



THE PRAIRIE PROMOTER

Grassroots Conservation in Action

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The
Prairie
 Enthusiasts



Summation of a Seed Season

By Grace Vosen

Restoration Specialist, Empire-Sauk Chapter

It's November 2016. Most of the trees at Schurch-Thomson Prairie are bare now, and the hills show a muted brown. Though it feels like a sunny spring day, the birds are silent, indicating the end of a growing season. As the plant communities prepare to go dormant, some of their seeds are drying inside the barn on the property. Carefully labeled bags of seed hang from a clothesline and await their chance to strengthen our prairie landscapes.

I was fortunate enough to help collect most of these species. My job with the Empire-Sauk Chapter had me searching for seed from wood-betony in June to cream gentian in October. Instead of waking up and going to work in some office cubicle, I was paid to take walks in the prairie. I spent my day clambering up and down hills with a bucket in hand and the sun on my back. (I'm not sure "fortunate" is a strong-enough word.) One by one I got to know the personalities of prairie plants in an experience more intensive than most college classes.

As a paid employee of TPE, I found myself outnumbered by volunteers. They turned up day after day to help out wherever they were needed. I had been struck by their dedication before, in 2015 when I worked on the intern crew at Schurch-Thomson, but nothing could prepare me for the full force of it. To see people giving of their time and energies with no expectation of payment was constantly inspiring. They put my schedule-driven self to shame, staying long past the required hours.

Perhaps you are one of these devoted souls. I hope I'm not over-stepping when I say that you collect seed for reasons other than money or fame. A deeper reward, or several, drives you (literally) to the Blue Mounds area in the heat of July. Over the summer, I became curious about the motivations you all have to do volunteer work. I sent out a survey to several volunteers asking about the benefits of prairie restoration. This survey, doubling as a capstone project for my Wisconsin Master Naturalist certification class, revealed part of the intricate relationship between people and land.

For those who responded, I thank you for sharing your personal thoughts with a total stranger. I found that I could relate deeply to something in every response. Know that you inspire me to "keep at it."

"A feeling of shared wealth and accomplishment accrues as we see containers fill with seeds, and we consider all they can become."

Continued on page 9

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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Cover photo of the late Hugh Iltis
by Rob Baller

Sharing our Stories of Change

Chris Kirkpatrick, Executive Director



This year, we celebrate 30 years as The Prairie Enthusiasts. In the next months, we'll laugh and rejoice as we look back on the start of TPE, but it's also a great time to look ahead and plan for the future of our organization.

From the beginning, our greatest strength has been our members – volunteers such as you – who through your chapter worked to identify rare prairie remnants, protect them and manage them. Over the years we have grown to more than 1,500 members within 11 chapters, protecting thousands of acres throughout Illinois, Minnesota and Wisconsin.

We think the best way to continue this commitment is to share the stories of the amazing work you do. To help with this, we've expanded our outreach and communication efforts in the past year by launching a new website, printing The Prairie Promoter (TPP) in color, beginning a monthly eNews post and increasing our presence on social media. We're showing off how we're changing the landscape, clearing more remnant prairie, planting more acreage and celebrating the results of our work.

The second part of this focus is for staff to share the tools we have developed to assist chapter leaders in communicating about local activities through use of eNews and social media. Recently, we helped two chapters set up their own eNews and hope to help other chapters with outreach efforts. There are three chapters currently active in social media, spreading the word about their work, primarily in their local communities. The staff can offer these tools, and provide training and assistance to continue expanding our reach to more members, and to the general public, about the amazing work you do. This flood of information also feeds into what we can share with all TPE members – telling the stories about how you are changing the upper Midwest one work party, burn or planting at a time. So we encourage all TPE members and volunteers to share your stories, pictures and successes with your chapter, the staff and the editor of TPP.

If you would like to share your thoughts, please contact me. I can be reached at TPE's office in Viroqua by phone at (608) 638-1873, or email executivedirector@ThePrairieEnthusiasts.org.

Welcome New Members

The following people have joined TPE between October 19, 2016 and March 1, 2017.

Holy Wisdom Monastery (Middleton, WI)
Laurie Arzaga (Brownsville, MN)
Aaron Berg & Patricia Heizler (La Crosse, WI)
Gerald Bridge (New Richmond, WI)
Roger Coulthard (Stockton, IL)
Mary Damm (Bloomington, IN)
Jamie Dowdall (Lena, IL)
Mary Evans (Milwaukee, WI)
Todd Hanson (Brooklyn, WI)
Lars Higdon (Madison, WI)
Kevin Krause (Nelson, WI)
Ronald & Aileen Luethe (Norwalk, WI)
Paul & Nancy McMenamin (Galena, IL)

Tim Muehlfeld (Wauwatosa, WI)
John Phillips (Bangor, WI)
Tom Pierce (Sun Prairie, WI)
John Reindl (Madison, WI)
George Riggan (Blue River, WI)
Mary Rubel & Terry Bohnsack (Elizabeth, IL)
Nathan Runke (Rochester, MN)
Andrew Sleger (Verona, WI)
The Conservation Foundation (Naperville, IL)
Rick & Toni Sturtz (Neillsville, WI)
Kathleen M. Thomas (Afton, MN)
Andy Wedel & Adam Ussishkin (Tucson, AZ)

President's Message

Scott Fulton, President



The Prairie Enthusiasts began 30 years ago, when several local prairie preservation and restoration groups banded together to form a larger organization. Since that time, TPE has grown to become a substantial regional conservation organization and land trust, with well over 1,000 members across three states, owning title or conservation easements on more than 3,000 acres of protected land. Despite this impressive growth, TPE has kept its grass roots character by remaining organized as 11 local chapters, each of which, in its own way, carries out the mission of the organization to protect, restore, manage and educate about prairies and oak savannas of the Upper Midwest.

Over the past year, Chris Kirkpatrick, Executive Director, and I have been visiting all of TPE's chapters, getting to know leadership and members better, and discussing how the larger organization (including professional staff, volunteers, Board and Board Committees) can better help each chapter meet its own goals and aspirations. It's been a truly inspiring journey. Both Chris and I have come away from every meeting deeply impressed by the knowledge, creativity, passion and commitment we see everywhere, as well as the new ideas and projects being carried out. Although there's a remarkable diversity among the chapters, there's also considerable commonalities in the challenges ahead.

We recently summarized our findings in a written report that we shared with the Board and chapter leaders. (Please

contact me at president@ThePrairieEnthusiasts.org or call the office at (608) 638-1873 if you want a copy.) We also held an open discussion following the Board meeting on March 5, immediately after the annual conference. We decided to begin work on several new initiatives:

- **Burns** – How can we get more people trained for burns and more fire on the ground in both our larger and smaller chapters?
- **Landowner Services** – How can we better serve landowner members working on their own properties?
- **Leadership** – How do we cultivate and train the next generation of leaders for both chapters and the overall organization?
- **Staff Capacity** – How and where might we best add to our professional staff capability and focus to meet chapter goals?
- **Financial Sustainability** – How do we more creatively and sustainably pay for the work of our chapters and the overall organization?

This is the beginning, not the end, of the process. Each of these initiatives will be taken up by specific committees for in-depth discussion over the coming months and to develop recommendations for action. Chris and I expect to continue our visits to the chapters at least once a year to keep the dialog active. Our goal is always to understand how we can best help you and your chapter be as effective as possible to engage your local community in protecting and restoring our natural heritage. Please let us know what you think!

Editor's Notes

Debra Noell



Everyone has a prairie story. Maybe your story is a tragedy or a comedy, a mystery or a love story. Maybe there are numerous plot lines in your story - surprises, revelations, joys, sorrows.

The Prairie Promoter (TPP) wants your stories.

Consistently, TPE members appreciate learning about and from each other. The Promoter is the perfect forum to share stories with your fellow prairie enthusiasts. Successes, such as turning a buckthorn forest into a thriving oak savanna. Suggestions, such as the power of the Parsnip Predator. Scientific insights, such as studies on a new restoration technique.

As editor of The Prairie Promoter, I have the privilege of reading, editing, choosing and sharing your stories for this publication. Some need a tad more information. Some need cut back. All are important.

If you think you have something significant to share, you probably do. You can email me directly at promoter@theprairieenthusiasts.org with ideas, essays, pictures, feedback. Or, you can contact the "Editorial Volunteer" from your chapter. (On the far left column of Page 2, toward the bottom, are the names and email addresses of each chapter's liaison to TPP).

This is my first edition as your volunteer editor. TPE also has the good fortune of a new volunteer graphic designer, Dan Barron. As we launch into our positions, Dan and I thank the chapter editorial volunteers for their ideas, communication, fact checking and patience.

What is your story? What kind of stories do you want to read? I'm listening.

2017 TPE Annual Conference & Banquet

By Scott Fulton

We're fresh off this year's TPE annual conference & banquet on March 4 at the Eagle Ridge Resort in Galena, Ill. About 240 people attended the conference, which was organized and hosted jointly by the Northwest Illinois Prairie Enthusiasts Chapter and our long-time partner in the area, the Jo Daviess Conservation Foundation (JDCF).

The program included keynote addresses by Jeff Walk, Director of Science for The Nature Conservancy in Illinois, on climate change and Bob Palmer, a Deputy Chief Ranger for the National Park Service on conservation leaders of the late 19th and early 20th Centuries, as well as 11 talks and two panel discussions covering a variety of scientific, educational, management practice and organizational development topics. The conference also featured a fascinating display of insect specimens from the Wapello prairie restoration in Hanover, Ill., which was collected and shown by Jim Louderman of the Chicago Field Museum. A wonderful social hour and banquet followed the conference.



Insect specimens from the Wapello prairie restoration in Hanover, Ill. Collected and shown by Jim Louderman of the Chicago Field Museum (Photo by Joe Rising)

The annual raffle and silent auction, organized by Evanne Hunt, raised \$3,321 to support the activities of TPE's chapters. The winner of the annual TPE Photo Contest, which had 38



2017 Photo Contest Winner 'Well-Dressed Dinner Entrée' by Jim Schultz

entries, narrowed down to five by the host chapter, was Jim Schulz' photo "Well-Dressed Dinner Entrée." New this year was also a "haiku contest." A haiku is a three-line, Japanese-style poem, and attendees were invited to write haikus about prairies on the spot. There were 53 entries.

Thanks to Our Sponsors



The winner, selected by TPE Communications Coordinator Joe Rising, was by Maureen Bardusk:

*Prairie wilderness
Standing tall in gracious waves
Creating a buzz*

The volunteer organizing committee for the conference (most of whom are members of both TPE and JDCF) included Julie Bruser, Pam Johnson, Chris Larson, Micki Lubcke, Barb Siekowski and Laura Dufford. The staffs of both TPE and JDCF were also critical in organizing the event. Everyone involved would like to thank all the speakers and presenters, the staff of the Eagle Ridge Resort, the sponsors and exhibitors and the many volunteers who all contributed to making the event a tremendous success!



'Finding and Retaining Volunteers' panel discussion with (from left) Sandi Helgeron, Scott Fulton and Bill Kleiman. (Photo by Joe Rising)

Restoration leaps ahead at Iris Drive Prairie

By Gary Eldred

In 2011, Iris Drive Prairie was discovered in a secluded valley in Crawford County, Wis., about 2 miles southwest of Gays Mills. The two small remnants were each about 6-8 acres in size and badly overgrown with scattered 30-foot trees and much sumac, gray dogwood, honeysuckle, black berries and autumn olive.

