



Minnesota Plant Press

The Minnesota Native Plant Society
Newsletter

Volume 14, No. 1

Fall 1994

Upcoming Monthly Meetings

Minnesota Valley National Wildlife Refuge
Visitor Center, 3815 East 80th Street

Bloomington, MN 55425-1600 612-335-2323

5:30-6:30 PM—Board Meeting, Room B

6:30-7 PM—Social Meeting, Room A

7-9 PM—Regular Meeting, Auditorium

October 5—David Tillman, UM Professor of Ecology, *Prairie Biodiversity: Causes and Value*; POM: * Joe-Pye-Weed (*Eupatorium maculatum*) by Char Bezanson.

November 2—James Calkins, UM Professor, Horticultural Science, *Effects of Site on Forest Ecology*; annual seed exchange.

December 7—Alan Olson, DNR Forestry, *Pests and Diseases of Hardwood Trees in the Metro Region*; POM: giant reed grass (*Phragmites australis*) by Steve Eggers.

January 4, 1995—Bettina Darveaux, UM Plant Biology, *Benefits of Growing Native Prairie Grasses*; POM: prairie drop-seed (*Sporobolus heterolepis*) by Dean Hansen.

February 1—Renay Leone, Minnesota Land Trust, *Minnesota Land Trust: Preserving Native Landscapes*; POM: partridge-pea (*Cassia fasciculata*) by Douglas Owens-Pike.

March 1—Stan Tekiela, author, *Eatable Mushrooms: Gearing Up for Morels*; introduction to field trips; annual meeting and election of Board Members.

April 5—Steve Eggers, ecologist, *Minnesota Prairie Preserves: A Photographic Journal*; POM: reed-canary-grass (*Phalaris arundinacea*) by Charles Umbanhower.

May 3—Plant Photography Contest, Minnesota Nature Photography Club; Annual Plant Sale.

*POM = Plant-of-the-Month

Minnesota Valley National Wildlife Refuge is a national refuge and a Twin Cities resource

This 34-mile corridor of marsh, grassland and forest that stretches from Bloomington to Jordan was established by a congressional act of 1976, and is managed by the US Fish and Wildlife Service. This refuge is one of the few urban wildlife refuges where wild coyotes, bald eagles, badgers, and beavers live next to 2.2 million people.

The Visitor Center is housed in an architecturally acclaimed building that overlooks the valley and includes a 125-seat auditorium, a bookstore, and a resource library, and, a two-story fireplace.

The Louisville Swamp is a 2,400-acre mix of marsh, bottom hardwoods and oak savannah, and features 13 miles of hiking, cross-country skiing, horseback riding, and biking trails. Long Meadow Lake comprises 2,200 acres of marshes, fields, hardwood forested bluffs and bottomlands that are accessible by five miles of hiking and cross-country ski trails. Migrating waterfowl and native prairie can be seen at the Black Dog Preserve, that also includes a two-mile hiking trail. The Bass Ponds Environmental Study Area is a system of interconnecting artificial ponds open to schools and visitors interested in studying nature and water management first hand. A half-mile self-guided trail is there.

Other areas yet to be developed include the Bloomington Ferry (380 acres), Upgrala (2,400 acres), and Chaska Lake (580 acres).

Note new location from October 5 on at the **Minnesota Valley National Wildlife Refuge** (see address in column 1, and map on back page). Grace Gray volunteered to coordinate car pooling. *But please call well in advance!*

Editorial

The Theater of Seasons—that is how Minnesota is portrayed. If so, then it must be drama, and drama in four acts. Which season is Act I? Presumably for plants, spring is Act I because life begins in spring with germination of seeds. Plants flower in summer for Act II, mature and produce seeds in fall for Act III, and become dormant or die in winter for Act IV.

But humans and organizations have a different order of seasons. They are like winter annuals in which seeds germinate in fall (Act I), form rosettes or multiple crowns during winter (Act II), and flower and fruit in spring (Act III) or early summer (Act IV). Even humans generally conceive in fall and bring forth offspring in spring or early summer! That, too, makes fall Act I.

Concerts, lectures, theater, and schools and colleges all begin in fall, making fall Act I. MNPS is no exception.

