

Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 13, No. 4

Upcoming Monthly Meetings

Minnesota Valley National Wildlife Refuge Visitor Center, 3815 East 80th Street Bloomington, MN 55425-1600 612-335-2323

July 10 Retreat for Board of Directors, 1-5 PM, at Minnesota Valley National Wildlife Refuge; Box lunches available.

Summer Field Trips (details on page 4) July 9: Goose Lake Prairie Walk July 16: Prairie Smoke Tour July 23: Urban Prairie July 30: Gully Fens August 13: Minnesota Prairie Day August 27: Savage Fen Wetlands

September 15 Deadline for Fall Newsletter

October 5—First Fall Meeting David Tillman, UM Professor of Ecology, Prairie Biodiversity: Causes and Value Board Meeting: 5:30 PM Social Meeting: 6:30-7 PM Regular meeting: 7-9 PM

New Location for October 5 meeting, and all year, at Minnesota Valley National Wildlife Refuge (see address above and map on back page).There is ample parking, but limited bus service. Grace Gray will organize car pooling from St. Paul Campus (484-0190).See Becky's letter on page 3.

Plant Geography of Southeast Minnesota

Scott C. Zager

Summer 1994

The Paleozoic Plateau is a landform region in southwest Minnesota defined mainly by its geology. This plateau, also known as the Blufflands, is a rugged landscape dominated by bedrock exposures of dolomitic limestone, sandstone, and shale. These sedimentary rocks were deposited by ancient seas during the Cambrian and Ordovician ages of the Paleozoic Era. The Quaternary Period or "Great Ice Age" culminated a trend toward climatic cooling with a series of at least 20 glacial-interglacial periods. The Paleozoic Plateau in Minnesota and Iowa has been called the "driftless area" because it was thought to be unglaciated during the pleistocene; however, recent evidence suggests that the area was repeatedly glaciated more than 500,000 years ago during which time the Mississippi River evolved (Hallberg et al. 1984). After the glaciers receded, a dendritic network of waterways eroded steep valleys into the bedrock leaving narrow bluffs whose mesa-like crests rise 600 feet above the floodplain of the Mississippi River. Much of the down-cutting probably occurred between 160-20k (k=thousand) years ago and by 10k the Mississippi River was at its present elevation. The young age of the landscape is supported by an almost notable lack of a unique taxa in the region's flora. The relatively few, truly endemic taxa suggests that there has been a limited period of time for species and subspecific evolution.

The origin of extant vascular plant genera and of many species occurred largely prior to the Quaternary. This era is characterized more by changes in distributions of plant taxa and floristic composition of plant communities than by the evolution of genera and species. In the last 20k years the Paleozoic Plateau has been transformed from periglacial tundra to the present day temperate climate. At present, the Paleozoic Plateau is at the interface of three major biomes: Eastern Deciduous Forest, Great Plains Prairies, and Boreal Forest. The demarcation of these boundaries has never been clear and has fluctuated widely across North America during several climatic shifts in the last 10k years. During the hot and dry periods, the tallgrass prairie (continued on page 2, Plant Geography)

Plant Geography (from page 1)

extended to the eastern scaboard, whereas in cool and moist periods, deciduous forest probably covered all of southern Minnesota. Circumboreal species have survived since the Wisconsin glaciation on northfacing, algific talus slopes whose cold micro-climate is maintained by ice caves.

The Paleozoic Plateau is Minnesota's most biologically diverse region. The six Minnesota counties bordering the Mississippi River cover about 4% of the state's total surface area, yet 14% of all the rare feature records of the Natural Heritage Information System (NHIS) occur in these six counties. The distributions of the rare species found in the region indicate the complex natural history of the region. Many of these species are on the periphery of their range. Some represent disjunct populations far from where the species is typically found. Other species are rare because they require specific habitats which were never common or whose habitat is now diminished because it has been largely converted to human uses. A few species are rare because of reasons not yet understood but have probably always existed in low numbers. At least one species, dwarf trout lily (Erythronium propullans), is endemic and probably evolved here. Finally several species are rare because of some combination of the above factors.

