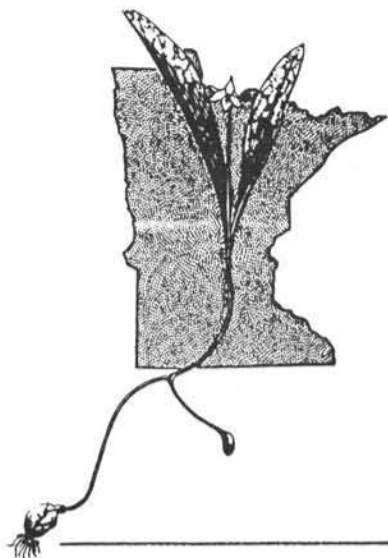




MINNESOTA PLANT PRESS

VOL 5 NUMBER 1 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY WINTER 1986

MNPS RESPONDS TO LEGISLATIVE COMMISSION ON MINNESOTA RESOURCES

MNPS was asked to respond to the Legislative Commission on Minnesota Resources on what we would regard as priority natural resource projects. Below is the text of the letter from the Board of Directors of MNPS to the LCMR.

TO: Representative Doug Carlson, Chairman, Legislative Commission on Minnesota Resources

The Minnesota Native Plant Society is an independent, non-profit organization dedicated to the conservation of native plants and plant communities. The membership is comprised of students, professional botanists and amateurs - people of all ages and from many occupations throughout the state.

In response to your letter of January 16, the MNPS encourages the LCMR to give high priority to proposals in 1987 that would contribute to one or more of the following goals:

The initiation of a natural history survey of Minnesota that would investigate distribution and abundance of native plant species.

Continued support and staffing of the herbarium of the University of Minnesota, which houses the inventory of Minnesota flora.

Continue to support and expand the inventory of state endangered threatened and special concern plant species, as is currently being conducted by the Minnesota Natural Heritage Program.

Support the continued designation of state preserves for endangered, threatened and special concern species and plant communities on public and private lands.

Advocate the conservation of special habitats such as marshes, fens and prairies by supporting special incentive programs like the wetland and prairie tax credit and Reinvest in Minnesota (RIM).

Promote research of native plant species and plant communities to improve management of such valuable resources as forests, peatland and prairies.

Support the research and promotion of methods to control non-native weed species that threaten state plant resources. For example, purple loosestrife is out-competing cattails and other native species, thereby ruining wetland wildlife habitat. Leafy spurge is posing a similar problem on native grasslands.

Support public education and appreciation of Minnesota's native plant resources through the dissemination of information by public and private agencies.

Support legislative initiatives that would address major environmental problems of the day, such as: acid rain control, prevention of soil and ground contamination and control of non-point sources of pollution of surface water.

Seek to better manage the natural resources already under state control. Of particular concern is the growing trend to use state parks to satisfy the recreational needs of too broad a spectrum of users. For example, mountain bike races on fragile foot paths in O. L. Kipp State Park may be causing damage to an irreplaceable resource and is alienating traditional park users.

Please keep in mind that some of Minnesota's native plant and animal species can only survive in undisturbed native plant communities. These sites are excellent areas for education and scientific research. Undisturbed native plant communities give a view of Minnesota's past and provide a heritage for Minnesota's future. These valuable areas and their components must be conserved, for once the balance is destroyed it cannot be returned.

We would be happy to respond to further questions this letter may generate.

Minnesota Native Plant Society Membership Registration

Mail to: Minnesota Native Plant Society, 220 Biological Sciences Center, Univ. of Minnesota, St. Paul, MN 55108

_____ New Member

_____ Renewal

Membership Categories:

\$8.00	_____ Individual	\$6.00	_____ Senior (over 62 or retired)
\$10.00	_____ Family (Two or more related individuals at same address)	\$15.00	_____ Institution
\$6.00	_____ Student (Full-time)	\$25.00	_____ Donor

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U. OF M. CAMPUS ADDRESS: _____

REVIEW OF RECENT TALKS AT MNPS MONTHLY MEETINGS

Clifford Ahlgren unfortunately was not able to speak at our December meeting because of illness. Sandy Bartell Hansen did a presentation on fires in Coniferous Forests. She reviewed the reinvasion of woody and herbaceous plants as well as the fungi after a Maine forest fire.

