



Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 26 Number 4

Summer 2007

Monthly meetings

Thompson Park Center/Dakota Lodge
Thompson County Park
360 Butler Ave. E., West St. Paul, MN 55118
651-552-7559 (kitchen)

6 p.m. — Social period

7 – 9 p.m. — Program, society business

Programs

The MN NPS meets the first Thursday in October, November, December, February, March, April, May, and June. Check the website for more program information.

Oct. 4: “The harvesting of herbal medicines; concerns for protecting plant species and plant communities,” by Erica Fargione, herbalist. **Plant of the Month:** *Panax quinquefolium*, American ginseng.

Nov. 1: “Effects of moose browsing on long-term forest succession on Isle Royale,” by Dr. Peter Jordan, University of Minnesota. **Annual seed exchange** following the program. Package seeds in small envelopes; label them.

2008 Symposium being planned

The North Shore highlands will be the subject of the Society’s 2008 symposium. Details have not been finalized, but it will probably be held at the Bell Museum on the University of Minnesota campus. Information will be posted on the website.

Society has a blog

MN NPS information and comments can be read on the Society’s blog. Go to www.mnnps.blogspot.com to see what is posted. Information will continue to be posted on the Society’s website, www.mnnps.org

Non-native invasives threatening Chippewa National Forest

On June 20, the Minnesota Native Plant Society Board submitted comments opposing the Chippewa National Forest Off-Highway Vehicle (OHV) Road Travel Access Project. Beth Nixon, a MN NPS board member, prepared the document and attached papers that were cited in footnotes. Following are the comments.

1. Non-native invasive plant species present on the Chippewa National Forest are a top ecological threat to these USFS lands, and have been identified by Dale Bosworth, former chief of the U.S. Forest Service, as one of the four top threats to the nation’s forests and rangelands. In the Chippewa, there are 13 species of ingenious propagators, producing enormous amounts of seed with a variety of dispersal mechanisms. Invasives as a group are a major drain on the national, state, and local economies, costing the country roughly \$138 billion each year, according to the USFS document “National Strategy and Implementation Plan for Invasive Species Management.”

2. An OHV will spread non-native invasive species very, very effectively in several ways, including:

a. As is commonly known, the OHV driver travels readily back and forth between a variety of land cover types, disseminating invasive propagules into a wide variety of more remote and ecologically sensitive natural areas, even when those areas are technically off-limits;

b. The OHV tire size and configuration will very efficiently denude and then transport large quantities of soil laden with a high concentration of propagules when driven through an infestation, and then afterwards deposit those propagules for distances of over 10 miles;

c. OHVs often are driven on roadsides, where thick infestations of non-native invasive species are most likely to exist.

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President's column

by Scott Milburn, president

The Society is coming off another great year and one to be proud of. Our membership is strong and active, as seen with the number of members attending our events. In keeping with our mission, we have provided an opportunity to learn and expand as we explored the flora of our state.

To recap this past year, we dove into conservation issues such as alternative agricultural practices and how that affects our native biodiversity. We also spent a great day at the Bell Museum of Natural History learning about the fascinating Prairie Coteau, with much insight provided by the talented folks at the Minnesota Department of Natural Resources. The Society was also fortunate to have a great line-up of field trips, including a great lesson in forested wetland ecology and the visual experience of the incredible vegetative composition present in these communities. All in all, it was a great year of learning. I would like to thank those who helped this year and hope for more of the same in the upcoming year.

The board, an ever changing group itself, has several new members who bring a lot to the table. I am excited and pleased to be working with this group of individuals, and I think the Society will be pleased with our future efforts.

Over the past several board meetings, the board made several changes to our membership policies. No need to worry about raising membership costs, as it appears we are inflation-proof for the time being. In all seriousness, it was felt that we need to maintain continuity with our membership. The board recently voted to change our membership year from October to January of every year to correlate with the calendar year, in an attempt to eliminate forgotten renewals. Another exciting change is the ability to become a lifetime member of the Society.

Not only do we want to retain our members, we would like to increase our membership. There is a large demographic out there that has an interest in the natural history of Minnesota. It is our job to reach out to this group and engage them. Perhaps the best start is for everyone in our membership to introduce a friend to the Society. By doing this, we have a great opportunity to grow, expand, and add to what we do as a Society.

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.

