



THE PRAIRIE PROMOTER

VOL 15, NO.1 Spring 2002

Dedicated to the perpetuation and recovery of prairie, oak savanna and other associated ecosystems of the Upper Midwest

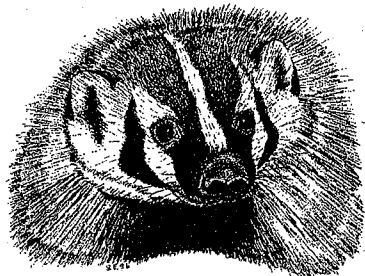
New TPE Chapter In Minnesota!

The Prairie Enthusiasts warmly welcome The Prairie Smoke Chapter of southeastern Minnesota. The formation of this chapter was approved by a unanimous vote of TPE's Board of Directors on March 9, 2002. The new chapter arose from a non-profit fish and game club headquartered in Chatfield, Minnesota. "Prairie Smoke" was an organizational off-shoot of this club. Prairie Smoke's Andrea Mueller met Coulee Region president Barb Christie at one of TPE's field trips in Iowa. Their conversations led to the decision to form the new TPE chapter. Prairie Smoke members saw advantages in aligning with TPE due to its sole focus on prairie and savanna conservation.

The Prairie Smoke Chapter's mission is "to be an educational and management resource to landowners and public land to benefit prairie and savanna protection and restoration, and to increase awareness of the value and rarity of these ecosystems in southeastern Minnesota."

The Prairie Smoke Chapter's geographic area includes the following Minnesota counties: Dodge, Fillmore, Mower, Olmsted, Steele and Wabasha. The officers and directors are: Andrea mueller (President); Jaime Edwards (Vice-President); Sue Wiesler (Secretary); Dan Mueller (Treasurer); Joel Dunette (Director); Craig Taylor (Director).

The formation of The Prairie Smoke Chapter is most welcome, as there is an urgent need to protect, manage and educate people about the 150,000 acres which remain of Minnesota's original 18 to 20 million acres of prairie. In addition, the new chapter, along with the Northwest Illinois Prairie Enthusiasts, firmly establishes TPE as a regional conservation organization.



TPE 14TH ANNUAL BANQUET AND CONFERENCE RESOUNDING SUCCESS

The Prairie Enthusiasts' 14th Annual Banquet and Conference was once again a resounding success. Despite the unpleasant weather, more than 200 conservation activists were present, showing once again that weather is never a deterrent to our dedicated group!

Interagency partnerships are becoming increasingly common in conservation, and this year's conference was no exception. Conservationists representing a variety of organizations and agencies were in attendance. Conference sessions consisted of a healthy mix of familiar (but nonetheless important) topics, as well as some interesting new ones. Aldo Leopold Scholar and Keynote Speaker Curt Meine delivered a passionate assessment of the controversy surrounding future use of the Badger Army Ammunition Plant, emphasizing the cultural as well as ecological aspects of prairie conservation. There was also the opportunity to meet with friends and celebrate another year of prairie conservation efforts.

We thank the University of Wisconsin – La Crosse for hosting the event, and also all of our volunteers, financial supporters and speakers for their effort in making 2002: *Prairie La Crosse* a success.

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The Prairie Enthusiasts is a grass roots organization of volunteers which is solely committed to the protection, management and restoration of native prairies and savannas in the Upper Midwest. To date, The Prairie Enthusiasts has protected 1,372 acres that harbor at least 5 state or federally protected species requisitions, easements and management agreements. The Prairie Enthusiasts has a stewardship program which provides active management to ensure the ongoing health of protected sites.

The Prairie Enthusiasts is actively involved in planting prairie on its properties and on other conservation lands and has assisted both public agencies and private groups in these efforts. Thus far, more than 150 acres have been planted with seeds of prairie plants from local sources.

In addition, The Prairie Enthusiasts develop educational materials and provide presentations on prairie and savanna ecology, conservation and management for both children and adults.

The Prairie Enthusiasts was incorporated in Wisconsin in 1987 as a private nonprofit, tax exempt corporation under section 501(c) 3 of the Internal Revenue Code. Donations are tax-deductible.

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The Prairie Promoter is a quarterly publication of The Prairie Enthusiasts. No part of this periodical may be reproduced without permission. We welcome submissions of letters, articles, announcements, artwork, and photographs which are relevant to prairie and savanna ecosystems. Material should be typed. Writers who use computers can e-mail their submissions to aimtpe@mwtnet.net using MS word or text files. **Please do not format.** Letters and articles may be edited for length or style. Computer disks, art, and photographs will be returned. Deadlines for submission of material are: February 25 (Spring issue); May 25 (Summer issue); August 25 (Fall issue); and November 25 (Winter issue).

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President's Message

It looks as though prairie conservation is in for another fruitful and exciting year! We ended 2001 with a great purchase of a 45 acre prairie in Grant County near Lancaster, Wisconsin. This is a prairie remnant that TPE's Southwest Chapter has wanted to purchase for nearly 10 years! It is the largest of the seven prairie and savanna remnants purchased by TPE. The site known as the Ellenboro Prairie was described in last issue's The Remnants We Save and was a true highlight of TPE's projects in 2001.

Sometimes I'm a little apprehensive as a new year for TPE begins, wondering what lies ahead? Well, so far things are off to an excellent start! I'm very happy to welcome a brand new chapter located in southeastern Minnesota. The Prairie Smoke Chapter is based near Rochester and will be promoting prairie conservation and education in Dodge, Fillmore, Mower, Olmsted, Steele and Wabasha counties. There are many remnants in that area and our newest chapter will have it's hands full! Due to exploding growth and rural development, they have many of the problems that we face here in Wisconsin. The Prairie Enthusiasts' Board of Directors is happy to welcome our Minnesota friends on board and stand ready to help the Prairie Smoke Chapter in any way needed to ensure their success.

What a great feeling to end 2001 on a high note and to begin 2002 on an even higher note!



LETTERS TO THE EDITOR

HOW CAN TPE MEMBERS EXPAND EDUCATION?

Editor:

The new mission statement for TPE lists education as a quarter part of TPE's work for the future. Education is now on equal footing with protection, management and restoration. How will we accomplish this?

For education there must be knowledge available and accessible, those who can distribute it and those who can and want to receive the information. We, the members of TPE, have mountains of knowledge and many people who can teach. And there is certainly a need for disseminating information, as expressed in some recent articles in the *Prairie Promoter*.

