Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 24 Number 4 **Summer 2005**

Monthly meetings

Minnesota Valley National Wildlife Refuge
Visitor Center, 3815 American Blvd. East
Bloomington, MN 55425-1600
952-854-5900

6:30 p.m. — Building east door opens
6:30 p.m. — Refreshments, information, Room A
7 – 9 p.m — Program, society business
7:30 p.m. — Building door is locked
9:00 p.m. — Building closes

Programs

The MNPS meets the first Thursday in October, November, December, February, March, April, May, and June. Check the Web site for more program information.

Oct 6: "Managing Woodlands During and After Buckthorn," by Janet Larson, forester. **Place of the Month:** Meyers' Prairie, Nicollet County, by Linda Huhn.

Nov. 3: "Plant Communities of the Mississippi River Gorge," by Karen Schik, ecologist with Friends of the Mississippi River and MNPS board member. **Seed Exchange**.

Collect, package native seeds to exchange Nov. 3

Place native seeds for the exchange in envelopes. Write the name of the plant and the seed source on each envelope. The exchange will follow the meeting.

New MNPS Web site

www.mnnps.org
e-mail: contact@mnnps.org

MNPS Listserve

Send a message that includes the word "subscribe" or "unsubscribe" and your name in the body of the message to: mn-natpl-request@stolaf.edu

Combined attacks by deer, earthworms endangering hardwood forests in state

by Lee E. Frelich, director, University of Minnesota Center for Hardwood Ecology. This is an abstract of his talk at the April 7, 2005, meeting.

European earthworms and deer are having a synergistic impact on woodland plant communities that is cascading through forest ecosystems, causing major changes in soil structure, nutrient availability, loss of native plant species, facilitation of invasive species, and failure of tree regeneration. European earthworms eat the duff in hardwood forests when they invade, exposing the root systems and causing death of a large proportion of woodland plants. The deer-to-plant ratio is then much higher, allowing deer to finish off many of the remaining plants and tree seedlings.

Recovery of the plant community is difficult because the seedbed conditions are changed from duff to mineral soil, the mycorrhizal community is changed, the dusky slug (also a European invader) causes high mortality of newly germinating seedlings, growth of plants is relatively slow due to lesser availability of nutrients, and those plant seedlings that get past these difficulties can then be eaten by deer.

Previous research in the Big Woods by Augustine and Frelich showed that densities of plants must be on the order of 4,000 per acre or more to saturate the deer, and such densities are hard to achieve. A few species of plants, including Pennsylvania sedge and jack-in-the-pulpit, are adapted to the post-invasion conditions. The sedge in particular can become very dense and out-compete other native plant species.

The combination of high deer populations and invasion by European earthworms and slugs

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In this issue

Officers re-elected; some committees changed

Officers were re-elected and chairs and members of several committees were changed at the June 16 MNPS Board of Directors meeting.

Jason Husveth will serve one more year as president, and Scott Milburn will again be vice president. Karen Schik will continue as secretary and will be assisted by Mary Grace Brown. Ron Huber, who recently relieved David Johnson of the treasurer's duties, will continue in that position. David is continuing to manage the membership data base.

Daniel Jones succeeds Karen Schik as chair of the Symposium Committee. Shirley Mah Kooyman, Scott Milburn, and Karen are also on this committee.

Ken Arndt is the new chair of the Field Trip Committee. He will be assisted by Jason Husveth, Scott Milburn and Doug Mensing, the former chair.

Ken Arndt and Dave Crawford will co-chair the plant sale. Other committee members are Daniel Jones and Gerry Drewry, who resigned as co-chair.

The Think Native Program will be led by Karen Schik, Shirley Mah Kooyman, and Linda Huhn.

Other positions include: Program Chair, Linda Huhn; Seed Exchange, Dave Crawford; Nominations, Scott Milburn, chair, Karen Schik, Shirley Mah Kooyman; New Member Contacts and Newsletter Mailers, Chuck and Ellen Peck; Web site managers, Scott Milburn and Jason Husveth; Listserve manager, Charles Umbanhowar; Newsletter Editor, Gerry Drewry.