MNPS is starting Act I at a new location, the Minnesota Valley National Wildlife Refuge, with an entirely new cast of characters as listed on page 1, column 1. To better appreciate Acts II to IV, one must experience Act I.

The officers and Board of Directors have orchestrated a slate of speakers and other events to fill all the Acts with dramatic appeal for the entire season. We anticipate you will want to avail yourselves of these programs and be there at curtain call for each Act of the season. Let the Season begin!

MNPS wins Red Ribbon at State Fair for Display Board

The Display Board, set up in the Minnesota State Horticultural Society showroom at the Minnesota State Fair, August 26, 1994, was awarded Second Place for the second year in a row in the category of *Specialty Plant Societies*. The North America Rock Garden Society was awarded the Blue Ribbon for first with its display. Roy Robison had loaned five native plants for the exhibit: *Artemisia ludoviciana*, *Athyrium filix-femina*, *Lobelia cardinalis* and *L. siphilitica*, and *Tiarella wherryi*.

Plant Lore

What is evening primrose?

Its name is *Oenothera biennis*, a biennial native to North America, and introduced into Europe.

How did it get its name?

The genus name was used by Theophrastus but the specific epithet refers to its being a biennial, even though the rosette stage may persist for two seasons, then bloom the third year. The flowers are yellow and resemble a primrose (*Primula* spp.) and bloom late afternoon from mid-summer to fall.

What is the significance of its blooming in the evening?

The flowers bloom sometime between 4 and 10 PM, and as the petals open they release a fragrance into the evening air. Night-flying moths are attracted to the odor and drink nectar from the long calyx tubes and inadvertently pollinate the plants. The pollen grains are attached to each other in tiny sticky threads and are picked up by moths, and even bees.

Do other insects visit evening primrose?

In early summer, spittlebugs feed on juices on lower leaves, sometimes causing leaves to curl like spinach leaves. The noctuid moth that feeds on flowers is the same species found as larvae in the buds. During the day moths may rest among the partially closed flowers and their pink and yellow wings blend with the petals.

Are plants attractive in other ways besides flowers?

Goldfinches peck at capsules to eat the seed which plants produce in abundance—an average plant produces about 6,000 seeds. The capsules persist on the plant and look like flowers on a stalk, and have been used in dry arrangements.—Adapted from D. & L. Stokes, *A Guide to Enjoying Wildflow-*

The Minnesota Native Plant Society

Minnesota Plant Press
Thor Kommedahl, editor

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, 220 Biological Sciences Center, 1445 Gortner Avenue, St. Paul, MN 55108.

Four issues are published each year.

MNPS Board of Directors

President: Rebecca Schirber,

Vice-President: Diane Hilscher,

Treasurer: Ruth Phipps,

Secretary: Linda M. Huhn,

Members:
Arden Aanestad,

Nancy Albrecht,

Char Bezanson,

Chase Cornelius,

Rick Jannett,

Mark Leoschke,

Val O'Malley,

Roy Robison,

The Minnesota Native Plant Society is a tax-exempt 501 c3 organization as determined by the US Internal Revenue Service.

MNPS Board Members held retreat July 10, 1994 at the Minnesota Valley National Wildlife Refuge

This meeting was called to order by President Becky Schirber. Others present were Nancy Albrecht, Chase Cornelius, Diane Hilscher, Linda Huhn, Rick Jannett, Val O'Malley, and Roy Robison.

Guidelines for preparation of the Newsletter (MPP) were reviewed, revised and approved. Mailing deadlines were set at September 1, January 5, March 1, and June 15 for the four issues. The Publications Committee will keep member records current and print mailing labels, maintain bulk mailing permit, and arrange to have the newsletter printed.

The Secretary was given the responsibility for labeling, sorting and mailing the newsletter.

Bylaws were suggested for the Nominating Committee to regularize the proceedings for selecting candidates. A timetable of Board meetings for the year was set up. 1) The Nominating Committee will be announced in November, 2) candidates will be solicited and introduced in December, 3) profiles of candidates are planned for the January newsletter, 4) ballots will be mailed to members in February, and 5) the annual meeting and election will be in March.

The Symposium timetable was as follows: design the brochure by December 15, print it by January 15, mail it by February 1, and reprint the schedule in the spring newsletter (March 1).