The natural communities found within the dissected topography of the Paleozoic Plateau harbor some of Minnesota's rarest plant and animal species. Since 1990, the Minnesota County Biological Survey (MCBS) has been collecting biological information on the distribution and status of rare animals, rare plants, and natural communities within the Paleozoic Plateau. The MCBS was established in recognition of the need to assess the status of the state's biological diversity and its unique natural resources. It is a county-by-county survey housed within the Minnesota Department of Natural Resources (MN DNR), Division of Fish and Wildlife, Section of Wildlife. The fundamental objective of the MCBS is to systematically identify locations of Minnesota's natural areas, their component natural communities and rare species. Location information and associated ecological data on all natural areas, natural communities and rare species are entered into the NHIS. Natural area and community boundaries are digitized into

an ARC/INFO GIS, and all point locations of rare species are digitally recorded as geographic coordinates. Information from the NHIS Rare Features Database is available as printed abstracts describing the characteristics of each rare feature location, e.g., observer, date of information, number of plants, eggs per nest, condition of prairie due to grazing, etc.

A summary of a presentation made at the 6 April 1994 meeting of the Minnesota Native Plant Society, by Scott C. Zager, of the Minnesota DNR County Biological Survey.

PROPOSED GUIDELINES MNPS Conservation Committee Report

Organization

The Conservation Committee shall consist of members of MNPS interested in pursuing the goals set forth in the Mission Statement. A chair shall be elected by majority vote taken at a scheduled meeting. The term of service shall be 1 year. The committee shall meet monthly throughout the year, but extra meetings can be called when needed.

Communication with MNPS Board

Communication with the Board of the MNPS shall be maintained through a Board liaison, to be selected by the Board. Actions taken by the Committee shall be subject to Board approval.

Mission Statement

The Conservation Committee shall: 1) Provide information to Society members on issues relating to conservation, including but not limited to, promotion of the use of native plant species; preservation of native plant species; and communities; and conservation of rare and endangered species, 2) Advise the Society's Board of Directors on what action should be taken regarding conservation issues, and 3) Undertake those actions deemed appropriate by the Society's Board of Directors.

Response: Contact Bristow with changes or ideas about this Committee. —Charles Bristow, Chair, 3/1/94

The Minnesota Native Plant Society

Minnesota Plant Press Thor Kommedahl, editor University of Minnesota, 495 Borlaug Hall, St. Paul, MN 55108;

> Newsletter of the Minnesota Native Plant Society

Membership dues are \$10 per year for regular members and includes subscription to the newsletter; dues for students and seniors are \$8, for family \$12, for institutions \$20, and donors \$25. Checks can be made out to: Minnesota Native Plant Society, and sent to : Minnesota Native Plant Society, and sent to : Minnesota Native Plant Society, 220 Biological Sciences Center, 1445 Gortner Avenue, St. Paul, MN 55108.

Four issues are published each year.

03	MNPS B	ard of	Directors
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Nancy .	Albrecht,		
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President Becky Schirber announces meeting location at National Wildlife Refuge Center

Dear Members:

The *Minnesota Native Plant Society* has been meeting on the St. Paul Campus of the University of Minnesota for many years, but, starting October 5, 1994, we will be changing our meeting location to the Minnesota Valley National Wildlife Refuge Visitor and Education Center. Much thought and consideration went into the decision concerning this change. Some of the issues that were considered are outlined below.

The somewhat central location of the St. Paul Campus and the especially easy access for students and workers on the campus were advantages of meeting in Borlaug Hall on the campus. However, the disadvantages of meeting on campus continued to mount. If we were to continue to meet on campus we would have to schedule meetings at the beginning of each quarter for any campus room. Borlaug Hall has become increasingly popular for meetings, and school functions take priority. Parking has become a major obstacle for many members and for potential members. Our meeting place is seen as difficult to find, considering the maze of streets and the many parking restrictions. Many people also consider it unsafe to walk to their cars at night in winter. The parking problem has been brought up for years and some members have let us know that they have not attended meetings because of inconvenient parking and often extensive walking when meeting on the St. Paul Campus.