A volunteer is needed to send the monthly meeting-notice postcards.

Wild Ones plan annual conference Sept. 9 - 11

The Twin Cities chapter of Wild Ones, will hold its annual conference at Bunker Hills Park Sept. 9 - ll. Joan Nassauer, University of Michigan, will be the keynote speaker. For information, go to www.for-wild.org

Minnesota Native Plant Society's purpose

(Abbreviated from the bylaws)

This organization is exclusively organized and operated for educational and scientific purposes, including the following:

1. Conservation of all native plants.
2. Continuing education of all members in the plant sciences.
3. Education of the public regarding environmental protection of plant life.
4. Encouragement of research and publications on plants native to Minnesota.
5. Study of legislation on Minnesota flora, vegetation and ecosystems.
6. Preservation of special plants, plant communities and scientific and natural areas.
7. Cooperation in programs concerned with the ecology of natural resources and scenic features.
8. Fellowship with all persons interested in native plants through meetings, lectures, workshops and field trips.

MNPS Board of Directors

President: Jason Husveth, Critical Connections Ecological Services Inc., jhusveth@ccesinc.com

Vice-President: Scott Milburn, smilburn@ccesinc.com

Secretary: Karen Schik, kschik@fmr.org

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Technical or membership inquiries: contact@mnnps.org

From the president

With the warm, sunny summer of 2005 upon us, I am pleased to report that the Minnesota Native Plant Society continues to flourish. Our steady growth can be attributed to the hard work and dedication of the board of directors and the active participation of many of our members. The society continues to grow with new members, and we continue to offer informative programs, field trips, and services to our membership. This is no accident. Over the past several months, the board and many members have been very committed to improving the society, developing new ideas, and planning future programs, field trips, and symposia.

At the June board meeting, we said farewell to two members of the board who have gone above and beyond the call of duty over the past three years – Doug Mensing and David Johnson. Among his many contributions to the society, Doug has taken the lead in planning and organizing our many field trips each year, as well as helping to organize the 2004 and 2005 annual symposia. David has served as our treasurer for many years, and has handed the books over to Ron Huber for safekeeping. We thank both Doug and David for their energy, enthusiasm, and adept service to the society!

Sandy McCartney and Mary Brown were both elected to the board this spring and started their terms at the June meeting. Daniel Jones was recently appointed to the board to complete Dianne Plunkett Latham's term, and he has already begun taking the lead on planning the 2006 symposium. We look forward to working with Sandy, Mary, and Daniel, and the new ideas, considerable experience, and fresh perspectives they bring to the board and the society.

The officer elections resulted in several officers continuing on for another year's term. Scott Milburn was re-elected as vice-president, and Karen Schik will continue on as secretary, with assistance from Mary Brown. Ron Huber has graciously accepted the position of treasurer. And I am honored to have the privilege to serve as president for one more year. Linda Huhn continues to plan our monthly meetings, and Ken Arndt has taken the lead role as field trip coordinator.

Most of all, I want to wish all of our members a most enjoyable summer of botanizing and enjoying Minnesota's great outdoors. We welcome your ideas and participation.

Please be sure to visit www.mnnps.org and please feel free to contact the officers, board members, or other key members with your ideas for future society services and programs. I hope to see you at the summer field trips, and at our next membership meeting in October.

Best regards, Jason Husveth, president

Native bottlebrush grass likes dry shade

by Erin Hynes, president of the Ornamental Grass Society of Minnesota .This is an abstract of her presentation at the May 5 meeting.

Native bottlebrush grass *(Elymus hystrix; Hystrix patula)* is one of the few ornamental grasses adapted to dry shade. It tolerates wet or dry soil, full shade to partial sun. Although it is reputed to be short lived, it re-seeds, although not invasively. The most notable feature is the bristly flower, after which the grass is named. Bottlebrush grass grows about two feet tall and flowers from June through August. The flowers persist into autumn.

