



THE PRAIRIE PROMOTER

VOL 13, NO.3

Fall 2000

Celebrating twelve years of prairie conservation in the Upper Midwest

Prairies Jubilee! Sunday, October 8

Don't miss this year's Prairies Jubilee! on Sunday, October 8, from 1:00 - 5:00 p.m., rain or shine, a prairie open house hosted by Madison Audubon's Goose Pond Sanctuary and the UW-Madison Arlington Agricultural Research Station. The Prairie Enthusiasts are co-sponsoring the event. Admission is free, and everyone is welcome.

Horse-drawn wagon rides, an exhibit of locally-collected arrowheads and spears, and educational talks and mini-tours will focus on the history, ecology, and restoration of Wisconsin prairies. Prairie plants and seeds will be offered for sale, and experts will be available with advice on prairie restoration.

Conservation and agricultural experts will provide information on prairie-related research and government programs. To wrap up the day, Scott Weber and friends will provide Celtic music.

New this year is a field trip on wheels, a five-to-ten mile bicycle tour with stops at various Goose Pond Sanctuary and other nearby prairies. The field trip runs from 9:30 a.m. until 12:30 p.m. Additional details are available from Madison Audubon Society (608-255-2473) or from Rose Sime (608-831-9297).

Visitors should arrive at the Arlington Research Station Public Events Building where ample free parking is available. To prevent disturbance to wildlife, no parking will be allowed at Goose Pond during Prairies Jubilee! Shuttle buses will provide rides between the Public Events Building and Goose Pond beginning at 1:00 p.m.

SCHEDULE

Ag Research Station Events

Public Events Building

1:00 - 1:45 p.m., *Reptiles and Amphibians of the Prairie:* a chance to meet some of the critters that inhabit the prairie. (Rebecca Christoffel, UW-Extension Wildlife Outreach Specialist)

1:45 - 2:30 p.m., *Wisconsin Prairie Remnants,* a colorful slide tour of our prairie remnants. (Scott Weber, Bluestem Farms)

2:30 - 3:15 p.m., *Grassland Raptors:* see a live red-tailed hawk up close and view slides of other grassland denizens. (Julie Johnson, wildlife rehabilitator)

3:15 - 4:00 p.m., *Story Time:* with favorite legends and lore.

4:00 - 5:00 p.m., *Live fiddle and folk music:* featuring Scott Weber and friends.

Research Station Headquarters

1:00 - 1:45 p.m., *History of Bison and Elk in Wisconsin:* learn about the pre-settlement presence of these large hoofed animals. (Richard Henderson, Wisconsin DNR)

1:45 - 2:30 p.m., *Partners for Fish and Wildlife:* information on government programs for private landowners. (Kurt Waterstradt, U.S. Fish & Wildlife Service)

2:30 - 3:15 p.m., *Site Analysis: The Important First Step of Restoration:* a practical guide to restoration. (Mike Anderson, BioLogic Environmental Consulting)

3:15 - 4:00 p.m., *The Prairie Below Ground:* learn about research comparing restored prairie and cornfield soils. (Invited presenter: John Norman, UW-Madison Soil Scientist)

Horse-drawn wagon rides will depart from the Research Station to get a hilltop view of the prairie. Fees are \$1 for children, \$3 for adults. Departure times will be posted.

Exhibits and merchandise will be available at the Public Events Building throughout Prairies Jubilee! Visitors can purchase pumpkins and dried flower arrangements from local 4-H club members and native plants/seeds from vendors. Exhibitors will be on hand with information about research and conservation efforts related to the prairie. (continued page3)

IN THIS ISSUE

Conference announcements.....	Page 4
Blue Mounds of Minnesota (excerpt)	Page 5
Virgin Lands (part 2)	Page 7
Bluebird Prairie Journal	Page 10
Tour De Grama	Page 12
Calendar of Events	Page 15
Chapter News	Page 16

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 over 1,000 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, art work, and photographs which are relevant to prairie and savanna ecosystems. Material must be typed. Writers who use computers should include a 3.5 inch disk (MS-Word or WordPerfect) as well as paper copies. Articles and letters 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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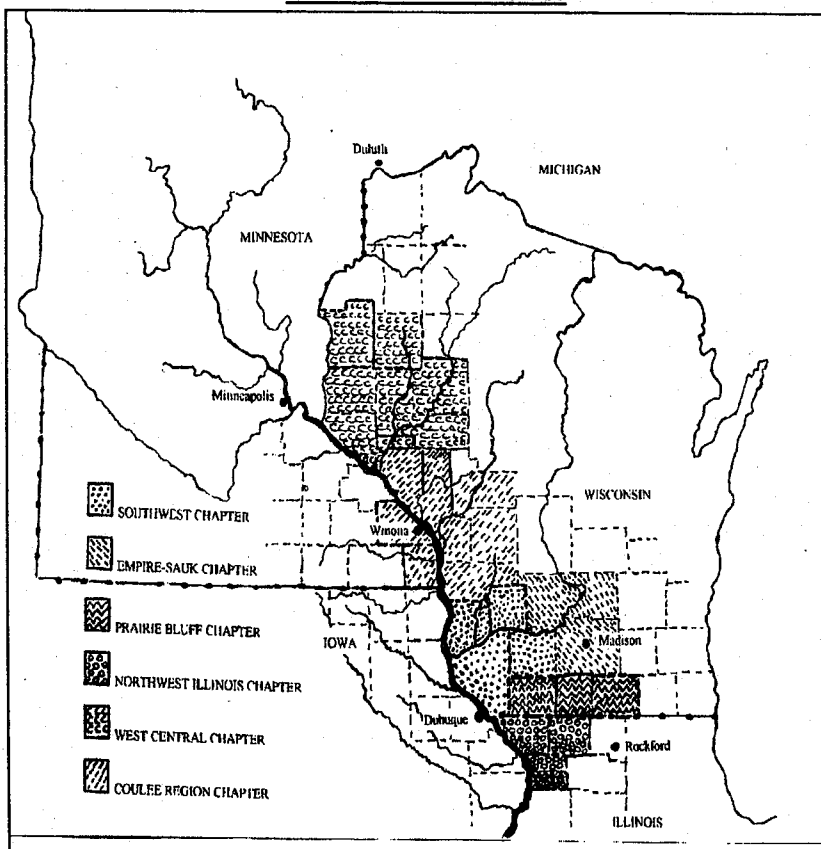
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TPE CHAPTER AREAS



President's Message

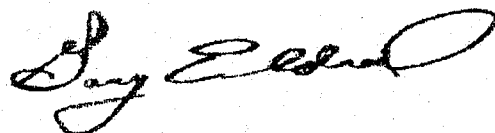
It seems like this has been a summer of surprises, many of them pleasant and welcome, some not at all welcome. The weather certainly came as a surprise, with spring at least four weeks early, which caused many trees and plants to start growing ahead of schedule. Then came late heavy rains which saturated the soils and flooded many people, including me.

As the summer has progressed, a long dry spell has stressed prairies as well as crops. In gathering seeds of prairie plants for fall planting, I've found a disappointingly small amount of seed, as much of the seed has been aborted. I guess it will take another year to finish my two acre prairie planting. On the other hand, I promised myself last spring that I was going to participate in more activities involving our chapters. First, I attended the Coulee Region Chapter picnic in Crawford County in June. There were about twenty Prairie Enthusiasts gathered at Vance Baker's place and we had a great day. There was lots of good food and I finally got to meet a lot of great people whose names I recognized, but had never met face to face. We topped off the day with an enthusiastic hike and inventory of a high quality goat prairie. It made a perfect day!

In July, the Southwest Chapter sponsored an open house and field trip on our newly purchased Illtis Savanna. This began a series of field trips in the Barneveld area led by Rich Henderson. How nice to spend the whole day with Rich, whose dedication and knowledge is awesome! Later in July, the SWC sponsored a field trip to the spectacular Bush Clover remnant. Eighteen people participated, and the site was resplendent with thousands of pale purple coneflowers blooming simultaneously with yellow coneflowers, oxeye sunflower, and many other forbs!

The very next day I was invited to the Empire Sauk Chapter's Bluffland Project picnic near Arena. What an uplifting day that was. Forty to fifty very enthusiastic folks shared their pride in the restoration projects on their properties, which included prairies, savannas, and forests. A week later I headed for TPE's annual meeting and picnic at Perrot State Park near Trempealeau, along the Mississippi. We had another perfect day, with a combination of great food and wonderful people. Afterwards, Rich Henderson and Chris Matson led field trips to Brady's Bluff and a private planting. There were some very interesting things to see and think about. Promising myself to take the time to attend these TPE activities made the summer seem to pass all too quickly. On the other hand, it has really given me the opportunity to appreciate just how many members have a deep and passionate love for our rare

native plant communities and what they are willing to do to protect them. My commitment for next summer? Do it all again!



Prairies Jubilee I (Continued)

The Goose Pond Sanctuary benefit raffle drawing will be held at 5:00 p.m. at the Research Station. This year's grand prize is an original acrylic painting valued at \$1,200, donated by Stephen Ratcliffe of Poynette. The work, entitled "Departure", depicts migrating geese flying over Goose Pond early this spring, when the water was exceptionally low. Other prizes include \$500 in airline travel, binoculars, gift certificates for bird seed, nature tours, and more!