For examples,, refer especially to *The Prairie Promoter* volume 14 #3 articles "They Just Don't Get It!" and "Despicable Deeds" and "Savanna Restoration Appreciation" which all have a common thread : a lack

of necessary education creates serious problems. How could TPE members prevent some of the problems described? Would those wood lilies have been dug up if some mentor had recognized that the perpetrator was deep into the "I want to possess some of the beauty " stage of prairie appreciation? Would Vance Baker's neighbor have been more willing to disk the field once more if he knew what was expected and why? Shouldn't Vance have been advised to make sure that his friends had carefully proscribed tasks? If we in TPE did a better job at educating the public, perhaps we'd all spend less time explaining why "letting nature take its course" isn't always the best option. Would construction be less harmful if we provide written directions plus a map and a damages contract for better directing the workers running construction equipment near his plantings. Is Wayne Pauly allowed to do any press releases to help teach the public about Dane County Parks' restoration projects? Have TPE members campaigned to any newspapers or radio or TV stations to run educational spots about these projects?

The "Savanna Restoration Appreciation" article listed exact instruction for action by readers of *The Prairie Promoter*. But the other articles were vague about what the TPE reader should do to avoid further frustration. Can we find a way to put this knowledge gained from bad experience to better use? Could TPE members submit stories to *The Prairie Promoter* on how they were able to educate someone about prairie protection, management, and restoration? Members might also submit examples of contracts used successfully in construction; a heavy equipment operator could describe what constitutes useful instructions; participants in government cost share programs can write about that process. (Instructions for submitting articles is inside the front cover of each edition of *The Prairie Promoter*.)

At one time, TPE had an education committee. If it still exists, what is it doing? Can the *Prairie Promoter* editor make more use of the Experience Exchange page? Is the TPE web site as useful and practical as possible? Can either the web site or *The Prairie Promoter* publish the talks presented at the Annual banquet and conference? Can the membership get access to video tapes made at that event?

Interested readers of *The Prairie Promoter* who are shy about submitting articles can contact me. Tanis Cuff at Tanistanis@hotmail.com or 608-712-9344 (evenings and weekends).

Editor Replies:

Thank you for your letter and the direct manner in which you convey concrete criticisms. A direct approach to criticism lends itself to identifying and resolving problems, while sniping from the shadows does not. You

raise two general areas of concern: TPE's apparent lack of sufficient commitment to education; and lack of sufficient information in *The Prairie Promoter*.

TPE's most visible education efforts include: the publication of *An Introduction to the Tallgrass Prairies of the Upper Midwest* (now in the process of much needed correction and revision); participation in state, regional and national conferences; participation in large scale public events, e.g., garden expos and earth day events; organized and expert -led field trips; annual contributions to the Lois Almon Small Grants Program fund; and publication of a quarterly newsletter. In addition, TPE has obtained, by careful arrangement, press coverage in daily newspapers from Dubuque to Milwaukee. Finally, both Gary Eldred and Rich Henderson have been guests on a popular Wisconsin Public Radio program. Unfortunately, most of TPE's ongoing efforts are less visible because they occur at the chapter level. These efforts include: landowner contacts and other face to face interactions; slide shows and other public presentations; and assisting schools, public agencies and private organizations in prairie reconstruction projects and prairie gardens. The West Central Chapter has gone even further and organized local prairie conferences!

I am in complete agreement with your concern that *The Prairie Promoter's* content is uneven all too often. Ideally, each issue primarily ought to contain informative articles. Readers ought to know about the characteristics of the fire-dependent communities which TPE is trying to protect in order to fuel the desire to actively assist in these efforts. Readers need and want information about how to propagate species, about how to re-establish fire-dependent communities and about how to manage existing remnants. Readers also need to know about the numerous properties that TPE owns or manages. Finally, readers ought to be informed about the myriad activities carried out by each chapter as it strives to fulfill TPE's mission. This becomes especially important in light of current plans to solicit contributions from potential large donors.

A quick review of newsletters spanning the last few years reveals that a small group of contributors provide most of the articles with real substance. In addition, one is left with the patently false impression that half of the chapters aren't very active. I know from first hand experience that TPE has many fine writers who are more than capable of producing the kind of articles that could enhance the quality of *The Prairie Promoter* to a significant degree. I have cajoled and begged some individuals for articles, but only have had sporadic success.

Rich Henderson, one of the most solid and reliable of contributors, suggested "The Remnants We Save" feature as a vehicle to inform our readers of TPE accomplishments in one critical area of endeavor. To date, articles have been produced by the same small

cadre of writers who routinely contribute articles. Rich also suggested "The Experience Exchange" to help readers obtain expert information about virtually any aspect of reconstruction or management. After a few issues, no one submitted questions. Given many conversations with prairie and savanna neophytes, I can't account for the lack of questions.

What, then, is to be done? First, all chapter editors again have been contacted to solicit informative articles. Second, "The Experience Exchange" will be resurrected, as "Ask the Experts," courtesy of the West Central Chapter. Third, If insufficient articles of substance are not forthcoming, I will review the archives to identify articles that are worth reprinting. And, if need be, *The Prairie Promoter* will be shorter, with no "filler". I cringe whenever a "weak" edition goes to press.

Could more be done to promote education and to produce a highly informative newsletter? Certainly. To do so at the present would require a significant reallocation of volunteer and financial resources at the expense of actively protecting fire-dependent communities. TPE has always been organized and operated by volunteers, most of whom have jobs, families, homes and other demands on their time. While the membership has grown, the pool of volunteers has not kept pace. This is precisely why plans are under way to fund an executive director position. This position would have responsibility for expanding membership, planning and implementing education efforts and raising the funds needed to improve TPE's ability to carry out its mission in an organized and effective manner. That is why we encourage people to join or renew their membership at the Blazing Star level. At some point in the future, we may be able to hire an education director, a membership services coordinator, editor, science editor, art editor and staff writers. Until then, we can only ask for more volunteer participation and for patience.

ANNOUNCEMENTS

Great Plains Restoration Council

By Jim Rachuy

The mission of the Great Plains Restoration Council (GPRC) is to "restore the ecological health of a significant portion of the North American Great Plains ecosystem, so that all native wildlife and ecological processes exist into perpetuity. They "believe that all native wildlife has a right to a self-determined, free-roaming existence inside healthy, traditional homelands."