In December 1993, when the MNPS Board found out that there was a conflict with a class scheduled in Borlaug Hall, the Board decided to look for alternative sites. Moving the location of our general and board meetings was much debated and carefully considered. The locations considered included the Minnesota Horticultural Society building, the Minnesota Valley National Wildlife Refuge Visitor and Education Center, the Earle Brown Center, the Bell Museum, and other campus buildings as well as places on other campuses, e.g., University of St. Thomas, Macalester College, and Hamline University. We found barriers (pay parking, high room fees, small facilities, scheduling difficulties, and safety) to using any of these locations except for the Minnesota Valley National Wildlife Refuge.

The following advantages to locating our meetings at the Minnesota Valley National Wildlife Refuge are as follows:

- It is a first class facility
 - The auditorium holds 120 people, has slanted floors, and comfortable seats
 - -The audio-visual equipment is state-of-the-art
 - -Accommodations exist for the hearing impaired
- Parking is ample, adjacent to building, well lighted for safe walking
- •Natural setting for walking paths to the Refuge
- The mission of the Refuge is similar to ours
- The Refuge has a large mailing list and we will be on their monthly calendar
- Location between Minneapolis and St. Paul, just south of airport, easily accessible from major roads and freeways
- ·Public transit, but limited; car pooling possible

This was an important decision for us to make. The Board gave it much thoughtful consideration and placed it on the meeting agenda at the March general meeting. Now that we have made the decision to move, we think this is an excellent opportunity to make this our permanent home for MNPS. We appreciate all of your support in making this transition a smooth one. Grace Gray has volunteered to help organize car pooling from the St. Paul Campus. Her phone number is 484-0190. She is a busy person so keep trying to reach her. John and Jackie Buffalow have agreed to head up the refreshment committee for the coming season. Diane Hilscher has been working hard and successfully in planning next year's program. I am looking forward to another great year for the MNPS. See you in the fall at the Minnesota Valley National Wildlife Refuge!

-Rebecca Schirber, President MNPS

Future meetings of MNPS will be held at the

Minnesota Valley National Wildlife Refuge Visitor and Education Center

3815 80th Street, Bloomington, Minnesota

Meetings: First Wednesday of each month Board meetings from 5:30 to 6:30 PM in Classroom B Refreshments and Social Time 6:30 to 7 PM in Classroom A General Meeting 7 to 9 PM in Main Auditorium

MNPS will continue to keep the same mailing address and relationship with the University of Minnesota, Department of Plant Biology.

News and Announcements

Summer Field Trips

1) GOOSE LAKE PRAIRIE WALK. Pennington County, July 9, 1994, 9 AM to 3 PM. Joint with *Nature Conservancy*—a 3-4 mile hike.

Marsh remnants surrounded by prairie types between two Lake Agassiz beach ridges. Bring bag lunch. Fred Harris (ecologist) and Steve Stucker (ornithologist) are leaders. Meet in front of Hardee's in Thief River Falls, on north side of Hwy 59 at west end of city.

2) "PRAIRIE SMOKE" Prairie Tour. July 16, 1994. Join Deborah Anderson and Susan Gossman on a tour of 2 prairies near Chatfield, 20 miles south of Rochester on US Hwy 52. Meet at Chatfield City Park at 10 AM. Carpool to Tuohy Prairie at town's edge, eat a picnic lunch (your own), and go to Kark Prairie, 4 miles from Chatfield. *Reservations are requested by July 10.* Call (507) 867-3129, or write Timothy Gossman, RR1, Box 110A, Chatfield, MN 55923.

3) **REDISCOVER THE URBAN PRAIRIE.** Twin Cities, Saturday, July 23, 10 AM to 3 PM. Bob Jacobson (MnDOT) and Dave Olfelt (MnDNR) will lead caravan to little-known prairies along the Mississippi and Minnesota Rivers in the metro area. *Reservations required*. Call Dave at for map, directions and other details. Bring lunch.

