 1924 and 1928. The specimen from Vale was collected September 19, 1992, by Rose Sime, photogaphed by Jim Sime. The herbarium notes: "last

seen here in 1977 by Gary Eldred." We have seen a few plants in the same area the last two summers. Much more common at Vale Prairie are *Polygala polygama*, purple milkwort, and *P. sanguinea*, field milkwort. These three purple, pink or red milkworts are either annuals or biennials.

The most photographed plant of the past two summers at Muralt is a robust butterfly milkweed (Asclepius tuberosa, C=6) growing close to the walking trail. One of the few



Butterfly milkweed (Asclepias tuberosa) Photo by Jerry Newman

orange-colored plants in nature, a state herbarium specimen was collected in July, 1943, by Mr. Throne near Browntown. The butterfly weed flowers at about the same time as Hill's thistle, Circium hillii, C=7, a threatened plant in Wisconsin that is fairly common at Muralt Bluff. One thistle plant in May and

June produced 11 flowering heads. The first of eight Green County herbarium specimens of this thistle was collected in July, 1927, near Brodhead by J.J. Davis. Precise locations are not disclosed because of the plant's rarity. Mr. Davis was the herbarium's curator from 1911 to 1937.



Eastern tiger swallowtails (Papilio glaucus) feeding on Hill's thistle (Circium hillii). Photo by Jerry Newman

Plants that are easy to see during the flowering phase, but more difficult to find at seed collecting time, are Lobelia spicata (pale spiked lobelia, C=6), Linum sulcatum (grooved yellow flax, C=8) and Sisyrinchium campestre (blue-eyed grass, C=7). All are found occasionally at Butenhoff Prairie, Vale Prairie, Iltis Savanna and Muralt Bluff Prairie. One of the earliest Green County collections of the lobelia was made in July, 1956, by L.D. Baird at a site he called Dodecatheon Bluff, a "virgin high lime prairie," that today we know as Oliver Prairie, owned by the University of Wisconsin and managed by Mike Hansen and the UW Arboretum crew. The flax plant is a yellow-flowered annual, say Cochrane and Iltis, the only native member of the flax family found in Wisconsin. There is a mounted specimen in the Birge Hall herbarium in Madison that was collected in August, 1958, by E.W. Fell at a site in Section 35 of Mt. Pleasant Township "between Hwy 59 and 39," according to the notes, "on a high gravel prairie." Egbert W. Fell authored the Flora of Winnebago County,

Illinois, in 1955, and was the father of George B. Fell, who was the founder of the The Nature Conservancy (1950), Natural Land Institute (1958), Ilinois Nature Preserves (1963) and the Natural Areas Association (1978). Both Fells belong in a prairie hall of fame.

Common blue flax (Linum usitatissimum) was once frequently grown and economically important in southern Wisconsin for its seed and fiber, and can still be seen in old fields and along the County FF roadsides near the entrance to Butenhoff Prairie. Flax seed oil, also known as linseed oil, was the plant that led to the invention of linoleum in 1860 by Frederick Walton. Linoleum was a universal floor covering for American homes and businesses from the 1870s through the 1970s. Today it is becoming popular again today since it is naturally-occuring and more eco-friendly than vinyl floorings that replaced it. Linen is a textile made from the fibers of L. usitatissimum.

Blue-eyed grass was abundant in a burned area at Muralt this spring, occurring with shooting stars, yellow star-grass, bird's foot violet, prairie violet and violet wood sorrel. Early collections of Sisyrinchium campestre (C=7) in Green County were made by N.C. Fassett on May 26, 1929, and F. Hamerstrom, on May 28, 1938. The Fassett specimen is from a dry bluff at Stewart, with this herbarium note: "Can't find this place name in Green County." Prairie enthusiasts know that Stewart is an early name for Postville, located in the Town of York, the site of Green's Prairie Cemetery, and everyone knows Norman Carter Fassett (1900-1954) as the author of Spring Flora of Wisconsin, a professor of botany at UW and a curator of the Herbarium from 1925 to 1954. The Hamerstrom specimen (from Attica) could have been collected by either Fred or Frances, who were married in 1931. Both spouses were students of Aldo Leopold in 1938 at UW-Madison. Their work with prairie chickens and northern harriers is world-renowned in both science and literature. Chapter members David and Sarah Aslakson found this plant on their remnant hillside that was burned in the spring and called it "prairie iris," since it is of course an iris, not a grass.

When our chapter was studying the sedges with John Larson and Nathan Gingerich is early June we were rained out after visiting Abraham's Woods, so we did not get a chance to key out any of the prairie species. However Carex meadii (Mead's sedge, C=6) is abundant on our dry prairie sites. When Ted Cochrane visited Muralt Bluff in May of 1988 he called this sedge "the dominant ground-layer plant at this season." William Tans collected it at Oliver Prairie in 1973 and Andrew Williams gathered specimens at Vale Prairie in 1994.