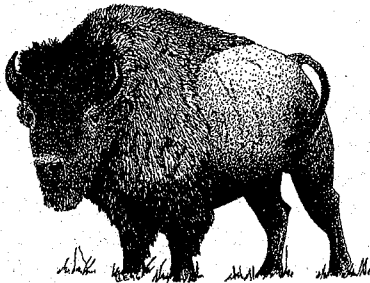
Their plan is to implement the buffalo commons idea first envisioned by Frank and Deborah Popper. In 1987, the Poppers published a paper showing that hundreds

of counties in the American West have less than 6 persons per square mile-the density Frederick Jackson Turner used to declare the American Frontier closed in 1893. Many counties now have less than 2 persons per square mile.

By this definition, the frontier never did "close" and, in fact, has expanded in recent years. The 1980 Census showed 388 frontier counties west of the Mississippi; the 1990 showed 397 counties in frontier status; and the 2000 Census will likely show even more. Kansas now has more land in frontier than it did in 1890.

GPRC is conducting a wide-area mapping project, to determine the boundaries of the frontier. Their next step will be "The Million Acre Project" designed to recreate a one million acre core prairie. This will be, they hope, the proof of concept demonstration for a larger buffalo commons stretching from Canada to Mexico.

Wow! Now that's what I call thinking big. I don't know how far they'll get, but it sure is an interesting idea. For more information, visit their website at www.gprc.org <<http://www.gprc.org>>.



A Growing Threat to Minnesota Prairies

Many of us have seen boulders used in landscaping projects around suburban homes, housing developments and office parks. In the Twin Cities area, many of these boulders come from native prairies. According to an article in *The St Paul Pioneer Press* (October 7, 2001), the mining of boulders is the latest threat to the 150,000 acres which remain of Minnesota's original 18 to 20 million acres of prairie.

Until recent years, these boulders were a primary reason why the less than one percent of the presettlement prairie persisted. Now landowners can receive up to \$40 per cubic yard for boulders and open the prairie to invasion of exotic species and the plow. Reporter Dennis Lien described one excavation thus: "it had sliced a swath nearly half as long as a football field." He also notes that this activity has increased during the last two years. The new Prairie Smoke Chapter has much urgent work to do!

The article below is reprinted with permission from the St. Croix Watershed Research Station (SCWRS). The SCWRS is a field research station of the Science Museum of Minnesota, located about 8 miles north of Stillwater, Minnesota. The station was founded in 1989 to study river and upland ecology at the watershed scale, and provides laboratory facilities, housing and a land base for use by staff and visiting scientists.

STUDY LOOKS AT SMALL MAMMAL POPULATIONS IN RESTORED FIELDS

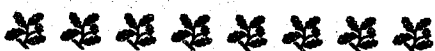
The patchwork of tallgrass prairies and savannas that graced the uplands of the lower St. Croix river basin 150 years ago has been systematically reduced to a few scattered remnants. Less than one percent of the grassland landscape that greeted the early settlers of the region remains intact. Today, restoration of prairie habitats has emerged as an important management objective as well as a popular pastime of private landowners. While the concept of restoring prairies is well accepted, the understanding of what defines a successful "restoration" is less certain.

Remnant prairies in the area provide us with a glimpse of the rich diversity of plants, insects and animals that are intertwined with the prairie ecosystem. However, many current attempts to restore prairies focus on establishing a dense habitat dominated by a few select grasses and fast growing forbs (flowers). These restorations duplicate some of the functions of a prairie, but potentially lack the multitude of plant and animal interactions that would occur in more species-diverse systems.

In 1999 SCWRS began several prairie restoration initiatives which will ultimately serve as field sites to study the "form and function" of restored prairie ecosystems. As staff scientists at the SCWRS demonstrate new techniques for creating species diversity in prairie restorations, the restorations will simultaneously serve as study sites for visiting scientists to investigate interactions and dynamics of prairie function. In particular, the SCWRS seeks to facilitate research that demonstrates the importance of creating highly diverse prairies, and to compare how different types of restorations function as compared to native prairie remnants.

Teresa DeGoler of St. Paul's Bethel College is investigating how small mammals utilize different types of restored grassland systems. Specifically, her research will compare the diversity and abundance of small mammals in a highly diverse prairie restoration to that of a non-native grassland that has matured in an old, fallow farm field. Prairie restoration at the SCWRS has been designed to maximize plant diversity. DeGoler's study will help demonstrate if increased plant diversity ultimately translates into increases (and abundance) of animal species.

Additionally, since her study is examining species at the base of the food chain, the results will stimulate



inferences about potential effects throughout a restored prairie ecosystem.

—Shawn Schottler, SCWRS Scientist

The prairie restoration site at the St. Croix Watershed Research Station is a species rich landscape providing food and cover for a variety of wildlife. Spring through autumn, one species after another cycles through its development providing an impressive kaleidoscope of color, fragrance, form and function. This past summer, a preliminary inventory of small mammal biodiversity took place at the site. Three types of fields reflecting differences in native and non-native grasses and forbs were inventoried. These included (1) a non-diverse "Old Field" dominated by cool season non-native grasses; (2) a restored field planted in 2000, containing a high diversity of sparsely seeded forbs and grasses ("Resto-00"); and (3) a second restored field also containing a high diversity of forbs and grasses, but planted more densely and a year earlier with a slightly different composition ("Resto-99").