Goose Pond Events

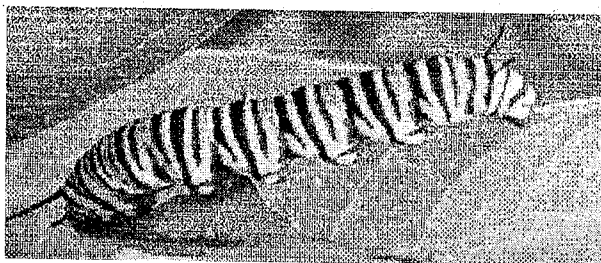
1:30 - 5:00 p.m.

Concurrent walks/talks with volunteers from Madison Audubon Society and The Prairie Enthusiasts. Topics: prairie plant identification, seed collecting, and cleaning. Continuous events at Goose Pond include bird watching using scopes, kids' birding in the prairie, and flint knapping and making arrowheads and spear points by hand. For most Goose Pond activities, be prepared to walk in the prairie over rough ground.

Snacks and beverages will be available at both sites.

Co-sponsors for Prairies Jubilee! are the UW-Madison Arlington Agricultural Research Station, Wisconsin Integrated Cropping Systems Trial, The Prairie Enthusiasts, UW-Madison Arboretum, UW-Madison Dept. of Landscape Architecture, WI Dept. of Natural Resources, WI Society for Ornithology, U.S. Fish & Wildlife Service, Pheasants Forever, and Wisconsin Wetlands Association.

Goose Pond is located about 20 miles north of Madison, near Arlington. For detailed instructions, call the Madison Audubon Society office (608-255-2473).



CONFERENCE ANNOUNCEMENTS

10th Annual Prairie Invertebrate Conference

Saturday, November 4, 2000

The 10th annual prairie invertebrate conference will be held at the Riveredge Nature Center in Ozaukee County. Riveredge Nature Center and the Southwest Chapter of the Prairie Enthusiasts sponsor this event. This conference focuses on prairie invertebrates, their taxonomy, relationships to the other animal and plant life of prairies, and their response to prairie management and habitat patches. The conference is directed towards scientists, resource managers, and all that seek to better understand the prairie ecosystem. Contact Andy Larsen, 262/375-2715, andy@mixcom.com for more information.

12th Northern Illinois Prairie Workshop

Announcement

Date: 10th March 2001

Location: College of DuPage

Glen Ellyn IL

**IF YOU ARE INTERESTED IN GIVING A
PRESENTATION-PLEASE CONTACT:**

Irene Hogstrom

Northeastern Illinois Planning Commission

222 S. Riverside Plaza # 1800

Chicago IL 60606

312-454-0401 x406

Fax 312-454-0411

E-mail: ireneh@nipc.org

FOR GENERAL INFORMATION CONTACT:

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Glen Ellyn IL 60137

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OR

Russell Kirt

Natural Science Division

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Mark your calendars now for the:

Plants Out of Place: Invasive Plant

Conference for the Upper Midwest

Eau Claire, Wisconsin - Friday, March 2, 2001

General Schedule: A number of organizations are concurrently planning the *Plants Out of Place: Invasive Plant Conference* along with an organizational meeting

of a WI Invasive Plant Council and The Prairie Enthusiasts annual banquet and workshops. Also, the Wis. Woodland Owners Association will be having a conference the same weekend. All of these will be occurring in Eau Claire in hopes that participants can attend several events. (Note: Details for the invasive plant events are still tentative at this time, but a final agenda and registration information will be out by early November.)

The following will be held at the Ramada Inn:

Mar. 1, Thurs afternoon – Wisconsin Invasive Plant Council organizational meeting

Mar. 1, Thurs evening - reception while viewing educational and research posters, tools, and commercial displays

Mar. 2, Friday (8:30-5:00) – Plants Out of Place Conference

Mar. 2, Friday evening – The Prairie Enthusiasts annual banquet

The following will be held at the UWEC University Center:

Mar. 3, Saturday (all day) – The Prairie Enthusiasts annual workshop

The following will be held at the Holiday Inn:

Mar. 3, Saturday (all day) – WI Woodland Owners Association – Chippewa Valley Chapter, WDNR and UW-Extension's annual winter conference for woodland owners

Plants out of Place Conference Friday AM March 2, 2001

Objective: To share current information on methods to deal with invasive plants in woodlands, grasslands, wetlands, and waterbodies in the upper Great Lakes region.

Audience: Anyone who is concerned about or dealing with invasive plants, including landowners, public land managers, agency staff who work with landowners, researchers, nurseries, restoration consultants, and others. We hope to get participants from all of the states surrounding Wisconsin.

Conference Agenda

Opening session:

- global/national perspective, federal level activities
- summary of Thursday's plant council meeting

Morning concurrent sessions, focused on the primary invaders in each habitat:

- A. Forests
- B. Grasslands
- C. Wetlands/aquatics



Afternoon Concurrent sessions:

- A. Control (biocontrol, prescribed burning, mechanical/grazing, herbicides, planning control efforts)
- B. Laws & policy (federal laws, federal policies that encourage or discourage the use of non-natives, state laws, local landscaping/noxious weed ordinances, roadside policy)
- C. Education (working with the media, mechanics of developing outreach materials, curricula, working with volunteers, educating the general public & public lands users)
- D. Cooperation/collaboration/funding/labor (working with volunteers, finding funding, setting up regional partnerships, finding labor sources)

Closing session:

- What does the future hold/where do we go from here?

WI Invasive Plant Council Organizational Meeting on Thursday – Mar. 1

Objective: Develop an ongoing network and forum for people in the state to coordinate their activities on invasive plants, and to set up task forces, both by topic and region. Task forces may cover education and outreach, research, prevention, biocontrol, herbicide use, policies/laws, and other areas decided by the participants.

Audience: Agency personnel, land managers, researchers, weed educators and advocates, landowners, anyone interested in sharing information and working on the issues.

Thursday (March 1) Evening Poster Session/Reception:

We plan to have space for displays of research results, educational materials, and tools that participants have used or developed, as well as commercial displays of nurseries, restoration consultants, equipment or herbicide dealers, etc. We will be sending out a call for displays along with the registration notice.

Interested in helping to plan the conference or having your organization/agency be a co-sponsor??

Contact: Kelly Kearns, Endangered Resources,
WI DNR, Box 7921, Madison, WI, 53707-7921
- 608-267-5066 - kearns@dnr.state.wi.us

We are delighted that Paul Gruchow will be our conference keynote speaker for

2001: A PRAIRIE ODYSSEY on March 3, 2001.

To give you a taste for his insights, we received permission to reprint part of one of his published essays. Those who have heard him speak claim he is as delightful and challenging in person. We can hardly wait!

An excerpt from

"The Blue Mounds of Minnesota"

I can't explain the royally plural name. The Blue Mounds are singular, in both senses of the word. The mounds are a mesa, a table. Ice carved the table out of the Sioux quartzite bedrock. Its edge is a two-mile-long line of sheer cliffs a hundred feet high, split in many places by the ravages of weather, pulled apart by the muscular forces of roots, rent by deep, narrow canyons. It is a vast ruin, all tumbles of talus and crumbling chimney spires.

In the shadow of the cliff and along its upper edge, a bur oak savanna prospers and fruits flourish: wild plums, chokecherries, mulberries, raspberries, gooseberries, grapes. Woodland flowers bloom there: violet, false spikenard, trillium, bloodroot, false Solomon's seal...

The table is covered with a cloth of grass and set with plates of water... A few buffalo still roam the Blue Mounds, a remnant of the great prehistoric herds, ghosts of the lost world of the prairies... If you are lucky, it will be a hot summer's day, the clouds will billow above you, a stray breeze will pass like a damp cloth across your brow and the buffalo will be standing in profile on the ridge of the pasture against the blue sky, all head and chest, like a pride of lions. Or it will be rutting season, and you will hear a bull roaring like a lion...

But I have forgotten to mention the oceans of purple phlox in the springtime, and the blazing yellow blossoms of the pear cactuses in July, and the acres of amber goldenrods in the fall.

And I have neglected the grasses: the big bluestem, taller than a man and the color of wine in September; the needlegrasses with their twisted seedpods sharp as pins that corkscrew themselves into the earth; the bearded plumes of the Canada wild rye; the feather spires of the Indian grass; the tufts of blue grama grass, its flowers shaped like Asian eyebrows.

And what about the sedge meadow below the rim of the cliffs, a treachery of mucks and hillocks? Red-winged blackbirds warble there all summer long, and spiders in a dozen brilliant colors weave their complicated webs from reed to reed, and in the fall the gentians radiate the deepest and purest, the most ravishing color of blue in all the world.

Have I uttered a word about the snakes: the garter snakes, the fox snakes, the bull snakes, the grass snakes? Have I said how many times I have wondered at the magic of a snake, seen it glide before my eyes into a clump of grass, reached down for it, and found that it had altogether vanished?

Where are the meadowlarks in April? The bobolinks sounding like plucked metal strings in July? The nighthawks buzzing overhead on an August night? The pigeons cooing in the crevices of the old quarry in January? The great horned owls on the nest in

February? The red-tailed hawks cruising the cliff line at sunset?

And I have slighted the rocks themselves, a billion and a half years old, smothered in green and orange lichens, rubbed smooth on the corners by the itching rumps of centuries of buffalo, etched with the tracings of glaciers. They are pink, or maroon, sometimes almost black, cool in the summer, warm in the winter, a relief of hardness, an intrusion of angles into the rounded softness of the prairies.