4) GULLY FENS. Polk County. July 30, 1994, 10 AM. Gully is near Bemidji, 1.5 hr drive from Itasca Park. Joint with *Nature Conservancy*. Gully Fen is a mixture of prairie and boreal forest fen species. A 2.5 to 4-mile hike. Nancy Sather (botanist/ecologist) is the leader. Take Hwy 92 north from Bagley. Gully is 1/4 mile north of 92 on Polk County #2. Meet at "Gully Mall"—old elementary school on south side of Gully. Bring lunch. No trails, no facilities, rough terrain, some wading—*Be prepared*!

5) MINNESOTA PRAIRIE DAY. Saturday, August 13. Details of field trip not final now. For information please call DNR for details: 296-6157, or 1-800-766-6000. (see also page 7)

(continued column 2)

6) SAVAGE FEN WETLAND COM-PLEX, Savage, MN, Saturday, August 27, 10 AM to 2 PM. Led by Steve Eggers (Corps of Engineers) to 112-acre parcel of land newly acquired by USFWS. There are 45 acres of calcareous fen with 7 statelisted plant species. Compare management with adjacent 26-acre site intensively managed since 1986. Small mesic prairie also. Call Steve Eggers for directions and map:

For all trips, be prepared for rain, mud, and insects; bring lunch, field guides, lenses, binoculars, as usual. Check on reservations. Enjoy!

-Nancy Albrecht and B.J. Farley

Ninety-one persons attended the MNPS spring symposium on native plant-organism interaction

This Symposium of MNPS on Native Plants and their Interaction with Other Organisms was held Saturday, March 19, 1994, in the University of Minnesota Earle Brown Center. Speakers were Catherine Reed, entomologist at the University of Minnesota, who described insects and pollination of native plants; ecologist Mark Davis of Macalester College, who portrayed the interrelations of gophers, fire, oak, and Penstemon; ecologist Patrice Morrow of the University of Minnesota, who related companion plant effects on goldenrod and herbivores; and plant biologist Iris Charvat, of the University of Minnesota, who explained the role of mycorrhizae in wetland plants. All talks were superbly illustrated. The number and quality of questions reflected the high quality of the presentations. Congratulations! And Thanks! also to moderator Chase Cornelius, and the Planning Committee of Don Knutson and Sandy Bergeron.

ERRATUM

In the article on *Pollination Notes on Min*nesota Orchids (Minnesota Plant Press 13 [2]:4-5, 1993), the first sentence of the third paragraph in column 2 on page 4 should begin: "The primary pollinators..." instead of "The larval pollinators..."

Thanks! from the Board tomany Society members

The Board thanks the following for their contributions to the Society activities and events in the past year.

Nancy Albrecht for her work in planning field trips...

Sandy Bergeron for her work as facilities chair for the spring symposium...

John Buffalow for volunteering to handle treats for 1994-95...

Chase Cornelius for serving as liaison in editing the newsletter...

Grace Gray for arranging car pooling ...

Diane Hilscher for the general meeting program planning, outreach and member packets, and answering letters...

Linda Huhn for handling the audiovisuals for meetings, and for agreeing to serve as board secretary for 1994-95...

Don Knutson for his work in planning the spring symposium, and keeping the display board...

Thor Kommedahl for editing the newsletter...

Char Menzel for handling the plant sale and refreshments during the year...

Rae Montgomery for mail pickup and distribution to officers...

Marcie O'Connor for maintaining the membership list...

Ruth Phipps for service as treasurer, including acting as cashier at the symposium and the plant sale...

Mary Risdall for help with refreshments...

Roy Robison for labeling and mailing of MNPS publications and notices...

May Wright for handling the seed exchange, and refreshments...