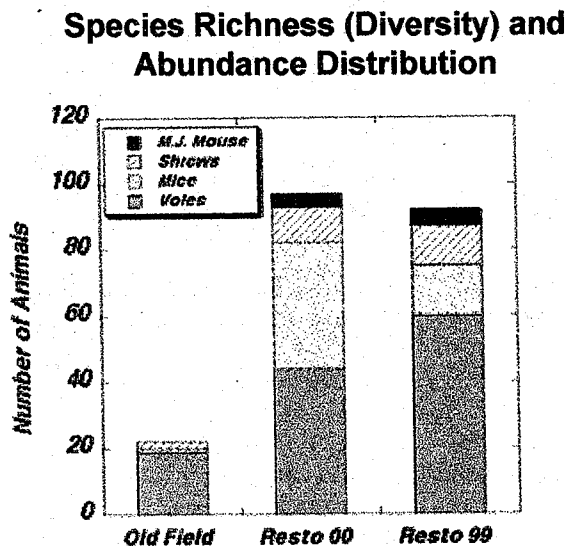


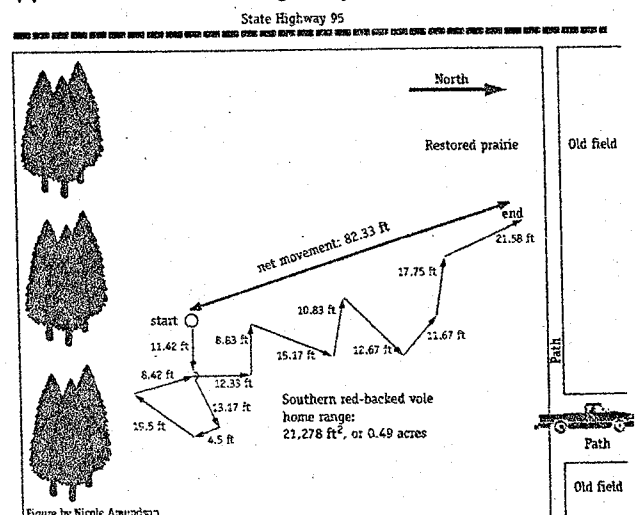
Figure One

In each field, Sherman traps baited with sunflower seeds were arrayed in a linear transect across the diagonal of each field. Traps were set at sunset and checked the following dawn. Interestingly, trapping efforts were twice as successful in the restored fields (Resto-00: 61%; Resto-99: 69%) as compared to the "Old Field": 34%. Mammals that were trapped were tagged and released after recording their species, weight, sex and reproductive condition. Furthermore, species richness and abundance distribution were both greater in the restored fields (Figure 1) and included the southern red-backed vole (*Clethrionomys gapperi*), northern short-tailed shrew (*Blarina brevicauda*), white-

footed mouse (*Peromyscus leucopus*), and meadow jumping mouse (*Zapus hudsonius*).

It is fascinating to observe that the restored fields support both a greater population of small mammals and a greater diversity in the types of species present. There are several possible reasons for their success in these fields. The high diversity and abundance of forbs (flowering plants that are not grasses or shrubs) provides an abundance of food in the form of seeds, leafy parts and fruits, as well as the insect and invertebrate life that is associated with flowering plants. This higher quality of ingested food yields greater assimilation efficiency, thus enabling an animal to spend less of its energy budget on foraging. Since several of these plants grow at various rates and to different heights, they provide protection from aerial predators. Ground covers from the forb leaf litter also provides predator protection. In addition, a well-developed leaf layer under which these animals travel favors a positive water balance. Moisture under the leaf layer reduces evaporative water loss that occurs when the animals exhale.

Hence, the results of this study are intriguing and prompt a variety of questions and future studies. Do these animals prefer to use the restored habitats because of plant structural diversity and/or species diversity? Are foraging territories dependent upon food, plant diversity, or both? Do seasonal trends reflect food preferences? How would the results of this study compare to remnant systems? It is well understood that native plant communities are ecologically logical. They actually enhance their water and soil resources. Furthermore, the results of this study indicate that small mammal populations prefer the prairie-restored sites as opposed to non-native grassy fields.



The foraging territory of a red-backed vole was investigated using a fluorescent dusting technique. A trapped vole was sprinkled with a fluorescent powder and released. The path of

a vole during an evening of foraging was traced by detecting particles of the dust left behind on the grass.

This research opportunity began in response to an invitation from SCWRS to regional colleges and universities to participate in a National Science Foundation initiative called Faculty Institute for Reforming Science Teaching. A specific goal was to use the field station as a focal point to implement and sustain reform in undergraduate biology education. This study has provided students with opportunities to gain scientific understanding through direct experiences with methods and processes of inquiry in field biology. This past fall, students from both ecology and animal physiology classes have participated in on-site field studies not only to learn trapping techniques, but also to determine animal foraging territories in all the fields sampled. Individual research students will continue to inventory additional fields next summer in order to assess the repeatability of the results presented here. —Teresa DeGolier, Department of Biological Sciences, Bethel College.

Companion Plants Only Color Compatible?

Do you wonder why certain prairie natives proliferate on a section of your property or garden and not on another, even though soil, sun and moisture seem to be the same? Have you seeded a certain location with several species that should thrive there, yet one or two of them don't? Consider that some natives are picky about next door neighbors.

The practice of companion planting for environmental compatibility is based on the belief that some prairie plants thrive together because they don't adversely affect each other and are most likely beneficial to each other's pollination, shelter or structural support. More of their seedlings will mature and reproduce when in good company.

This concept developed in the early days of trial-and-error restoration when botanists had few diverse native prairies to study. Experimentation was the most practical method of finding out how various species pollinate, scatter seed, sprout, grow, and thrive. A few experimenters, like Wisconsin's J. Robert Smith, noticed that crowding, shading, root growth interference stressed some species more than others. They concluded that choosing plants for compatibility led to greater restoration success. Using earlier botanists' observations with his own, Smith listed plant companions in his 1980 book, *The Prairie Garden: 70 Native Plants You Can Grow in Town and Country*.

Unfortunately, such companion plants are easier and more practical to grow successfully in gardens than on large tracts of land. For economy, early restorations typically contained a few species known to germinate easily and grow on a wide variety of soil types. Black-eyed susan, gray headed coneflower, purple prairie clover, little bluestem and sideoats were, and still are, common. Their seed is abundant, easy to harvest, and therefore, cost effective. But seed sources (nurseries and managed prairies) are increasing. More specialized seed mixtures may become available at lower cost.

The Wisconsin DNR's Star Prairie nursery, for example, will soon support diverse prairie seed mixtures, mixing compatible grass/forb selections for both dry/short and mesic/tall prairies. Still, cost and seed availability will remain factors in selection for some time. Demand could remain low if prairie enthusiasts prefer to choose plants only for wildlife cover or color.

What if you have the luxury of customizing seed mixtures to your heart's content for any size tract? Think about companion planting as a more selective method of restoration. You can research species in diverse prairie communities and broadcast seed in similar combinations. You can spot seed existing prairie with species that are compatible, grow seedlings for transplant to specific areas or plan a garden from scratch using your favorite species and their favorite sidekicks.

You have to do your soil type and moisture homework first and study ratios of grasses to forbs. After that, think big. If you love prairie smoke and have the perfect site for it, check out which plants typically allow it to thrive. You'll most likely exclude aggressive species such as Indian grass, black-eyed susan, milk-vetch and bergamot, choosing instead species like sideoats, prairie phlox, puccoon, leadplant and thimbleweed.

If you love the tallgrass prairie look of big bluestem, balance this six-foot tall aggressive seeder with something other than spiderwort, purple prairie clover, rough blazingstar and butterfly weed. Depending on soil moisture, choose forbs that can hold their own under the most stressed conditions—purple coneflower, yellow coneflower, silky aster, stiff goldenrod and flowering spurge.