But I meant to remember a night in August when I crossed the mounds in the blue light of a half moon. I stood above the lakes near a place where I had once found an arrowhead. Fireflies sparked and sputtered in the darkness like struck matches. Crickets sawed in a million houses of grass. Everything shimmered. As I stood there, a pair of coyotes began to yip and cry, a wild and ancient song. It was like that spring morning at the stone fence, a moment when time stops, when centuries fall away and you briefly glimpse the glory of forever.

The Blue Mounds carry a precious melody from the regions of forever to the present, the song of diversity. About 220 species of birds have been sighted on the Blue Mounds. Perhaps 250 species of plants take root there, including thirty-five or forty kinds of grasses alone. There are perhaps thirty kinds of mammals, at least five kinds of snakes, two kinds of turtles, two kinds of salamanders. Who knows how many varieties of insects frequent the Blue Mounds? Some of them have probably never been named. The sedges have never been cataloged, nor the bryophytes, nor the varieties of microscopic flora and fauna. At the least, thousands of varieties of life thrive on the Blue Mounds, their exact number and the intricacies of their coexistence still as mysterious as anything yet to be discovered in the depths of the heavens.

Perhaps more mysterious. We know approximately how many stars there are in the Milky Way (a hundred billion) but not even to the nearest order of magnitude how many species of organisms there are on earth. About 1.7 million species have been named since 1753, when Linnaeus unveiled his binominal system of classification. In 1964 British ecologist Carrington B. Williams suggested, on the basis of intensive local samples and mathematical extrapolations from them, that there might be as many as three million species of insects alone. Later studies gave some scientists reason to speculate that the number might actually be as high as ten million. Then, in 1982, entomologists from the National Museum of Natural History developed a way of collecting intensive samples of insects from the previously inaccessible canopies of tropical rain forests. The results exceeded every expectation. Terry L. Erwin did a new extrapolation based on them; there might be, he concluded, as many as thirty million *species* of insects. We know even less about many other kinds of

organisms: epiphytic plants, roundworms, mites, fungi, protozoans, bacteria. The most basic thing about life on earth, how many kinds of it there are, remains anybody's guess.

Nor are we likely to know anytime soon. There is, for one thing, nobody to do the work. There are more retirees in Jacksonville, Florida than there are systematists, as the scientists cataloging the earth's diversity are called, in all the world, Edward O. Wilson recently noted to his fellow scientists in a plea for action. Fewer systematists than soldiers in the standing army of Mongolia, he said. And while the species aren't being counted, they are rapidly disappearing. The current extinction rate is four hundred times that of the recent geologic past and climbing.

It is an odd irony that the places we call empty should retain some memory of the diversity of life, while the places we have filled up grow emptier and emptier. If we knew what we were getting rid of, we might have some premonition of the things we are going to miss. The Blue Mounds survive as a tiny remnant island of the old tallgrass sea. A century ago the sea still existed. What stories did it contain? What secrets to the nature of life? What clues about our own standing in life? It is no more readable now than the ashes of a manuscript of which only the title page remains. The thing unimaginable is how we can be so lacking in simple curiosity.

From the top of the Blue Mounds, I look out across the countryside of southwestern Minnesota and see a landscape that has been reduced to its simplest terms. On a clear day I can see for fifteen miles or more in any direction. I see the contrails of the jets in the sky, and I hear the roar of truck traffic on Interstate 90. Below me I see the city of Luverne, and beyond it the elevators of Magnolia, and then the water tower that sits on the knoll at Adrian. In between I see hundreds of square miles of corn, interrupted here and there by the windbreaks of trees around the farmsteads.

Standing on the cliff at night, I have the sensation of being suspended in midair: the stars twinkle in the Milky Way above, and the yard lights on the farmsteads twinkle like stars below. But every time I return, the sensation dims. Fewer and fewer of the lights are lit anymore.

With every passing decade, the variety of species that the farms support dwindles. By now we are pretty much down to corn and soybeans and pigs. With every passing year, the struggle to stay on the farm intensifies. As the farms die, towns die. One of the endangered species on the prairie is *Homo sapiens*. The day is coming when we will have simplified even ourselves out of the prairie.

Excerpted from **THE NECESSITY OF EMPTY PLACES** by Paul Gruchow (Milkweed Editions, 1999). Copyright © 1988, 1999 by Paul Gruchow. Reprinted with permission from Milkweed Editions, www.milkweed.org.

TPE CONFERENCE AND BANQUET 2001

Three conservation-minded groups will spend time in adjoining conferences on March 1, 2 and 3, 2001 in Eau Claire, Wisconsin. While our activities will be announced separately to our specific constituencies, we are working together to make it possible for our members to participate in portions of all three events, if they so desire.

"Plants Out Of Place" (the weedy ones) will meet Thursday, March 1 and Friday, March 2 at the University of Wisconsin-Eau Claire (UWEC) and the Ramada Inn, Eau Claire. The Prairie Enthusiasts' annual banquet will be held Friday evening, March 2. **Our TPE spring conference, "2001: A Prairie Odyssey,"** will meet on Saturday, March 3 at UWEC. **The Wisconsin Woodland Owners Association** will meet Saturday, March 3 at the rooms.

We will have many more details in the next *Prairie Promoter*. We've added a special conference link to our website, so you can check in for updates as they become available. If you want to help organize the Plants out of Place Conference, contact Kelly Kearns, WDNR, at 608-267-5066 or kearns@dnr.state.wi.us. To help with TPE events, contact Chuck Bomar, UW-Stout, at 715-232-2562 or bomar@uwstout.edu. Meanwhile, please block off March 1-2-3, 2001 for having fun in Eau Claire! And stay in touch at: www.prairie.pressenter.com

(Editor's Note).

The Open Country, is an **outstanding** publication which should be of interest to all persons deeply concerned about the fate of the earth's grasslands. This is the second part of an article which began in the Summer issue of *The Prairie Promoter*.

The Open Country is intended to facilitate a dialogue across borders among the parties interested in preserving the biodiversity of, and fostering sustainable land management in, the grassland biome around the globe.

The Open Country is distributed free of charge upon request. Articles and news are welcome in any area of grassland conservation. Please send your requests, comments, and manuscripts to the managing editor: Julia Kuleshova, Biodiversity Conservation Center, 41 Vavilov Street, Apt.2 Moscow, Russia 117312. Fax +7 (095) 124 71 78, e-mail festuca@bcc.seu.ru

Virgin Lands, Divided by an Ocean (Notes on the Fate of Steppes in the Northern Hemisphere)

by Alexander Chiilev and Sergei Levykin (cont.)

We shall now turn to the Russian territory. The intensive agricultural exploitation of the black soil belt began here at the beginning of the 19th century; by the 1850s, its ever increasing rate allowed the country to become a leader in the international grain market. The emancipation of the serfs brought by the 1861 peasant reform accelerated the cultivation of steppes even more.

Beginning from the 1890s, however, things took a sharp turn for the worse. The combination of frequent droughts, crop failures, and the loss of soil fertility resulted in a severe famine which devastated the steppe zone of European Russia. The main reasons were the ubiquitous plowing and depletion of forests, and consequently, the growth of ravines, the dispersion of sands, and the erosion of the topsoil.

It was in those years that a new scientific movement for the study and sound use of steppe lands was born in Russia, initiated by such figures as Dokuchaev, Izmailskii, Taliev, Kostychev, Timiryazev, Voeikov, Borodin, and Alekhin. A persistent call of theirs was against the total destruction of the pristine steppe nature. "It is the steppe, the virgin steppe, that we are in risk of losing sooner than anything else," wrote Ivan Borodin, the botanist and onetime vice president of the Imperial Academy of Sciences. The soil scientist Vasilii Dokuchaev created the famous "Stone Steppe" research site in the Voronezh Province, where he modeled the processes of an optimal use of steppe land. The first thing he did was to let 500 acres of the most eroded land lay fallow "for the recovery of the soil." To this very day, the "Stone Steppe" stands apart from the neighboring farms as an oasis of the black soil belt, distinguished by the richness of its harvests as well as its biodiversity. However, the ideas of our pioneers in steppe nature protection were eventually implemented across the ocean, in the United States, while Russia experienced a wave of revolutions, wars, and the consequent destruction, leaving the problems of steppe conservation out of consideration for decades.

By the 1930s, an extensive plowing of the steppes in the European part of the USSR reached its zenith, creating dust storms over the Rostov Province. Notwithstanding that, the government brought forth bold plans for the cultivation of virgin grasslands in the east. The outbreak of the Second World War postponed their implementation for a while.

The war laid agriculture in the European part of the country in ruins. The destruction was completed by the famine of 1947, which forced the state leaders to start a

large-scale ecological rehabilitation of the steppe zone in the western USSR.

On 20 October 1948, the Council of Ministers and the Central Committee of the Communist Party of the Soviet Union issued the decree "On the Plan of Planting Protective Forest Belts, Implementing Rotation of Crops and Grasses, Creating Ponds and Reservoirs, for the Provision of High and Stable Harvests in the Steppe and Forest Steppe Regions of the European Part of the USSR". Based on the work of the Dokuchaev Institute of Agriculture for the Central Black Soil Belt, it came to be known as "Stalin's Plan for the Transformation of Nature."

Grand-sounding as they were, the restorative goals of that plan were never fulfilled. Following the change of the state leadership in the spring of 1953, the official attitude toward agriculture was completely revised. The concept of rotational crops and grasses underwent criticism for its "failure to answer the agricultural interests of socialism" and was proscribed. In the spring of 1953, the forest protection stations and other research and development institutions engaged in forest planting and phytomelioration were shut down, and the care of forest plantations already created was terminated. But saddest of all, the strategy for the raising of agriculture, adopted by the new leadership, prescribed the rapid plowing of virgin grasslands in the Asian part of the country.