And others on committees and functions! —Rebecca Schirber, President

Treasurer Phipps reports income from plant sale

Ruth Phipps, treasurer of MNPS, reported an income of \$281 from the plant sale of May 4, 1994. There were 256 plants that sold for \$1 each and one doubleflowered bloodroot that sold for \$25, giving a total of \$281. Thanks to all!

Medical Garden at The Bakken opened June 4

The Bakken Library and Museum of Electricity in Life opened its medical garden on June 4, 1994. This garden includes herbs and shrubs known for their medicinal and healing attributes; many of these plants are native to Minnesota. One can see: Angelica, Artemisia, wild indigo, foxglove, purple coneflower, garden heliotrope, spikenard, and wild ginger. In addition, there is a a display of herbals. The Garden is open Saturdays from 9:30 AM to 4:30 PM, and, by appointment during the week from 9 AM to 5 PM. Admission is \$3 for adults, \$2 for students and seniors. For details call 612-927-6508.

Donor Members for 1994

The following members of MNPS are Donor Members.

Grace Gray Enid Larson Griffin Charles Jorgensen Sally Jorgensen Peg Kohring Donald Lawrence Doreen Lynch Doug McEvers William Ramsden MNPS thanks these members for their generous contributions!

-Ruth Phipps, treasurer

MNPS Display Board Use

All members are welcome to show our display board at events, museums, and schools, if an attendant is present or it is safely displayed. This 3 by 5 foot, 2sided board holds information on the Society, native plants, and stewardship. Call Don Knutson

Program planner Diane Hilscher seeks speaker suggestions for 1994-95

We hope that those who have attended the monthly meetings have enjoyed them. We had excellent presentations from inspired speakers on a wide range of topics. Speakers also submitted summaries of their presentations. A warm "thank you!" goes out to our main speakers as well as to those covering a "Plant-of-the-Month" and organizing our two annual events: the seed exchange and the plant sale.

Our Vice-President Diane Hilscher will be planning the monthly programs again for 1994-95. Please give her a call with your suggestions for speakers or general topics that interest you. We also look forward to gaining an understanding of individual plant species in our Plant-of-the-Month offerings. You don't have to be a botanist-just be a person willing to research the plant a bit and take or borrow a few slides to share them with members. For suggestions or to volunteer, call Diane Hilscher at

Wild River State Park offers summer programs

Wild River State Park will offer its usual summer naturalist programs for park visitors, with an evening program every Friday and Saturday night from Memorial Day to Labor Day, plus afternoon programs on weekends. Programs are free but admission to the park requires a vehicle permit.

The park's annual photo contest will be judged on Friday, August 12, with winning photos displayed from August 13 to 21 at the park's interpretive center, and the following week at the North Branch Library. Wild River State Park is located on the St. Croix River, 3 miles north of Almelund, Minnesota, between Taylors Falls and North Branch, on Highway 95. For contest rules or details about the park, call Dave Crawford

Botanical potpourri GLEANINGS FROM NEWSLETTERS

False rue anemone (Isopyrum biternatum) is always the first wildflower to bloom in the Eloise Butler Flower Garden according to The Fringed Gentian (44[1] 1994).

Oak forests are life support systems for many animals that live in them because of the habitat and the acorns they provide...perhaps extensive forests should be managed for acom production. (North Central News, January 1994)

Populations of Vallisneria americana have declined but populations of Myriophyllum spicatum have increased in waters of the Upper Mississippi River report J.W. Bank and associates.(River Almanac, November 1993)

The inflated succulent pods of the buffalo bean (Astragalus crassicarpus) are edible and taste very similar to garden peas reports Wayne Ostlie. (The Nature Conservancy, Spring 1994)

The US Department of Interior's newest agency, the National Biological Survey, is budgeted in 1995 for an increase of 6% to total \$176.8 million. (*Forum* 12 [6], 1994).