After walking and inventorying the remnants, we found more than 60 species! Further searching produced the owner's name and address. He was contacted and eventually gave permission for TPE members to begin restoration in earnest. Over the next three seasons, restoration steadily progressed, and the implementation of new methods for controlling brush were very successful.

In late 2015, talks to purchase the 107-acre farm began with the owner. To our great excitement in June 2016, with the paperwork done and funding in place, the remnants and surrounding oak forest became the property of TPE. With our ownership, restoration work increased drastically, and most of the northeast 7-acre remnant is now flooded in sunlight and starting a healthy recovery.

Field trips and visits from TPE Board of Directors has created a lot of support and enthusiasm.

This winter, work parties met every Thursday, weather permitting, and the determined crew of four to six tackled the first stages of restoration on the west prairie remnant. There was a daunting amount of black cherry, elm, black oak, autumn olive, sumac, black berries and dogwood that had to be cut and removed. The job seemed overwhelming, but the eager crew attacked the steep hillside without hesitation. Work went slowly until two crew members brought their tractors to the rescue.

With Al Slavik mowing brush, and John Feyer removing and stacking felled trees and brush with his tractor and forklifts, the clearing was done with astounding speed. By Feb. 17, all the brush was mowed and all the trees cut and removed! We are all very excited to see what plants will show up over the coming years. Others who have given their time freely at Iris Drive Prairie are Gary Adams, George Riggan, Steven Querin-Schultz and Gary Eldred.

"Forgotten Fires" – Book Review

By Rich Henderson

"Forgotten Fires: Native Americans and the Transient Wilderness," by Omer C. Stewart (2009). Published by University of Oklahoma Press.

In the first part of the 20th century, anthropologist Omer C. Stewart gleaned first-hand information from Native Americans about their relationship with, and use of, fire in managing the landscape of North America. From his findings, he built a strong case for Native Americans having used fire extensively for thousands of years to manage and manipulate the landscape. When he tried to publish his work in the 1950s, he ran into resistance from publishers and editors reluctant to acknowledge that Native Americans could have been managing the land on such a large scale. It was relatively recently that his works were fully published through the efforts of Henry Lewis and Kat Anderson. This book is a must read for those wishing to understand the role Native Americans and fire played in determining the vegetation cover of North America.

Here is an informative overview from the publisher:

"A common stereotype about American Indians is that for centuries they lived in static harmony with nature in a pristine wilderness that remained unchanged until European colonization. Omer C. Stewart was one of the first anthropologists to recognize that Native Americans made significant impact across a wide range of environments. Most important, they regularly used fire to manage plant communities and associated animal species through varied and localized

habitat burning. In 'Forgotten Fires,' editors Henry T. Lewis and M. Kat Anderson present Stewart's original research and insights, presented in the 1950s yet still provocative today."

Significant portions of Stewart's text haven't been available until now. The editors set Stewart's findings in the context of current knowledge about native hunter-gatherers and their uses of fire. This volume shows that for thousands of years, the North American landscape has been regularly shaped and renewed by the hand and fire management practices of Native Americans.

Authors' backgrounds:

Omer C. Stewart received a doctoral degree from the University of California -Berkeley, as a student of A. L. Kroeber, Robert H. Lowie and Carl Sauer. No non-Indian knew the Native American Church and its history better than he.

Henry T. Lewis was Professor of Anthropology at the University of Alberta-Edmonton, and author of "Patterns of Burning in California: Ecology and Ethnohistory."

M. Kat Anderson is the national ethnecologist of the Natural Resources Conservation Service, U.S. Department of Agriculture, and author of "Tending the Wild: Native American Knowledge and the Management of California's Natural Resources."

Of Checks, Balances & Seed Production

By Rich Henderson

A major challenge to larger-scale prairie restoration is obtaining enough seed of certain species, especially when local origin seed is desired for conservation purposes. There's some evidence to suggest the challenges may be compounding.

This is especially true for the more conservative climax species that were abundant in the original prairies but are now very restricted on the landscape. In addition to their rarity, many of these species don't flower every year, and when they do, they don't produce vast amounts of seed per plant. Obtaining enough seed to plant tens of acres at a time is daunting, if not impossible.

Mass production of seed from these restricted and conservative species in tended gardens or seed orchard nurseries can certainly help overcome this hurdle. As restoration plantings mature, they may become sources of seed as well. These approaches can vastly increase the amount of seed available for large-scale projects far beyond what prairie remnants alone are capable of providing. However, there are some growing challenges to even these approaches.

The primary goal of most large conservation-oriented restoration projects is to bring back the original ecosystem on a scale that will increase its chances of long-term stability and survival for thousands of years to come. This is the goal at Mounds View Grassland, other TPE projects and elsewhere. Hence, these projects are often anchored on clusters of remnant prairie sod that have not only the original plants and their local gene pools, but also soil organisms and uncommon prairie-specialist insects and other invertebrates that give the system stability and cohesiveness.

For example, for each plant genus in a prairie, there are, on average, a dozen or more species of insects that depend exclusively upon that genus of plant. In some cases, the insect depends on a single species of plant. These specialist insects, in turn, often reach numbers large enough to suppress the vigor, growth and seed production of their host plants. Contrary to what you may be thinking, more often than not this is a positive outcome for the ecosystem. The specialist insects tend to keep their hosts from becoming overbearing and aggressive within the plant community.

To complicate matters, there are also predators and parasitic insects that help keep the specialist plant and seed eaters in check. As if that were not enough, there are also parasites that parasitize the parasites. It's all good. This complexity is what we are trying to redevelop in conservation restorations - a complete ecosystem with all of its checks and balances in place.

Now, here's the growing challenge. As we restore more and more sites back to good health, we start to become victims of our own success. The specialized insects, many of them rare and in need of conservation attention, are starting to make comebacks on managed remnants and are expanding into adjacent or nearby restorations. Although a real success story in many cases, this recovery can also impede our ability to obtain large quantities of seed needed for the big restorations, especially conservative species seed that we need to plant in high enough densities to achieve the composition of original prairie.

Following are examples of this issue and some possible solutions to consider.

Leadplant (*Amorpha canescens*), a conservative climax species that dominates high quality original prairie with approximately 2-3 plants per square meter, is host to the leadplant flower moth (*Schinia lucens*). This is a colorful specialist moth that nectars on leadplant flowers during the day and lays its eggs on the inflorescences (clusters of flowers). Its larvae eat the flowers, and then the seeds, as they develop. The moth is now very uncommon and is on Wisconsin's lists of Special Concern Species and Species of Greatest Conservation Need.



Leadplant flower moth at Mounds View Grassland, Mueller addition, in late June 2012. (photo by Kyle Johnson)

At Mounds View Grassland, where TPE is attempting to restore 570 acres back to original prairie and savanna, we have been successful for the past 10 years in obtaining significant amounts of leadplant seed from the site's remnants, which have a number of dense colonies. We have been stimulating these patches to maximum seed production with rotational fire, as fire has been documented to increase flowering of leadplant by 200 to 900 percent (based on research published in 1973 by Mary S. Richards & R.Q. Landers, and Henderson in 1981). The process worked well for us until 2016.

Four years prior, the leadplant flower moth was found for the first time on the preserve. It may have been a new arrival, or it may have always been present but in low numbers that went undetected. In 2015, we found a few flower moth caterpillars on leadplant inflorescences while collecting seed - a first, but we were still able to collect ample seed. Then a year later on Aug. 14, 2016, at the same location, I found many caterpillars - much more than the year before. The area had been burned in the spring and, consequently, there was abundant seed production. When I came back eight days later, more than 90 percent of the seed was gone - and so were the caterpillars.

The seed hadn't dropped; it was too early in the season for that, and no one had been there collecting seed. It appears that the caterpillars ate them. Another possibility is that leadplant seed weevils (*Trichapion minor* and *T. modicum*) may have eaten the seeds, resulting in empty pods that drop from the stems weeks before ripe seed drops. Either way, specialist insects were the likely cause of the seed loss on a massive scale.

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SER International Standards

By Marci Hess

The Society of Ecological Restoration (SER) updated its international standards in December, and although the recommendations appear imposing, when you break them down to 6 key concepts and evaluate with their 5-star rating system, it makes measuring progress do-able and understandable to anyone.

At face value, their standards seem to target organizations, but this overview will show how individuals can easily tailor these standards to their land and their restoration efforts. This may guide TPE members in achieving what SER calls "the highest level of recovery."

SER is a non-profit organization serving 70 countries. It "advances the science, practice and policy of ecological restoration..." by combining scientific research with practical application. Its standards provide broadly applicable concepts and methods for the restoration of degraded ecosystems. These concepts can be used by private landowners or by organizational stewards. They do not replace the SER primer, but they do expand the foundation and emphasize the degrees of recovery. The 5-star system provided for measuring success can be used to illustrate progress and the positive cumulative effect on restored sites. It is also valuable for diagnosing an ecosystem's degraded state.

SER defines 6 key concepts providing the big picture framework for restoration work, including putting thoughts into action, developing a framework for planning & design, implementing the plan, monitoring, documentation, evaluation and reporting.

The 6 Key Concepts

SER assumes these concepts are put into writing, giving future land managers or landowners the framework for continuing the work.

Key 1: Ecological restoration is based on an appropriate local native reference system, taking environmental change into account.

Because the "local native reference system" is a non-degraded ecosystem, it doesn't actually exist among TPE lands or private lands without some restoration efforts. Therefore, a model built on multiple sources must serve as our guide. This model would draw from past, present and future conditions, and should include abiotic or physical conditions (i.e. temperature, rainfall, altitude, soil, pollution, nutrients, pH, types of soil) as well as biotic or living elements (i.e. soil microbes, insects, plants, birds).

The purpose of restoration is to return ecosystems to their evolutionary trajectory so its species can readjust and evolve. Nature is not stagnant, and therefore reference systems shouldn't be defined as a point in time. Adaptation to our changing environment and climate needs to be incorporated via ongoing research and "anticipated effects on species' ranges and ecosystems."

Key 2: Identifying the target ecosystem's key attributes is required prior to developing longer-term goals and shorter-term objectives.

The SER document identifies 6 key attributes - absence of threats, physical conditions, species composition, structural diversity, ecosystem functionality, and external exchanges. Within these broad categories, SER recommends defining measurable goals and objectives for each ecosystem. Without this level of specificity, success is only guesswork. This process also allows for greater transparency, manageability, and for its results to be transferable. This level of detail may seem only appropriate for organizations, but when viewed from the management and transferability aspect, it becomes clear how private landowners could also benefit. Page 15 (see full document on www.theprairieenthusiasts.org) provides an example of how to create the target, goals and objectives. Page 16 of the report provides useful information on the structure of adaptive management and monitoring.