The plenary session held by the Central Committee of the USSR Communist Party in March 1954 affirmed the agricultural policy which proved fatal for the steppes. Ignoring the classic recommendations of its compatriot specialists in steppe nature management and soil science, and neglecting the experience of other countries (namely, the efforts of the United States to restore their short-grass prairies, most active in those very years), the Soviet Union launched an all out fight against the remaining virgin steppes, unprecedented in the history of civilization. It is also important to note that the workforce for this campaign was recruited mainly from the members of the Young Communist League, consisting of urban youth, far removed from agriculture and further still from any ideas of rational nature management whatsoever.

For the whole decade, from 1954 through 1963, the cultivation of virgin grasslands became the focus of the Soviet economic policy. It was then that every plot of its eastern steppe land, technically available for plowing, was plowed, altogether exceeding 105 million acres which went far beyond the initial proposal of 32.5 million acres.

To comply with the standards of sound agricultural practice as well as the principles of ecological science, the agricultural development of the eastern virgin grasslands should have been restricted to a discreet cultivation of the black soil lands for grain cultures, allocating the less fertile chestnut soil areas for cattle farming. However, the actual cultivation of virgin

grasslands abounded in strategic mistakes and miscalculations, the most grave of which was an indiscriminate extensive plowing of the chestnut soils in the dry steppe areas, totaling a million acres. In this way we but replicated the perilous course pursued by the Americans at the beginning of the century. As a result of this campaign, the steppe natural system was completely destroyed and replaced by a system of agricultural production, devoid of integrity and hazardous from the ecological point of view. Pristine steppe growth on the zonal full-profile soils became the rarest vegetation type in the country. The remaining isolated populations of the native species once dominating great expanses degraded under the influence of overgrazing caused by a chronic shortage of pastures. During that decade long epic of the plow, not a single nature reserve was created in the country. Worse yet, a number of the already existing reserves were abolished, their territories tilled and nature gone. The removal of the steppe grass cover and the deep plowing provoked deflation, resulting in terrible dust storms which overwhelmed the entire steppe zone of the USSR in the mid 1960s. Nonetheless, deflation prone lands were incessantly tilled for crops. Moreover, in the 1970s--80s, several million more hectares of stony, saline, and other soils hardly suitable for growing crops were plowed for monocultures. Performed under the guise of a radical improvement of the steppe lands, this process went on through the early 1990s.

The current system of agriculture in the steppe zone is wasteful for the soil. Only in the steppes of northern Kazakhstan, the primordial resources of humus were as great as 4.3 billion tons. The replacement of these steppes by plowed fields has by now resulted in the loss of 28.3 per cent of that amount (1.2 billion tons), irreversibly wasted due to various kinds of erosion. The routine practice of laying bare fallow as much as 20 per cent of plowed areas, causing the topsoil to "burn," has led to the decay of 0.7 million tons of humus, whereby no less than 1 million tons of carbonic acid has been released into the atmosphere. Thus, the Soviet campaign for the cultivation of virgin grasslands has made no small contribution to the planetary greenhouse effect. To maintain a positive balance of humus in the area, it is necessary nowadays to enrich the soil with no less than 150 million tons of manure annually. The current herd of cattle is able to produce barely more than 60 million tons of manure a year. Given this rate, the intensive raising of grain, even with the introduction of all available organic fertilizers, is possible in not more than half of the plowed steppe area.

Vast expanses of dark colored tilled land are subject to an excessive warming and the consequent chronic droughts, which have contributed to the desertification of the entire steppe zone, causing the rivers and lakes to dry. The replacement of virgin steppe by plowed fields has seriously damaged its animal world as well. The area of bobac marmot, once continuous

from west Ukraine to south Siberia, has disintegrated into several isolated parts. The saiga antelope has been forced into the semi-desert zone.

The continuous development of monocultures deprived nature of its capacity for self regulation; as a result, weeds and pests have become a real threat for the steppe agriculture. The cultivation of virgin steppe has also had its negative social and economical consequences; the most striking of those are perhaps the appalling conditions in which the grain farms, created in the dry steppe zone, now find themselves. These farms have very poor harvests, often too poor to compensate for the expenses of grain production.

The amount of grain produced per year in the dry steppe area ranges from 350 to 850 kilograms per hectare, and is subject to considerable annual fluctuations. At the end of the 1980s, the estimated economically sound harvest was about 750 kilograms per hectare; therefore, most of the grain farms in that area were unprofitable and had to be constantly subsidized by the state. Since the beginning, in 1992, of the economic reforms in the former Soviet Union, the poverty of these farms has reached a critical magnitude, causing a wave of migration from the dry steppe regions of Kazakhstan.

The cultivation of 20 million hectares of chestnut soils did not solve the grain and protein problems for the country. Having plowed its virgin grasslands, the USSR, beginning with 1964, imported as much as 25-40 million tons of grain each year, a great portion of which served as fodder. An equally expensive mistake was the destruction of pastures, which had earlier served as a basis for the development of one traditionally profitable sphere of dry steppe farming, that is, raising cattle for meat. Having lost these inexpensive natural pastures, the herd had to be stalled, becoming dependent on the crops. This way, animal farming became a subsidized and chronically unprofitable industry. According to the estimates taken by the Kazakhstan scientists in the late 1980s, the transformation of 10 million hectares of unprofitable dry steppe croplands into pastures would bring, not only an ecological improvement, but also an economic effect amounting to 2 million rubles a year (about 1 million dollars at those days' exchange rates). The cultivation of new lands took place in the areas with severe climatic conditions that could offer but risky prospects for the raising of crops, whereas the regions of central Russia, regarded for centuries as the "national granary," were becoming more and more desolate, thanks to a large outflow of human and material resources. People left their homes located in places both familiar and favorable for farming, and headed for the east, to the areas that were foreign to them by their social as well as climatic conditions. For the majority of the colonists, the eastern steppes never became a new homeland, and they eventually returned to their old places. The reverse migration became especially pronounced in the last few

years. An essential moral aspect of the cultivation of the eastern steppe was that its new colonists possessed no traditional style inhabitation involving the knowledgeable and restrained use of the local nature. A violent assault upon its native biotic communities, which brought the entire eastern steppe of the former Soviet Union to the verge of an ecological catastrophe, could have been effected only by the aliens. In the course of a few decades, the newly cultivated steppes in the vast area extending from the eastern shores of the Volga River through the Urals and Kazakhstan suffered a degradation stronger than did the steppes of central Russia over the centuries of their agricultural exploitation. The agricultural machinery of the Soviet making could only exist thanks to the frenetic consumption of natural resources stored by the biosphere for ages, and the political ambitions of certain state leaders; therefore, it had no chance of surviving genuine economic reforms.

This became quite obvious following the collapse of the Soviet command administrative regime: in just a few years, the reforms commenced on its former territory brought out the inherent contradictions of the existing agricultural system, especially in the dry-steppe area. The problems with the harvesting of grain, as well as its subsequent transportation and realization became quite common for the local farms; the growing deficits left them with no possibility of renewing their junky equipment and buying fertilizers. These circumstances provoked a spontaneous reduction of crop land tracts in the area.

In the mid-1990's the ecological and socio-economic consequences of the cultivation of the eastern steppes were submitted to a thorough analysis by the scientists and practitioners in the field of steppe nature management. Their discussions were shaped into the resolutions of several conferences dedicated to the 40th anniversary of the start of that campaign. The most animated and fruitful debates took place in the Orenburg Province, resulting among other things in the eventual organization of the Institute of Steppe. Today, this Orenburg based institution is the only academic establishment to address the entire range of problems concerning steppe ecosystems throughout the former Soviet Union.

The concept of sustainable steppe management developed by the Institute proposes partial recovery of steppe ecosystems, simultaneous with the process of converting plowed lands of low quality into pastures and hay fields. It states unequivocally that grain production should only proceed on the plots of best quality with the application of advanced agricultural technologies.

The legal basis for the beginning of practical actions in this sphere is provided by the "Regulations on the Conservation of Degraded Agricultural Lands, Polluted by Toxic Industrial Wastes and Radioactive Substances" (adopted by the Russian Government on 5 August 1992). What we need to do now is to find a way of

implementing these regulations into reality. Meanwhile, the process of abandoning unprofitable croplands goes on spontaneously, without any scientific justification. Until this day, there does not exist a governmental program in the area of steppe management. (It would not be out of place here to mention once again the systematic restoration of prairies in the United States or the Soviet plan of 1948).

One of the main reasons hindering restoration of degraded agricultural plots in the steppe zone is the absence of funds for their grassing. Except for this, the transformation of unprofitable fields into fallow lands is inhibited by the obsolete stereotypes of thinking, and also a certain inertness with respect to the structural reform of the agricultural industry.

Let us take the Orenburg Province as an example. Regardless of scientific evaluations, which gave the figure of 2 million acres as the maximum area where plowing the steppe land for crops would make sense in the Province, the total area that was actually plowed there amounted to 5 million acres. As a result of the subsequent agricultural exploitation, about 3 million acres of cultivated lands in the Province have by now lost their fertility and require special measures of conservation. The provincial authorities, however, have allocated for conservation only 750 thousand acres of such lands. Furthermore, according to the official statistics, only 335 thousand acres of low-quality croplands have been grassed in the Province from 1990 on.