Northern plains blazing-star (*Liatris ligulistrylis*) is of interest since it is a favored plant of the monarch butterfly, and we are participating in a U.S. Fish & Wildlife Service grant called the Monarch Butterfly Initiative. Cochrane and Iltis in their 2000 Atlas of the Wisconsin Prairie and Savanna Flora call this member of the sunflower family "most abundant in mesic prairies, especially deep soil railroad prairies." So it is no coincidence that the two Green County records of this plant in the UW Herbarium were collected from the railroad right-of-way east of Juda; the first in September, 1956, by H.C. Green and John T. Curtis, and the second by Mr. Green in August of 1961. While probably not suitable for our dry prairies, it would be appropriate for the wetter Barry

Prairie in Monroe's Honey Creek Park.

The showy plant called blue lettuce (*Lactuca floridana*, C=5) was prominent in August along the woodland border at Muralt Bluff. The first herbarium specimen collected in Green County came from Monroe on August 20, 1931, courtesy of Mr. Throne. Swink & Wilhelm list some associates of this plant as giant purple hyssop, arrow-leaved aster, tall bellflower, silky wild-rye and white snakeroot; all of which we found nearby.

There are nine asters on the plant lists for Muralt Bluff including Aster linariifolius (stiff aster, C=8) perhaps the least common and most striking of this beautiful, mostly blue genera. The UW herbarium has seven specimens of this aster from Green County including one collected August 23, 1978, by Elizabeth Souter at Muralt. Ted Cochrane collected specimens for the herbarium in 1964 (from Ten Eyck's sand bluff along Sugar River) and in 1978 from the Monticello Rock Outcrop, a site that is now completely overgrown by trees and brush.

A striking fall flower that has never been seen on any TPE sites in Green County, but occurs at Oliver Prairie, is the white orchid lady's tresses. There are two closely related species, *Spiranthes cernua* (nodding lady's tresses, C=5) and *S. magnicamporum* (Great Plains lady's tresses, C=8). Prairie enthusiast Steve Hubner found the more conservative plant along the Cheese Country Trail, formerly the railroad tracks, west of Browntown in September, 1989, and sent a specimen to the herbarium.

One of the warm-season grasses at Muralt Bluff is prairie satin grass (Muhlenbergia cuspidata C=10) described by Cochrane and Iltis as an element of the "northern Great Plains shortgrass prairies and steppes" that is found "scattered in southern Wisconsin just beyond the Wisconsin terminal moraine in Dane and Green counties." Green County specimens in the herbarium include one from the "Muralt Farm" collected in October, 1973, by William Tans, one collected by John T. Curtis in 1948 from a site one section south of Muralt, others from Vale and Oliver Prairies, and the earliest from 1931 by N.C. Fassett from a "crumbling sandstone bluff" near New Glarus. It also occurs at York Prairie.

Here is an example of how a plant can change your life, an epiphany involving prairie satin grass, from Swink & Wilhelm's Plants of the Chicago Region, as described by Gerould Wilhelm: "Until October 17, 1972, this species had not been documented locally since the very early collections made by the Rev. E.J. Hill in Will County. At that time (1972), the junior author, a mere lad at the time who knew virtually nothing about botany, remembers watching Ray Schulenberg, who had not seen the plant in all his life, discover Prairie Satin Grass along the bluff of the Des Plaines River near Lockport. Ray stopped, and stood transfixed. Then he knelt beside it and gazed appreciatively at the ineffable autumn beauty of the tussocks of this rare native grass. Consulting the senior author's first edition right there in the field, he read to me about its history. That was the day the junior author, who stared awestruck and slack-jawed, began to study botany." Mr. Wilhelm is one of the originators of the coefficient of conservatism, C=n, that is used to denote a species' fidelity to undisturbed natural areas, and is the basis for floristic quality assessments (FQA).

Among the earliest herbarium specimens from Green County was one, Viola pedatifida (prairie violet, C=9) that was collected by a 15-year old prodigy named Stephen Conrad Stuntz in 1890, somewhere near Monroe. The next year he found, identified, pressed and sent specimens of Robin's plantain, stiff sandwort, and purple milkwort to the herbarium. Born in Green County, Steve Stuntz grew up in Monroe, the son of the Green County surveyor. He graduated from Monroe High School, and at his Commencement in June, 1892, he gave a program titled "Walks among Green County Plants." He then earned a double major in botany and geology at the University of Wisconsin. Mr. Stuntz (1875-1918) collected for herbariums in 1901 at Isle Royale in Lake Superior with Professor C.E. Allen, and they added two bryophyes (mosses, liverworts) to the Michigan species lists. He was an authority in the description and scientific classification of vegetables while working in Washington, D.C. for the Department of Agriculture. The International Plant Names Index shows 43 vegetables that he named, and through his unusual acquaintance with languages and bibliography, he published a list of every USDA publication from 1810 to 1910.

The Wisconsin State Herbarium, the source of much of the information in this article, was established in 1849, when Increase A. Lapham, often called Wisconsin's first scientist, donated over a thousand plants to start the herbarium. In 1876 Lapham's entire natural history library was added. Today the state's collections of algae, fungi, lichens and plants number over one million specimens, making it one of the largest in the western world. According to Mark Allen Wetter, Senior Academic Curator, the herbarium has 6,257 specimens that were collected in Green County, and Mr. Stuntz contributed 243 specimens to the collection.