The Chippewa National Forest biologists are analyzing a Forest Plan Revision to include studies on biological diversity and ecosystem management prior to data collection during 1994 and 1995. (Chippewa Quarterly, January 1994)

The USDA Forest Service in Ely, Minnesota, proposes to thin approximately 585 acres of red pine in stands planted approximately 48 years ago. This proposal would remove approximately 35% of the trees on the 585 acres about 29,000 trees—leaving approximately 53,000 trees (90 trees per acre) after the thinning. More information is available from Kawishiwi Ranger District, Superior National Forest, 118 South 4th St., Ely, MN 55731.

Shrubs and hedges

Our home is bordered with evergreen trees. Last fall we needed to trim off the bottom branches up to 6-8 ft. My question is, are there suitable shrubs or hedges that will grow next to the tree line, to get back privacy from the roadside? There is also one section where previous owners planted lily-ofthe-valley. Is there any other kind of perennial that will also live in this soil. This section is half sand, half black dirt. Wild strawberry-looking plants thrive in this section of partial shade. Any information would be helpful— Renee Kneeland, Cushing, MN.

(The Minnesota Extension Service has publications: FO-0604 Fitting Trees and Shrubs into the Landscape [\$0.50]; BU-5777 Ground Covers for the Midwest [\$14], in color—ed.)

Wildflowers and houseplants

I'm really interested in wildflowers, I would love to see wildflowers in my backyard are there any wildflowers that can be houseplants? Could you send me information on growing wildflowers and other information [on wildflowers].-Carrie Matthews. Grand Blanc, MI. (Minnesota Extension Service has a folder FS-6065 Common Questions about Wildflowers and Native Plants [\$0.25]but it may be better to consult Michigan State University Extension Service, East Lansing, MI, for Michigan conditions-ed.)

Oak wilt and ash yellows

I don't know if this information is along your line of expertise or not, but I'm wondering about the diseases oak wilt and ash yellows...Whatever information you have on these diseases, send it to me soon. Thanks.—Tom Donovan, Hill City, MN. (The Minnesota Extension Service has one brochure MI-5898 Ash Yellows in Minnesota [\$1.00], and another MI-3174 Oak Wilt in Minnesota [free]—ed.)

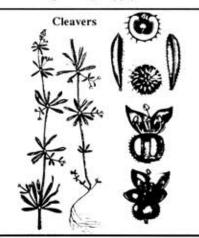
Orchid pollination and chapters

Recently, I borrowed your newsletter, the *Minnesota Plant Press*, from a fellow graduate student here at North Dakota State University (NDSU) and read the article by Charles Argue on native orchid pollination. Congratulations on producing such an attractive and informative newsletter.

I am planning to continue studies at NDSU in ecological entomology with a study on the insect ecology of the western fringed orchid with study sites in western Minnesota and eastern North Dakota. I am writing to you to ask who in the MNPS might be working with pollination, seed germination, or propagation of our native terrestrial orchids. Also, does the Society occasionally meet in western or central Minnesota? -Rose Emily Heine, Fargo, ND. (We appreciate your interest and thank you for the compliments! Are there MNPS members interested in providing information for Ms. Heine? MNPS has an agenda item at the retreat to discuss possible outstate chapters-ed.)

Bulletins or brochures can be ordered from the Minnesota Extension Service, Distribution Center, 20 Coffey Hall, 1420 Eckles Ave., St. Paul, MN 55108-6069. If any MNPS member would like to respond to any of these letters, contact the editor for the address.

A writer from Nebraska requests seeds of Indian Pipe. Any supply? -ed.



Plant Lore

What is Indian pipe?

Indian Pipe is a perennial seed plant that lacks chlorophyll, known also as *Monotropa uniflora* in the wintergreen family.

Why is it called by these names?

Monotropa means "one turn" because the flowers point down when in bloom, complete one turn, and point up when fruits are mature. When the flower is down the plant resembles an Indian peace pipe.

Where can one find Indian pipe plants?

Plants are found in forests at the bases of pine trees mainly but also near oak and maple trees. They are found in wooded areas from southeast to northern Minnesota.

If the plants lack chlorophyll how do they grow and survive?