In conclusion, it must be added that an effective land conservation in the steppe zone of northern Eurasia is possible. Equally possible is a successful reparation of the biological diversity of our steppes, just as it has happened across the ocean, in the United States. An important contribution to these processes can be made by nongovernmental organizations, bringing together the people concerned about the plight of the steppes and elaborating the projects for their restoration as well as the means for implementing these projects. In the southern Ural area, for example, the Orenburg Division of the Russian Geographical Society played a major role in consolidating public support for the creation (in 1989) of a federal steppe nature reserve in the Orenburg Province. The same NGO was instrumental in the establishment (in 1997) of a public foundation for the "Restoration of Orenburg Steppes."

This example makes one believe that the principled and coordinated activities of public organizations and governmental institutions, aimed at optimizing the use of steppe lands, may bring their positive fruits even in the foreseeable future. Once steppe agriculture becomes both ecologically safe and profitable, it will be capable of sustaining a stable population, respecting century-old local traditions of non-exhaustive use of natural resources. This population will maintain its own culture and economy, congruous with the ambient steppe.

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BLUEBIRD PRAIRIE JOURNAL

By Randy Downing

My prairie is called Bluebird because my initial interest in bluebirds led to a growing interest in prairies, which led to my starting a restoration project. Bluebird Prairie also has four bluebird boxes, set along the fire breaks, that do quite well.

12/8/95 Purchased lots 1 through 4 of Sidmore Addition to Stockton Township, located southwest of Stockton. The property has 8 acres of woods that surround on three sides an old field of 6 acres. The field has an entry lane and a frontage road that provide natural fire breaks. A thin tree line runs along the road. Directly west across the road is Elmvole Prairie which is owned by The Prairie Enthusiasts.

5/19/96 Decided to burn field all the way to the road to clear duff and stimulate growth of native prairie plants, prior to developing a restoration plan. It was a good burn with about 85% coverage.

6/22/96 Walked the field with Jim Rachuy to survey plants. Lots of smooth brome, alfalfa, red clover and orchard grass. A few good things like pasture rose and stiff sunflower were present. Also a fair amount of blackberry. Lots of good plants along roadside, including pussytoes, Solomon's seal, Solomon's plume, rattlesnakeroot, little bluestem, lead plant, and smooth blue aster. Decided to kill off vegetation in main area (4.5 acres inside of roadside tree line) and begin reconstruction.

8/13/96 Signed agreement with USF&WS to participate in "Partners For Wildlife" program. They will supply about \$700 worth of seed.

9/1/96 Hired neighboring farmer to apply Roundup to reconstruction area (inside tree line). The goal is to kill the perennial plants. We'll get the annuals next year. Application was effective but some strips were obviously missed.

Winter 96 Worked on seed plan. Spent considerable time on this, interacting with Jim through several iterations. Chose a forb-to-grass ratio of 3:1 (by weight). Plants were grouped to ensure the right mix of early starters versus later arriving plants. Jim suggests the groups grasses, matrix forbs, other forbs, and conservatives. I set seed weight and seed count targets for each group. The members of the grasses group are obvious.

Matrix forbs are those early arrivals needed to establish a "matrix" of prairie plants that can hold the turf until more conservative plants come along. Examples include bergamot, black-eyed Susan, and early sunflower. Examples of other forbs include bush clover and tall coreopsis. Conservatives includes plants like lead plant and cream wild indigo. Which plants go in which category was not always clear to me. However, the important distinction between matrix and the others is not too difficult.

The final plan called for sowing grasses at 5 lb/ac and 20 seeds/per sq. ft, matrix forbs at 5 lb/acre, and 60 seeds/per sq. ft, other forbs at 5 lb/acre and 40 seeds/per sq. ft, and conservatives at 5 lb/acre and 40 seeds/per sq. ft (or more realistically, as much as you can get-which turned out to be about 20 seeds/per sq. ft). The plan called for 6 species of grasses and 63 forbs. Note that although the weight targets were 3:1 (forbs to grasses), the seed counts were actually 7:1.

4/29/97 Burned site to clear duff prior to applying more Roundup later in the year. This probably wasn't necessary, but action made me feel better.

6/6/97 Ordered \$1,200 worth of prairie seed from area nursery.

6/28/97 Planted 36 plants from Prairie Future, including compass plant, lead plant, prairie dock, rattlesnake master, blazing star and aster. Twelve were won as a prize at the TPE banquet and when I picked them up, guess what ? 24 more needed to be purchased. Roped off this small area to avoid spraying in error.

7/10/97 Neighbor again applies Roundup. The idea here is to "mine" annual weed seeds from the soil.

8/13/97 Did some spot application of Roundup with hand sprayer to cover missed areas.

9/15/97 Neighbor again applies Roundup, one last time.

Oct. 97 With Prairie Enthusiasts, picked local prairie seed.

11/8/97 Seeded Bluebird Prairie with TPE, government, and purchased seed. Mixed seed with damp peat moss and broadcast by hand onto untilled ground. We made multiple passes over the site, with 12 people walking side by side, to ensure uniform coverage. Next, we applied a "wet overlay" of seed to a low area and a "dry overlay" to a rocky area. Actual species seeded was 6 grasses and 60 forbs-very close to the plan, but with some substitutions.

Spring 98 Weeds! Boy am I worried. Locals call it "yellow rocket" and I have enough to place Bluebird Prairie in orbit. Jim tells me not to worry.

6/1/98 Some signs of prairie plants under the weeds. Hired neighbor to mow the entire site about 8 inches high.

6/25/98 Ordered another \$315 worth of prairie seed.

7/10/98 More weeds. This time Queen Ann's Lace. Prairie plants looking stronger. Some partridge pea in bloom. Again neighbor mows site about 8 inches high.

Oct. 98 With The Prairie Enthusiasts, picked more local prairie seed.

11/2/98 Over-seeded a few things using the same methods. Emphasis on species below target in initial seeding and seed from Elmoville Prairie. In all, one native grass and 23 forbs present.

April 99 Considered burning, but inadequate fuel load. Did not burn.

Spring 99 Some hand-weeding of Bull and Canada thistle. Beginning to look like a real prairie.

Summer 99 Bluebird Prairie is a sea of yellow. Boy, am I excited. This looks like the real thing. Black Eyed Susan and brown eyed Susan dominate, with plenty of Yellow Coneflower, Monarda and the other matrix species. Also purple prairie clover.

Fall 99 Lots of New England aster and Indian grass; some Canada wild rye; not much big bluestem. Over the summer and fall, I identified 33 species (4 grasses and 29 forbs). Number probably limited by beginner status of observer. I feel very good about the progress of Bluebird Prairie.

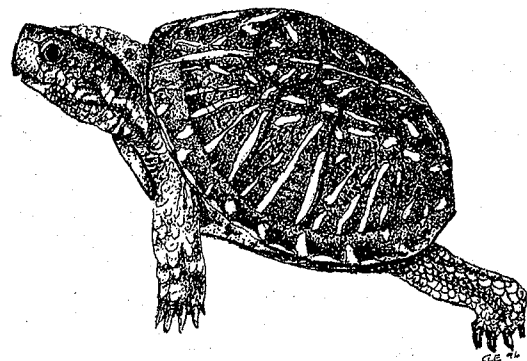
Oct. 99 With Prairie Enthusiasts, picked more local prairie seed.

11/3/99 Over-seeded with 16 forbs. Again, focus is on conservatives and expanding populations found across the road at Elmoville Prairie.

4/15/00 The first burn of Bluebird Prairie-a major milestone. The fire carried all the way to the road, with at least 80% coverage.

5/25/00 Lots of good plants coming up. Highlight for the day was finding compass plants. Needed some selective weeding of Canada thistle and sweet clover.

6/6/00 Some spiderwort in bloom along with *Penstemon digitalis*. Purple prairie clover easy to find, but not yet in bloom. Lots of early sunflower about to bloom. Yellow coneflower in abundance. Lots of Indian grass, especially at north end. Bluebird Prairie is doing great. Making prairies takes patience, but not as much as I thought it might. A new summer show is about to begin. I am excited, this is fun! If you have questions or suggestions, you can find me at: 815-777-9659 or randall@galenalink.com.



Tour De Gama

By Jim and Rickie Rachuy

My wife Rickie often chides me about not getting out and seeing the world. True enough. Within a two or three county distance, I find what I need. I love this very special part of the world (the Driftless Area of northwest Illinois) and can't see traipsing around hither and yon for no good reason.

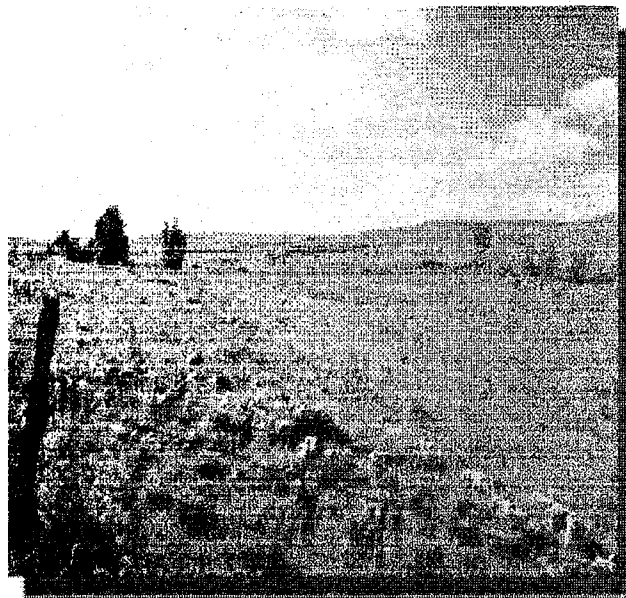
On the other hand...if the Missouri Prairie Foundation organizes a tour of the prairies of Kansas (where you can find over half of the nation's remaining tallgrass prairie), maybe there is a reason to roam. The following are our notes on the trip. Rickie wrote on birds and other critters. I wrote on plants and management practices.