ATTRIBUTE	Examples of broad goals - for which more specific goals and objectives appropriate to the project would be developed
Absence of threats	Cessation of threats such as overutilization and contamination; elimination or control of invasive species.
Physical conditions	Reinstatement of hydrological and substrate conditions.
Species composition	Presence of desirable plant and animal species and absence of undesirable species.
Structural diversity	Reinstatement of layers, faunal food webs, and spatial habitat diversity.
Ecosystem functionality	Appropriate levels of growth and productivity, reinstatement of nutrient cycling, decomposition, habitat elements, plant-animal interactions, normal stressors, on-going reproduction and regeneration of the ecosystem's species.
External exchanges	Reinstatement of linkages and connectivity for migration and gene flow, and for flows including hydrology, fire, or other landscape scale processes.

Key ecosystem attribute categories (Reproduction permission granted by Hannah Boone at SER)

Key 3: The most reliable way to achieve recovery is to assist natural recovery processes, supplementing them to the extent natural recovery potential is impaired.

Restoration is intended to reinstate the missing pieces or conditions of a resilient ecosystem. Start by building an inventory of biotic and abiotic elements. Then compare it to the reference model. The restoration continuum depicts 3 approaches to take: natural regeneration, assisted regeneration and restoration. Deciding which to use depends on the level of degradation and the goals for the specific ecosystem. Often, a combination of the three is required.

Assessment begins with test plots. Simulated disturbances, such as prescribed fire or mowing, can stimulate growth of non-natives and natives. The results of the test plots will ascertain how the larger area might respond and how best to manage your resources.

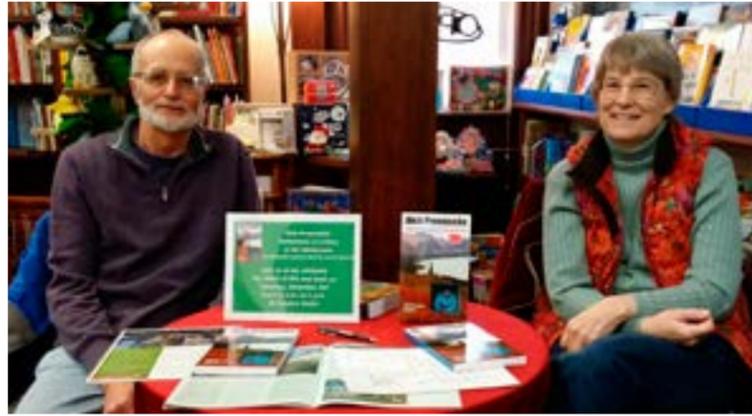
Ecosystem responses are unlikely to be the same from site to site, or even within the same site. It's also unlikely

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TPE Members Publish Book

Alan and Laurel Bennett, Prairie Enthusiast members from the Prairie Sands Chapter, have just published a new book about Alaskan legend Richard Proenneke. Titled "Dick Proenneke: Reflections of a Man in His Wilderness," shares stories from friends, family and associates, on Proenneke's life, and the 30 years he spent in the Alaskan wilderness.

Author of "One Man's Wilderness: An Alaskan Odyssey," Proenneke died in 2003. He was a self-educated naturalist who lived alone for nearly 30 years in a log cabin he constructed by hand near the shores of Twin Lakes in Alaska. A fascinating documentary on his life runs nearly every month on PBS. On a wall in his cabin, the Bennett's report, hung this sign: "Is it proper that the wilderness and its creatures should suffer because we came?"



Alan and Laurel Bennett at a recent book signing at Reader's Realm in Montello. (Photo by Kathleen McGwin)

Of Checks, Balances & Seed Production continued...

Over the past 15 years, we have been greatly increasing the amount and flowering of leadplant at Mounds View by clearing remnants of brush and weeds, planting new areas and burning. It appears that the flower moths, and maybe the weevils, are starting to increase as well in response to this effort and, consequently, seed production is declining as our need to plant more acres at high density keeps growing. There are still occasional scattered leadplants with seed, but the numbers are not adequate for our planting needs, and collecting efficiency becomes very low as plants with abundant seed become few and far between.

Cream and white wild indigos (*Baptisia* spp.) are another example of the restoration success dilemma. These are also conservative climax species, and they too were abundant, even dominant, in the original prairies with several hundred plants per acre on average. Like leadplant, they too have specialist insects that eat their seeds. The primary ones are the seed weevil (*Trichapion rostrum*) and the 3-lined grapholite moth (*Grapholitha tristrigana*). The larvae of both eat the seeds within the pods and do an exceptionally thorough job of eliminating seeds. Neither species is as rare as the leadplant flower moth, but they are still indicators of a complete, healthy ecosystem and thus desirable.

At Mounds View Grassland, these insects have become so abundant over the past seven years that we are unable to collect enough wild indigo seed to plant more than an acre per year at the target densities. This is a major predicament when one is striving to plant 40- to 50-acres each year.

There are likely other conservative climax species for which loss of seed to specialist insects is becoming an issue as well. For example, we are having difficulty getting good seed from prairie gentian (*Gentiana puberulenta*), and there are questions about just how much viable seed we are getting from purple prairie clover (*Dalea purpurea*) and rattlesnake master (*Eryngium yuccifolium*).

In fully intact prairies, a high rate of seed loss to specialist insects is not a problem for long-lived climax plant species. They don't need heavy seed production every year; once in a great while is sufficient to maintain their populations. It's in recovery and restoration of sites that this life history strategy

has a downside.

So what to do about this dilemma? One possible remedy may be to establish seed production areas well away from remnants and restoration plantings in hopes that specialist insects will take many years to find the production sites. We experienced this isolation effect last year when a small production bed of cream wild indigo, located well away from remnants and plantings with wild indigo, produced pods full of seed while the remnants and plantings produced little to no seed.

The use of insecticides on production beds is tempting, until one considers the need for pollination. Possibly applications could be timed to avoid the pollinators and suppress the seed eaters, but still risky. Maybe barriers, traps and physical removal of insects could be effective on some species. Who knows? Maybe as sites mature, outbreaks of diseases, predators and parasites will suppress the seed-eating insects enough to allow for good seed production more often than not. But even then, we would have to lower our expectations on the time it takes to bring back large areas to the original diversity.

It appears that restoring prairie back to its original plant (and invertebrate) community composition on a large scale isn't going to be an easy task and will likely take a long time to accomplish. However, if we don't get the ball rolling, it will never happen. We may not live to see what a thousand acres of leadplant at 5,000 plants per acre, or cream wild indigo at 700 plants per acre, or wood lily at 7,000 plants per acre looks like, but with any luck, future generations will.

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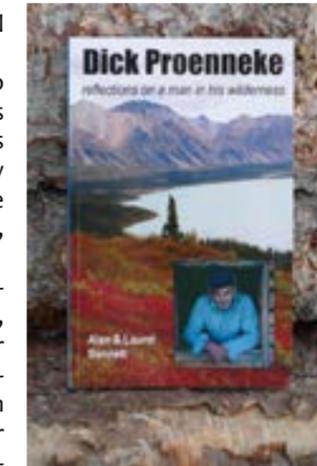
The couple met Proenneke while working at Lake Clark National Park & Preserve from 1991-1997. Dick built his cabin in 1968, and in 1980, the 3.5-million-acre park was created in the wilderness around his cabin. Dick's slides and movie footage of the Twin Lakes area played a role in demonstrating that the area was worthy of national park designation.

"Needs? I guess that is what bothers so many folks. They keep expanding their needs until they are dependent on too many things and too many other people... I wonder how many things in the average American home could be eliminated if the question were asked, 'Must I really have this?'"

From "Richard Proenneke, One Man's Wilderness: An Alaskan Odyssey" Alan Bennett, born in Horicon, WI, spent 13 years working for Lake Clark National Park & Preserve as a wildlife biologist, fisheries biologist, and program manager for inventory and monitoring. After retiring, he spent a portion of the next six summers as a volunteer interpretive guide at the Richard Proenneke Site.

When he was not giving visitors a tour, Alan repeated photographs taken by Dick in the 1960s and 1970s to document how a warming climate has transformed the Twin Lakes landscape that Dick experienced into what visitors see today.

Laurel Bennett grew up outside Juneau, Alaska, and spent 10 years at the park as a biological technician, part-time cultural resources technician, and aquatic ecologist. Laurel met Dick in April 1992 when her supervisor asked if she wanted to go along when the park pilot took Dick his mail; Alan met Dick a few months later when he stopped with the park pilot during an aerial moose survey. Alan remembers feeling fortunate to spend many hours hiking with Dick and discussing the local wildlife. Laurel was more tied to the park office but was able



"Dick Proenneke: Reflections of a Man in His Wilderness" (Photo by Jeannette Mills)

to visit and hike with Dick while spending time in the Twin Lakes area.

Laurel joined Alan as a volunteer interpretive guide for the Richard Proenneke Site at Twin Lakes in 2009. The couple volunteered when a friend and former co-worker from the NPS asked for anyone willing to spend "at least a week" at the cabin in August. The couple stayed the entire month and repeated their work each August from 2009-2014.

"Dick's calendars and journals are among the longest continuous records for any Alaska national park. Trends in the duration of lake ice cover on Upper Twin Lake plotted from Dick's records (1969-95) parallel those of other Northern Hemisphere sites and provide evidence that freshwater ecosystems are responding to a warming climate. Dick's love for wilderness, passion for observing and understanding the natural world around him, and dedication to keeping records were an inspiration to many."

From the Bennett's book "Dick Proenneke: Reflections of a Man in His Wilderness"

Today, Laurel and Alan work to restore 120 acres of wetlands, prairie and oak savanna in Marquette County, Wis.

Laurel is the lead steward for the Prairie Sands Chapter's efforts to help The Nature Conservancy restore Page Creek Marsh in Marquette County. She holds regular workdays on that site, which are listed on the TPE website when scheduled.

Their book, "Reflections" is available through Friends of Donnellson Public Library/Richard Proenneke Museum www.richardproennekestore.com.

For more information on Dick Proenneke and his cabin, visit: www.nps.gov/lacl/learn/historyculture/proennekes-cabin-or https://en.wikipedia.org/wiki/Richard_Proennekeon

Summation of a Seed Season continued...

For those who are as interested in this subject as I am, below is a portion of what was said:

"I like walking around and seeing the culmination of the 'prairie year.' It gives me an excuse to touch and smell the prairie plants."

"I really enjoy the tranquility of seed collecting and the quiet conversations with other volunteers as we wind our way across the prairie."

"It engages all my senses."

"I feel more relaxed after picking seeds... Also provided a good laugh at home when they saw me covered with tick trefoil seeds from head to toe."

"It's a beautiful, meditative experience."

"Free education in a hands-on environment is priceless to my family's prairie project."

"It is a never-ending opportunity for learning, particularly

experiential learning... It gives me a sense of purpose."

"I feel it's a privilege being a volunteer... I love sharing my new knowledge with my grandchildren and with friends who share a love of nature."

"It is a pleasant way to get exercise without noticing."

"It makes me feel wonderful to increase the prairies in the area... a higher calling."

"A feeling of shared wealth and accomplishment accrues as we see containers fill with seeds, and we consider all they can become."

"With so little of our native landscape left, each seed is truly precious."

"Being part of the human tribe hand-harvesting together in autumn just feels natural."

"I have spent the last few years caring for [a relative]... It is about time that I devote my caregiving energy to Mother Earth."

Choosing Herbicides

By Marci Hess

There are numerous herbicides on the market today. Many are the same chemical composition with different brand names; some have combinations of familiar chemical names, and many target the same plants. How does one decide which herbicide to use?