Steve Eggers reviewed the wetland plants and plant communities of Minnesota and Wisconsin at our January meeting. He had many beautiful slides of wetland plants and offered hints on how to identify them. Be sure not to miss his summer field trip to Weaver Bottoms, where you will catch the Lotus in bloom. We have reprinted his outline of wetland communities elsewhere in the newsletter.

In February, Jim Hoefler gave an interesting presentation on the Natural History and Management of Crex Meadows in Wisconsin. We are hoping to arrange a summer field trip to this beautiful and unique habitat within easy reach of the Twin Cities.

For our March meeting, Rich Hansen gave some insight into the reasons for the various shapes of wildflowers by talking about the insect pollinators of forest wildflowers. We also learned about the pollinators and perhaps are finally able to answer the question - is it a bee or is it a bee-mimic?

*****UPCOMING MONTHLY MEETINGS OF MNPS*****

APRIL 2ND: DR. GERALD B. OWNBEY

7:30 pm 305 Borlaug Hall

Dr. Gerald B. Ownbey will speak at our April meeting on the distribution of plants in Minnesota. Dr. Ownbey has been a taxonomist in the Botany Department at the University of Minnesota since 1947. He has been director of the Botany Department Herbarium and has taught taxonomy courses at the Twin Cities campus and at the Itasca Field Biology Station. Dr. Ownbey "retired" from the Botany Department this year and is able to spend more of his time completing an atlas and a checklist of Minnesota Flora. After his talk, we hope to have time for a short tour of the Botany Department Herbarium, a collection which includes about 750,000 plant specimens.

MAY 7TH: FIELD TRIP SLIDES AND ANNUAL SEEDLING EXCHANGE

7:30 pm - NOTE: meet in room 10 Palmer Classroom Building (next to Borlaug)

Contact Steve Eggers if you have slides from last year's MNPS spring, summer and fall field trips. We would like to show these slides and review the places we visited in 1985. This was a most colorful and informative presentation last year!

Trade Roots!!!

As part of the May 7 meeting, an exchange of seedlings and of wildflower and fern transplants will take place.

If you need to thin out over-abundant native wildflowers and ferns from your garden this spring, why not bring them to the exchange? Are you looking for a certain species? Perhaps someone has enough to share, and can tell you the conditions under which it thrives. PLEASE DO NOT COLLECT WILD PLANTS FOR THIS EXCHANGE.

If you are starting native plants from seed this spring, please bring in a few seedlings for others. Plants should be labeled with the name of the plant, name of the donor and phone number of the donor. Come a little early to drop off the plants before the meeting begins.

One of the goals of the MNPS is the conservation of native plants. By gardening with plants started from seed and with transplants from another garden, we can enjoy wildflowers in our gardens without disturbing native populations.

Contact Christine Soutter, for more details.

SPRING NEWSLETTER and FIELD TRIPS

For those new members who have not received a copy of the MNPS Guide to Spring Wildflower walks in the Twin Cities and would like a copy, please write or call Sandy Hansen, 645-7318 eves, MNPS c/o Botany Dept., Univ. of Minnesota, 220 Biological Sciences Center, St. Paul, MN 55108. We welcome your suggestions for spring wildflower walks, and we will try to include them in the Spring MNPS Newsletter. Send your ideas to Jim Schuster or Sandy Hansen at the above address.

We hope to have our spring newsletter out in late April. It will detail our complete Field Trip schedule for this Spring, Summer and Fall. Won't be long now before those flowers are blooming!!! Following is a list of the field trips planned at this time and a description of our first two field trips in May - please join us.

Saturday, May 10, 8:30 am - 11:30: Spring Wildflowers at Townsend's Woods State Natural Area

Saturday, May 17, 10 am: Spring Wildflowers at Ruth Phipp's Home Wildflower Garden and at the Dodge Nature Center

Saturday, May 31,: A Double-Header! Wildflowers at May Wrights Home Wildflower Garden and a tour of the Lee and Rose Warner Nature Center and Bog.