Program Chair Diane Hilscher proposed procedures were approved for finding speakers and other arrangements with program.

Other goals discussed, both long and short term, included a speakers' bureau, videos of meetings, publicity posters, liaison with other organizations, outstate chapters, and membership promotion.

Society for Ecological Restoration names Falk as director

Biodiversity expert Donald A. Falk has been appointed executive director for this Society (SER) headquartered in Madison, Wisconsin. SER, founded in 1987, promotes the science and discipline of ecological restoration as a means of sustaining diversity of life on Earth.

Falk had coedited (with K. Holsinger) a book on the biology of threatened plant species, entitled *Genetics and Conservation of Rare Plants* (Oxford Press, 1991). A new work *Restoring Diversity* will be released by Island Press late in 1994.

Information about SER can be obtained by contacting it at 1207 Seminole Highway, Madison, WI 53711; (608) 262-9547.

Prairie Wetlands Ecosystem Workshop planned for North Dakota in October

This Workshop will be held October 3-5, 1994, at the Radisson Inn, Bismarck, ND. Wetlands in North Dakota, South Dakota, Minnesota, and Montana will be discussed. Two field trips are available also. The meeting is organized by the Thorne Ecological Institute with funding from US EPA Region 8 and cosponsors. For more information, contact Thorne Ecological Institute, 5398 Manhattan Circle, Suite 120, Boulder, CO 80303; (303) 499-3647 or fax (303) 499-8340.

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, 2-sided board holds information on the Society, native plants, and stewardship. Call Don Knutson.

Oaks in droughty forests of the Missouri Ozarks regenerate largely by sprouting, but Nuttall oak in southern bottomland forests may produce more than 100,000 seedlings per acre after a bumper acorn crop. (*NC News*, July 1994)

A half-cup serving of dandelion greens provides 280% of the adult RDA for beta carotene (vitamin A precursor) and more than 50% of the RDA for vitamin C, plus magnesium, calcium, iron, and potassium, as well as having a high lecithin content. (*Twin Cities' Urban Gardener*, Summer 1994)

The Lower St. Croix Management Commission in its report indicated that since 1972, when its master plan was adopted, the National Park Service has acquired 4,651 acres in fee simple and 3,500 acres in scenic easements, and, the states of Minnesota and Wisconsin have acquired 2,982 acres of land and 262 of the proposed 6,105 acres of scenic easements. (*St. Croix Riverkeepers Journal*, Summer 1994)

The Susie Islands of northern Minnesota in Lake Superior support a host of subarctic plants otherwise found only hundreds of miles to the north according to a survey of the Great Lakes basin led by Susan Crispin and reported by Greg Breining. (*Nature Conservancy* 44[4]:6, 1994)

In Minnesota, the historic tall-grass prairie area has been estimated to have been 7.3 million hectares but now is estimated to be 30,350 hectares, a 99.6% decline, according to F. Samson of the USDA Forest Service in Missoula, Montana, and F. Knopf of the USDI National Ecology Research Center in Fort Collins, Colorado. Less than 1% of this area is currently being protected. (*BioScience* 44:418-421, 1994)

Some plant literature for the naturalist's bookshelf

General

Dunk, G. 1994. *Ferns: A Comprehensive Guide to Growing Ferns for the Home Gardener*. 2nd ed. Angus & Robertson: Sydney. 183 pp.

Gledhill, D. 1989. *The Names of Plants*. 2nd ed. Cambridge Univ. Press, NY. 208 pp.

Mabberley, D.J. 1987. *The Plant-book*. Cambridge Univ. Press, NY. 706 pp. (reprinted with corrections 1989).

Ogden, E.C., and Mitchell, R.S. 1990. Identification of Plants with Fleshy Fruits. Univ. State of New York Bull. 467. 97 pp. (Includes PC Diskette).

Ownbey, G.B., and Morley, T. 1991. *Vascular Plants of Minnesota. A Checklist and Atlas*. University of Minnesota Press, Minneapolis. 307 pp.

Smith, W.R. 1993. *Orchids of Minnesota*. University of Minnesota Press, Minneapolis. 172 pp.

Stokes, D.W. and Stokes, L.Q. 1985. *A Guide to Enjoying Wildflowers*. Little Brown, Boston. 371 pp.