Various methods are used to classify herbicides - sometimes by their mode of action or selectivity, other times by their broad chemical categories.

When making herbicide decisions talk with your distributor but do your own research, too. What plant are you targeting? Do you want to use this herbicide for more than one type of plant? Is the target plant herbaceous or woody? Do you want a foliar application, stump application or basal application? Will you be doing the work in winter or in the growing season?

Aside from these basic questions, I research other key aspects, such as soil residual, toxicity and the chemical's mode of action. I read the label and the Safety Data Sheet (SDS), and I request a copy of the Technical Bulletin from the company representative. I have a "checklist" of important considerations I want answered before I buy. Beware of unsubstantiated claims. The chemical company must follow particular testing guidelines; until there is an independent herbicide testing company, their data is the most accurate.

My checklist and explanations follow:

- **Soil residual** –also known as the “half life” of the chemical in the soil. This tells how long it takes the original chemical amount to be degraded by half in the soil. Generally, the manufacturer of the herbicide will provide an average time range because their testing is done in a laboratory and herbicide response is highly dependent upon environmental conditions. Some soil details help us to sort out this variability:
- The half-life is longer in dry soil.
- Leaching (movement into groundwater) is more likely in wet soils. Water competes with herbicide binding sites leaving more herbicide free to be leached from the soil. The herbicide's water solubility is measured as a Koc value. A Koc value lower than 1900mL/g is more likely to leach into groundwater.
- What is the soil pH? A pH below 7 is more acidic and provides fewer sites for binding and fewer microbial bacteria, which are responsible for herbicide degradation.
- What is the texture of the soil? Finely textured soils and soil high in organic matter lead to longer persistence than coarsely textured soil or soil low in humus.
- Toxicity – The EPA tests for lethal doses to non-target biota such as mammals, birds, fish and invertebrates. I search by chemical or brand name at the Pesticide Action Network (PAN) website (<http://www.pesticideinfo.org/>)

Continued on page 12

Using Adjuvants (additives) to Maximize Herbicide Effectiveness

By David Cordray

Herbicides are expensive. Invasive weeds are everywhere, and your available time to go after them is in short supply. We also can't always choose the ideal time to apply herbicides. Our schedule, prolonged periods of dry weather, hot weather, low humidity, cold weather, high winds, large plants, impending rain, all may require us to apply herbicides in less-than-ideal conditions. The best bet for increasing the effectiveness of your herbicide application, during a broader range of environmental conditions, is to use adjuvants.

An adjuvant is a substance you add to the spray tank mixture, or it may already be integrated into the manufacturer's herbicide formulation, with the goal to improve herbicidal activity or application characteristics. Adjuvants can improve herbicide performance by influencing a number of factors involved in herbicide absorption and spray applications. Some of these factors include conditioning the water, dissolving the waxy coating on a leaf surface for better penetration, spreading on the leaf surface for better area coverage, sticking to the leaf surface to avoid spray droplet bounce off and minimizing small droplet formation for spray drift reduction.

For example, when spraying invasive weeds mixed with nearby good plants, we want our herbicide solution to stick to the target plant, quickly absorb into the leaf tissue, kill the weed, and minimize depositing any herbicide onto good plants.

The world of adjuvants can be confusing. There are a wide variety to choose from, and they are not regulated by the EPA. The most effective adjuvant will vary with each herbicide, and the need for an adjuvant will vary with environment, weeds and herbicide used.

How to know what to use? No worries! Like any good restoration practitioner, you read the herbicide label. The label will tell you what type or types of adjuvants to use, how much, and how to mix it in the spray solution. Keep in mind that the label may recommend different concentrations of adjuvants with different plant species, as well as different growth stages of the plant. Using adjuvants beyond labeled rates may cause damage to non-target plants.

Adjuvants generally consist of surfactants, oils and fertilizer. One of the more common adjuvants recommended by many of the herbicides we use is a non-ionic surfactant (NIS). The term non-ionic means it doesn't have an electrical charge and won't interact with hard water magnesium and calcium ions. A surfactant is simply defined as an additive



Adjuvant label

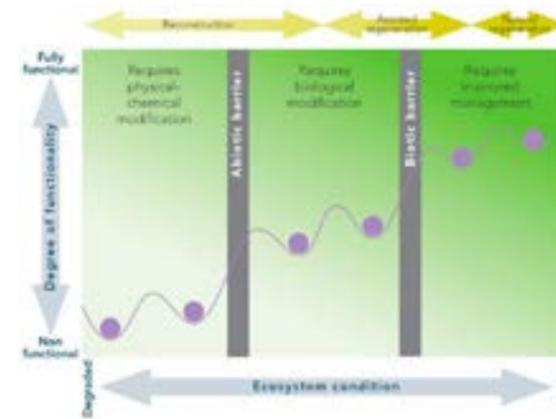
that reduces the surface tension between the spray droplet and the leaf surface. The main function of an NIS is to increase spray retention, and to a lesser degree, may influence herbicide absorption. Silicone NIS surfactants reduce spray droplet surface tension, which allows the liquid to run into the leaf's stomata (tiny openings in the epidermis).

This “stomatal flooding” enhances herbicide absorption. Methylated vegetable or seed oils (MSO) adjuvants are more aggressive in dissolving wax and leaf cuticle (outer layer of tissue) than NIS, resulting in faster and greater herbicide absorption. MSO adjuvants are usually required for grass-selective herbicides. Some of the most advanced adjuvants combine both a silicone NIS with an MSO for fast and maximum herbicide uptake.

Can I use household soaps and detergents? The short

SER International Standards continued...

that one action at one time will be sufficient; some actions require follow up, and many require a combination of interventions such as mowing, herbiciding, burning and hand



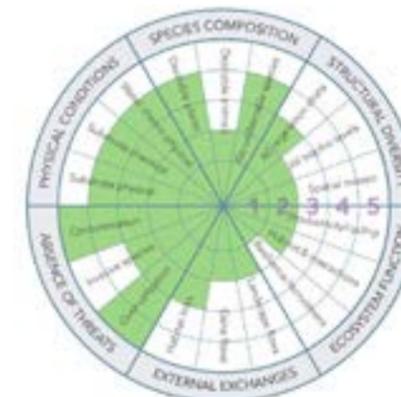
Conceptual model of ecosystem degradation and response to it through restoration. (Hannah Boone at SER)

pulling. Page 18 provides a more thorough accounting of each of the approaches SER suggests.

Key 4: Restoration seeks “highest and best effort” progression towards full recovery.

Recovery to the land's intended trajectory is a slow process. Our restoration work needs to be considered as part of a long-term process. We may never be done, but we can adapt a continuous improvement strategy. To maintain focus on recovery and gauge success, SER suggests a 5-star system where each star level reinforces and strengthens the next.

This rating system is used to evaluate progress of a site and keeps your “eye on the ball” in a process that doesn't have a



Progress evaluation “recovery wheel” using the 5-star system. (Hannah Boone at SER)

answer is - only if it's on the herbicide label. The practical answer is hard water and soap will form scum that plugs equipment. Soft water and soap will form lots of suds. Most household soaps have low concentration levels of surfactants, while most agricultural surfactants are in the 80 – 90% concentration range.

In summary, read the herbicide label for the recommended type and concentration of adjuvant for the targeted plant species and growth stage. Buy the adjuvant that meets the label requirements, and follow the label mixing instructions. When choosing among the many adjuvant brands that meet the herbicide label requirements, choose the adjuvant that best matches your application needs, such as drift reduction, rapid uptake, leaf adherence, etc. If there are any questions, consult the herbicide manufacturer.

distinguished end result. Page 20-21 provide a more thorough understanding of the 5-star rating approach.

Key 5: Successful restoration draws on all relevant knowledge.

The work (and fun!) of restoration can be done successfully by all of us – no matter our educational background or professional career path. While our work involves scientific understanding coupled with practical knowledge and experience, no singular scientific field encompasses this work and none of us can be expected to be proficient in all aspects. Restoration work is optimized when it's viewed as an integrated science. There is a long list of specialized science (i.e. soil, plant, invertebrates, vertebrates, fungi, dendrology, fire, climate, etc.) relevant to our work.

Continued learning and sharing is fundamental.

Key 6: Early, genuine and active engagement with all stakeholders underpins long term restoration success.

Simply put – include others in your work. Humans and nature are intrinsically linked. While work days aren't for everyone, there are many aspects to restoration work for all interests and schedules.

Bottom line, once you set your goals, you monitor and document progress, then let people know what you're doing, why you're doing it, and why it's important. Be fearless in promoting progress and achievements!

Here's the link to the general page about the report:
<http://www.ser.org/?page=SERStandards>

The pdf is linked on that page, or the direct link to the pdf is:
http://c.ymcdn.com/sites/www.ser.org/resource/resmgr/docs/SER_International_Standards.pdf

Choosing Herbicides continued...

Toxicity considerations include lethality by dose (LD50) and by concentration (LC50). LD50 measures what amount is required to kill 50% of a test population. It's measured in mg of chemical to kg of body weight. For example, Milestone's LD50 in rats is 5000 mg/kg. The popular mosquito repellent Deet has a LD50 of 1800 mg/kg in rats. Which one would you rather have on your skin? LC50 measures the amount required per volume of air or water to kill 50% of a test population; this is expressed as mg per liter (mg/L). The values of LC50 range from 10 being extremely toxic to 100,000 being relatively harmless if breathed in or ingested; these values are not correlated to humans but are used to determine toxicity in species such as fish or honeybees.



Chris Kirkpatrick applying herbicide to a girdled tree. (Photo courtesy of Prairie Works, Inc.)

For a thorough explanation of how toxicity is described and defined on labels, the National Pesticide Information Center has a fact sheet on Signal Words. www.npic.orst.edu/factsheets/signal-words.pdf

How does the chemical affect the plant? Most herbicides I use in restoration work are systemic, the plant's transportation system moves them to the target kill spot. Contrast this to contact herbicides, such as vinegar, which simply top-kills without translocation to the roots.

Mode of action is one way to classify herbicide, although I prefer to know both the mode of action and the selectivity. Selectivity is based on what the herbicide targets (i.e. broadleaf, grass, nonselective) or can be based on post-emergence or pre-emergence. I don't use pre-emergent herbicides because they affect seed germination and often aren't selective.

Mode of Action is classified in the following ways:

- **Growth Regulators** are the most common. They mimic a plant growth hormone known as auxin, which is responsible for cell elongation. This herbicide upsets the natural hormone balance, causing a cascading, disruptive effect. Soil pH has little influence on this category of herbicide. Examples include triclopyr and aminopyralid.
- **Amino Acid Synthesis Inhibitors** are the second most common. They inhibit the production of the ALS enzyme, an essential amino acid for producing new cells. If the pH in the soil is low, there can be a long residual effect. An example is metsulfuron.
- **Lipid Synthesis Inhibitors**, the third most common, are grass-specific herbicides, which target production of lipids, resulting in new cell production. Examples are fluazifop, clethodim, sethoxydim.