Saturday, July 19: Weaver Bottoms canoe trip, wetland plants, lotus in bloom.

Saturday, July 26: Belden Prairie and Alexander Prairie in Wisconsin

Saturday, August 23: Trip to Jim's Prairie in Maplewood.

FIELD TRIP 1: SPRING WILDFLOWERS AT TOWNSEND'S WOODS STATE NATURAL AREA Co-sponsored field trip with the Nature Conservancy

Date: Saturday, May 10, 1986 8:30-11:30 am

Description: Townsend's Woods is an excellent example of the magnificent hardwood forest which once covered much of central Minnesota. Some of the large burly maples were here when the Indians trod these trails. The chance to see the wildflowers which respond to the early spring light reaching the forest floor, as ephemeral as the flowers themselves, is not to be missed. With luck the warblers and other migrants will join the resident birds in bringing color to the treetops as well.

Leaders: Evellyn Moyle has spent a lifetime observing and enjoying Minnesota's wildlife. She co-authored Northland Wildflowers, and also provided the book's hundreds of beautiful photographs.

Bob Djupstrom is Supervisor for the Department of Natural Resources State Natural Areas Program.

Meeting Place: Picnic grounds at Sakatah Lake State Park. From the Twin Cities take Interstate 35 to Faribault, then east on State Highway 60 to Sakatah Lake State Park. A car caravan will form at the park for the 2-mile drive to the State Natural Area. Mention that you are going on the SNA tour when entering the park on Saturday.

Particulars: The trail to the woods could be muddy and wet, so wear suitable foot gear. Binoculars and field guides will be useful.

Camping facilities and restrooms are available at Sakatah State Park.

FIELD TRIP 2: SPRING WILDFLOWERS AT RUTH PHIPPS'S HOME GARDEN AND AT THE DODGE NATURE CENTER

Date: Saturday, May 17, 1986

Time: 10 am

Description: See an example of a home developed wildflower area with spring-blooming plants - woody and swampy. Then at the Dodge Nature Center we'll see woodland and springtime prairie.

Leader: Ruth Phipps

What to bring: If rainy, shoes that don't mind mud!

FIELD SESSION IN WILDFLOWER PHOTOGRAPHY

Maplewood Nature Center will sponsor a class on photographing woodland wildflowers on Saturday, May 3 from 1:00-4:30 pm and Thursday, May 15 from 7:30-9:00 pm. Professional Photographer Don Brenneman will present a slide lecture on techniques, and lead field and critique sessions. Fee is \$10.00 per person. Make reservations by April 29 by calling . Maplewood Nature Center is located at 2659 E. Seventh Street in Maplewood.

PLANT INVENTORIES AND THE NATURE CONSERVANCY

According to the Nature Conservancy Publication Prairies, Woods and Islands, the unusual flora at Seven Sisters Prairie in Douglas and Ottertail Counties has attracted the attention of botanists since E. P. Sheldon first collected plants there in 1893. A list of the species thus far recorded is available from the Nature Conservancy, but a cursory examination of this site in early September of 1985 was sufficient to reveal that the inventory still fails to include even many species that are well established and common both at Seven Sisters and at other prairie sites in the area. Examples among the Compositae alone include New England Aster (Aster novae-angliae), Purple-stemmed Aster (A. puniceus), Panicked Aster (S. simplex), Saw-toothed Sunflower (Helianthus grosseserratus), Stiff Sunflower (H. laetiflorus), Nodding Bur Marigold (Bidens cernua), Beggar-ticks (B. frondosa), Tall Wormwood (Artemisia caudata), Late Goldenrod (Solidago gigantea), Missouri Goldenrod (S. missouriensis), and Tall Goldenrod (S. altissima). Tall Goldenrod and Purple-stemmed Aster surprisingly have also not been previously recorded from Douglas County according to map data from the University of Minnesota Herbarium (Specimens were not consulted). Locally less common composites present but unrecorded for Seven Sisters include the Silky Aster (A. sericeus) and the Sky-blue Aster (A. azureus), the latter again not recorded for Douglas County. It should be mentioned also that the species of False Gromwell at Seven Sisters is not Onosmodium molle but O. occidentale, the Western False Gromwell. Similar omissions were noted for other families, and a survey of spring and summer blooming species may very well reveal others.