MN NPS Board of Directors

President: Scott Milburn,
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MN NPS website

For current information about MN NPS field trips, meetings, and other events, check the website: www.mnnps.org

OHV damage

Continued from page 1

3. OHV routes should not be designated in any areas known to be infested with any non-native invasive species, or areas thought to be more likely to be infested, or in environments most susceptible to being invaded if the same route or a connected route also traverses areas likely to be or known to be infested with non-native invasive species.

4. OHVs should not be permitted to travel on roads that run through or near to sugar maple and other northern hardwood stands, thereby introducing another stressor to areas which the Environmental Assessment Wildlife Report identifies as the most susceptible communities to earthworm-caused damage.

5. The ability to find places for watching wildlife or for enjoying or studying rare native plants and high-quality native plant community assemblages in a remote natural setting, without the interference of OHVs, is itself rare and becoming rarer.

6. Actions that accelerate the rate or extent of spread of non-native invasive species will damage soils, water quality, vegetation, and habitat for wildlife, for which there may be up to 27 percent of the state's population of mammal Species in Greatest Conservation Need (SGCN), a group of species representing a threshold level for significant effects; 22 federal and state threatened, endangered or special concern species; sensitive plant species such as the goblin fern; and several other rare moonwort species known in the Chippewa.

7. Designating OHV routes through areas that are in fact infested with non-native invasive species will

greatly accelerate the spread of non-native invasive species.

8. Designating hundreds of miles of routes without reasonably complete knowledge of where all non-native invasive species infestations are located on the Chippewa National Forest will likely result in designation of many routes that are presently infested with one or more non-native invasive species.

9. OHVs will rapidly spread non-native invasive species to many intersecting routes, including some undesignated routes, making it very difficult and perhaps impossible to control, eradicate, or even effectively manage and monitor the spread of non-native invasive species in the forest.

10. The project at issue has the capacity to do tremendous damage to the environment because it involves a highly efficient mechanism for spreading non-native invasive species, and project planning has occurred in the absence of reasonably complete knowledge of all non-native invasive species locations, or even those representing the highest ecological threat levels.

11. Extensive surveys for all non-native invasive species should be conducted on all road, other motorized travel corridors, and proposed route alternatives at the earliest possible time, particularly since over 82 percent of all Chippewa and Federal lands are within a half mile of route alternatives.

12. The project is likely to cause significant environmental effects and requires a full Environmental Impact Statement, in part due to the unknown impacts on Minnesota SGCN. The EIS should proceed only after a comprehensive survey of SGCN, and concurrent with or after non-native invasive species surveys have been completed on all road and other potential travel corridors within

the Chippewa National Forest statutory boundary likely to have a moderate risk of infestation by a non-native invasive species with a moderate, high, or very high ecological risk categorization by the USFS. These species include all those terrestrial plant species listed as occurring on the Chippewa, as well as exotic earthworm infestations surveyed according to level of infestation. In the estimation of the Minnesota Native Plant Society, infestations of haplotype common reedgrass and hybrid cattail should also be surveyed, since extreme OHV use can include marshy areas.

13. The above comments are consistent with direction in the Chippewa National Forest's current Forest Plan, including specifically direction regarding soils, vegetation management, wildlife, threatened and endangered species, non-native invasive species, social and economic stability, recreation, trails, and recreational motor vehicles.

School sends thanks for donated plants

At the close of the June plant sale, all unsold plants were donated to Garlough School in West St. Paul. In the following letter, Susan Simon explains how the plants were used.

"Thank you for donating the 'leftover' native plants from the sale to Garlough Environmental Magnet School. We are an elementary school located at 1740 Charlton Ave., across from Dodge Nature Center.

"Our school is developing an environmental curriculum that will include outdoor study areas. Although much of the landscape is currently turf grass in different stages of decline, we are working to restore prairie, woodlands, wetland and put in raingardens. The plants you donated will add much needed plant material. Thanks again, Garlough School."

Getting started on mushroom identification

by David and Esther McLaughlin

At the March MN NPS meeting, several members expressed interest in learning about mushroom identification and natural history. We thought we might provide the *Minnesota Plant Press* with information on books that would be most useful and accessible for beginners. These books are fairly widely available, either on-line or by ordering through local booksellers. All have colored photographs and cover many of the mushrooms you are likely to find in Minnesota and environs in the spring, summer and fall. But be aware that there are many more species here than any of these books cover.

Barron, G. L. *Mushrooms of Northeast North America*, 1999. Lone Pine Publishing Co.