Companion planting can be an interesting way to design a prairie restoration or garden because it doesn't rely on standard seed mixtures and happenstance. Though no success is guaranteed on prairie sites with many variables, *The Prairie Garden* is a book worth dusting off for a look-see at who likes whom. The lists of neighborly plants aren't exhaustive for all soil and moisture situations, but they have enough companions to entice adventuresome prairie enthusiasts into greater experimentation.



ASK THE EXPERTS

Question:

Is savanna restored and managed differently than prairie? If so, how?

Rich Henderson, Terrestrial Ecologist for the WDNR and restorer of savannas for 27 years, replies:

"Managing and restoring savanna is much like managing and restoring prairie. Forty to ninety percent of savanna ground vegetation is made up of prairie species. The major environmental difference on savannas is the presence of tree cover (from 10 to 80 per cent) and variable shrub growth.

Decisions on what species to plant and where are more complicated in savanna restorations than in prairie. For example, the mix of shade and sun on savannas allows for a much greater diversity of species. Many species typical of wet to wet-mesic soils in the full sun of the prairies can thrive on well-drained, upland soils in the shade of savannas.

Nearly all techniques used in planting or restoring prairie are applicable to savanna restorations, with the exception of soil tilling, which may damage tree roots. Herbicide followed by no-till seeding is a better approach. Herbicide use should be tailored to the amount and type of residual native vegetation present on site.

If time is of minor concern, savanna restorations on sites with no residual trees can be done with seedlings, but these will need some protection from sod competition. Protecting oak (and shagbark hickory) seedlings from fire is not crucial in the early years. They will form grubs starting from year one even in the face of annual fire. However, they will eventually need a break from fire for 5-15 years so that a stem can become large enough to be fire resistant. Black cherry seedlings, also fire resistant, do best early on with a few fire-free years.

How often should savanna be burned? In general, no less often than prairie. More critical than frequency are fire intensity and site fertility, which are often linked. High intensity fires tend to create and sustain prairie while lower intensity fires promote savanna. The rank growth of forbs and grasses on productive savanna sites can shade out young trees and compete for nutrients and water.

Historically, savannas grew where physical features slowed and reduced fire--areas with thin or low fertility soils (i.e., less fuel), north and east facing slopes (i.e., relatively cool and moist), areas of sharp changes in topography (i.e., fire does not burn downhill well), or the leeward side of natural fire breaks. Prairies grew most often on steep south and west facing slopes and larger areas of level to gently rolling terrain with high fuel loads.

Wayne Huhnke, TPE land manager of Pierce County's Foster Cemetery site and owner of Kinnickinnic Natives nursery, replies:

Oak savanna plant communities represent a transition between closed oak forest and open prairie. Restorationists today recognize an average tree canopy of more than 10% but less than 80% to be savanna. Soil type and soil moisture, as well as % canopy, influence the type of savanna plant community present on any given site.

Haney and Apfelbaum (1997) describe six oak savanna types present in the Upper Midwest: eastern sand savanna, northern sand savanna (including oak and pine barrens), mesic loam savanna, floodplain savanna, clay-loam savanna and southern oak savanna. The amount of trees present is directly related to fire frequency, which is directly related to soil type and topography. With fire suppression, most savannas quickly succeed to forests. Restoring them is different than restoring prairies, while managing them with fire is similar.

The first savanna restoration problem is trying to determine a species composition. There are many prairie remnants to model, but no true pre-settlement savannas to model. Look in places with savanna-type light conditions, like road cuts, utility right-of-ways, along trails, edges of pastures, along rivers, etc. These areas will provide clues to what savanna-type plants grow in your area. Some of these places may be more prairie or woodland or forest, but occasionally you will find plant assemblages that are unique to savanna conditions. These models can tell you what species to look for to restore or recreate a savanna true to your local area. (You could use a savanna species list from a book, but it isn't as much fun!) Choose your desired species and then look at your site. If you're lucky, you'll find some already there.

Most savanna restoration sites are former pastures overgrown with native and non-native woody brush. So brush removal and control is the second restoration problem, with the goal being to provide enough light and air movement for the savanna understory to return. Left uncontrolled, the canopy will close and totally shade the ground.

For sites on pastures that have only recently (less than four years) seen a halt in grazing, a prescribed burn program should be started as soon as possible to prevent brush growth. For savannas with 5 to 30+ years of overgrowth, the brush must be first cut and herbicide (Roundup or Garlon) applied to stumps. Failure to treat stumps will result in re-sprouts that need removal.

After clearing and removing the brush, a nice carpet of forbs, sedges and grasses may return, allowing you to manage the site with prescribed burning and an exotic species control program exclusively. But, most sites will need brush re-sprout control for several years to allow a sedge/grass matrix to build enough to allow for prescribed burning. Control can be accomplished by cutting woody re-sprouts around June 1 and again around August 1, for several seasons.

When native savanna doesn't return to a cleared site, replant with a seed mix of local eco-type savanna seed you've collected or a savanna seed mix from a local native plant nursery. Scratch open the soil and hand broadcast seed in late fall for optimum germination. Maintenance of these plantings is much like that of prairie plantings. In the first season, keep the area mowed low to encourage seedling germination and reduce weed competition. Then manage with prescribed burning.

The Remnants We Save

Thomas Wet Prairie

Location

The Thomas Wet Prairie is located in Grant County on County Trunk Highway G, approximately 7.5 miles south of the village of Muscoda and 8 miles north of the intersection with U.S. Highway 18.

Description

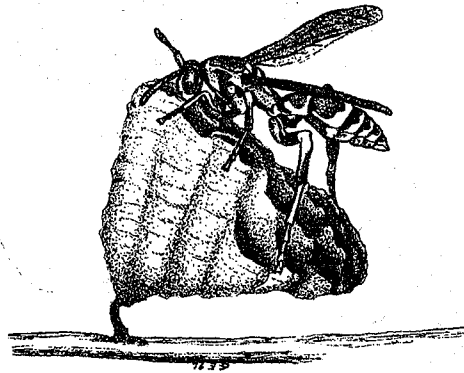
This high quality remnant consists of 13.67 acres. It harbors over 200 species of grasses, sedges and forbs, including the rare glade mallow and tuberous Indian plantain.