If Seven Sisters Prairie is typical, it would appear that the Nature Conservancy still has a fair amount of inventory work to do. Although, in general, a detailed knowledge of plant species composition and the associated community of insects and other animals may not be essential for effective management, such information, particularly for relatively "natural" areas, can be of much scientific interest and in particular cases may reveal the need for more than routine measures of protection. Members of the Minnesota Native Plant Society might perhaps play a role in expanding the botanical phase of this inventory, although collection of vouchers must properly be approved in advance by the Nature Conservancy.

C. L. Argue

WETLANDS OF MINNESOTA AND WISCONSIN
BY STEVE EGGERS

Editors note: this is an outline of the January 1986 MNPS presentation by Steve Eggers outlining a useful classification of wetlands in Minnesota and Wisconsin.

- I. SHALLOW, OPEN WATER
Water depths are generally less than 2 meters (6.6 feet), and a fringe of emergent vegetation is often present. Submergent, floating and floating-leaved aquatic vegetation such as pondweeds (Potamogeton spp.), water lilies (Nymphaea spp., Nuphar spp.), water milfoil (Myriophyllum spp.), coontail (Ceratophyllum demersum) and duckweeds (Lemna spp., Wolffia spp., Spirodela polyrhiza) characterize this wetland type.
- II. MARSHES
 - A. DEEP MARSHES
Deep marshes have standing water between 6 inches and 3 or more feet deep during most growing seasons. Emergent, floating, floating-leaved and submergent vegetation occurs in this wetland type.
 - B. SHALLOW MARSHES
In shallow marshes, the soil is generally waterlogged during the growing season; often, shallow marshes have 6 inches or more of standing water. Emergent vegetation such as cattails (Typha spp.), bulrushes (Scirpus spp.), and bur-reeds (Sparganium spp.) characterize this wetland type.
- III. INLAND FRESH MEADOWS
 - A. SEDGE MEADOWS
Sedge meadows are open (treeless) plant communities of waterlogged soils where there is more than 50 percent dominance by sedges (Carex spp.).
 - B. WET MEADOWS
Wet meadows are open plant communities of waterlogged soils where there is more than 50 percent dominance by grasses and forbs such blue-joint grass (Calamagrostis spp.), reed canary grass (Phalaris arundinacea), and joe-pye weed (Eupatorium maculatum).
 - C. WET PRAIRIES
Wet prairies are similar to wet meadows but are dominated by grasses and forbs associated with prairies such as cord-grass (Spartina pectinata), big blue-stem (Andropogon gerardii), gayfeather (Liatris pycnostachya), New England aster (Aster novae-angliae), and Culver's root (Veronicastrum virginicum).
 - D. CALCAREOUS FENS
Calcareous fens are a very rare plant community that occur on wet and springy sites that have an internal flow of groundwater rich in calcium and magnesium bicarbonates, and sometimes calcium and magnesium sulfates. Calcium-tolerant plants such as shrubby cinquefoil (Potentilla fruticosa), certain sedges (e.g., Carex sterilis), fen beak-rush (Rhynchospora capillacea) and Riddell's goldenrod (Solidago riddellii) characterize this community.
- IV. SHRUB SWAAMPS
 - A. SHRUB-CARRS
Shrub-carrs are a tall shrub plant community of waterlogged soils dominated by willows (Salix spp.) and red-osier dogwood (Cornus stolonifera). Standing water of 6 inches or more may be present during some periods.

B. ALDER THICKETS

Similar to shrub-carrs except that tag alder (Alnus rugosa) dominates.

V. WOODED THICKETS

Forested areas where the soil is waterlogged during the growing season and is often covered with as much as 1-foot of standing water. Dominant species include black ash (Fraxinus nigra), red maple (Acer rubrum), tamarack (Larix laricina) and northern white cedar (Thuja occidentalis). These wetlands are commonly found on ancient lake beds.