Savanna, bog field trip is Sept. 18

Hannah Texler, Minnesota DNR regional plant ecologist, will lead a fall field trip to the Helen Allison Savanna SNA and Cedar Creek Bog at Bethel in Anoka County from 2 to 5 p.m. Sunday, Sept. 18. To register, contact Doug Mensing at fieldtrips@mnnps.org or 612-202-2252.

Helen Allison Savanna SNA is an 86-acre prairie and oak savanna. It was named for Helen Allison Irvine, "Minnesota's grass lady," who wrote a text on the 180 grasses of Minnesota. This SNA lies within the Anoka sand plain, providing an excellent example of sand dune plant succession, with blowouts and dunes in various stages of stabilization by pioneer species.

Community types found on the site include oak sand savanna, dry prairie with bur oak and pin oak, thickets of willow and aspen, and sedge marshes in scattered depressions. Trees and shrubs include pin oak, bur oak, American hazelnut, chokecherry, willow, and quaking aspen. Other savanna species include lead plant, smooth sumac, slender willow, steeple bush, aster, and goldenrod. Look on the dunes for pioneer sand plants such as sea-beach needle grass and hairy panic grass. Sedge meadows contain tussocks of Hayden's sedge, along with marsh fern and blue-joint grass. Other rare plant species occurring include long-bearded hawkweed, rhombic-petaled evening primrose, and tall nut-rush.

A side trip will take participants on a short boardwalk through the nearby Cedar Creek Bog, which is located at the University of Minnesota Cedar Creek Research Center. This is one of the most interesting bogs in the Anoka sand plain. Common plant species include leatherleaf, cottongrass, three-way sedge, and bog cranberry.

Go Native! by Carolyn Harstad is resource for native gardens

Book Review by Dianne Plunkett Latham

Carolyn Harstad moved to Lakeville, Minn., from Indiana in the fall of 2003 and shortly thereafter joined the MNPS. She is a past president and a founding member of the Indiana Native Plant and Wildflower Society, as well as a founding member of the Indiana Hosta Society.

In addition to authoring *Go Native!*, an exhaustive resource on native plants, she is also the author of *Got Shade?*, which the Dec. 8, 2004, issue of the *Minneapolis Star Tribune* listed as one of eight recommended Christmas gift books for gardeners. *Got Shade?* was also featured as one of the top 10 gardening books in Best of the Year in the February 2005 *Fine Gardening* magazine.

Go Native! is an outstanding resource for the native plant enthusiast. Not only does it tell you why and how to design a native garden for prairie, wetland, woodland or wildlife, it also makes recommendations for vertical and horizontal accents, in addition to recommendations for biohedges and ferns. *Go Native!* has a chapter on exotics, where buckthorn gets the boot, with plenty of information on why and how to remove it. Given that Carolyn is a Master Gardener, a popular garden lecturer, a certified Landscape Design Critic, and a regular contributor to several gardening newsletters, the book contains much practical advice on each species' planting requirements and propagation.

The book contains 125 lovely line drawings by Jeanette Ming. There are also 100 of Carolyn's own gorgeous color photographs, from which the reader can readily see that Carolyn has an eye for beautiful combinations. It's no accident that she is a flower show judge for the Federated Garden Clubs of Minnesota.

Although the book was published as part of a series on Gardening in the Lower Midwest, nearly all the native plants included in *Go Native!* are fully hardy in Minnesota. The few that are not are at least marginally hardy here. The extensive research, plus entertaining prose and plant lore, make this book a must read for native plant enthusiasts of all levels! Both paperback books retail for $24.95 and are published by Indiana University Press, 601 N. Morton St., Bloomington, IN 47404. *Go Native!* and *Got Shade?* are available at major bookstores, or can be ordered on-line from Amazon.com or Barnes & Noble. They are also available at the Minnesota Landscape Arboretum.

Grasses studied during workshop

The May 5, 2005, meeting featured an interactive grass identification workshop, which was led by Anita F. Cholewa, Ph.D., curator of temperate plants, J.F. Bell Museum of Natural History, University of Minnesota, St. Paul.