History and Status

This site had served as a wet pasture for many years and the nature of the site may have inhibited overgrazing. The Southwest Wisconsin Prairie Enthusiasts (which later morphed into The Prairie Enthusiasts) had much enthusiasm but very little cash. David and Helen McGregor not only wanted to preserve the site, but also wanted to help SWPE "get off the ground". They donated the \$4,750 needed to purchase the property. Their generosity not only saved this site for future generations, but also provided the needed impetus for creating a land trust that would succeed in preserving many more acres of fire-dependent communities in years to come! For both of these reasons, the significance of this purchase can not be overstated.

Management Needs

This site needs periodic brush removal and burning.



Help Needed on Conservation Easements

The Prairie Enthusiasts needs someone to oversee and coordinate the monitoring of conservation easements that our organization holds. The coordinator will not necessarily do the monitoring, but will help locate and train other volunteers to do the annual fieldwork. The coordinator will also keep track of the easements and make certain that the necessary annual monitoring and documentation is completed. For conservation easements to hold up to legal challenges down the road, proper monitoring and documentation is critical. TPE now holds two easements and we anticipate acquiring more in the near future. This is a critical job that needs to be done. No experience necessary, you'll be provided training. If you can find the time to help, please contact TPE president Gary Eldred (608-375-5271).

Field Trip Coordinator Sought

TPE field trips are a great opportunity to get out and experience, enjoy and learn about our prairie and oak savanna

heritage. These trips are also critical to TPE's mission of education and protection. People are more likely to contribute time and money to sites, plants and animals they have actually experienced. In order to continue this service to our membership, we desperately need a central field trip coordinator. Anyone out there with an interest? No experience necessary. All you need is a telephone, computer and e-mail. This position does not require a major time commitment. You'll get help from chapter field trip coordinators, and help with on flier printing and mailing. Here is your chance to make a difference. Contact Rich Henderson (608-845-7065).



CALENDAR OF EVENTS

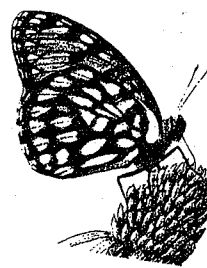
COULEE REGION CHAPTER		
MEETINGS		
Tue.,	Apr. 28	Chapter board meeting at 6pm, at the La Crosse main library, 800 Main St.
Sat.,	May. 4	Chapter board meeting at 10am, UW LA Crosse, Room 326, Cartwright Center. Topic: Photography; how to create a good prairie photo.
EVENTS		
Sat.,	Apr. 6	Burn School. Slide presentation at Genoa Fire Dept., field work at Genoa power plant.
		For other Coulee Region Chapter work parties, check theprairieenthusiasts.org
SOUTHWEST CHAPTER		
MEETINGS		
Sun.,	Apr. 21	Chapter meeting at 1pm at the home of Gary Eldred, 4192 Sleepy Hollow Rd., Boscobel, WI 53805. Call 608-375-5271 for directions.
Sun.,	May. 19	Chapter meeting at Mirk residence, 10052 CTH C Woodman, 1pm. Call 988-4760 for directions.
Sun.,	Jun. 16	Chapter meeting at 1pm at the home of Gary Eldred, 4192 Sleepy Hollow Rd., Boscobel, WI 53805. Call 608-375-5271 for directions.
EVENTS		
Sun.,	Apr. 7	Work party at Heather's Prairie. Call Gary Adams at 608-624-5797 for details.
Sat.,	Apr. 20	Work party at Bush Clover Prairie. Call Gary Eldred at 608-375-5271 for details.
Sun.,	May 5	Work party at Heather's Prairie. Call Gary Adams at 608-624-5797 for details.
Sat.,	May 18	Work party at Bush Clover Prairie. Call Gary Eldred at 608-375-5271 for details.
Sat.,	Jun. 8	Work party at Bush Clover Prairie. Call Gary Eldred at 608-375-5271 for details.
Sun.,	Jun. 9	Work party at Heather's Prairie. Call Gary Adams at 608-624-5797 for details.

PRAIRIE BLUFF CHAPTER		
MEETINGS		
Tues.	Apr. 2	Chapter meeting at the Turner Hall Rathskeller, 1217 17 th Ave., Monroe, 7pm.
Tues.	May 7	Kitten Tail hike and Potluck at 6pm. Followed by chapter meeting at Marshall Bluff Clubhouse, N7326 Marshall Bluff Rd., Monticello at 7pm.
Tues.	Jun 4	Chapter meeting at the Honey Creek Shelter, 4 th Avenue West, Monroe.
EVENTS		
Sat.,	Mar. 30	Garlic Mustard inventory and flagging at Abrahams Woods, at 1pm. Junction STH 59 and Oliver Road, Albany. Parking is available on Town Road.
Sat.,	Apr. 13	Pasque Flower hike on Murault Bluff Prairie at 1pm. 1.5 miles east of STH 59 on CTH F.
Sat.,	Jun. 15	Parsnip Predator demonstration at Honey Creek Park, 4 th Avenue West, Monroe, at 9am.
TBD		Prairie management with fire/burns on evenings and daylight hours. Volunteers call Fred Faessler at 608-862-1389 or 608-325-9374, or John Ochsner at 608-862-3816 for schedule and information.
GENERAL CALENDAR		
June 23-27		The 18 th North American Prairie Conference in Kirksville Missouri.

CALENDAR ANNOUNCEMENTS

Don't Miss the North American Prairie Conference

The 18th North American Prairie Conference is June 23-27 in Kirksville, Missouri, which is in the northeast corner of Missouri, not far from Iowa. This year's theme is Promoting Prairie. As always, there will be a day of field trips to local remnants and restorations, a highlight of these conferences. For details, contact the Kirksville Area Chamber of Commerce (660-665-3766), or visit the conference web site at www.napc2002.org.



COULEE REGION CHAPTER

Chapter Receives Grant

The Coulee Region Chapter is pleased to report that for the second consecutive year they have received a generous grant from the Stry Foundation (\$1,870!) for the purchase of fire fighting equipment. This will allow the Chapter to locate equipment at two different sites within its region. Special notice should be given to Chapter President Barb Christie for the effort she expended to document the use made of our earlier equipment purchases.

General Chapter News

Coulee chapter has been very busy. We had successful fall work parties at Sugar Creek Bible Camp, one of our community projects, in preparation for an early spring burn. Fall burns on our member's properties were successful and without incident as well.

Planning the banquet/conference brought forth tireless energies from all our committee members. It's momentum was always high gear, and a lifetime learning experience.

We took a deep breath and celebrated the year with a December pot luck. Members brought a festive array of foods, Gary Eldred joined us and we welcomed, Andrea Mueller, the new spearhead for our next TPE chapter. As a chapter we feel privileged to have been part of its development. Andrea is a bundle of energy and a true prairie lover.