Other primary sources for this article: Atlas of the Wisconsin Prairie and Savanna Flora, 2000, by Theodore S. Cochrane and Hugh H. Iltis; Plants of the Chicago Region, 1994, Floyd Swink and Gerould Wilhelm.



"Child enjoying Black Earth Prairie" by Joshua Mayer Finalist in 2016 TPE Photo Contest

2016 TPE Annual Conference & Banquet

The 28th annual conference and banquet was held on Saturday, February 20 at the Alliant Energy Center in Madison, WI. Hosted by the Empire-Sauk Chapter, this year's event had over 300 attendees from around the region. The program included a plenary address by Professor Ellen Damshen of UW-Madison as well as 14 talks in science, education and practice tracks, two interactive workshops and a lively poster session. The banquet featured a wonderful hour-long showing of beautiful photographs from the various sites and projects at each chapter, assembled by this year's photo contest winner, Joshua Mayer.

The event also incuded ample time for socializing, as well as a chance to visit the many exhibitors.





Madison's Alliant Energy Center provided an excellent venue.



This enthusiastic crew from the University of Dubuque were among the nearly 40 students who attended this year's conference.

The conference and banquet were organized by a committee from the chapter chaired by Scott Fulton, including Karen Agee, Rich Henderson, Kathy Henderson, Ted Cochrane, Willis Brown, Scott Sauer and Diane Hills. The TPE staff (Chris Kirkpatrick, Joe Rising and Jerry Pedretti) provided tremendous help as well. The committee thanks the speakers and presenters, as well as the many volunteers who helped to make the event a huge success!



Chloris Lowe, former president of the Ho-Chunk Nation and Dr. Curt Meine of the Aldo Leopold Foundation together told the 15,000 year past and future story of Sauk Prairie during the luncheon address.



The poster session featured 17 presentations, including both academc research and citizen science projects.



Soil scientist Dr. Wendy Greenberg demonstrated field evaluation methods with samples collected from TPE's Mounds View Grassland and Hauser Road Prairie preserves.











The ever-popular raffle and silent auction, organized by Evanne Hunt and crew, included 122 individual items, bringing in a total of \$4,625 to support TPE chapter activities.

Photos by Karen Agee, Scott Fulton, Evanne Hunt & Joe Rising

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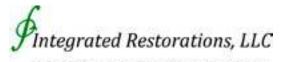








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Hauser Road Prairie Now Under TPE Care and Protection

By Rich Henderson

n July of 2014, The Prairie Enthusiasts took over the care and management of Hauser Road Prairie, a 45-acre patch of original prairie sod located in northern Dane County, Wisconsin, just north of Waunakee. With grants from the Knowles-Nelson Stewardship Program and the Dane County Conservation Fund and a loan from The Conservation Fund, TPE acquired title to this impressive big sky ridge of natural heritage.

This new preserve is the largest remaining single piece of the original 100-square-mile Empire Prairie that once covered what is now northern Dane County and southern Columbia County. Until 30 years ago, the site had been lightly grazed for more than 100 years. Its shallow soil in some areas and rich supply of glacial till boulders in others kept it from being tilled for crop production.

The grazing took its toll on the composition of the prairie vegetation, eliminating some species, reducing others and allowing non-native grasses to invade, especially in the deeper soils areas. However, much of the original prairie ecosystem survived and has been making a good recovery since the cessation of grazing and the implementation of an occasional prescribed burn from 2000 to 2013.



Prairie gentians (Gentiana puberulena) Photos by Rich Henderson

A total of 100 prairie plant species have been found on site so far. There are great displays of shooting star, pasque flower, prairie and birdfoot violets, prairie smoke, purple prairie clover, prairie goldenrods and asters, and prairie and stiff gentians. A viable

population of the state-threatened Hill's thistle (*Cirsium hillii*) is present, along with recovering populations of uncommon species such as valerian, smooth white lettuce and heartleaved golden Alexander.

Some prairie plants sensitive to grazing apparently survived in a narrow strip of ground between the plow line and the fence or as very rare, scattered individuals in some cases. Over the past 30 years, I have observed these rarities starting to recolonize the former pasture. They include prairie phlox, leadplant, compass plant, rosinweed, rattlesnake master, and prairie blazingstar.

Fortunately, there are several high-quality small prairie remnants within a few miles of the preserve harboring the full range of prairie species native to the area. Our management goal for Hauser Road is to bring seed from those remnants to the preserve to accelerate its recovery and to reintroduce lost species such as wood lily, wood betony and rough white lettuce. With burning and inter-seeding, we hope to bring back most, if not all, of the site's original diverse prairie plant community over the next 30 years.

Hauser Road Prairie has diversity beyond the plant species. It is home to ten species of specialized leafhop-



pers restricted to remnant prairie. It is also large enough to support some grassland birds. Bird Species of Greatest Conservation Need that have been found during the breeding season include field sparrows, grasshopper sparrows, eastern meadowlarks and bobolinks. In some years, even upland sandpipers and dickcissels have been observed. Northern harriers sometimes hunt the prairie during spring and fall migration. Badgers also frequent the prairie.