Huffman, D.M., et al. *Mushrooms and Other Fungi of the Midcontinental United States*, 1989. Iowa State University Press, Ames.

Lincoff, G. H. *The Audubon Society Field Guide to North American Mushrooms*, 1981. A. A. Knopf, Inc., New York.

Miller, O. K., Jr. and H. H. Miller. *North American Mushrooms*, 2006. Globe Pequot Press, Guilford, CN.

Smith, A.H. and N.S. Weber. *The Mushroom Hunter's Field Guide*, 1980. University of Michigan Press, Ann Arbor.

So which book should you choose? We especially like Barron's book, as it is very well illustrated, and the photographic guide at the beginning is an effective way to find the right group. The Millers' book is very up-to-date and more complete than the rest but covers a much broader area. All are good, so you should be successful with any of them.

If you want help in getting started on mushroom identification or want to go on a mushroom foray, the Minnesota Mycological Society meetings and forays can be very helpful. You can find out about them from their website:

www.minnesotamushrooms.org

[Botanizers go on field trips; mushroomers go on forays.]

Volunteers are needed

Conservation committee

Would you like to receive timely information about conservation issues? That is one of the benefits for members of the MN NPS Conservation Committee. If you are interested, contact Beth Nixon at bnixon@mnnp.org

Social coordinator

The Society needs a new social coordinator. This person helps members and visitors get acquainted at the monthly meetings. Responsibilities include arranging for snacks and providing name tags. Ann McGee has been the coordinator. If you are interested, let any board member know.

Plant sale earns \$842 for Society

Total proceeds from the June 7, 2007, plant sale were \$842, Treasurer Ron Huber reported. This is an increase from the \$789 total in 2006.

John Arthur's auction photos brought \$82; Peter Dziuk's photos, \$38; auction plants, \$76; and sale plants, \$646. The plant sale is the Society's major fund-raising project. The board thanks everyone who donated plants and pictures.

Membership year will start Jan. 1; life option added

The Minnesota Native Plant Society Board of Directors has voted to change the membership year to a calendar year. The membership year, which has started Oct. 1, will now start Jan. 1.

As a result of this change, all current annual or multi-year memberships will be extended three months. All annual memberships will be due for renewal Jan. 1, 2008.

Members are encouraged to pay dues for several years in advance, if they wish. This option is not available for donors, who receive a tax deduction for the donation portion of their payment.

Life Memberships for adults are now available at a cost of \$300.

Membership categories are as follows.

- \$15 Individual
- \$15 Family (two or more people at the same address)
- \$8 Student (full time)
- \$8 Senior (over 62 or retired)
- \$20 Institution
- \$25 Donor
- \$300 Life (for adults)

David Johnson keeps the data base of members. He also distributes the e-mail copies of this newsletter.

You may join or renew your membership at any monthly meeting, or mail your check and information to: Minnesota Native Plant Society, P.O. Box 20401, Bloomington, MN 55420.

Anniversary party being planned

Watch the website and your mail for announcement of a MN NPS 25th anniversary celebration.

Orchids everywhere

Article and photos by Ken Arndt

On June 30, the MN NPS held a field trip to the Hill City area of northern Minnesota, led by DNR Forest Ecologist Dr. John Almendinger. Over 30 field trip participants decided to make the journey north to take in this very special part of the state.

We began the morning near the parking area, with a brief talk by John about the rich cedar swamp we were about to enter and some of the plants that we would be seeing. Once we all were together, we started to hike into the cedar swamp by going down a small hill through recent aspen slash a hundred feet or so. At the bottom of the slope, the terrain leveled out into eastern white cedar, black spruce and a carpet of sphagnum moss. We followed a narrow path into the swamp for a few hundred feet more, to where many



Cypripedium reginae, Showy pink lady's-slipper orchid.

of the native orchid species were found.

Within a very short time you could hear someone call out "over here is an orchid!" All around us we were starting to see the many different native orchids and other interesting plants that call this place home. Needless to say, we didn't move very far from this point for the whole day. Several folks brought their photographic equipment to capture these spectacular plants, while others were able to wander around and take it all in at a very reasonable pace.

Throughout the day, John would gather us together and lead impromptu talks about different topics like peat formation and accumulation, as well as the local geology and ecology of this region of Minnesota. We had lunch in the swamp and ended up spending the rest of the day within a few hundred feet of where we started.