- **Cell Membrane Disrupters** cause cell membranes to rupture. I don't use these because they are very persistent in the soil and can cause respiratory problems in humans. Examples of this are paraquat or lactofen.
- **Nitrogen Metabolism Inhibitors** prevent an enzyme that allows the plant to convert microbial-created ammonia formulations into nitrogen. The only example I found is glufosinate.
- **Pigment Inhibitors** stop chlorophyll production. Another herbicide I seldom use because it's restricted to coarse-textured soils. Examples are clomazone or isoxaflutole.
- **Photosynthetic inhibitors** have three types, which disrupt photosynthesis in different ways. These are applied to the soil, have long persistence, and can leach into the groundwater. One example is atrazine.

Cost - calculating costs is not only about the actual financial outlay; it's about effectiveness, too. If the financial cost is lower, but I have to apply it two or three times for effectiveness, this changes both cash and environmental costs. Costs also include negative environmental impacts or known human health issues - I avoid these herbicides. All herbicides should be treated with respect, and most concerns are mitigated through proper use and handling yet with some herbicides, there are health or environmental issues regardless of proper handling (i.e. 2,4-D, atrazine).



Rick Cockrell mixing herbicide. (Photo courtesy of Prairie Works, Inc.)

Storage and Cleaning - always keep your herbicides in their original containers with the labels attached. Storing mixed herbicide longer than the growing season reduces its potency and effectiveness. Don't allow liquid herbicide to freeze because it can change the chemical structure and reduce effectiveness. If you don't have access to a storage area that doesn't freeze, consider an herbicide in granular form.

Clean all spray equipment when finished or when changing herbicides. Cleaning is best done with an herbicide neutralizer and cleaner, then rinsing containers three times (i.e. Fimco Neutralizer and Cleaner). I apply the diluted rinse water to the edges of our gravel driveway. If this application isn't an option, consider keeping the rinse water in containers and using it as your dilution for the next mixing.

A few other considerations - surfactants and adjuvants are important to effectiveness. See David Cordray's article for specifics on this topic (page 10).

All herbicides are photosensitive to some degree. Application is best on cloudy days but not always practical.

Continued on page 13

Prairie Promoters Remembered

Richard Frank Mattas



Richard Frank Mattas, 69, of rural Elizabeth, Ill., died peacefully at home on Dec. 31, 2016, after a brief struggle with cancer. Born Sept. 14, 1946, in Chicago to Charles J. Mattas and Lillian (Sebek) Mattas, he married Laurie (Loretta Urbaczewski) June 27, 1970, in Stratford, CT.

In 1965, Rich graduated from Morton West High School in Berwyn, Ill., where he was an outstanding scholar and a member of their undefeated football team. He continued to play football at Yale, capping his career with the infamous Yale-Harvard game of 1968 that ended in a tie and was immortalized in the 2008 documentary "Harvard Beats Yale 29-29."

After graduating with a bachelor's degree in physics in 1969 from Yale, Rich earned master and doctoral degrees from the department of Metallurgical Engineering at the University of Illinois, Urbana-Champaign.

Upon retirement from the Argonne National Laboratory near Chicago, Rich and Laurie moved to Jo Daviess County in Northwest Illinois. Rich and Laurie became members of NIPE in 1994 and were involved with many other local groups including the Natural Area Guardians, the Driftless Area Partnership, the Jo Daviess Conservation Foundation and the Galena Rotary Club, among others.

Rich was an accomplished photographer and painter of wildlife, focusing primarily on birds, and wrote both poetry and prose. He was a blacksmith, a bartender and a connoisseur of old movies and fine beer. His thoughtful leadership will be greatly missed by his innumerable friends.

Choosing Herbicides continued...

For very photosensitive herbicides, don't store them mixed; mix them immediately before application, and put them in opaque applicators. The concentrated herbicide should be kept out of the sunlight as well.

Keep an eye on the weather. You don't want it to rain immediately following herbicide application because it reduces effectiveness and could increase leaching into the groundwater. Check the weather, and check the rainfall chart. Sims Fertilizer and Chemical provides a rainfall chart on its website.

The volatility, or vapor pressure, of an herbicide's active ingredient(s) is required by EPA. For granular herbicides, this doesn't apply until they are mixed. Information on the volatility is found in Technical Bulletins. These are not the

Farewell to Ruthie

By Gary Eldred



Ruth Bierwirth, the first Vice President for the Southwest Chapter of the Prairie Enthusiasts (now Prairie Bluff Chapter), died in February.

"Ruthie," as we called her, was enthusiastic from the very beginning. On July 14, 1987, the Southwest Chapter became a legal non-profit with just 6 board members, including Ruthie.

In 1980, I moved from Albany to Boscobel, Wis., to begin a 29-year career at the DNR Wilson Tree Nursery. My passion for prairie conservation moved with me and over several years a small group of us - including Ruthie - committed ourselves to prairie conservation.

She never missed any of our meetings and was always eager to help. I remember the early winter of 1987. Our board was gathered at a café in Boscobel. We all chipped in to send out hand-written Christmas greetings to all of our membership - perhaps less than 50 people. Ruthie seemed to especially like our seed-collecting parties, and we all enjoyed her company and sharp wit. Ruthie played a very important role in the first days of TPE and will be remembered that way.

Thank you Ruthie for your support and commitment; it made a difference!

same as the label or the SDS. Technical bulletins are written by the companies to provide application use and background information to the end user. You'll need to ask your company representative for these.

No herbicide piece would be complete without discussing safety. Personal protection equipment (PPE) goes beyond chainsaws or brush cutters! Your skin is the main contact for herbicide. Be sure to wear gloves when mixing and cleaning; the nitrile type are inexpensive and allow for dexterity. I wear two types of glasses - my prescription and either sunglasses or safety glasses. Wearing a face mask when applying herbicide should be a consideration, too. Finally, unless I'm in a protected area, I don't spray on windy days. This causes collateral damage to other biota, including me!

Hugh Iltis legacy inspired TPE pioneers

By Debra Noell



Photo courtesy the Iltis family.

In 1973, John Ochsner - a TPE founder -remembers tagging along with Dr. Hugh Iltis and a group of his UW graduate students on a hike of Abraham Woods, and the Muralt Bluff and Oliver prairies in Green County, Wis. John had lived near these sites since childhood but wasn't familiar with their importance.

On this day, Iltis would change his perspective.

"Here was this charismatic, East European 'real life Indiana Jones,'" Ochsner said, and as he followed this pied piper of conservation through the woods and prairie remnants, listening and learning, Ochsner remembers discovering what many of us have found along the way - a reverence for prairies.

"In the early days, personalities pushed ideas," said Robert Baller, an early member of TPE and Iltis protégé. "You could really see he was the speaker, and everyone was listening to him," added Baller, who was thrilled when Iltis called him "the man with the green pen" for his many writings on the environment.

Iltis, long-time TPE member, died Dec. 19, 2016, at the age of 91.

This world-famous environmentalist, who as a teenager fled Eastern Europe during WWII with the help of Albert Einstein, who prepared documents for the Nuremberg trials, who taught at UW-Madison and along with Theodore Cochrane published the "Atlas of the Wisconsin Prairie and Savanna Flora," inspired Ochsner, Baller and others to form what is now TPE.

"Is there any one among us who would not agree that, to remain human, man needs a good helping of wild nature to walk in, to cherish, to love? Indeed, we all love flowers and birds, and seemingly must, through some inner unexplained urge, go exploring for plants and find wild nature, even if it is in a botanical garden."

~ Hugh Iltis, "Whose Fight is the Fight for Nature?"
Sierra Club Bulletin, October 1967.

As TPE celebrates its 30th anniversary this year, Iltis is an important figure to explore. "Some of us put him up there with (Aldo) Leopold," said Nick Faessler, another TPE pioneer. Without his influence, encouragement and charisma, our organization might not be what it is today.

Gary Eldred, another early TPE member, used to explore Muralt Bluff, looking for plants he read about in stories by Native Americans.

"Once in awhile," Eldred said, "Iltis would show up," providing enthusiasm and support for the TPE mission. "He (Iltis) was so taken with our grass roots efforts ..., " Eldred said. "He kept complimenting me and building me up," which motivated the group to keep going. "The rush we would get from saving a site," Eldred remembered, and then getting high praise from Iltis "really built my confidence."

In later years, Eldred and others worked to purchase a 20-acre savanna connected to Muralt Bluff Prairie, and in 1999, they named the parcel "Iltis Savanna."

Iltis spoke at the first Prairie Enthusiasts conference in Green County in 1989. "That's how much he meant to us," Baller said. "He was as influential on us as he was on his students."

Some say Iltis' blunt, sometimes outrageous statements and antics, could be prickly and controversial.

TPE member Cochrane, who worked with Iltis at the UW Dept. of Botany and remains an active TPE member today, knew Iltis well. "No matter how long I live or who I meet in my life," Cochrane wrote recently, Iltis will be "the most unforgettable character I've ever met."

Iltis arranged a half-time teaching assistantship for Cochrane for a plant taxonomy class in the summer of 1969. One of the field trips was to TNC's Spring Green Preserve. After explaining that a prairie is an ecological system dominated by grasses, and pointing out that fire is a natural element in the ecosystem, Iltis decided the students needed a demonstration burn.

He lined students up into a square surrounding a little parcel of ground and tossed a match onto the short grass.

"Never mind that there was no preparation of any kind: no firebreaks or equipment, no consideration given to the amount of fuel or wind and moisture conditions, no discussion as to how to handle the operation," Cochrane shared. "And none of us (maybe not even Iltis except perhaps in the UW Arboretum) had ever seen, let alone conducted, a prescribed burn. Soon after we had succeeded in putting the fire out by stomping on the flames and beating them with our jackets, a fire truck from Spring Green arrived on the site."

Ochsner shares another story of Iltis "audacious" personality.

About 1964, as the story goes, Iltis was carrying his infant son during a visit to a remnant prairie on the Oliver family farm near Albany. Iltis knocked on the Oliver's front door, and Arlene Oliver answered.



Hugh Iltis with Shelley Hamel.
(Photo by David Hamel)

"Would you consider selling this beautiful prairie?" Iltis inquired. She smiled. She liked the remnant prairie and said she would support saving it with a sale, but Iltis would have to talk with "Mr. Oliver," who was milking cows in the barn.

Excited at the chance to obtain the land, Iltis handed his son to Arlene and scurried off to the barn. Ed Oliver looked up from under the cow and seemed open to the idea of selling the four-acre parcel. Sensing an opportunity, Iltis grabbed an old paper sack in the barn and started writing up an agreement. Later, Arlene reported her shock at having been given a baby by a total stranger. But by preserving the land, she later told Ochsner, she got what she wanted.

Oliver Prairie and Abraham's Woods are properties near Muralt Bluff and remain under the management of the UW Arboretum today.

Cochrane described Iltis as a "unique and complicated character," using many flattering words such as "charming, generous, inspirational, passionate," and not-so-flattering adjectives such as "egotistical, irreverent and abrasive."

Cochrane remembers being asked by TNC to lead a field trip at the Spring Green Preserve. As the group assembled on a steep, southwest-facing, limestone-capped bluff, Cochrane said he launched into a discussion of the nature and distribution of prairies in WI that was "apparently too long and too boring for Iltis to tolerate." Iltis interrupted and unceremoniously assumed control over the batch of participants, reducing Cochrane "to the role of a tagalong," he said.