VI. BOGS

Bogs have a peat soil that is usually saturated and supports a spongy covering of mosses. Bogs are a soil-vegetation complex in which a rather specialized group of trees, low shrubs and herbs grow on a wet, acidic peat soil. The characteristic plant of bogs is sphagnum moss (Sphagnum spp.). Bogs can be broken down into three vegetative types: sedge bog, scrub-shrub bog, and forested bog. In a sedge bog, sedges are the dominant species growing on the sphagnum mat. A sedge bog can be distinguished from a sedge meadow (see III.A) by the carpet of sphagnum moss that is present in the sedge bog, but not in the sedge meadow. In scrub-shrub bogs, the dominant species growing on the sphagnum mat are the low shrubs of the heath family (Ericaceae). Forested bogs are dominated by black spruce (Picea mariana) and/or tamarack (Larix laricina).

VII. FLOODPLAIN FORESTS

These forested wetlands are associated with riverine systems. They are inundated during flood events, but are usually well-drained for much of the year. Dominants include silver maple (Acer saccharinum), green ash (Fraxinus pennsylvanica), and black willow (Salix nigra), with a herbaceous understory of jewelweed (Impatiens capensis) and nettles (Urtica dioica, Boehmeria cylindrica, Laportea canadensis).

VIII. SEASONALLY FLOODED BASINS

Seasonally flooded basins are shallow depressions that may have standing water for a few weeks each year, but are dry for much of the growing season. These areas are often cultivated. When not cultivated, vegetation can include smartweeds (Polygonum spp.), nut grasses (Cyperus spp.) and wild millet (Echinochloa crusgalli).

COLLEGE OF BIOLOGICAL SCIENCES 20TH ANNIVERSARY

****Jane Goodall to Speak****

The College of Biological Sciences at the University of Minnesota is celebrating its 20th anniversary this year. The College includes the departments of Botany, Genetics and Cell Biology, Ecology and Behavioral Biology, and Biochemistry. An active field biology program is administered by the college, with facilities at the Lake Itasca Forestry and Biological Station and the Cedar Creek Natural History Area. The college also administers the Bell Museum of Natural History, the Gray Freshwater Biological Institute, the Institute for Advanced Studies in Biological Process Technology and Dight Genetic Laboratories.

To celebrate its anniversary, many activities are planned centering on May 6th. Dr. Jane Goodall, noted for her research on chimpanzees and recently featured on a public TV special, will be speaking at 7:00 p.m. on May 6 at Northrop Auditorium on the Minneapolis Campus. The title of her talk is "In the Shadow of Man". Tickets are available from Dayton's and the Northrop ticket office. Admission is \$8 for adults and \$6.50 for students. Other planned activities for May 6th include tours of the Botany Greenhouse at 9:15 am, 10:15 and 11:15, an open house of the College departments and an open house at The Bell Museum from 1 - 3 pm. For more information call

HAVE YOU PAID YOUR MEMBERSHIP FEES FOR THIS YEAR? YES NO
IF NOT, PLEASE FILL OUT THE FORM ON THE INSIDE OF THE FRONT COVER.

ATTENTION!

Minnesota Plant Press is published by
the Minnesota Native Plant Society,
220 Biological Sciences Center,
1445 Gortner Avenue,
University of Minnesota,
St. Paul, Minnesota, 55108

UPCOMING MONTHLY MEETINGS

Monthly meetings are on the first Wednesday of the month from 7:30 - 9:30. The April meeting will be in 335 Borlaug Hall on the St. Paul Campus. Our May meeting will be in Room 10 Palmer Classroom Building, next to Borlaug Hall. If you would like further directions please call Sandy Hansen, evenings or weekends.

April 2: MNPS monthly meeting: Dr. Gerald
335 B. Ownbey, Professor Emeritus,
Borlaug Department of Botany, Univ. of
Minnesota, will Speak on "The
distribution of Minnesota plants". A
tour of the Botany Department
Herbarium will follow.

May 7: MNPS monthly meeting: Annual Seed
10 Exchange; Chris Soutter and Dr. May
Palmer Wright. Field trip slides-Steve
Eggers.

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If you have a news item, article or other information that should be included in the next issue of the Minnesota Plant Press, please send it to the editor: James Schuster, Botany Dept. University of Minnesota, 220 Biological Sciences Center, St. Paul, MN 55108.

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