Footnote: Our conference title is in honor of our town's original name, Prairie LaCrosse. It was shortened only on the whim of an early postmaster who felt the name too long.

EMPIRE-SAUK CHAPTER

Thank you Garden Expo Volunteers

The Empire-Sauk Chapter once again staffed a display at the WHA-TV Garden Expo, which was in Madison on Feb. 8, 9 & 10. Volunteers answered many questions about The Prairie Enthusiasts and what we do, and about prairies in general. Over 500 brochures were distributed. The volunteers keeping the brochures stocked and answering questions were Rich Henderson, Scott Sauer, Lois Komai, John Mecikalski and Ted Cochrane.

Burn season is here

The Empire-Sauk chapter, including the Bluff Lands Project partnership, has over 30 burns lined up for this spring during March and April. Most of the burns will be in Dane County and southern Sauk County, with an

additional one or two planned for southern Columbia County and eastern Iowa County. If you would like to be on the contact list to help on these burns and have not yet contacted Rich Henderson (845-7065), please do so. We will begin as soon as conditions are dry enough.

Winter Work Parties Productive Despite Lack of Snow

Light and sporadic snow cover hampered red cedar removal this past winter, but the warmer weather allowed for easy cutting and treating of deciduous trees and brush. There was also just enough snow on the ground just long enough to burn over 100 brush piles, result of fall brush clearing, at the Underwood & Nittany Knoll Prairie Complex. A total of 22 work parties were successfully completed at 9 sites during the winter months of December through February.

In addition to Underwood/Nittany Knoll, work was done at Ripp (McChesney Road) Prairie, Walking Iron County Park, Smith Drumlin Prairie, Savanna Hill Farm and Mazomanie School Section Bluff. Our ongoing partnership with Dane County Parks and the Ice Age Trail was continued at Indian Lake County Park, and a new management partnership was started with the Ice Age Trail at their Steenbock Hill preserve in Columbia County. We also aided The Nature Conservancy with management at their Rettenmund Black Earth Prairie.

All totaled, 72 volunteers put in 447 hours of work. This is fantastic. We continue to liberate increasing amounts of prairie every year. Please keep up the support in either time, money or both. Special thanks go to work party leaders Rich Henderson, Scott Sauer, Kay Bongers, Tom & Kathie Brock and Kristin Westad. Thank you to all who made this happen. The 10 most active participants were Rich Henderson, Ted Cochrane, Victoria Dulaney, Richard Oberle, Scott Sauer, Tom & Kathie Brock, Kay Bongers and Earl Muhlbauer. Filling out the winter roster were Bill Acker, Mike Anderson, Jeff Bidler, Gary Birch, Darren Blankenship, Darin Burleigh, Carria Etas, Cathy Cartwright, Reed Cockrell, Dennis Connor, Guerdon Coombs, Tanis Cuff, Jim Daubert, Greg Dauck, Brandon Downs, Mark Downs, John Dremsa, Brian Drestler, Don Ferber, Sharon & Warren Gaskill, David Geffer, Pat Handrick, Ian Henderson, Kathy Henderson, Carol Holden, Josh Howell, Derek Kahn, Tony Karls, Letha Kelsey, Jan Ketelle, Amy Kinast, Darcy Kind, Luke Klobberdanz, Lois Komai, Jim Korlesky, Kurt Lifka, William Mann, Duane Marxen, Roger Mayer, Paul Michler, Martin Nelson, Amy Prevost, Peter Shaheen, Jerry Simmons, Susan Slapnick, Jeri Springstead, Glen Teschendorf, Mary Tremaine, Barbara Unger, Peter Van Beck, Dan & Deb Weidert, Rich Weigel, Dan Wiegman, Tom Wise and Meagan Yost. Our collective appreciation to all.

NORTHWEST ILLINOIS CHAPTER

Waka Who?

The Prairie Enthusiasts are pleased to announce the formation of a new special interest group. The Friends of the Waukarusa will concentrate on conserving the natural resources of the Waukarusa River watershed. The "Wa-ka-roo-sha," which has a deep glacial canyon, runs from east to west through northwest Carroll County. The river is 22 miles long (as the crow flies) and drains an area of approximately 64 square miles.

As one of its first actions, the Friends of the Waukarusa has applied for a grant from the Illinois Department of Natural Resources to inventory the watershed, create a GIS database for the area and conduct local seminars on stream ecology and watershed management. The project has gained the endorsement of the Mount Carroll City Council, the Lanark City Council and the Lanark Chamber of Commerce. Volunteer training and landowner contacts will begin in the spring.

Hanover Bluffs: Phase Two

The Prairie Enthusiasts (TPE), The Nature Conservancy (TNC) and the Natural Land Institute (NLI) have teamed up to advance natural resource management at Hanover Bluffs. Located in southwest JoDaviess County, the Hanover Bluffs area is home to Hanover Bluffs Nature Preserve (IDNR), Stewardship Park (TPE) and Lost Mound National Wildlife Refuge (USF&WS). All three groups own property in the area.

Hanover Bluffs has attracted much attention in recent years because it supports many listed species of plants and animals and is one of few places along the upper Mississippi River where a complete assemblage of natural communities is present all the way from the water's edge to the top of the bluffs.

The team will begin by creating a management plan for the 420 privately-owned, protected acres in the area. To ensure a broad perspective, we will coordinate with IDNR and F&WS on their adjoining properties. The general arrangement is for TNC to provide technical support (such as designing a landscape level burn plan), NLI to provide logistical support (such as community relations) and TPE to provide on site support (such as prairie and savanna restoration). All will work on designing and implementing the management plan.

Apple River Conservation Plan

In 1997, The Prairie Enthusiasts (TPE) completed a natural resource inventory of the upper Apple River in JoDaviess County, Illinois. We are now ready to take conservation in the area one step farther. To that end, we have applied for a grant from the Illinois Department of Natural Resources (IDNR) to create a conservation plan for the entire watershed.

This project will map the significant resources of the watershed, create a GIS database for the area and assist the Conservation Committee of the Driftless Area Partnership (DAP) to design a landscape level conservation plan for this 97,000 acre watershed. TPE will provide technical support to the effort, The Nature Conservancy (TNC) will provide facilitation and land use planning expertise and DAP will provide the context within which the conservation plan is drawn. If funded, the work will begin in January of 2003 and be completed by June of 2004.