"Partly because of his strong individuality, Iltis struck students, associates, and audience members in a great variety of ways, and each will remember different facets of his personality," Cochrane wrote. "On a personal note, I want everyone to know how much I owed him, how much I admired his intellect, knowledge, and wisdom, but we developed a working relationship based on mutual respect and shared love of plant diversity rather than a sincere friendship. At the same time I must also acknowledge that his character evolved into being less on edge and more agreeable as the years went by."

"Partly because of his strong individuality, Iltis struck students, associates, and audience members in a great variety of ways, and each will remember different facets of his personality," Theodore Cochrane

TPE member Shelley Hamel described Iltis as having "irrepressible enthusiasm, deep knowledge, approachability, and almost desperate desire to get folks to be involved, practice conservation, preach and practice population control ..." His no nonsense, time-is-running-out attitude converted Hamel and her husband, David, to "practicing environmentalists."

"We joined the Iltis fan club and came to learn the importance of tenure in the university," the Hamels wrote of their friend, "because not all people appreciate such forthright expression of Hugh's deeply-held values. Others, like us and like those he mentored, find it life-changing inspiration."

In 1988, "because of our association with a force like Hugh," the couple purchased a 120-acre woods and fallow crop field surrounded by remnant prairie and savanna with

a nascent population of state-threatened, federally endangered Karner Blue butterflies. With Iltis' help, the Hamels dedicated their retired lives to restoring and managing the property, and the butterflies have increased 200 fold.

"We dedicated our acreage to Hugh Iltis in 2007 and cemented a big, fireproof metal sign, visible from the road right among the sand prairie plants he helped us to learn, identify and love," the Hamels wrote. "Perhaps others will be so inspired."

Whether you were one who loved him or were put off by his outspokenness, none can deny Iltis paved a path in conservation that allowed TPE to evolve. As we celebrate our 30th anniversary as an organization, consider what Iltis wrote in 1967:

"Even if you are not a joiner, join... one or two local groups that are to your liking. Without political implementation all our understanding will be to no avail. You have to rock the conservation boat to make any political ripples." Hugh Iltis

With 30 years behind us, what memories, stories or personalities also need highlighted? Contact Debra Noell, editor, at promoter@theprairieenthusiasts.org with your ideas.

Opportunities to Celebrate Iltis' Life

On April 22, 2017, the late Dr. Hugh Iltis will be inducted into the Wisconsin Conservation Hall of Fame, at Sentry Theater in Stevens Point. A coffee reception at 9 a.m. is followed by the induction ceremony at 10 a.m. Both are free.

Reservations can be made on line for the luncheon that follows at 12:30 p.m.

Per Iltis son, Michael, a memorial service will be from 2-6 p.m. May 14, at the Atrium of the First Unitarian Society, 900 University Bay Drive, Madison. The service will start at 2:30 p.m. in the auditorium with a catered reception to follow about 3:30 p.m.

Those who plan to attend should notify Frank Iltis via madisfrank@aol.com and include:

- Number of people attending the ceremony and/or catered reception
- Names and email addresses of those who wish to speak



Photo courtesy the Iltis family.

Chapter News

Empire-Sauk

Rich Henderson

New Bridge at Schurch-Thomson Prairie

Just a few days before Thanksgiving, the final touches were made on a new bridge across Stickleback Creek at Schurch-Thomson Prairie. Its purpose is for visitor crossing, and to allow access across the stream by ATVs used in prescribed burns. The creek dissects the greater Mounds View Grassland Preserve of which Schurch-Thomson Prairie is a part. Before the bridge was built, ATV pumper units had to travel a mile out of their way to get to the other side of the stream to patrol for spot fires and conduct burns. The bridge will now allow for more efficient and safer burns, and makes it easier for visitors to get to the prairie restorations and remnants on the northwest side of the preserve.



Rex Sohn was the primary planner, architect, engineer, carpenter and laborer on this project. He received some help from the

Nov. 21, 2016 the bridge opens (Photo by Rex Sohn).



Bridge building on Oct. 29 with participants Rob Baller (foreground), Willis Brown, Dan Caucutt, Erik Goplin, Ian Henderson, Kathy Henderson, Rich Henderson, Jan Kettle, Rex Sohn, Andy Sleger, Pat Trochell and Ken Wade. (Photo by Rob Baller)

2016 summer intern crew in moving poles about, Andy Sleger (TPE's land management specialist with the Empire-Sauk Chapter) in assembling parts of the bridge, and a crew of a dozen volunteers in the final placement of the support poles across the stream, but it was mostly his effort. Without Rex's energy, competence and thoroughness, this project would not have happened.

He took it from the planning and DNR permitting phase to the final landscaping touches and everything in between. He did an excellent job. Thanks Rex!

Prairie Flower Gardener Needed at Schurch-Thomson Prairie

A volunteer with gardening and plant propagation experience is needed to take charge of the seed and plant propagation beds at Schurch-Thomson Prairie, located 5 miles south of Blue Mounds. We are in the process of revitalizing and expanding the seed production and plant propagation beds there. We need someone to take the lead in planning and implementing what needs to be done, and in directing and guiding others to assist the efforts.

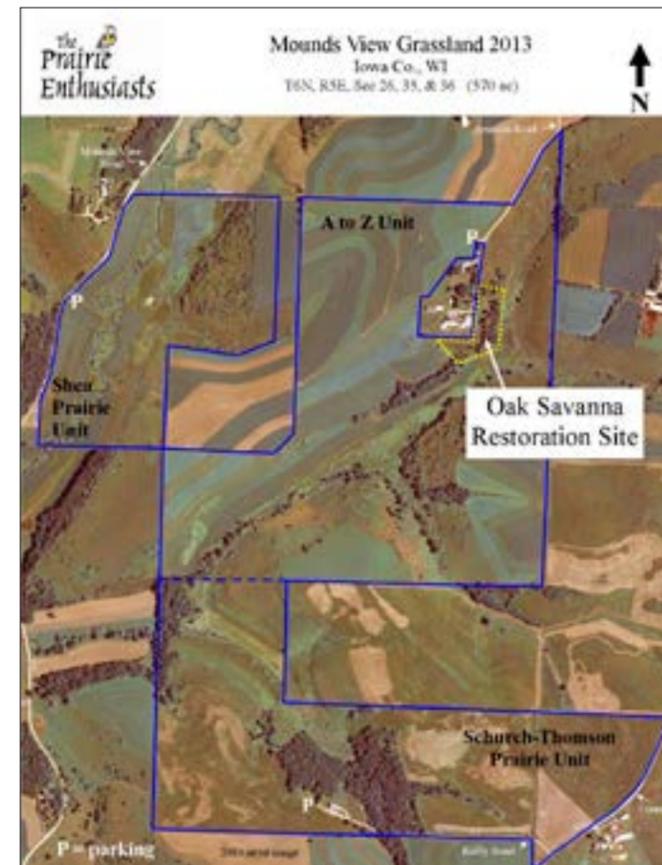
These beds produce seed and root stock of critically important and hard-to-come-by species for all of our restoration efforts in western Dane and eastern Iowa counties. Species include prairie violet, blue-eyed grass, yellow star-grass, violet wood sorrel, prairie phlox, wood lily, Michigan lily, alum-root, Jacobs ladder, butterfly milkweed, cream wild indigo, smooth white lettuce and others. In addition to planning, bed layout, coordinating and leading volunteers, other tasks include weeding, planting seedlings, transplanting, lifting and dividing roots, prepping areas for planting and more. If interested in learning more about this volunteer position, contact Rich Henderson (608-845-7065 or tpe.rhenderson@tds.net).

Note: Some compensation for travel and expenses could be available.

Looking for a Savanna of Your Own to Restore?

Would you like to be in charge of your own oak savanna restoration but aren't in a position to acquire a piece of property with mature oak trees yourself? If so, here is an opportunity for you. It would involve planning and implementing a 6-acre restoration of bur oak savanna on a TPE preserve in far eastern Iowa County. The site is located 4.3 miles south of Blue Mounds on the "A to Z unit of TPE's Mounds View Grassland" (see aerial image on page 17). Access is at the end of Arneson Road, which is off of Prairie Grove Road.

TPE is looking for someone to take charge of this manageable project and make it his or her own. You, as the project manager, would be in charge of planning and implementing the work with some technical guidance and resource assistance from the Mounds View Grassland Land Management Committee. Within certain sideboards, such as what species may be introduced and what restoration/management methods may be used, you, as manager, will otherwise have control of the project. This position does come with the responsibility of doing much of the work yourself. However, TPE will provide assistance in the form of equipment, supplies and time from volunteers and interns as needed.



The site is located 4.3 miles south of Blue Mounds on the "A to Z unit of TPE's Mounds View Grassland"

The site has mature bur oak trees on an east-facing slope above a wetland complex. Until 10 years ago, it had been heavily grazed. Consequently, there is almost no native ground layer vegetation remaining, but that also means there is relatively little shrub and tree invasion to deal with, at least not yet.

Activities that you, as manager, will likely be planning and implementing, or planning for others to assist with, would include:

- Assessing the site and proposing a restoration plan (technical guidance provided as needed).
- Establishing and mowing fire-breaks.
- Controlling invasive, mostly non-native, plants such as sweet-clover, wild parsnip, Japanese hedge parsley, reed canary-grass, honeysuckle and others.
- Collecting and planting native savanna and prairie seed.
- Planning and leading work parties.
- Planning prescribed burns (TPE burn crews will conduct the burns, but as manager, you may certainly participate).
- Keeping records of what gets done and where.
- If this opportunity interests you, contact Rich Henderson at tpe.rhenderson@tds.net or 608-845-7065.

Fall 2016 Badger Volunteer Activities

Ted Cochrane

Last fall, TPE's Empire-Sauk Chapter entered into its fourth year as a community partner with the University of Wisconsin-Madison's Badger Volunteers program. Teams of students, recruited through the program, are paired for a semester with some 80 community partners that focus on education, sustainability and public health. Three undergraduates, Yasmin Schamiloglu (team leader), Nam Quang Pham, and Nicholas Cheng, all computer science majors, volunteered three hours Tuesday afternoons from Sept. 27-Dec. 6, joining TPE supervisors Ted Cochrane, Denny Connor, and Randy Hoffman on work parties.



L to R: Nick Cheng, Denny Connor, Nam Quang Pham, Ted Cochrane, and Yasmin Schamiloglu smile bravely for the camera (note foreground shadow) after surviving a cold December afternoon of cutting and burning small brush on the Koltes Addition. (Photo courtesy of Denny Connor)



Volunteers Randy Hoffman, Yasmin Schamiloglu collect spikelets of Indian grass at Ripp Prairie-Madigan Road. (Photo by Denny Connor)

time, followed by debriefing, stowing equipment and snacking. TPE supplied supervision, necessary equipment and supplies. During 11 outdoor sessions, four to six of us spent a total of 113 hours collecting seed (the first five sessions); cutting, treating and piling small brush (next five sessions); and burning brush piles (last session).

At two parties, student volunteers were offered the chance to work with a brush cutter. Nam readily accepted, but the others preferred to stick with hand tools. For reasons too involved to explain, this year's group missed out on additional activities conducted by their predecessors, namely mixing and sowing seed, mowing a firebreak, and seeing a demonstration of fire equipment. We were lucky to have had beautiful weather for all except the final day, when it was cold and wet but not inclement enough to keep us indoors.