Over the past year, with a grant from the U.S. Fish & Wildlife Service Private Lands Program and the efforts of Randy Hoffman and other volunteers, great progress has been made at Hauser Road removing trees and brush from the preserve. Randy has also stepped forward as site steward to keep the recovery moving forward. We are looking to develop a core group of volunteers to focus on Hauser Road Prairie and other prairie remnants in the area to collect and plant seed and control weeds and brush. If you wish to join in the effort, please contact me at tpe.rhenderson@tds.net.

The permanent protection of Hauser Road Prairie was the culmination of 22 years of effort by The Prairie Enthusiasts and the Wisconsin Department of Natural Resources (WIDNR) Natural Areas Program. In the early 1980s, the conservation community became aware that prairie was surviving in the 45-acre pasture along Hauser Road. In 1992, TPE volunteers reached out to the new owners of the site to inform them of what they had and offered advice, guidance, help and encouragement in conserving the site. From 2000 to 2014, the Natural Areas Program leased the pasture and conducted several prescribed burns and some brush control. TPE also mowed sweet clover and provided other weed control measures during this time.

In 2013, the owners, Mike and Susan Zauner, decided they were ready to see the site permanently protected. The Natural Areas program negotiated with them to buy the site and designate it a State Natural Area, but the project was not accepted by the WI DNR administration. The Prairie Enthusiasts offered to step in and acquire the site by applying for grants from Knowles-Nelson Stewardship Program and the Dane County Conservation Fund, which covered three-quarters of the acquisition expenses. The remaining costs were covered by a loan to TPE from the national Conservation Fund and major donations from Jerry Martin, and Sue Steinmann and Bill Weege.

Conservation Legends Olive Sherman Thomson

By Tom & Kathie Brock



live Thomson, a dedicated botanist and conservationist who made important contributions to the preservation and restoration of Wisconsin prairies, died on January 6, 2016 at age 100. She and her husband John, who died in 2009, were long-time enthusiastic supporters of The Prairie Enthusiasts and of its conservation mission.

Born in Edgerton, Wisconsin, Olive studied at UW-Madison with

famed botanist Norman C. Fassett and worked in the Herbarium. It was there that she first met John who, as a Ph.D. student, was doing some of the first work on Wisconsin prairie remnants. John and Olive married in 1937. In 1951 they moved to "Hillcrest Farm" south of Mount Horeb, on which they created a small arboretum, a prairie, and a natural area along with a big garden.

Olive remained a botanist and conservationist all her life, and after her children were grown she worked in many areas. As a labor of love, she revised and updated Fassett's Spring Flora of Wisconsin, adding keys and descriptions, which doubled the size of the book. This book is still in print today.

In the bicentennial year of 1976, Olive was instrumental in the establishment of the Dane County Environmental Council, and served as its chair for 20 years, finally retiring in 1995 (when she turned 80). One of the first projects of the Council involved surveying and protecting prairie remnants along more than 532 miles of Dane County roads. Olive conceived the idea for a Prairie Heritage Trail along a segment of Highway JG south of Mount Horeb. This trail was dedicated

by Dane County for permanent protection and received a National Bicentennial Award. She and John founded the Botanical Club of Wisconsin in 1968 as an affiliate of the Wisconsin Academy of Sciences, Arts, and Letters.

Olive was an early member of the Citizens Natural Resources Association (one of the first conservation organizations in Wisconsin, established in 1950), and in 2001 was given their Silver Acorn Award. She was a long-term member of The Wild Ones and was a good friend of the late Lorrie Otto, its founder. In 2002 she received their Shooting Star Award. Olive and John were joint recipients of the Gulf Oil Conservation Award (a national award now called the Chevron Award) in 1985.

In 1987 Olive and John partnered with The Nature Conservancy to create the Thomson Memorial Prairie in honor of their son Douglas, who had died tragically. The land was acquired in stages and now encompasses 323 acres of remnant dry prairie southwest of Blue Mounds. In 1972 Olive's eldest son Dennis, and his wife Joan, were able to purchase a farm about six miles to the southwest of what became the Thomson Prairie, where Olive and John found outstanding remnant prairie. They then encouraged Joan and Dennis, when they were able, to donate the entire farm to TPE. This "Schurch-Thomson Prairie" became the nucleus for TPE's presently 570-acre Mounds View Grassland preserve.

Olive describes her greatest award like this: "My life has been fun! I've done what I've enjoyed. It's very gratifying now to know how many organizations and people are into the things I was pioneering." She hoped "people will realize that, whether it's prairie or woodland, the land has its own unique character that is wonderful to live with."

Kathy Kirk

By Scott Sauer



e mourn the loss of a dear friend and Prairie Enthusiast, Kathy Kirk, who died on January 9, 2016, at age 64. Kathy joined The Prairie Enthusiasts in 1994 and represented the Prairie Bluff Chapter on the TPE board from July 1994 through July 2002. She also served as TPE's Secretary on the Board from 1998 to 2002.

Kathy loved all aspects of nature and saw God in every non-human liv-

ing thing. Hikes with her were more like strolling, stopping to investigate a beetle, a mushroom, a plant or a bird. Befitting Kathy's love of all living things, when she was diagnosed with ALS three years ago, she fulfilled a life-long desire to see the Central American rain forest with a birding trip to Costa Rica.