The grass workshop started with a brief introduction to the grass family, consisting of the distinguishing features and major groupings as currently understood. This was followed by a hands-on portion, in which museum specimens of common Minnesota grasses were available for viewing, along with samples of grass flowers.

MNPS members and visitors examined the many samples of grasses, looking for those with features that matched information sheets Cholewa distributed. The Museum's herbarium website (www.cbs.umn.edu/herbarium/vascularplantpage2.htm) contains a detailed and technical identification guide to Minnesota's grasses.

Survey identifies prairie remnants in Mower County

by Paul J. Bockenstedt, a restoration ecologist with Bonestroo and Associates, Inc., and former resource manager for Metro State Parks. This is a summary of his talk at the Feb. 3, 2005, MNPS meeting.

The Lyle-Austin Wildlife Management Area encompasses approximately 114 acres along 9.5 miles of former Chicago Great Western railroad right-of-way on the Iowan Surface landform between the cities of Lyle and Austin in southeast Minnesota.

This area includes a rich history in prairie, landform, and railroads. The intersection of these factors with the apparent influence of the culture of the Chicago Great Western Railroad had a major effect on conserving these important tallgrass prairie remnants.

To better understand the location and quality of prairie remnants and rare plant populations, a review of historical railroad information was conducted, and a botanical survey was completed between 1999 and 2003.

The inventory identified 23 areas of good to very good quality remnant prairie. A total of 324 species of plants were noted, 47 of which are non-natives. Over 150 populations for 10 rare plant species were encountered, including those that are state-listed, or not listed but tracked by the Minnesota Department of Natural Resources Natural Heritage Program. A new state record for sweet coneflower, *Rudbeckia subtomentosa,* was also recorded.

Mary Brown, Sandy McCartney, and Daniel Jones join MNPS board

The MNPS Board of Directors has three new members. Daniel Jones was appointed in March to serve the final year of Dianne Plunkett Latham's term. Mary Brown and Sandy McCartney were elected by society members for three-year terms that began in June. They succeed Doug Mensing and David Johnson. Jason Husveth, president, was re-elected to the board.

Mary Grace Brown

Mary Brown is a resident of Bloomington. She has volunteered to help monitor and maintain Grey Cloud Dunes and Nine Mile Creek prairie and to be more involved in restoration.

"I am excited to become more involved in the MNPS by serving on the board," she wrote. "I am an ornamental gardener, using some native plants, but am more interested in restoration and seeing plants in the wild than in my garden. Therefore, I am grateful to the leaders who now offer more local field trips. I have been active in my Audubon chapter (which also meets at the refuge), enjoying many birding field trips, organizing two fundraising native plant garden tours that generated $2,000 profit, and leading spring wildflower field trips. I am looking forward to working with you all."

William H. "Sandy" McCartney, Jr.

Sandy McCartney, a resident of St. Louis Park, received a B.A. in economics and a M.S. in forestry from the University of Minnesota. He has been the tree inspector for St. Louis Park for the past three seasons and went back to work for the city the end of April. He and his wife, Tracy, have a 10-year-old daughter, Susan.

"I grew up in Wayzata, actually Orono, and what is now Wood Rill Scientific and Natural Area was about 12 feet from my bedroom window," he wrote. "I spent many hours in the woods, and that is probably where I learned to love the outdoors. I spent over five years driving over the road, have worked construction, been a telephone operator, and worked for United Parcel Service from 1993 to 2003.

"I was first invited to attend the Minnesota Native Plant Society meetings by Janet Larson, but was unable to attend until I left UPS. Besides my new board position with the society, I am the secretary/treasurer for the College of Natural Resources Alumni Society and also the national board representative from the college to the University of Minnesota Alumni Association."

Daniel Jones

Daniel Jones is a botanist and certified ecologist with a career spent in natural resource inventory and management. He currently works as an environmental scientist for Barr Engineering in Edina. His wife, Karil Kucera, is a professor of East Asian Studies and Art History at St. Olaf College, Northfield.