Vance, F.R., Jowsey, J.R., and McLean, J.S. 1984. *Wildflowers of the Northern Great Plains*, 2nd ed. University of Minnesota Press, Minneapolis. 336 pp. (reprinted 1991)

Edible plants

Elias, T.S., and Dykeman, P.A. 1982. *Field Guide to North American Edible Wild Plants*. Van Nostrand Reinhold Co., NY. 286 pp.

Medsger, O.P. 1966. *Edible Wild Plants*. Macmillan Co., NY. 323 pp.

Peterson, L. 1978. *A Field Guide to Edible Wild Plants*. Houghton Mifflin, Boston. 330 pp.

Medicinal plants

Blackwell, W.H. 1990. *Poisonous and Medicinal Plants*. Prentice Hall, NJ. 329 p.

Dobelius, I.N. 1986. *Magic and Medicine of Plants*. Reader's Digest Assn., Pleasantville, NY. 464 pp.

Duke, J.A. 1985. *CRC Handbook of Medicinal Herbs*. CRC Press, Boca Raton, FL. 704 pp.

Foster, S., and Duke, J.A. 1990. *A Field Guide to Medicinal Plants*. Houghton Mifflin, Boston. 366 p.

Kapoor, L.D. 1989. *CRC Handbook of Ayurvedic Medicinal Plants*. CRC Press, Boca Raton, FL. 416 pp.

Lewis, W.H., and Elvin-Lewis, M.P.F. 1977. *Medical Botany*. John Wiley, NJ. 515 pp.

Millsbaugh, C.F. 1892. *American Medicinal Plants*. Dover Publ., NY. 806 pp. (1974 reprint).

Poisonous plants

Hardin, J.W., and Arena, J.M. 1974. *Human Poisoning from Native and Cultivated Plants*. 2nd ed. Duke University Press, Durham, NC. 194 pp.

Kingsbury, J.M. 1964. *Poisonous Plants of the United States and Canada*. Prentice-Hall Inc., Englewood Cliffs, NJ. 626 pp.

Lampe, K.F., and McCann, M.A. 1985. *AMA Handbook of Poisonous and Injurious Plants*. Amer. Medical Assn., University of Chicago Press. 432 pp.

Levy, C.K., and Primack, R.B. 1984. *A Field Guide to Poisonous Plants and Mushrooms of North America*. Stephen Greene Press, Lexington, MA. 178 p.

McCain, J.W., Goetz, R.J., and Jordan, T.N. 1985. *Indiana Plants Poisonous to Livestock and Pets*. Purdue Univ. Exten. Service. WS-9. 114 pp.

Spoerke, D.G., Jr., and Smolinske, S.C. 1990. *Toxicity of Houseplants*. CRC Press, Boca Raton, FL. 244 p.

Stephens, H.A. 1980. *Poisonous Plants of the Central United States*. University Press of Kansas, Lawrence. 165 p.

Waller, G.R., and Nowacki, E.K. 1978. *Alkaloid Biology and Metabolism in Plants*. Plenum Press, NY. 294 pp.

Fen plants (M. J. Loeschke)

Curtis, J.T. 1959. *The Vegetation of Wisconsin: An Ordination of Plant Communities*. University Wisconsin Press, Madison.

Eggers, S.D., and Reed, R.M. 1987. *Wetland Plants and Plant Communities of Minnesota and Wisconsin*, US Army Corps Engineers. St. Paul, MN.

Loeschke, M.J., and Pearson, J. 1988. Fen—a special kind of wetland. *Iowa Conservat.* 47[3]:16-19.

Moran, R.C. 1981. Prairie fens of northeastern Illinois: Floristic composition and disturbance, pp.164-166, in *The Prairie Peninsula—in the "shadow" of Transeau, R.L. Stucky and K.J. Reese, eds. Proc. Sixth North American Prairie Conf. Ohio Biol. Surv. Notes No. 15, Columbus, Ohio.*

Pearson, J.A., and Loeschke, M.J. 1992. Floristic composition and conservation status of fens in Iowa. *J. Iowa Acad. Sci.* 99[2-3]:41-52.

Smith, W.R. 1983. A range extension of *Scleria verticillata* in Minnesota. *Michigan Bot.* 22:27-30.

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