Kathy had degrees in both Sociology and Physical Therapy, but her love of nature directed her to earn a Master's Degree from UW-Madison in Conservation Biology. She did field work for The Nature Conservancy, for whom she completed a biological inventory of the Badger Army Ammunition Plant. She also worked for the U.S. Fish and Wildlife Service and the Wisconsin Bureau of Endangered Resources, where she eventually found a professional base. While there, she worked on projects related to the Hine's Emerald Dragonfly, the Karner Blue Butterfly, and the Bell's Vireo. She also co-authored *The Field Guide to Grasshoppers of Wisconsin*.

Kathy was devoted to life in many ways. While living in La Crosse, she taught literacy to new immigrants, and in her retirement returned to tutoring. Kathy loved music and played guitar, flute, piano, mandolin and banjo at one time or another, and she sang in the folk trio Girls Night Out. A Master Gardener, Kathy's most prized work was growing peaches in her front yard in Madison.

Kathy was always ready with a wry smile and a dry wit, and she will be greatly missed.

CHAPTER NEWS

Coulee Region

Bluff Prairie Restoration Project

Jim Rogala & Todd Mau (NRCS)

Over the last couple years, TPE has been interacting with folks working on a decade-old project to promote bluff prairie management in Buffalo County. The project has been developed and promoted by the Buffalo County NRCS, Buffalo County UW-Extension, and the Wisconsin DNR. The project has included annual winter meetings, biennial field trips, and landowner contacts by a summer volunteer. That work has led to on-the-ground restoration at ten sites ranging in size from ¼ acre to 3 acres. Restoration was largely done through contractors funded by the US Fish and Wildlife Service's Partner's program, including some use of the TPE Hill Prairie Initiative funds. Some of the sites received no financial assistance or incentives and were restored purely as a result of landowners' interest in restoring bluff prairie sites.

We hope this project continues to increase private land owner awareness of bluff prairie restoration opportunities in Buffalo County, and that this model for restoration of hill prairies is used to make progress in other counties throughout the Driftless Area. In particular, landowners in Trempealeau and Pepin Counties have contacted Buffalo County landowners and staff to inquire about what is involved in a restoration project. Recently, UW-Extension completed a project to put together a 15 minute video explaining and showing the work that has been done in Buffalo County. This video includes information on the importance of these dry bluff prairies and the flora and fauna that is found only on these sites. Management techniques for long term sustainability are also discussed in the video.

In the future, landowners in Buffalo County hope to maintain the enthusiasm and increase the amount of active restoration for these rare and unique sites.

Empire-Sauk

Scott Fulton & Karen Agee

As it has for many years, the Empire-Sauk Chapter exhibited at the annual Garden Expo in Madison, hosted by Wisconsin Public Television. This event usually draws thousands of people interested in gardening and nature from around the region, and this year was no exception. Unfortunately for us, the event was just the weekend before the TPE Annual Conference, which the chapter hosted at the same venue!

Nonetheless, 22 volunteers stepped up and contributed 65 hours of time staffing the booth. As has been the case for the last several years, the results were certainly worth the effort. Nearly 100 visitors to the booth left their contact information to request more information about TPE, with over half coming from areas served by other chapters (including Glacial Prairie, Prairie Sands, Chippewa Savannas, Coulee Region and Southwest Wisconsin). Two were interested in becoming TPE members right away. We also gave out 170 TPE brochures, 75 copies of the new color Prairie Promoter and 25 flyers describing volunteer opportunities with TPE.



TPE Garden Expo booth. Photo by Dennis Graham

The chapter has selected our summer interns for 2016 from a group of 78 applicants. They are Phil Hass (UW-Stevens Point), Megan Wolfe (UW-Platteville), Rob Shultz (Edgewood College), Morgan Kramschuster (UW-River Falls) and Amelia Fass (UW-Stevens Point). The interns will work from late May to late August at TPE's Mounds View Grassland, Erbe Grassland and Parrish Savanna preserves, as well as several sites in the area on which TPE holds easements.

Northland College student and past intern, Grace Vosen will lead work in the Mounds View Grassland seed orchards, specialized species seed collecting, as well as working on seed cleaning from June to November.

As always, volunteers are encouraged to work alongside the interns to share their experience. The internship program is funded by the Olive and John Thomson Internship Endowment.

Rex Sohn was named Empire-Sauk Chapter Volunteer of the Year. Rex has long been one of our most dependable burn and seed collection volunteers and is particularly handy with equipment and construction jobs. Just in the past year he built many kiosk brochure boxes as well as boxes to protect seed production beds from deer and rabbits, pan-



eled the lower 5' of the inside walls of the equipment shed at Mounds View Grassland to protect the sheet metal walls from damage, hung an overhead air filter system in the barn to reduce seed cleaning dust and did maintenance and repair on a variety of equipment. He was also the volunteer leader of our recent dragonfly survey project at Mounds View, where he named and marked the survey sites, organized the volunteer effort and personally surveyed the most difficult sites regularly for Photo by Kathy Henderson many weeks. Thank you, Rex!