Saturday, May 27, 2000 - Kansas City to Salina and Lindborg. Nice bus-it's all windows. At The Land Institute near Salina, we join their annual Prairie Festival. The theme is "The Art of Living In Place," that is, the interrelatedness of aesthetics, beauty, place, sustainability, and the art of living. Events include art displays, speakers, live music, poetry readings, evening bonfire, barn dance, good food, and nifty buildings (neoclassical hippie, I believe). Of most interest to me is a 20 acre remnant across the road and Wes Jackson's experimental "prairie" plots. These plots are designed to find a simple, stable grouping of native prairie plants which could form the base for a perennial, renewable agriculture. Prominent plants in the experimental plots are gama grass, cupplant and Illinois bundleflower. In the prairie I find little bluestem, purple poppy mallow, blue indigo, lead plant, *Panicum oligosanthos* scribnerianum, bear grass, prairie larkspur, shell-leaf beardtongue (*Penstemon grandiflorus*), *Penstemon cobaea*, rosinweed, compass plant, big bluestem, gama grass, purple and white prairie clover, Illinois bundleflower, green milkweed (*Asclepias viridiflora*) and Texas greeneyes (*Berlandiera texana*). The problem weeds in these parts are yellow sweetclover, smooth brome, japanese brome, downy brome and western pigweed. No *Pastinaca*, crown vetch or carrot to be seen, but often a lot of prickly poppy (*Argemone polyanthemus*), yucca, and scurf pea (*Psoralea tenuiflora* which the locals call wild alfalfa) on disturbed sites.

While wandering through the many displays and the prairie, I see western kingbirds, Carolina wren, bobwhite, kingfisher, yellow-billed cuckoo, dickcissel and upland sandpiper. The trip leader says we'll see lots of sandpipers. Birds I hope to see are loggerhead shrike, scissor-tailed flycatcher, Chihuahuan raven, black-billed magpie, Swainson's hawk, burrowing owl and, of course, prairie chicken.

Sunday, May 28 - Lindborg to Cheyenne Bottoms to Garden City. Cheyenne Bottoms is a 41,000 acre elliptical basin containing the largest system of

wetlands in Kansas. The water is centered in a natural sink fringed with bluffs. During the year, some 320 species of birds stop over here, including whooping cranes, golden eagles, godwits, dowitchers, and 25 species of ducks and geese. Our guide was site manager Bob Penner (TNC Kansas). Although too late in the season for huge masses of birds, I did see western grebe, white-faced ibis, American avocet, blue-winged teal, canvasback, yellow-headed blackbird, redhead, mallard, snowy egret, cattle egret, great egret, black-crowned night heron (including a juvi), white pelican, great blue heron, tons of western kingbirds, semipalmated sandpiper, white-rumped sandpiper, Mississippi kite, and Swainson's hawk. I think I saw a ferruginous hawk. Also burrowing owls on prairie dog mounds, grasshopper sparrow, and dickcissel. At the bison reserve near Garden City, I saw blue grosbeak, Cassin's sparrow (Jim brought them in with his squeaker), black-tailed jack rabbit, lots of bobwhite quail and lark sparrows, burrowing owl, prairie dogs and gophers, a herd of 50 bison, mockingbird, and several black-billed magpie. Cheyenne Bottoms is a "managed" cow pasture that supports mostly agricultural weeds. Even the marshes are weedy, composed mainly of cattails. I did see some Illinois bundleflower and *Lythrum alatum*.



SPRING ON THE KANSAS PRAIRIE

At Garden City, the landscape changes abruptly to sagebrush and overgrazed short prairie. The ecology of this entire area was devastated during the dust bowl. Common plants are sand lovegrass, sand bluestem (*Andropogon hallii*), little bluestem, white milkwort

(*Polygala alba*), buffalo gourd (*Cucubita foetidissima*), stickleaf (*Mentzelia oligosperma*), horsemint, six-weeks fescue, sand vervain (*Abronia fragrans*), purple poppy mallow, sand plantain (*Plantago patagonica*), Indian blanket, and prickly pear. We also saw mule deer, bison (with many young calves), black-tailed prairie dogs, thirteen-lined ground squirrels, and ferocious biting flies and chiggers. Good thing Rickie and I dust with sulfur every morning.

Monday, May 29 - Garden City to Cimarron to Dodge City. On the Cimarron National Grassland (managed by the Forest Service ?) and south of the Cimarron River it's mostly sagebrush (*Artemisia filifolia*) and sand love grass. This community is surprisingly diverse. North of the river, it's short-grass prairie dominated by blue grama and buffalo grass. This community is less diverse, but to my thinking, more interesting. Along the river (among elm and cottonwood) its western wheatgrass and squirreltail and pretty weedy. On the rockiest crag I could find, near Point of Rocks, I saw a small evening-primrose (*Oenothera albicaulis*), purple prairie clover, sand vervain, purple three-awn, ground plum (*Astragalus crassicaulus*), alkali milkvetch (*Astragalus racemosus*), several mystery composites and a great plains skink. It was very hot and dry today, with a strong westerly wind. Near 100 degrees, sunny and cloudless most of the day (pant pant pant). Not much new in the birds. Lots of soaring Mississippi kites and great-tailed grackles. Also more mockingbirds, lark sparrows, an orchard oriole, goldfinch, and possibly a chestnut-sided warbler at the Cimarron Crossing. The Crossing is an oasis on the Santa Fe Trail formed by several springs. The remainder of the "river" is dry. Had a good look at Bullock's oriole. Birding at noon in the Cimarron was a challenge.

Tuesday, May 30 - Dodge City to Quivira to Manhattan. Quivira is a set of salt flats formed by the unique local geology (salty rocks) and hydrology (springs). There are several large shallow lakes with salt flats and meadows. Unusual plants include saltwort (*Salicornia*) and other seashore types. Lots of spike rush, bulrush, and some cattail. Prairie on the south end with butterfly milkweed (orange, yellow, and even red ones), fringed pucoon, lots of showy milkweed (*Asclepias speciosa*), cottonweed (*Froelickia gracilis*), purple poppy mallow, big bluestem, Indian grass, little bluestem, junegrass. Also giant reed, lemonade bush, and canary reed.

At Manhattan, we visit the Dewey Ranch at Konza Prairie. The steep-sloped, limestone-covered bluffs of Konza are characteristic of the Flint Hills and very much like home, except for a notable scarcity of trees. Konza, founded in 1971, is predominately tallgrass prairie, dominated by C4 grasses like big bluestem, Indian grass, little bluestem, and switch grass. Gallery forests along streams are dominated by bur and chiquapin oaks, with green ash, hackberry, slippery elm, and black walnut present. The few woody species

present on the prairie include leadplant, buckbrush, and smooth sumac. In total, Konza provides habitat for over 600 species of vascular plants and 200 species of birds. Over 100 scientists from all over the world currently have active research projects on site. Our guide on a late morning bus tour was Dr. David Hartnett, the Director of Konza Prairie. I was glad to hear that Dr. Hartnett was trained at my alma mater, the University of Illinois at Urbana Champaign. On this large 8,600 acre prairie, they have established many long term plots held to various fire and grazing schedules. They also have studies that control precipitation, pollination, mineralization, and every other variable you can think of. According to Dr. Hartnett, the optimal fire schedule (measured by biodiversity) is once every 2-5 years. The bison herd is now around 250 head. At Konza, the optimal grazing pressure is 1 bison on 15 acres, or enough to remove 25-50% of the annual forage. Grazing reduces the negative results of over-burning which is common in the Flint Hills. At the other extreme, a 15-year absence of fire turns this prairie to brushland. Konza research has also shown that the grazing of bison and cattle are very similar on dry sites, but that cattle suppress biodiversity on mesic and wet sites. The highest biodiversity is achieved with a 3-5 year fire cycle and 25% bison grazing. Rickie now wants bison on the home prairie.

THE KONZA HERD



An early evening walk with Dr Valerie Wright, Konza's head of Environmental Education, turned up blue indigo, narrowleaf purple coneflower (*Echinacea angustifolia*), false garlic (*Northoscordum bivalve*), prairie violet, cat's claw sensitive brier (*Schrankia nuttallii*), butterfly milkweed, prairie ragwort, Missouri

evening-primrose, prairie blue-eyed grass, spider milkweed, grooved flax, hoary vervain, purple poppy mallow, yellow coneflower, buffalo grass, Illinois tick trefoil, snow-on-the-mountain, aromatic aster, blue sage, tall thistle, curlycup gumweed, large-flowered gaura (*Gaura longiflora*), western wild lettuce (*Lactuca ludoviciana*), heath aster, prairie dogbane, antenna plant (*Stenosiphon linifolius*), and blister beetles (watch out).

Quivira is a great habitat for wetland birds. Supposed sightings of pyrrhlooxia and little blue heron did not materialize for us. Neither did scissor-tailed flycatchers. In fact, we saw no passerines of any kind except the western and eastern kingbirds, eastern meadowlark, and red-winged blackbirds. Bus birding does not lend itself to these kinds of sightings. However, we did see some spectacular peeps, including Wilson's phalarope, black-necked stilts, American avocet, snowy plover, lesser yellowlegs, western sandpiper, and white-rumped sandpiper. Also least tern, black tern and Forster's tern. Great blue heron, white egrets, and snowy egrets were abundant. Most spectacular was a Virginia rail that was skulking in the reeds and was flushed by our curiosity over a juvenile heron. The largest populations of black rail in the nation are here in specially managed wet meadow (monoculture acres of spike rush), but none were seen. At Konza there were upland sandpipers galore, greater prairie chicken, and lots of bobwhite, quail, and turkey.