Plants are epiparasites of tree roots, and form a three-way symbiotic structure with mycorrhizae. In some respects, the plant is parasitic on the fungus, for trees derive nutrients from fungi that grow on its root surfaces.

What are the fruits and seeds like?

Plants produce capsule fruits and seeds that are minute and resemble fine, brown sawdust. It is thought that flowers are pollinated by insects but little is known about kinds and methods.

(from D. Stokes, and L. Stokes. 1984. Enjoying Wildflowers. Boston: Little Brown)

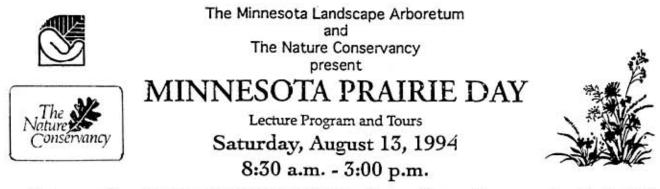
What do cleavers and coffee have in common?

Cleavers or bedstraw (*Galium aparine*) is in the same family as coffee—the madder family. Cleaver seeds when lightly roasted make a caffeine-free substitute for coffee.

How can one identify this plant?

It is an annual, with weak, bristly, 4angled stems; bristly fruits; and small white flowers. Stems often form dense mats in thickets and woods.

-Magic and Medicine of Plants



Once upon a time, there were 18 million acres of prairie. The surviving prairie acres are home to dozens of rare and endangered plants and animals, and contribute greatly to the natural beauty of our state.

Join us at the Minnesota Landscape Arboretum in Chanhassen for an overview of prairie biology and a presentation on fire management. We will then tour the Arboretum's reconstructed prairie ecosystem to see native flowering grasses and plants that are being reintroduced. After lunch, we will board a bus for a half-hour ride to Schaefer Prairie (between Glencoe and Brownton), a native prairie preserved and managed by the Conservancy since 1967. Interpretive guides will discuss the unique flora of the prairie, the history and role of Schaefer Prairie, its protection and fire management programs, and its role in seed harvesting and prairie restoration. The Arboretum has obtained some of its own reintroduced plants from Schaefer Prairie.

Our leaders for the day will be Chase Cornelius, a volunteer with the Arboretum and the Conservancy, and Louise Morgan, Volunteer Coordinator for The Nature Conservancy. Other prairie naturalists will co-lead tours.

WHERE: Meet at the Minnesota Landscape Arboretum-9 miles west of 494 on Highway 5 in Chanhassen.

WHEN: Check in between 8:30 and 8:55 a.m. on Saturday, August 13. Pre-registration recommended.

WHO: This trip is recommended for adults and children over 12.

WHAT: The Arboretum has grass-mowed paths that are sometimes uneven; expect to walk up to three miles within an hour. The hike at Schaefer Prairie (on mowed firebreaks) will last about 1-1/2 hours. Wear clothing appropriate to the weather, sturdy waterproof footwear or boots, and bring a hat, sunscreen and insect repellent. THERE ARE NO RESTROOM FACILITIES ON SCHAEFER PRAIRIE--we will leave the Arboretum around 12:30 and return about 3:00 p.m.

FEE: \$15 for Arboretum and Conservancy members; \$20 for non-members. Limit 45 people. Payment for this activity includes the Arboretum regular gate admission and parking. Bring your own bag lunch to eat at the Arboretum's picnic grounds, or purchase lunch at the Arboretum Tearoom. A full day's agenda will be mailed back to you upon registration. Mail check with form below, payable to:

THE NATURE CONSERVANCY, Attn: Janet, 1313 5th Street SE, Box 110, Minneapolis, MN 55414. Questions? Call the Arboretum Special Events Department at 443-2460, ext. 227.

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Name(s)			Check if:	
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Address			Conservancy Member (\$15)	
City	Zip		Non-member (\$20)	
Phone	List all names at one address, or	Total Amount Enclosed \$ (Check payable to The Nature Conservancy)		

Minnesota Native Plant Society University of Minnesota 220 Biological Sciences Center St. Paul MN 55108