Glacial Prairie

Alice Mirk

The Glacial Prairie Chapter has had a relatively busy winter and anticipates ramping up activities in 2016 beginning this spring—and thereafter. Since late 2014 the chapter has turned out stewardship volunteers one Saturday each month to assist WDNR employees and other volunteers with restoration efforts in the Southern Unit of the Kettle Moraine State Forest. We also have encouraged chapter members to volunteer every third Saturday of the month at Chiwaukee Prairie. We continue our commitment to helping restoration at Willowbrook Conservancy near Hartland and have had numerous enjoyable and highly productive work days there.

We realize that the locations of our stewardship activities are not always conducive to wider participation because of distances involved. Therefore, beginning in March, the chapter also will schedule stewardship activities on the third Saturday of every month at the Hunger Task Force farm in Franklin. Chapter member Adam Romanak is a naturalist there and has been restoring, virtually single-handed, prairie and savanna on this Milwaukee County-owned property that has been leased to the Hunger Task Force for 30 years. We are really excited about this new venture and consider it the first step in developing stewardship volunteer opportunities throughout the chapter area.

We continue to assist in managing and enhancing a 12 acre prairie reconstruction at a municipally-owned cemetery in Waukesha (the cemetery is called Prairie Home Cemetery and is located on Prairie Street). The prairie was established to provide a space dedicated to natural burial as well as to reduce landscaping costs. We also are assisting Mayville Middle School (in Dodge County) resurrect a 3/4 acre prairie reconstruction that had been neglected for over 10 years. The U.S. Fish and Wildlife Service will provide 588 prairie plant plugs this spring as part of its Monarch Butterfly Initiative, so we will be busy there! In addition, we will begin to assist a member with ongoing restoration and reconstruction efforts at his large (300+ acre) property north of Whitewater. There is a conservation easement in place to permanently protect this incredibly beautiful place.

And speaking of Whitewater, the chapter recently accepted management responsibility for a nearly two acre dry prairie remnant between Whitewater and Elkhorn. The owners, Charlotte Adelman and Bernard Schwartz, generously donated the property and a substantial endowment, to TPE. If Charlotte's and Bernard's names seem familiar, they are long-time TPE members and the authors of The Midwestern Native Garden and Prairie Directory of North America. Chapter members with expert knowledge will gather on this prairie in March to begin the assessment process as the first step in developing a comprehensive management plan.

Our education of youth efforts also continue and expand. We continue our close relationship with the second grade students at Frank Elementary School in Kenosha and with Mayville Middle School students. In March we will offer our first presentation about prairie history and ecology to students at Muskego High School. This presentation may be the prelude to establishing a school prairie! As you can see, our chapter's dance card is pleasantly full. But as we build LOCAL communi-

ties of volunteers to carry out stewardship and educational activities, we hope to bring such opportunities to your area.

If you have not received our regular emails and wish to be kept informed about chapter events and activities, send your email address with your area(s) of interest to Alice Mirk, Secretary and Treasurer of the chapter at aimirk68@icloud.com.

Many Rivers

On the 21st of December 20 members of the Many Rivers Prairie Enthusiasts took advantage of the balmy Solstice weather to gather at Jon Kutz's farm to eat cookies, enjoy each other's company and to burn a pile of woodies to ash.



Henry Panowitsch enjoying the bonfire. Photo by Steven Gahm

Minnesota Driftless

George Howe

It's official - southeast Minnesota once again has an active TPE chapter! On February 21st, TPE's Board of Directors officially approved the creation of a new chapter named the "Minnesota Driftless Chapter of TPE" which will primarily serve Winona, Houston, Fillmore, Wabasha, Olmstead, and Goodhue counties. Local conservationist and educator George Howe has agreed to be Chair for the chapter, and local environmental activist Sarah Miles has agreed to help lead as Vice Chair. The new chapter has met three times so far and elected a full set of board officers, selected a service region, written a mission statement, created bylaws, and has developed work and activity plans for 2016.

The Minnesota Driftless Chapter (MDC) had a very productive meeting in early March, with a great turnout of 9 people. Members worked to draft plans for spring burns, hikes and picnics, new member recruitment, grant applications, conservation easements, land purchases and restorations. A burn crew of 7 experienced people has already been organized and 4 burns are planned so far for this spring, including some on public land. We are arranging for dozens of local college students to get involved with our chapter and provide "young muscle" for area prairie restoration projects. We believe that there is a huge potential for involving area students in critical restoration projects- we just need to

boldly lead and show them how interesting, rewarding, and fun restoration and management work can be.

MDC members are already helping each other with prairie restorations and maintenance on both their private lands and on Winona County park land. Some of these projects and lands will be featured in upcoming hikes/picnics in 2016. The chapter is also optimistic that area landowners will want to work with TPE to permanently protect their prairie and/or savannah lands. There has long been considerable landowner interest here in southeast Minnesota to protect precious land and resources with conservation easements and outright land purchase. Existing land trusts working here have accomplished very significant work, but sometimes lack the capacity to address the interest and needs of some landowners; thus, there is an important niche for an active TPE chapter to fill.