Daniel has worked in the Midwest and the Pacific Northwest, in both the public and private sectors. His work has included wetland delineation and mitigation design, forest inventories, rare plant surveys and vegetation management plans. He has worked in a wide variety of vegetation types from prairie to forest, and from wetlands to subalpine meadows. He is also a trained mycologist and has conducted fungal surveys, as well as surveys for sensitive moss and lichen species.

Jones started his career in 1984 in the Chicago area and returned to the Midwest two years ago, after 11 years in the Pacific Northwest. He was active with the Washington Native Plant Society, serving as editor of *Douglasia*, the WNPS quarterly journal. He also was WNPS liaison to Earth Share of Washington.

"I am impressed by the talent, knowledge, and passion for native plant stewardship that I see at the MNPS meetings, and I am eager to tap into that passion to help the Society grow," he wrote. Jones hopes to continue promoting MNPS advocacy for conservation of sensitive native plant species and stewardship of native natural communities.

Endangered forests

Continued from page 1

appears to be spreading into the countryside from metropolitan areas. When a Big Woods remnant is surrounded by farms, deer are maintained at relatively low densities. When a few houses are built, however, hunting pressure goes down and deer multiply. If they were not already present, European earthworms, slugs, and invasive plant species such as European buckthorn and garlic mustard also arrive with the first wave of houses.

Native Big Woods plant communities are winking out one by one across the landscape, and a large-scale research and conservation program will be necessary to save these native communities.

Gerry Drewry receives MNPS lifetime honorary membership

by Jason Husveth, president, MNPS

Gerry Drewry was awarded the Minnesota Native Plant Society's Lifetime Honorary Membership Award April 7 at the 2005 annual symposium. Gerry has been a member of the Minnesota Native Plant Society since 1985 (the society was founded in 1982).

She learned about the society from attending the 1985 symposium as a private landowner, interested in learning about the native plants and native habitats of Minnesota, wanting to apply this information to the restoration and management of her land in Hampton (near Northfield), and to help educate others about Minnesota's native flora.

Since her introduction to the society in 1985, Gerry has attended every annual symposium and has contributed her talents and enthusiasm as an active member. Each year, Gerry is a regular attendee of our monthly membership meetings, and has attended many field trips over the past two decades. Gerry also served on the board of directors for two terms, before she became the editor of the society's newsletter, the *Minnesota Plant Press*, and she still attends most quarterly board meetings.

Most impressive are Gerry's considerable volunteer services to the society, which she adeptly provides graciously and quietly behind the scenes. Gerry has served as the editor of the *Minnesota Plant Press* since 1998 (that's 28 issues), and has done a fantastic job as editor, improving the quality of the newsletter, and ultimately working with the board to facilitate the electronic publication of the *Plant Press* in the past few years.

Gerry has also served as a primary organizer and facilitator of the MNPS annual native plant sale, along with David Crawford. She has served in this role for approximately 10 years. Each year, Gerry informs our members, board, and others about the coming plant sale, plans the details of the event, and oversees the sale at the June meeting. Gerry has given so much of her time and talents to the society, and we are honored to have her as our fourth recipient of the society's lifetime honorary membership award!

Gerry Drewry holds plaque presented by Jason Husveth

Read *Plant Protection Review* on-line

A Minnesota Department of Agriculture publication, *Plant Protection Review*, is an excellent resource that will keep you abreast of insect pests, noxious weeds, and plant diseases, what the department is doing about them, and what you can do. The newsletter merged two previous newsletter publications, the *Overstory* and *Nursery News*, into a single publication. The intent is to provide the green industry, the public, and other interested parties with timely articles and information relating to nursery inspection, export certification, shade tree programs, and invasive species, as well as seed and noxious weeds. The next issue is to be published in July.

The newsletter can be viewed by going to www.mda.state.mn.us To subscribe to the e-mailed version, just send an e-mail addressed to MajorDomo@State.MN.US. In the body of the message, type: Subscribe MDA-Plant-Protection-Review

Plant Lore

by Thor Kommedahl

What is sneezeweed?

Sneezeweed is *Helenium autumnale* (and some other species) in the sunflower family.

How did it get its names?