Continued on Page 21

Minnesota Driftless

George Howe

The Minnesota Chapter of TPE met in January at George Howe's home to discuss plans for 2017. An enthusiastic group of 9 members discussed and planned many activities for the New Year, including 5 hikes, 6 prescribed burns, an annual meeting and picnic, and a joint event with the Minnesota Chapter of the Wildlife Society.

The group also continued discussions on equipment purchases, land protection, public outreach, development of chapter contacts and grant applications. Chapter Chair Howe will be working with TPE staff to proceed on conservation easement and land acquisition projects in 2017. Several landowners have expressed interest in protecting their lands, and one is interested in a transfer of ownership to TPE. An effort will also be made to contact and meet with the State of Minnesota's Legacy Program grant staff to discuss the funding process for MND-TPE land protection projects requiring grants.

The Chapter also will be exploring state, private and federal grant sources for prairie restoration and management work in SE Minnesota on high-quality prairies that are in danger of degrading and losing biodiversity.

Southwest Chapter

Jack Kusssmaul

On Feb. 18, chapter members enjoyed the hospitality of Pat and Roger Smith at their farm near Boscobel. They met to plan future work parties. Following the meeting, the group hiked around the Smith farm on a warm, sunny (and yes, muddy) afternoon.

Work parties were scheduled as follows:

- April 22 – burning at Thomas Wet, and if conditions are not conducive, working at Borah Creek Preserve.
- May 20 – spraying crown vetch at Eldred Prairie.
- June 17 – spraying crown vetch or other work at Eldred
- Reminders and notices will be e-mailed to chapter members as the dates get closer.

Northwest Illinois

Rickie Rachuy

Even with the seed shed doors frozen shut, we've been busy. In December, we met with the Northern Illinois Seed Exchange (NISE), a newly formed group of like-minded prairie enthusiasts. Brainchild of Ed Cope, restoration ecologist at the Natural Land Institute, the group consists of professionals working in the field of resource conservation and restoration. They first met mid-summer 2015 and compiled a list of desired species. All agreed to harvest what they could to share with members in December. A vote was taken to identify the three



Beginnings of a new garden (photo by Jim Rachuy)

most desired species, and Nathan Hill of the Rockford Park District offered to grow plugs to share with all this spring. At the exchange, we traded some of our seed for 38 species provided by others. It was the best swap meet ever!

After the NISE meeting, NIPE members Jim Rachuy, Laura Dufford and Barbara Siekowski spent many hours reviewing the Species Conservation Plan charts, choosing which species take priority, which should be propagated (if possible!) and which could be purchased. Only time will tell if we will be successful in producing sufficient seed to reintroduce these species into protected sites.

Long before the snow started to fly, we were making plans for the spring thaw and ultimate seeding into the new rare plant garden here at Lonetree Farm. For his part, Ed Strenski was cutting, daubing and piling up wood for later burning with his crew. Unfortunately, he broke his wrist, but undaunted, he claims to love the fiberglass cast and keeps right on working. What a trooper!



Ed –still good to go! (broken arm) (photo by Karin Strenski)

Continued on page 22

Prairie Bluff

Tom Mitchell

Volunteers were out on our prairies, savannas, woodlands and wetlands for 267 days during 2016, logging 2,356 hours of restoration on seven sites owned by The Prairie Enthusiasts and managed by the Prairie Bluff Chapter. This total doesn't include field trips, prescribed fire, workshops, surveys, meetings, maintenance and paperwork.

Land management highlights from last year - workdays in January and February at Avon Ridge where we cut, stacked and burned most of the invasive brush from our newest preserve; a workday in February at Muralt Bluff with the State Natural Areas' crew where we thinned out a white oak savanna; our annual "fire refresher" course in March attracted 28 members of our fire crew; nineteen prescribed fires in March and April, putting fire on the ground at TPE sites and six members' properties; vigilantly fought weeds from May through September; mowed and treated sumac and aspen clones all summer, and collected seed from about 80 species to plant new prairie at Vale Prairie, Iltis Savanna and Stauffacher Prairie SNA.

Jim Freymiller, the expeditor for sales of the chapter's Parsnip Predator, reports that his shipments of this tool for removing wild parsnip and other tap-rooted weeds totaled 291 in 2016, up 30 percent from the previous year. Rob Baller and Nick Faessler designed the first Predator many years ago, and our sales have continued to increase every year.

The chapter thanks all the volunteers who contribute to our activities, with special thanks to Nick Faessler for his work on the TPE Board of Directors, to Marci Hess for her work on committees and contributions to this newsletter, to Gary Kleppe for maintaining the seed processor; to Fred Faessler for stewardship at Briggs Wetlands, to Chris Roberts and Steve Hubner for their hundreds of volunteer hours, including the majority of our chainsaw work, and to Chris, Steve, Jim, Jerry Newman, Harvey Klassy, Mike Davis, Ralph Henry, Diana Oostdik and Tom Mitchell, the core of our land management crews.

Please join us on one or all of our field trips in May, June and July, to learn a little botany, geology, history – including a man who hunted wolves and a man who was a member of the Eagle Brigade in the Civil War.

Another Winner!

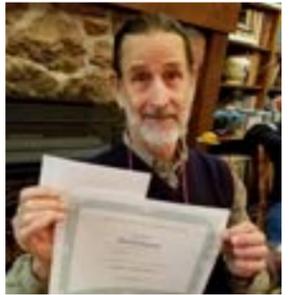
A photograph of seed collectors at Muralt Bluff Prairie by Jerry Newman that was published in the last issue of The Prairie Promoter has won the grand prize in a photography contest sponsored by the Natural Resources Foundation.

Prairie Sands

Ray Goehring

Potluck & Praise

The Prairie Sands Chapter held its annual Christmas Potluck and Seed Exchange on Dec. 1, at the home of Charles and Barb Church of Montello. After a delicious supper of stew and side dishes, there was a chapter meeting at which time the group presented



David Hamel receives Prairie Sands Chapter Conservationist of the Year Award. (Photo by Ray Goehring)



20 members of the Prairie Sands Chapter share a potluck meal (Photo by Ray Goehring)

the chapter board member and treasurer, David Hamel, the 2016 chapter Conservationist of the Year Award for his leadership and his volunteer commitment to chapter activities.

Assisting the DNR

On Feb. 18, as a continuing effort by Prairie Sands members to aid the DNR in restoring savanna to Marquette County's Observatory Hill, a number of chapter members helped to re-seed the area logged last summer. The area was divided into

13 one-acre units and using hand-held seeders filled with a DNR mixture of 12 different forbs (some collected the previous fall from nearby Page Creek Marsh) and soybean meal, the group worked about two hours to complete about 5 acres.



Prairie Sands Chapter members and Wisconsin DNR representatives huddle to hear instructions for re-seeding the new savanna restoration at Observatory Hill in Marquette County. (Photo by David Hamel)

Continued on page 22

St. Croix Valley

Evanne Hunt

Rocky Branch Management Restarted

Our chapter has restarted buckthorn and tree removal at the tiny Rocky Branch native oak savanna.

Officially designated as River Falls Park #12, this site is located between 1371 and 1401 River Ridge Road in River Falls (an easement path leads to the park). It's easily accessible and a great "showcase" for the public.



Group by fire (photo by Evanne Hunt)

The steep, rocky bluff overlooking the Rocky Branch of the Kinnickinnic River is prone to erosion as cedar trees and buckthorn eliminate any ground cover.

Using a portion of the US Fish & Wildlife monarch habitat grant, we hired a contractor in February to mow the buckthorn throughout the remnant. On Feb. 25, a crew cleared buckthorn the mower couldn't reach. We then hand-broadcast locally collected seed.



Rocky Branch "Before and After" (photo by Evanne Hunt)

Field Trips

Is there a native or restored prairie or oak savanna you think we should see? Contact Evanne (715-381-1291 or eahunt@presenter.com).

We are scheduling field trips for the spring, summer and fall. We will, of course, visit our project sites -- Foster, Alexander, Blueberry Hill and Rocky Branch -- but we're also interested in examples of restorations in various stages.

Show off your hard work! Or take us someplace cool!

Like Kids?

Our chapter will have a booth at YMCA Camp St. Croix for Earth Day (April 23), at Willow River State Park for TPE Prairie Day (Aug. 19) and at the North St. Paul Prairie Day (Sept. 17.)

If you would like to help answer questions and help with games, volunteer for 1, 2 or 3 hours. We appreciate whatever time you have!



Joe with kids (photo by Evanne Hunt)

Empire-Sauk continued...

At the first meeting, Empire-Sauk's Vice Chair Rich Henderson told the volunteers about our organization—who we are and what we do. After presenting background information on the Empire Prairies, Cochrane explained that native plant species are planted or sown in ecological restoration projects, and that successful establishment and survival depend on where seeds are collected and how they are treated. Afterward, the group headed out to begin collecting. Discussions at subsequent meetings covered species composition along the prairie gradient, and how to cut and treat undesirable woody vegetation.

TPE's connection with Badger Volunteers has proven to be extremely enjoyable and fulfilling for all participants. It offers a great opportunity for TPE to raise awareness and enthusiasm about prairies, and for young people to gain hands-on conservation experience and to connect with the natural world. We are very grateful to Schamiloglu, Pham, and Cheng for all their help.

Trewartha Bur Oak Award

By David Cordray

A black bird with a white back singing a bubbling, superlative song fluttered by me. Excited, I followed the bird's low flight and noticed a dozen or more birds with vivid straw-colored patches on their heads seemingly floating just on top of the grass.

"Bobolinks," I exclaim! "They're all over the place!" Mary Trewartha, my hiking partner, host, and winner of this year's Bur Oak Award from the Blue Mounds Area Project (BMAP), calmly looked at me and smiled: "Yes David," she said. "They are bobolinks."

The Bur Oak Award recognizes BMAP member landowners who have undertaken or recently completed a project on their own land that makes outstanding progress in protecting or restoring native biodiversity. Excellence in private land stewardship is shown by the degree of leadership and innovation in the project's approach, sensitivity to the local landscape, and enhancement of the habitat of threatened, endangered or special-concern species or plant communities.

The bur oak tree was chosen as the award's namesake because it represents both the dominant native plant community of the region, and symbolizes persistence in the face of adversity by having endured frequent fires in pre-settlement times.

In 1972, Trewartha and her family bought this 170-acre property, which had been settled by the Norwegians in 1854. Being avid birders, and recognizing the uniqueness of the bobolinks, they immediately delayed first haying of their approximately 40-acre ridge-top field until mid-July to allow time for the bobolink chicks to fully fledge.

For more than four decades now, bobolinks have been making the 6,000-mile journey from South America to Trewartha's field, "Bobolink Hill."

Chapter Volunteers of the Year

By Karen Agee

Rachel Potter and Patricia Trochlell were named the Empire-Sauk Chapter Volunteers of the Year. Working together last year, they created and led a four weekend, prairie-centric, field-based course for the Wisconsin Master Naturalist Program. While the chapter offers many field trips each year, the Master Naturalists course led by Rachel and Pat was our first foray into extended, structured curriculum. They undertook this large piece of work with skill, talent, and enthusiasm.

Pat is a wetland biologist with the WI DNR, a long-time chapter member, and a volunteer site steward for TPE's Parish Savanna. Rachel is a retired Madison school teacher with a lifelong passion for natural history. She was introduced to TPE at Prairie Day 2013 and quickly became very enthusiastic



Pat Trochlell (L) and Rachel Potter (R). (Photo by Karen Agee)

about the people she met and the prairies she visited.