Twelve different native orchids were found within this cedar swamp, with most in bloom. They include:

Amerorchis rotundifolia, *Arethusa bulbosa*, *Calopogon tuberosus*, *Corallorhiza striata*, *Cypripedium*

acaule, *C. calceolus* var. *parviflorum*, *C. calceolus* var. *pubescens*, *C. reginae*, *Listera cordata*, *Platantera dilatata*, *P. hyperborea*, and *P. obtusata*.

John mentioned that last year's orchid display was by far more intense than this year's. I think we were all very impressed by what we got to experience that day.

The snow was deep at Pine Bend SNA

by Ken Arndt

Who ordered the foot plus of snow two days before our field trip to Pine Bend Scientific Natural Area? On March 3, Jason Husveth, Scott Milburn and Ken Arndt led 12 brave souls through the snow at Pine Bend SNA. This new SNA is just east of Hwy. 52 in Inver Grove Heights.

We started the afternoon hike at the top of the bluff, where we were treated to a fantastic view of the Mississippi River some 200 feet below. From there we took a trail down to the river, identifying plants as we came across them. It's a good thing a few of the trip participants were smart enough to bring snowshoes. Naturally, we let them blaze the trail for the rest of us.

With the deep snow cover, our plant identification was heavy on the woodies, as you might imagine, with a few herbaceous plants still visible. The oak-dominated forest mixes with white pine in areas and then transitions into lowland floodplain species closer to the river's edge. Once we got down to river level, we were able to explore the seeps where the skunk cabbage grows. Luckily, the seeps flow year round, so the snow was no match for the water flowing out from the bluff slopes. Most of the seeps had little, if any, snow cover, so seeing the skunk cabbage was not a problem. A few of the skunk cabbage flowers were even beginning to open (a sign that spring was near).



Platantera dilatata, tall white bog-orchid.

New international standard for collection of wild plants is adopted

A new standard to promote the sustainable management and trade in wild medicinal and aromatic plants (MAP) was launched Feb. 16 at Biofach, the World Organic Trade Fair, in Nuremberg, Germany.

The International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP) was drawn up following extensive consultation with plant experts and the herbal products industry worldwide. It promotes appropriate management of wild plant populations to ensure plants used in medicine and cosmetics are not over-exploited.

The ISSC-MAP is based on six principles: maintaining wild MAP resources, preventing negative environmental impacts, legal compliance, respecting customary rights, applying responsible management practices, and applying responsible business practices. It can be downloaded from <http://www.floraweb.de/proxy/floraweb/map-pro/>

“Traders and companies, collectors and consumers must share the responsibility for maintaining populations of medicinal plants which are valuable natural resources,” said Susanne Honnef of TRAFFIC, the wildlife trade monitoring network. “The ISSC-MAP principles and criteria show how this can be achieved in practice.”

More than 400,000 tons of medicinal and aromatic plants are traded worldwide annually, with around 80 percent of the species

harvested from the wild. Almost 70,000 species are involved, many of them are in danger of over-exploitation and even extinction through over-collection and habitat loss. For example, in India, almost 300 medicinal plants are considered threatened by IUCN — the World Conservation Union.

Traditional Medicinals, one of the industry’s leading companies, is investigating applying the new standard to the collection of bearberry, a shrub whose leaves are used for the treatment of a variety of conditions, mainly of the diuretic and urinary tract.

“Our German supplier was able to prove the sustainability of their bearberry sources, and we are keen to see how the newly developed ISSC-MAP criteria apply to this trade,” said Josef Brinckman, vice-president of Traditional Medicinals. “Sustainable supplies will mean long-term benefits for the local people who rely on the bearberry trade for supplementary income.”

“I welcome the launch of this new standard, which presents an important step in ensuring the sustainable use of natural pharmaceutical products,” said Professor Drenckhahn, president of WWF-Germany. “We’d like to see other companies use the standard and see how it works in practice for their benefit.”

Those attending the EXPO West trade fair March 9 - 11, 2007, were able to hear more about the ISSC-MAP standard from Dr. Danna J. Leaman, chair of the Medicinal Plant Specialist Group for the World

Conservation Union, and Josef Brinckmann, Traditional Medicinals.

Organizations and experts involved in the ISSC-MAP consultation included: the German Federal Agency for Nature Conservation (BfN), the IUCN SSC Medicinal Plant Specialist Group (MPSG), WWF-Germany, and TRAFFIC, plus industry associations, companies, certifiers and community-based NGOs.