The first MDC hike scheduled is Saturday, April 23rd, at "Great Spirit Bluff," followed by a BYO picnic lunch. Drinks, a fire pit, and world-class scenic views will be provided. Visitors will hike and enjoy a large planted prairie, spring flowers in an oak woodland, and a diverse native prairie relict with amazing views of the Mississippi River Valley, including the territory of local peregrine falcons nesting below. Two other landowners have offered to hosts hikes and picnics for TPE later in the year; details on these events will be coming soon.



Dietmaier Prairie restoration currently underway by Minnesota Driftless Chapter volunteers. Photo by George Howe

Northwest Illinois

Rickie Rachuy

Last year, thanks to a dedicated group of volunteers, we picked over 2,000 pounds of seed from 185 species, at several dozen locations. The first species collected was prairie smoke (*Geum triflorum*) and the last one dried and thrashed was showy goldenrod (*Solidago speciosa*). 2015 was our 22nd year of restoration work in the Driftless Area of Illinois, and so far we've seeded 650 acres to new prairie and savanna.

Have you ever wondered how we know what to pick and how much?

Jim Rachuy, our grassland ecologist, first looks at each site to determine the available habitats. Then species are chosen to match the habitat type (dry to wet, sunny to shady, loam to sand) but also to match the types of plants

required to make a stable community. For example, all mixes include early comers that act as place holders for the more conservative species that take longer to establish. He's worked out how many 'hits' a site needs for each species. One hit, in ounces, is equivalent to one seed from that plant on every square foot of one acre. Hits translate into pounds and pounds translate into bags needed to be picked. Since only a fraction of what comes from the field is seed, we are continually sampling chaff to seed ratios--and that means separating every seed from the chaff in a sample!

Last minute adjustments have to be made to accommodate the ever-changing prairie bounty.

In 2014 there was an abundance of white indigo (*Baptisia alba*) so we picked a bit extra. Some years there is a lot of compass plant (*Silphium laciniatum*), but last year there was very little. Still, due to early and abundant rains, the wet prairie species did very well in 2015. One plant which is often in short supply is prairie milkvetch (*Astragalus canadensis*). Although there are many plants around, the seed is heavily predated by insects as the larvae of several kinds of moths feed exclusively on this plant. Every year is different on the prairie!

Prairie Bluff

Tom Mitchell

Major restoration projects were started by the Prairie Bluff Chapter over the winter months. At two sites we had a cadre of sawyers cut the unwanted trees, and then we used a skid loader with a grapple to move them across the frozen ground to a brush pile off the prairie, where they were bucked up and burned up.

At Avon Ridge in Rock County we succeeded in clearing away generations of neglect that had allowed hundreds of cherries, olives, apples, elms, mulberries, box elders, honey-suckles, buckthorns, cedars and sumac to almost completely shade out an acre of remnant prairie. In three workdays we cleared away this early successional invasion, cut the stumps to ground level and treated the cut stumps with a herbicide to prevent their re-growth. Thanks to Nick Faessler and his skidsteer, with chains on the rear tires, we easily and quickly moved the trees off the prairie to the burn pile.

At Muralt South we used similar methods to expand an oval of remnant prairie toward the southwest where plant surveys had shown the highest likelihood of ecosystem



Workday at Avon Ridge, with NIck Faessler manning his skid loader. Photo by Jerry Newman

recovery. We removed all the larger trees, and we intend to mow the remaining sumac next summer.

Fred Faessler led work parties at Briggs Wetlands where we succeeded in clearing a firebreak through the willows along two sides of the Rock County property.

Muralt Bluff is a State Natural Area where Jessica Renley and her SNA crew opened up a savanna of white and bur oak trees by cutting and treating the non-oak trees and brush that had shaded out most of the understory grasses, sedges and forbs. Our crew did the hauling, stacking and burning, and other volunteers took away the firewood. These are the first steps in the process of bringing back the prairie and savanna to the edges of the property. We expect that vigilance will be required to find and treat re-sprouts and new non-native seedlings for a few growing seasons.

The chapter thanks Kevin Doyle, Bridget Rathman, Alex Wenthe and Jared Urban for leading winter work parties at other state natural areas in Green and Rock Counties. Chris Roberts, John Ochsner, Steve Hubner, Nick Faessler, Jerry Newman, Jim Freymiller, Harvey Klassy, Mike Davis, Gary Kleppe, Fred Faessler, Ralph Henry, Frank Grenzow, Kevin Kawula and John Meland comprised the volunteer crews for most of these winter projects.

Prairie Sands

Ray Goehring

The Prairie Sands Chapter honored two of their members at their annual Seed Exchange and Holiday Party on December 3rd at the home of David and Shelley Hamel of Westfield.

The Conservationist of the Year Award went to Laurel Bennett for her outstanding leadership in the chapter's efforts to manage invasive species at Page Creek Marsh. This is the third year Laurel has been leading this effort in partnership with property owner, The Nature Conservancy of Wisconsin (TNC), and in collaboration with volunteers from other Marquette County groups like Friends of John Muir and Ice Age Trail as well as the general public. As a result of her hard work, TNC now feels it has the volunteer base it needs to increase its restoration effort. This benefits all those in the area who enjoy the outdoors and will possibly increase tourism. The chapter gave Laurel a framed limited edition print of a drawing of a native Wild Petunia (Ruella humilis) by artist Gary Eldred and a \$50 gift certificate to Prairie Nursery.