Wednesday, May 31 - Manhattan to Cottonwood Falls in Chase County. A morning bus tour at the Tallgrass Prairie National Preserve (aka the Z-bar or Spring Hill Ranch) was conducted by the National Park Service. Strangely, the NPS owns but 180 acres of this 10,894 acre site. The remainder is owned by the National Park Trust of Kansas, a private NGO. This arrangement was created to placate local fears of federal ownership. On the tour I saw big bluestem, Indian grass, little bluestem, purple three-awn, blue indigo, butterfly milkweed, fringed pucoon, prairie parsley, ground cherry (*Physalis longifolia*), prairie spiderwort (*Tradescantia occidentalis*), yarrow, indigobush in the draws, wavyleaf thistle (*Cirsium undulatum*), old plainsman (*Hymenopappus scabiosaeus*), leadplant, narrowleaf bluets (*Hedyotis nigricans*), rosinweed, compass plant, silky aster, and western fleabane (*Erigeron bellidiastrum*). The major weeds are Japanese, downy, and smooth brome.

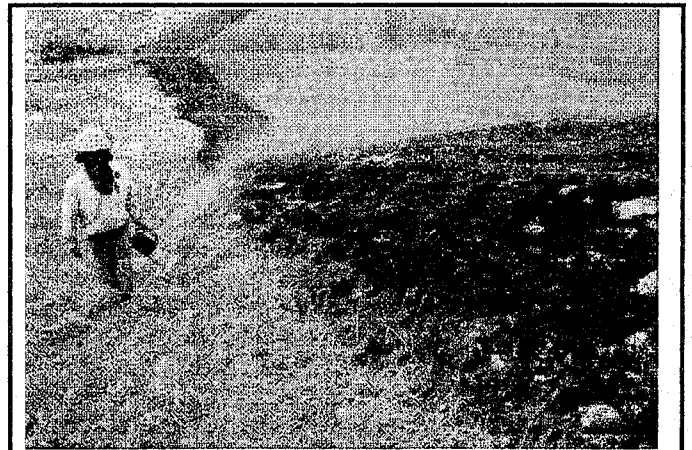
The "park" (the only tallgrass prairie in the National Park system) is managed like a cow pasture - another concession to local politics. The cattle come mostly from Mexico via a broker in Texas. This broker also "donated" money to build the roads for the tour bus (gee thanks, guy). Bison will be introduced slowly over the next 5-6 years. The cattle will be gone only after the last step. The whole place is burned yearly. This greatly reduces the population of many forbs. Of course, the objective is to increase grass production for the cattle. The Konza data suggest that overburning reduces forb

populations, but does not eliminate them, even on sites that have been burned annually for over 50 years.

The Grand Central Hotel in Cottonwood Falls is a spectacular place to "rough it" out on the prairie-and prairie it is, in all directions, as far as you can see. You really have to look to find a corn field. I heard orchard orioles, blue jays, house wrens and robins in town. I saw a bobcat and heard dickcissel, orchard and Baltimore oriole, and lark sparrow on a sunrise drive in the hotel's antique, flatbed truck. Also mockingbird and one scissor-tail flycatcher on the wing. Jim saw two scissortails close up in an aerial ballet of territorial defense during a walking tour at Spring Hill Ranch. There was also Bewick's wren and eastern phoebe around the ranch homestead (and a nice bookstore, too).

Thursday, June 1 - Cottonwood Falls to Kansas City and supper with friends. Friday, June 2 - Kansas City to Prairie City, Iowa, and home. The Neal Smith National Wildlife Refuge (formerly Walnut Creek NWR) is an 8,000 acre prairie and savanna restoration located in central Iowa. The center piece is the Prairie Learning Center, an educational, architectural, and historical treasure. The movie shown to all visitors about prairies and savannas is very moving. They also have a great book store, walking paths, and a drive-through area with a small bison herd. As for the restorations, they look pretty weedy to me. Even the area around the building isn't what you would call grade C. The small savanna restoration, made from an existing bur oak stand and fire, is nice. Its got a long way to go, but then I guess its reasonable to expect this whole place to be a work in progress.

It was a great tour. I'm glad I went and I'm glad to be back in my own hills. The Missouri Prairie Foundation is organizing a tour of the prairies of Missouri. Hummm. I'll think about that later. You can catch me at lonetree@mwci.net or 815-947-2287.



KONZA FIRE LINE

CALENDAR OF EVENTS

COULEE REGION CHAPTER

MEETINGS

Sat.,	Nov. 4	Chapter meeting at 10am at La Crosse main public library. Guest speaker will be Gary Eldred
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EVENTS

Sat.,	Oct. 7	Work party at Lloyd and Mary Lee Croatts starting at 10am. Contact 1-608-634-3507 for more information.
Sat.,	Oct. 28	Work party at Lloyd and Mary Lee Croatts starting at 10am. Contact 1-608-634-3507 for more information.
Sat.,	Nov. 11	Work party at Ed and Barbara Christies starting at 10am. Call 608-634-2110 for more information.

EMPIRE-SAUK CHAPTER

MEETINGS

Wed.,	Nov. 8	Chapter board meeting at Goose Pond at 7pm. Contact Mark at 608-635-4160 gooscp@midplains.net for directions.
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PRAIRIE BLUFF CHAPTER

MEETINGS

Tues.,	Oct. 3	Chapter meeting at Marshall Bluff Bowhunters' Clubhouse, N7326 Marshall Bluff Rd, Monticello at 7pm.
Tues.,	Nov. 7	Chapter meeting at Turner Hall Ratskeller, 1217 17 th Avenue Monroe at 7pm.
Tues.,	Dec., 5	Chapter meeting and Xmas potluck at Marshall Bluff Bowhunters Clubhouse, N7326 Marshall Bluff Rd, Monticello at 6pm.

SOUTHWEST CHAPTER

MEETINGS

Sun.,	Oct. 15	Chapter meeting at 1pm. Location to be announced, call Gary Eldred at 375-5271 for details.
Sun.,	Nov. 19	Chapter meeting at 1pm. Location to be announced, call Gary Eldred at 375-5271 for details.
Sun.,	Dec. 17	Chapter meeting at 1pm. Location to be announced, call Gary Eldred at 375-5271 for details.
Sun.,	Jan. 21	Chapter meeting at 1pm. Location to be announced, call Gary Eldred at 375-5271 for details.

EVENTS

Sat.,	Oct. 7	Work party at Bush Clover Prairie, starting at 10am.
Sun.,	Oct. 8	Work party at Kalscheur's, starting

at 10am.

Sat.,	Oct. 14	Work party at Vale Prairie starting at 10am.
Sun.,	Oct. 22	Burning at Thomas Wet prairie.
Sat.,	Nov. 4	Work party at Heather's Prairie at 10am.
Sun.,	Nov. 12	Work party at Kalscheur's Savanna starting at 10am.
Sat.,	Nov. 25	Work party at Vales Prairie starting at 10am.
Sun.,	Dec. 10	Work party at Kalscheur's Savanna starting at 10am
Sat.,	Dec. 16	Work party at Heather's Prairie starting at 10am.
Sat.,	Dec. 30	Work party at Bush Clover Prairie starting at 10am.

Directions to Vale Prairie: from Hwy 69, turn east onto Hwy 39. At Purinton Rd turn east. Proceed to Schneeburger Rd and turn north 0.2 miles, take the farm lane west (trees are on the south side of lane and crop land is on north side). For information, call Gary Eldred at 608-375-5271.

Directions to Heather's Prairie: From Fennimore, take Hwy 18 west to Pine Rd. Turn left (east) on Graham Rd., then south on Mt Ridge Rd. to fire number 12109. For information, call Gary Adams at 608-624-5797.

Directions to Bush Clover Prairie: Take Hwy 61 north at Lancaster, and turn left on Co. Rd. K. Proceed about four miles and turn left (west) on Badger Rd. Go around curve and prairie is on the right. For information, Gary Eldred at 608-375-5271.

Directions to Kalscheur's Savanna: From Hollandale (SW Iowa Co.) go south from Hwy 39 on Co. Rd. K about 2 miles. Site is on left (east) side of road. Look for parked cars along road. For information, call David Lowe at 608-935-9586.

GENERAL CALENDAR

Sun.,	Oct. 8	Prairies Jubilee ! at Goose Pond. See lead article on page 1.
Sat.,	Nov. 4	10 th Annual Invertebrate Conference at Riveredge Nature Center. See article on page 4.
Thu.,	Nov. 9	TPE Board meeting by teleconference starting at 7pm. Contact Kathy Kirk for details at 608-527-2686



August on the Prairie

by Mary Lee Croatt

It is August on the prairie. And the war on weeds continues. For those friends & family that think we just sit and stare at the flowers, here is an update.

Some of our friends jokingly talk about our prairie as our "fields of weeds". They don't "get it" that there is a huge difference between a weed and a native plant. A weed is an introduced species of plant brought in from a foreign land. Because it is exotic, it has no controls to stop it from spreading. On our 80 acres of land we have a prairie remnant of approximately 15 acres. It is like a virgin piece of land that has never been tilled for agriculture & possibly not even grazed by domestic animals. I consider it an ecological gem, an antique in the true sense. It has no weeds, except the woody shrubs of sumac or prickly ash nearby that want to march in to cover it and ultimately create a forest.