TRAFFIC works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. TRAFFIC is a joint program of WWF, the conservation organization and IUCN - The World Conservation Union.

Board members, officers change

Scott Milburn was re-elected president of the Minnesota Native Plant Society at the June 26 board meeting. Shirley Mah Kooyman was re-elected vice president; Ron Huber was re-elected treasurer. Sean Jergens was elected secretary.

Peter Dziuk, Russ Schaffenberg, and Linda Huhn joined the board at this meeting. Peter and Russ were elected earlier this year; Linda was appointed to complete Sandy McCartney’s term.

Extension service has forestry website

The University of Minnesota Extension Service has created a new website, Myminnesotawoods.org. The site includes information on the natural history of savannas, woodlands, and forests in Minnesota, as well as specific information about tree growth and forest health. It encourages forest stewardship for a variety of purposes, including renewable timber harvest, recreation, and restoration.

Peter Dziuk joins board

Peter Dziuk, a new MN NPS Board member, is one of our most creative members. One of his photos is on this page. Following is the biography he submitted to introduce himself to members.

Rumor has it that
Peter M. Dziuk started his career
While in the fourth grade,
Copping strawberry plants from
Little Old Ladies' gardens.

Since that time,
He has been known to grow
All sorts of things,
Some, possibly illegal,
But he'll never fess up.

Though of dubious academic
Intent and skill (attitude, attitude,
attitude),
He did manage to get degrees in
Horticulture (early), biology and
secondary education (later).
However, teaching high school
students
Was not in his future.

In the late 70s he worked at
The "new" zoo out in Apple Valley,
But then stumbled around the private
sector,
And more schooling, for some time.
Then, by 1992, he stumbled back into
State Government —
Or at least the MDA version.

He coordinated the tree inspector
program;
He coordinated the gypsy moth
program;
He coordinated the invasive species
program;
He coordinated the cooperative
agricultural pest survey program.
For now, he is a nursery inspector.

While he may have a habit
Of saying too much,
Above and beyond all,
He is passionate about
Native wildflowers!



Chelone glabra, photo by Peter Dziuk



Chelone glabra in profile, photo by Scott Milburn.

Field trips

Summer field trips are a popular membership benefit. The Aug. 9 trip to St. Croix Savanna Scientific and Natural Area has been filled. Hannah Texlar, Minnesota DNR regional plant ecologist, will lead this trip. Future trips will be announced on the website (www.mnnp.org) and on the blog (www.mnnp.blogspot.com).

Recent completed field trips include Whitewater Wildlife Management Area May 12; Prairie Coteau June 16 and 17; Hill River State Forest June 30; a western prairie fringed orchid survey the weekend of July 7; and Pioneer Park fen in Blaine July 14.

Plant Lore

by Thor Kommedahl

What is turtlehead?

Turtlehead is *Chelone glabra*, a native herb in the figwort family.

What do its names mean?

Chelone comes from the Greek *kelone*, a tortoise, referring to the turtle-head shape of the upper part of the flower. In Greek mythology, Chelone was a nymph who, because she refused to attend the wedding of Zeus and Hera, was turned into a turtle. *Glabra* means smooth.

What does the plant look like?

Plants are usually two to three feet tall (some report up to six feet) from a creeping, perennial root. The stem is smooth and somewhat four-angled. Leaves are opposite without, or perhaps with short, petioles. The two-lipped flowers in a spike consist of four fertile stamens and one sterile stamen and five united (two upper and three lower), white petals. Seeds are flat and rounded, winged, and encased in a capsule.

Where do turtleheads grow?

Mainly in the eastern half of the state in swamps, wet meadows, marshes, or along streams. They flower from July to September.

Is this a "butterfly plant"?

Well, yes, at least for the Baltimore butterfly (*Euphydras phaeton*), whose larvae feed exclusively on turtlehead leaves, e.g. the Minnesota River Valley is habitat to both plant and butterfly. Fall butterflies also feed on plant nectar.

Has it any medicinal uses?

American Indians valued it as a laxative and purgative. They also made a tea from flowers to treat worms and as a contraceptive. Early physicians prescribed it as an ointment for fevers, piles, liver problems, etc. It contains a bitter resin.

Is it used horticulturally?

It is sometimes planted in gardens, but it requires light shade and consistently moist soil. Plants can be propagated from seed and by dividing roots.

Minnesota Native Plant Society
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Summer 2007