Galena Ore

The Prairie Enthusiasts (TPE) have recently completed a natural resource inventory of the Galena River..and we've struck gold galena. The study, which concentrated on plants and herps, took 71 person-days and covered the entire length of the river in Illinois from ridge top to ridge top.

The following is a summary of the findings:

Community Type	Number of Sites	Total Acres
Mesic Savanna	1	23
Dry-mesic Savanna	2	27
Dry-mesic Prairie	10	64
Mesic Prairie	10	30
Dolomite Hill Prairie	13	141
Mesic Oak Woodland	11	489
Total	47	774

Nine prairie sites were found along the Illinois Central Railroad which runs from Galena to Warren. In 1927, Pepoon described in detail the lush vegetation along this very same track. Much is gone. But much remains, including smooth brome (*Bromus inermis*), prairie sedge (*Carex bicknellii*), fringed puccoon (*Lithospermum incisum*), prairie panicum (*Panicum leibergii*), Missouri goldenrod (*Solidago missouriensis*), yellow pimpernel (*Taenidia integerrima*), rough foxglove (*Agalinis aspera*), green milkweed (*Asclepias viridiflora*), redroot (*Ceanothus herbaceus*), tall alumroot (*Heuchera americana hirsuticaulis*), prairie St. Johnswort (*Hypericum sphaerocarpum*), great plains ladies-tresses (*Spiranthes magnicamporum*), great Indian-plantain (*Cacalia muhlenbergia*), yellow lady-slipper (*Cypripedium pubescens*), rice grass (*Oryzopsis racemosa*), cliff goldenrod (*Solidago sciaphila*) and valerian (*Valeriana edulis ciliata*).

The herpetological study centered on two listed species, the timber rattlesnake (*Crotalus horridus*) and the four-toed salamander (*Hemidactylum scutatum*). Seven sites deemed "highly suitable habitat" for these species were found. Both recently have been seen in the county.

The March meeting of the membership will include further discussion of these findings. We need to create a list of sites we're interested in and set priorities.

THE PRAIRIE ENTHUSIASTS MEMBERSHIP FORM

Name _____
 Address _____
 City _____ State _____ Zip _____ County _____
 Phone _____ e-mail _____

PREFERRED CHAPTER AFFILIATION (please check one)

- | | |
|--|--|
| ☐ General (member at large) | ☐ Southeast Wisconsin Chapter (pending)
Dodge, Jefferson, Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington and Waukesha |
| ☐ Coulee Region Chapter
Buffalo, Jackson, La Crosse, Monroe, Trempealeau, Vernon (WI) Houston, Winona (MN). | ☐ Southwest Wisconsin Chapter
Crawford, Grant, Iowa and Richland |
| ☐ Empire-Sauk Chapter
Columbia, Dane and Sauk | ☐ West Central Chapter
Barron, Chippewa, Dunn, Eau Claire, Pepin, Pierce, Polk, and St. Croix (WI) and Washington (MN) |
| ☐ Northwest Illinois Chapter
Carroll, Jo Davies and Stephenson | ☐ Winnebago Land Chapter (EC WI)
Calumet, Fond du Lac, Green Lake, Outagamie, Waupaca, Waushara, Winnebago. |
| ☐ Prairie Bluff Chapter
Green, Lafayette and Rock | |
| ☐ Prairie Smoke Chapter (SE MN)
Fillmore, Dodge, Mower, Olmsted, Steele, and Wabasha. | |

Membership Level

- | | | |
|--|--|--|
| ☐ \$10 Student | ☐ \$30 Family | ☐ \$200 Blazing Star |
| ☐ \$20 Individual | ☐ \$75 Sustaining | ☐ \$1,000 Individual Life |

Can we provide your name to other Prairie Enthusiasts in your area? Y / N

Can we provide your name to other conservation organizations? Y / N

I wish to help with (please check off):

- | | | |
|---|--|--|
| ☐ Plant/Animal Inventories | ☐ Seed Collecting/Planting | ☐ Fund Raising/Grant Writing |
| ☐ Landowner Contacts | ☐ Stewardship (Brush Cutting/Burning) | ☐ Social Activities (banquet/picnics) |
| ☐ Field Trips | ☐ Staffing Displays/Speakers Bureau | ☐ Newsletters/Articles |
| ☐ Educational materials | | |

Mail and Make Check Payable to: The Prairie Enthusiasts, PO Box 112, Boscobel, WI 53805

SOUTHWEST CHAPTER

SWC Takes It's Show on the Road

The Southwest Chapter has taken the first steps to reinvigorate itself. We have been confronted by, to borrow a phrase from newspeak, "stagnant growth". To this end, the chapter board of directors hosted a slide presentation followed by a question and answer period at the Dodgeville City Hall on January 20. Invitations were sent to 96 households identified as living within a reasonable driving distance of Dodgeville. We were surprised and gratified that 35 people attended. The presentation was well received. The question and answer period, as well as individual conversations, suggests that many attendees have a real passion for prairies and savannas! We now plan to contact attendees who remembered to sign in and determine the level of interest in serving on the chapter's shrinking board of directors. We understand that the chapter not only may be reinvigorated but also redefined as a result.

Buoyed by the success of this effort, the chapter repeated the effort at the Platteville Public Library on February 17. Since we invited Platteville area TPE members to the Dodgeville event, we announced this event in the *Platteville Journal* and on local radio stations. Although the weather was positively balmy, six people attended. The enthusiasm of the attendees was no less than that displayed by the TPE members who attended the Dodgeville event.

Next year we plan to host similar events in Prairie du Chien, Richland Center and Spring Green. In addition, plans are underway to host a field day focused on how to develop a management plan. We have learned that many of our members are keenly interested in developing such plans for their own properties and believe that a "hands on" experience would offer a great learning opportunity. SWC members will be invited to this event which we hope to schedule before summer. Watch your mailboxes!

THE PRAIRIE ENTHUSIASTS
PO BOX 112
BOSCOBEL WI 53805
www.ThePrairieEnthusiasts.org

**A Non-Profit
Organization
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STANDARD RATE
Permit No. 10
Boscobel WI 53805**

WAYS OF GIVING TO TPE

In addition to accepting traditional monetary gifts, The Prairie Enthusiasts can also accept gifts of stock, real estate, easements, equipment and planned gifts through estate planning. Gifts of stock are an excellent way to make a charitable gift without suffering the burden of capital gain taxes, and planned giving enables you to see the legacy of conservation embodied in The Prairie Enthusiasts continue into the future. Please contact your local Chapter representatives or Treasurer Kathy Henderson (608-845-7065) for details and to make arrangements.

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