Elsewhere, soil has been disturbed for agriculture or development. These weeds inhabit some of that area. So why is a weed so bad? It is bad when it becomes too aggressive and overwhelms our native plants. For us land restorationists, it is not a question to weed or not to weed. It is a question of what to weed, when to weed, and how to weed. We burn. We slash. We uproot. We resort to poison. We time our attacks. We think we conquer until we look again. If one has any tendency to be compulsive, like I am, weeds can make me crazy. Some calm self talk, instead of muttering and cursing, helps. I remind myself of the good in weeds. Weeds actually can be nature's band-aids. Where there is soil disturbance weeds erupt to hold down the earth against erosion. Where some of our native plants have become endangered or extinct, weeds become host and nectar sources for insects, butterflies, and moths, important creatures in our web of life.

With mega gardening, this is a daunting task. I resort to prioritizing according to nastiness. Timing is of the essence. That is why I declare the weed of the week. For most, attacking the plant when it is in flower, right before it goes to seed, is the best time. Nasty number one for me is crown vetch. I wage a war on vetch. The very name makes my blood curdle. It brings out the nastiness in me. It is the only weed with which I have had to resort to poison, using Round Up when the plant is in flower. I am trying new approaches as the old perimeter becomes a new cancer colony in next year's vetch patch. I now intend to sow annual rye grass seed to the bare soil to prevent other weed infestation after my deadly deed is done. Wild parsnip has responded well to our efforts at uprooting. After 6 years of work, we have decimated this aggressive weed to a fraction. We wear long sleeves, long pants, and gloves as we work with it. It is always a hot and sweaty job. It's sap can get on your skin causing photosensitivity. These areas then blister and form dark skin spots which can last for a year. It is not always safe out there on the prairie!

White and yellow clover is another weed I watch

for and pull when in flower, before it goes to seed. Its seeds are known to live for 40 years! Burdock also has responded to our interventions of cutting its root when in flower, before it goes to seed. We pile these and the previously named ones on a brush pile to dry and be burned. Some of our native good plants can be aggressive and take over. Like a naughty child that needs some discipline, we will give them a whack when needed. Canada goldenrod is such a creature. When in flower, we may mow stands of it to allow other plants to get a chance.

As I write, this week's weed will be thistle. Nasty! Thistle implanted a very fine thorn which ultimately became a nodule in my hand. That nodule now inhibits one finger's range of motion. I tell you, it is a dangerous world out there!

We are still trying to figure out how to inhibit and destroy reed canary grass. It forms a thick mat of tall vegetation that smothers other natives. We have transplanted cupplant from volunteers from our urban yard. The silphiums seem to compete well with this alien grass. Thank God, we do not have garlic mustard, purple loostrike, or spotted knapweed!

I don't even deal with stinging nettle, queen anne's lace, chickory, or creeping charlie. Even I know when I'm beat! All I really know is that weeding is not for wimps!

COULEE REGION CHAPTER

Coulee Region Prairie Enthusiasts Summer 2000 events Accomplished

Annual Meeting and Picnic, July 29, 2000 Perrot State Park in Trempealeau, WI (mountain standing in water) was the gathering site for our annual meeting and picnic. A park of geological wonder on the Mississippi River gave all of us present a fun filled day. All chapters shared their latest news, endeavors and hopes. Elections of state officers were efficient and quick. A bountiful pot luck feast left no one hungry and the strong of heart hiked the bluff tops. Still others visited our chapter member Helen Davis' Tamarack farm late in the afternoon. Coulee chapter was pleased to host this gathering and we gratefully thank all who attended.

Community Projects

Kickapoo Reserve is an 8,569 tract of publicly-owned land located between the villages of La Farge and Ontario in southwestern Wisconsin. The Reserve exists today because of a flood control project that was proposed more than 30 years ago: 140 farms were purchased to make way for a dam reservoir. After several stops and starts, the project was halted in 1973 for environmental and economic reasons. Congress recently passed legislation to transfer ownership back to the State of Wisconsin and the Ho-Chunk Nation. Various environmental groups and individuals are participating in developing the area into a (very low

grade) recreational and educational Reserve. Coulee chapter is entering into this project also. We will start this fall with a burn to encourage natives that are dormant on a small four acre tract. This will be a strategic educational site with separate areas using various techniques for restoration. There will be small signs to identify the areas and a printed self guide visitors can use to identify and classify forbs and grasses. When this is in place, our chapter will continue working with the Reserve on a larger one hundred acre tract joint management endeavor. We will lead by example.

Sugar Creek Bible Camp

This camp is nestled amongst deep coulees and high mountain tops. It has a remnant goat prairie. Our chapter has been asked by its director for assistance in maintaining this jewel. Presently two chapter members have inventoried plant species, reptiles, and insects and are formulating a joint management plan to start next spring.

EMPIRE SAUK CHAPTER

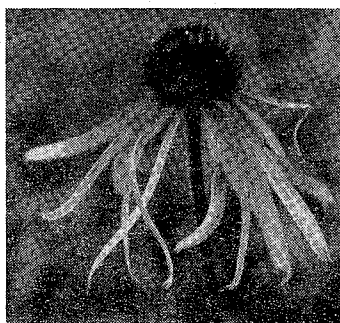
Brush mower fund still making progress but

needs help. We are almost there -- 78% of the way to our goal of \$2,145. Thank you to the following contributors:

Wayne Pauly, Jon & Peggy Traver, Laureen & Ron Thorstad, Meagan Yost, Kathy & Rich Henderson, Noll Valley Home Owners Association, Vilas Neighborhood Association, Jim Welsh, Guerdon & Jeanette Coombs, Susan Slapnick, John & Carmen Wagner, Gary Werner, Craig Annen, Dan & Deb Weidert, Tom & Kathy Brock, Janet Battista, Chuck Bauer, Randall Berndt, Tracey Terrazas, Nancy Schlimgen, Howard Hochman & Rose Meinholz, Carla Wright, Loren & Patty Paulson, and Scott Sauer (in memory of his mother, Lois Virginia Valentine Sauer).

A small donation (\$4) a piece from the rest of the chapter membership would finish the job. Please send your donation to the Prairie Enthusiasts c/o Jim Welsh, S5685 Old Lake Road, Baraboo, WI 53913.

Elections held. At our annual meeting and picnic at Marion Park in Mazomanie in July, Scott Sauer was elected as chapter vice-president and Jim Welsh as chapter treasurer. New blood on the board is always welcome. Please contact Rich Henderson if you are interested in serving (608-845-7065).



SOUTHWEST WI CHAPTER

Ittis Savanna Update

Our July field trip produced six interested enthusiasts, including Rich and Kathy Henderson, Gary and Gail Adams, Sue Linder, and Gary Eldred. We spent several hours inventorying plant species and discussing management needs, options, and problems. The United States Fish and Wildlife Service has entered into a management agreement with us and will be providing \$2,000 for labor to cut trees and brush. David Lowe will be our site restoration manager and will incorporate the Wisconsin Conservation Corps into the project. As for our requests for donations to help pay for the purchase, we are falling behind. To date, we have received one donation and we have a balance of \$32,000 we need to raise. I hope that your love and concern for the last of our prairies and savannas will stimulate you to send us a tax deductible donation to save the places we love!



checking the perimeter!

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SELECT CHAPTER OR GENERAL MEMBERSHIP:

☐ **Coulee Region Chapter**

Buffalo, Houston, Jackson, LaCrosse,
Monroe, Trempealeau, Vernon, &
Winona Counties

☐ **Empire Sauk Chapter**

Columbia, Dane & Sauk Counties.

☐ **Northwest Illinois Chapter**

Carroll, JoDaviess & Stephenson Counties

☐ **Prairie Bluff Chapter**

Green, Lafayette & Rock Counties

Can we provide your name and address to
Other environmental organizations Y / N
Other Prairie Enthusiasts in your area
Y / N

MEMBERSHIP LEVEL

☐ **\$250 ANNUAL CORPORATE MEMBERSHIP**

☐ **\$10 STUDENT**

☐ **\$30 CONTRIBUTOR**

☐ **\$20 INDIVIDUAL**

☐ **\$75 SUSTAINING**

☐ **Southeast WI Chapter (pending)**

Dodge, Fond du Lac, Jefferson, Kenosha,
Milwaukee, Ozaukee, Racine, Sheboygan,
Walworth, Washington, & Waukesha
Counties.

☐ **Southwest WI Chapter**

Crawford, Grant, Iowa & Richland Co.

☐ **West Central WI Chapter**

Barron, Chippewa, Dunn, Eau Claire,
Pepin, Pierce Polk & St Croix Counties

☐ **General Membership**
outside chapter areas

MAKE CHECKS PAYABLE TO:

**The Prairie Enthusiasts
PO Box 112
Boscobel, WI 53805**

I Will Help With:

- ☐ Site Inventories
- ☐ Organizing/Leading Field Trips
- ☐ Developing Educational Materials
- ☐ Seed Collecting/Planting
- ☐ Planning Social Activities (banquet, picnics)
- ☐ Fund Raising/Grant Writing
- ☐ Stewardship (Burning, Brush Cutting)
- ☐ Communications (newsletter, articles)

☐ **\$200 BLAZING**

STAR MEMBER

THANK YOU

12/3/1999