Legend has it that *Helenium* is named for Helen of Troy, who cried at seeing the lives lost by those who came to rescue her, and where her tears fell, these plants sprang up. "Sneezeweed" comes from the plant used as a snuff. Menominee Indians ground mature flower heads into a powder to sniff for treatment of head colds. The powdered leaves induce sneezing.

What does the plant look like?

This fibrous-rooted, native perennial has yellow ray flowers in which each petal has 3 shallow lobes. The center of the head is spherical and ocher-yellow. The elliptical leaves are punctuated with glands. It grows from two to five feet tall and is often found in clumps.

Where does it grow?

It is widespread in Minnesota, except in the arrowhead region, and grows in open, moist areas, often along streams.

Is it poisonous or medicinal?

Both. Sneezeweed (several *Helenium* spp.) is a major economic problem for sheep raisers; in one year, for example, 8,000 sheep died in Colorado from sneezeweed poisoning. Liver and kidneys are damaged.

The plant produces a lactone, helenalin, which has anti-tumor activity and is being tested by the National Cancer Institute. This lactone also is a powerful insect repellent. Tea made from sneezeweed is used to treat intestinal worms. Sneezeweed may cause contact dermatitis.

Has it any horticultural uses?

It has been grown in backs of borders or in wild gardens. Varieties have been developed that thrive in fairly rich soil in sunny locations. It can be propagated by seeds, cuttings, and division.

Mt. Diablo buckwheat rediscovered

A petite pink flower that hasn't been seen in 70 years has been rediscovered on the flanks of Mount Diablo in Contra Costa County by a University of California, Berkeley, graduate student.

The Mount Diablo buckwheat, *Eriogonum truncatum*, "has been a Holy Grail in the East Bay for several decades," according to UC Berkeley botanist Barbara Ertter, who confirmed the identification in the field on May 20. Last reported in 1936, the flower was presumed extinct, she said, because its habitat has been overrun by introduced grasses. It is one of only three plants, all of them rare, that are endemic to Mount Diablo.

Michael Park had the missing buckwheat on his mind May 10, when he hiked to a remote corner of Mount Diablo State Park. Following a different routine from his normal survey, he stumbled across the plants — about 20 in all — in full bloom, looking like pink baby's breath. Less than eight inches tall, the annuals are inconspicuous and were growing in a balding area between full chaparral and non-native grassland.

The discovery site, a full day's hike from public trailheads in the park, is being kept secret for now so that admirers won't flock to the area and inadvertently destroy the rediscovered plant.

Ertter, the curator of western North American flora at UC Berkeley's Jepson Herbarium, noted that one priority should be to gather seeds and start cultivating the buckwheat at the UC Botanical Garden. Cultivated specimens conserved by the garden, which is part of the Center for Plant Conservation network, will provide a reserve of seeds in case the species declines further.

"At some point, if we have the mature seeds and can get them started in cultivation so there is a backup, then we can relax a little more," Ertter said.

Park, 35, began surveying the flora of Mount Diablo three years ago as part of Ertter's ongoing surveillance of the area's plants. Now finishing his first year as a graduate student in the Department of Integrative Biology, Park found the buckwheat while completing his survey during a prime time of the year, when plants are flowering profusely after one of the latest and rainiest winters in decades. He divulged his secret to Ertter and alerted the park service.

Two days later, he hiked with two fellow graduate students to take photos, which convinced Ertter he had indeed found the elusive buckwheat. First reported in 1862, there are only seven historical records of the plant, the last in 1936.

Park suspects that the unseasonably late rains may have produced the flowering, since many native plants produce seeds that remain dormant in the soil for decades until the right moisture conditions make them germinate.

Brent Mishler, UC Berkeley professor of integrative biology and director of the Jepson and University Herbaria, noted that this is typical of plants in Mediterranean-type climates like California. "It really demonstrates the importance of continuing floristic and systematic studies across the decades and centuries, the key role of herbaria, and the need to maintain strong educational programs in these areas," he said.

(The complete article, with photos, can be seen at www.berkeley.edu/news/media/releases/2005/05/24_buckwheat.shtml)

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