The chapter also presented Shelley Hamel with a special commendation for her outstanding leadership and creativity in organizing the 2015 TPE Annual Conference at UW Stevens Point. This brought in conservationists from around the country who spoke and gave presentations on the latest concerns and techniques for ecological restoration management. Shelley also received a \$50 gift certificate to Prairie Nursery.

Most of Prairie Sands Chapter members, like the prairies and savannas we tend, tough out the snow and minus zero degree temperatures of Wisconsin winters. However, some of us, like migratory birds, wait out the cold in warmer climates but we don't leave our prairie enthusiasm behind. The photo of TPE's *Prairie Enthusiasm!* video being shown to Louisiana Native Plant Society (LNPS) members during their February conference on prairies.



Photo by Ray Goehring

One of LNPS board members, Annette Parker-Kahn (shown on the left in the photo above introducing the video) said, "The video couldn't have been more perfect for our event. The Friday timing was great. It was by far the biggest Friday attendance. Thank you for doing what you did. It sparked lots of interest." And Jackie Duncan, treasurer for both LNPS and Cajun Prairie Habitat Preservation Society in an email to Ray Goehring who brought the video to the conference said, "I wanted to tell you that I thoroughly enjoyed the video of the Prairie Enthusiasts. It was very clever and professionally done. Thanks for bringing it and participating in the meeting. I'm going to try to order the video for myself -- that shows you how much I liked it."

With recent discoveries of more remnant prairie in Southwest Louisiana, the push is on to educate the public. Several people took TPE brochures, asked questions about the plants shown on the video, commented about the effectiveness of the graphics, and debated how both prairie and savanna require a relationship with humans to survive.

St. Croix Valley

Evanne Hunt

Thanks to three extraordinary volunteers!

Special thanks to Mike Perry, Doug Lassen, and Wayne Huhnke for above-and-beyond work at the Foster Conservation Area. In addition to the scheduled work days, Mike (104 hours), Doug (59 hours) and Wayne (84 hours) have donated a total of 227 hours on week days this winter. They concentrated on clearing invasive trees and brush which the brush hog could not reach. The results have been dramatic - be sure to stop by and see the difference.

U.S. Fish & Wildlife grant

The chapter recently received a grant of \$8,000 from the U.S. Fish and Wildlife Service through the Partners for Fish and Wildlife Program. The funds were used in February to hire a contractor to cut and shred boxelder and buckthorn in the Foster Conservation Area and at Alexander Oak Savanna. The money will also be used to purchase herbicide to treat the buckthorn resprouts this summer.

Reaching out to schools

Our chapter has a close association with UW-River Falls students studying conservation and ecological restoration. The students help us with management and prescribed burning. Thanks to their professors, Eric Sanden and Jarod Blades, the students come as a class requirement, for extra credit and for practical experience.

In addition, Mike Miller has agreed to lead a prescribed burn at Hudson River Crest Elementary School this spring. The teachers have spent the winter months educating the students on how birds, insects, and small mammals use the small prairie planting behind the school.

Finally, Mike Miller will lead a prescribed burn at Camp St. Croix in Hudson. We have done this for the past four years, rotating between three separate units.



Barbara Bend led a group of second and third graders from River Falls Public Montessori Elementary to the Foster Cemetery oak savanna. Photo by Michelle Smith

WELCOME NEW MEMBERS

The following people have joined TPE between November 13, 2015 and February 29, 2016.

Dean Brasser (Madison, WI) Jeff and Michele Brueggen (Hanover, IL) John & Carol Cantwell (Madison, WI) John Click (Madison, WI) Nick Deitmaier (LaCrescent, MN) John & Linda Dolan (Madison, WI) Alex Franzen (Hastings, MN) Paul Fuchs & Martha Fish (Belleville, WI)

Linda Gormanson (Saint Paul, MN) Alex Greene (Bethlehem, PA) McLean Gunderson (Madison, WI) Katherine Hahn (Eau Claire, WI) Richard Hansen (Wautoma, WI) Timothy Kritter (Madison, WI) Micaela Levine (Shorewood, WI) Dr. Lori Moilanen (Hudson, WI) David Montgomery (Madison, WI)

Christine Nelson (Beloit, WI) Paul O'Connor (Falcon Heights, MN) Diana & Dennis Oostdik (Monroe, WI) Kathy Rincon (Wautoma, WI) Jay (John) & Libby Rutherford (Apple River, IL) Kathleen Schindler (River Falls, WI) Richard Stephens (Hollandale, WI)

Michelle Voss (Madison, WI) (Gift from Scott Fulton for graphic design of color Prairie Promoter) John White (Urbana, IL) Stephanie Witwer (Pine Island, MN) Gary & Connie Jo Zwettler (Blue Mounds, WI)

THANK YOU DONORS

We thank the following who donated to TPE between November 13, 2015 and February 29, 2016. These gifts include those from our annual appeal, are beyond membership dues and are truly generous and appreciated.

\$1,000 or more

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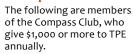
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Questions? E-mail Joe Rising (Communications Coordinator) at TPE@ThePrairieEnthusiasts.org or call us at 608-638-1873.

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