Pat and Rachel had met at a work party, but didn't really know each other before they were approached about working together to create a Master Naturalist course. They immediately realized they have complimentary training, skills and backgrounds, and

both are passionate about experiential environmental education and field-based learning. They created a prairie/savanna-focused course and insisted that it be held outdoors, in the prairie as much as possible. The enthusiasm, knowledge, and warmth they brought to the project made the program a great success. We are so pleased that they are going to lead another course this Spring.

Thank you so much Rachel and Pat for sharing your love of nature and joy of discovery with the course participants and the rest of the chapter!

Prairie Sands continued...

Other news

Prairie Sands Chapter will host "A Day in Marquette County" June 4 with a series of area field trips. In the morning, we will tour Page Creek Marsh where the chapter has been working in cooperation with The Nature Conservancy. Led by chapter steward for Page Creek, Laurel Bennett, and fellow member, David Hamel, this tour will also include butterfly identification by expert and chapter member Dan Sonnenberg. Those who wish may lunch at nearby John Muir Park and then take an afternoon hike up Observatory Hill, which will be led by chapter member Charles Church.

For more details see the TPE Field Trip Flyer for April 2017 through August 2017 and the TPE website.

There was a fall work party at Page Creek Marsh Natural Area on Oct. 18 to continue the work we started last year to remove invasive honeysuckle. Once again, chapter members worked side by side with Quercus Land Management Services who were contracted by property owners, The Nature Conservancy.

This adds to the work completed this summer by a team of sawyers. The use of a skid steer and forestry mower cleared firebreaks in preparation for a 2017 prescribed burn. Laurel Bennett, chapter steward for Page Creek said: "It was amazing what that combination can do. You can really see progress."

And, in yet another step forward for Page Creek, The Nature Conservancy invested in a new sign, which Laurel and fellow chapter member, David Hamel, installed at the public parking lot off of County Road K.

In September, David Hamel worked with Muirland Bird Club president Daryl Christiansen and teachers and students from High Marq Environmental School, to identify and remove invasive trees and shrubs from Carol Island in Buffalo Lake near Montello. The students intend to establish a bird sanctuary on the island where green herons have been spotted.

The chapter is planning its annual Christmas party and seed exchange at 6 p.m., Dec. 1 at the home of Charlie and Barb Church. Directions and RSVP information will be emailed later. If you haven't been getting Prairie Sands chapter notices and would like to, contact Ray Goehring at raygoe@yahoo.com.



Legacy Giving

Please consider The Prairie Enthusiasts in your will or estate plans. If you've already done so, please let us know, so we can personally thank you for ensuring the perpetuation & recovery of prairies and savannas. For more information please contact Chris Kirkpatrick, Executive Director at 608-638-1873 or executivedirector@theprairieenthusiasts.org.

Northwest Illinois continued...

I, too, was given marching orders and planned accordingly. Currently, the seeds of eight species are chilling in the 'fridge. Most will be given 60 days of cold, moist stratification before they go into the new garden beds. I'm most excited about the Wood Lily (Lilium philadelphicum) seed that has been in damp sand since we received it from NISE. I will be potting up the stratified seed soon and pampering the seedlings under grow lights until they can be planted outside in mid-to-late May.



The NISE Group: Ed Cope is standing front row center (holding a bag filled with NIPE seed) (photo by Laura Dufford)

Thank You Donors

We thank the following who donated to TPE between October 19, 2016 and March 1, 2017. These gifts include those from our annual appeal, are beyond membership dues and are truly generous and appreciated.

\$1000 or more

- Anonymous (For Mounds View Grassland Endowment)
- Anonymous (For Internship & Operations Endowment)
- Jon & Metta Belisle (To St. Croix Valley Chapter)
- Nancy & Steve Braker (In Memory of Olive & John Thomson)
- Green County (To Prairie Bluff Chapter)
- Patrick Handrick (For Handrick Grassland Endowment)
- Rich & Kathy Henderson (For Empire-Sauk Chapter, Hauser Road Prairie, Sugar River Savanna & Legal Defense Fund)

- Kimberly Kreitinger & Eric Preston (To Empire-Sauk Chapter)
- James & Rumi O'Brien (To Empire-Sauk Chapter)
- Bob Russell (To Northwest Illinois & MN Driftless Chapters)
- Doug Steege & Kris Euclid (For West Dane Conservancy)
- Sue Steinmann & Bill Weege (For Rattlesnake Ridge)
- Dennis & Joan Thomson (For the Schurch-Thomson Endowment)
- Ken Wade & Pat Trochell (For Empire-Sauk Chapter, Parrish Savanna, and Pleasure Valley Conservancy)
- Scott Weber & Muffy Barrett (For Empire-Sauk Chapter & Hauser Road Prairie)

\$500 - \$999

- Karen Agee & Scott Fulton (To Empire-Sauk Chapter & Hauser Road Prairie)
- Dave & Glenda Buholzer
- Doug & Sherry Caves
- Martha Christensen (In Memory of David Middleton)
- Curtis & Kristine Cvikota
- William Damm
- Bruce Duemler
- Ann & Douglas Scott
- Dumas
- Douglas & Carol Hancock
- Debbie Konkell
- George & Betty Kruck
- Izaak Walton League #79 (To Many Rivers Chapter)
- Jim Lesniak & Shelly Armstrong
- Lori Lins
- LaVonne Middleton (In Memory of David Middleton)
- Carol & Bob Niendorf
- Paul Roemer
- Jim & Diane Rogala
- Jim & Rose Sime (To Southwest Chapter)
- John Steinke
- Peter & Lynne Weil
- C. Topf Wells & Sally Probasco (To the Empire-Sauk & Prairie Bluff Chapters in Honor of Rich Henderson and Jim & Marci Hess)
- Neil & Ellen Wenberg

\$100 - \$499

- Jae Adams & Jon Sundby
- Charlotte Adelman & Bernard L. Schwartz
- Amy Alpine
- Ray & Rodonna Amiel
- Craig & Jean Anderson
- Randy Arnold
- Vance Baker
- Patricia Becker
- Harold & Barbara Bend
- Dale Beske & Dorothy Gertsch
- Paul & Linda Bishop
- Kay Bongers
- John Brennan & Regina Voss Brennan
- Willis Brown (For Hauser Road Prairie)
- Glenn Burgmeier
- T.J. Callahan & Elisabeth McCombe (In Honor of Brown Dog Farm)
- Kenneth Cameron (In Memory of Hugh Iltis)
- Glenn Chambliss & Diane Derouen
- Patrick & Barbara Clare
- Virginia Coburn
- Barbara & Ted Cochrane (For Hauser Road Prairie)
- Mike & Cindy Crawford
- Thomas Cunningham & Susan Lipnick
- Robert & Ann De Mars
- Kathryn Dejak

- Joe & Betty Downs
- Mary Dresser
- Tom & Joyce Ellenbecker
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- Mike Engel & Hannah Spaul
- Fred Faessler
- Paul Francuch
- Janice Froelich & Bob Novy
- Kay Gabriel
- Rebecca Gilman
- Steve Glass
- Erik & Nancy Goplin
- Gerald Goth
- Frank Grenzow
- Andrew Gulya (To Northwest Illinois Chapter)
- Janet Hagan (On Behalf of Randy Eide)
- Dick & Joan Harmet
- John & Cate Harrington
- Max Heintz & Laura Nyquist
- Randy & Joann Hoffman (For Hauser Road Prairie)
- John & Rita Hoffmann
- William H. Holland
- Pam Holy
- Greg Hottman & Melanie Tavera
- Steve Hubner
- Mary Zimmerman
- Vito Ippolito
- Harriet Irwin
- Jeff Jahns & Jill Metcuff Jahns
- Eric Johnson & Leah Miller
- George & Carmeen Johnston
- Charlotte Kalish (In Memory of David Middleton)
- Gary Kleppe
- Becky Kruse (For Prescribed Burns)
- James & Suzanne Larson
- John & Laurie Lawlor
- Judith Lovaas
- David Lucey
- Kevin Magee (In Memory of Susan Connell-Magee)
- Greta & John Magill
- Brandon Mann
- Don Waller
- Bruce & Ruth Marion
- Dave Marshall
- & Wendy Weisensel
- Mark Martin
- & Sue Foote-Martin
- Duane & Peggy Marxen (In Memory of the Pioneering Work of Hugh Iltis)
- Joseph Maurer & Deirde Jenkins
- John & Retha Mecikalski
- John & Carol Meland
- Alice & Walter Mirk (To Glacial Prairie & Prairie Bluff Chapters, In Memory of Richard Baller)
- Janice Morlock & David Heemsbergen (In Memory of Dave Middleton)
- William Zimar & Susan Neitzel
- Bill & Ginny Nelson

- Don & Carol Nelson
- Tony & Darlene Nowak
- John Ochsner
- Catherine Olyphant (In Memory of David Middleton)
- Henry Panowitsch & Susan Stevens Chambers
- June Patinkin
- Leslie Pilgrim
- Russ & Meribeth Pomaro
- Deanna Pomije & Greg Hoch
- Rachel Potter & Melanie Sax (In Memory of Kathy Kirk)
- David Quade
- Steven & Martha Querin-Schultz
- Trish Quintenz & Rip Yasinski
- Jim & Ulrike (Rickie)
- Rachuy
- Ron Reynolds
- Jon Rigden
- Heather & Hans Rinke (In Honor of Dennis & Joan Thomson)
- Paul & Linda Rode (To Northwest Illinois Chapter)
- Joseph & Patricia Roti Roti
- Doris Rusch
- Scott Sauer
- Jim & Judy Schwarzmeier
- Penny & Gary Shackelford
- Lee Shambeau
- Marge & Donald Shere
- Hugh & John Simon (To Northwest Illinois Chapter)
- Lee & Margaret Skold
- Johnston
- Charlotte Kalish (In Memory of David Middleton)
- Gary Kleppe
- Becky Kruse (For Prescribed Burns)
- James & Suzanne Larson
- John & Laurie Lawlor
- Judith Lovaas
- David Lucey
- Kevin Magee (In Memory of Susan Connell-Magee)
- Greta & John Magill
- Brandon Mann
- Don Waller
- Bruce & Ruth Marion
- Dave Marshall
- & Wendy Weisensel
- Mark Martin
- & Sue Foote-Martin
- Duane & Peggy Marxen (In Memory of the Pioneering Work of Hugh Iltis)
- Joseph Maurer & Deirde Jenkins
- John & Retha Mecikalski
- John & Carol Meland
- Alice & Walter Mirk (To Glacial Prairie & Prairie Bluff Chapters, In Memory of Richard Baller)
- Janice Morlock & David Heemsbergen (In Memory of Dave Middleton)
- William Zimar & Susan Neitzel
- Bill & Ginny Nelson

Under \$100

- Amy Alstad (In Honor of UW-Madison)
- Lynette Anderson
- Peggy Audley
- Isaac & Gina Bailey
- Danny & Teresa Baker
- John Barkei (In Memory of Quintin Schowalter)
- Tom Bernthal
- & Marge Wood

- Joyce Hood Boettcher (In Memory of David Middleton)
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