



Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 26 Number 1

Fall 2006

Monthly meetings

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

6:00 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.

Nov. 2: “The Importance of Native Plants in the Streamside Environment,” by Brian Nerbonne, stream habitat specialist, MN DNR Central Region Fisheries. **Annual seed exchange.**

Dec. 7: “Growth Pressures on Sensitive Natural Areas in DNR’s Central Region,” by Sharon Pfeifer, regional planner, DNR Central Region.

Feb. 1: “Recent Highlights in the Minnesota County Biological Survey,” by Carmen Converse, Minnesota County Biological Survey supervisor, DNR.

Seed exchange

Bring native seeds you have collected to the November meeting. They must be in labeled envelopes — no bulk piles. Donors will be first in line to choose seeds.

MN NPS website

www.mnps.org

e-mail: contact@mnps.org

MN NPS 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

New location for meetings

Because the National Wildlife Refuge Visitor Center is being closed for remodeling, MN NPS meetings for the upcoming year will be in a new location. We will meet at the Dakota Lodge in Dakota County’s Thompson Park in West St. Paul. Meeting dates and times will not change.

Thompson County Park and Dakota Lodge are at 360 Butler Ave. East, West St. Paul. Take Hwy. 52 to Butler Ave. East. Go west on Butler 0.2 miles to Stassen Lane, the park entrance road. Go south on Stassen Lane to the Dakota Lodge. For additional information about the park, a map, and driving directions, go to www.co.dakota.mn.us/Parks and click on Dakota Lodge.

Several methods help control invasive cattails

by Cindy Kottschade, a graduate student at Minnesota State University studying mechanisms for invasion of *T. angustifolia*. This is an abstract of her talk at the June 1 MN NPS meeting.

A substantial portion of wetlands in North America have been impacted by disturbances, changes in hydrodynamics and nutrient cycling, and they are further impacted by the presence of invasive species, including *Typha* spp. (cattails).

There are actually three taxa of *Typha* found in Minnesota – *Typha latifolia* (broad-leaved cattail), *Typha angustifolia* (narrow-leaved cattail) and *Typha x glauca* (hybrid cattail). Ecologically, these three plants are very different.

T. latifolia is actually native to Minnesota and is a co-dominant wetland plant associated with greater levels of diversity. *T. angustifolia*, a non-native cattail, invades wetland areas and forms monospecific stands which reduce plant diversity. Finally, *T. x glauca*, a hybrid between *T. angustifolia* and *T. latifolia*, also form monospecific stands and may actually be more invasive than *T. angustifolia*.

In order to reduce the presence of invasive cattails, we need to

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Conservation is a priority

by Scott Milburn, Minnesota Native Plant Society president

In this political campaign season, we have been inundated with promises of what one candidate (national and local) or the next will do for you. It seems that these campaigns saturate the public with narrowly focused campaign messages, sometimes irrelevant to what we truly care about. The issue of conservation is often lost in the shuffle during these political campaigns, but what does that mean?

The assumption is that people do care about conservation, but the issue itself is not one that drives people to vote. In analyzing this further, maybe it is due to the lack of a clear and concise message that enables the general public to rally behind such a cause. Environmental issues are picking up steam lately, mainly climate change. This has been due to intense media coverage, which has even included the release of a motion picture documentary. Yet with all of this attention, the environment was still termed a non-issue in a recent Zogby poll (September 12-14, 2006) for the upcoming November elections.

The Minnesota Native Plant Society has an obligation to make this an issue and to inform the public about conservation. In an effort to prioritize our efforts, the national level is not where we need to begin, but rather focusing locally. Our bylaws describe two committees through which we can achieve this — the Conservation Committee and the Education and Outreach Committee. They provide our membership a great opportunity to get involved with the Society.

The role of the Conservation Committee is to serve in the capacity of providing information to the membership pertaining to plant conservation, and the role of the Education and Outreach Committee is to spread the word about the Society to the general public. At this time, we are looking for members of the Society who would like to get involved with these committees. In doing so, those involved will be helping to bring attention to the subject of conservation on a local level. With this, we will be achieving the objectives of the Society. If you have an interest, please contact me at president@mnnps.org

Welcome, new board members

Sean Jergens and Beth Nixon have accepted appointments to the MN NPS board.

Sean Jergens has been a Society member since he was a student at the University of Minnesota. He earned a master's degree in landscape architecture and now works in the landscape architecture studio at SRF Consulting Group. Before that, he worked at a small firm that specialized in ecological design and restoration. His family frequently camped in regional and national parks, where Sean learned to appreciate the natural world. Courses he took at the university sparked a strong interest in Minnesota's native flora and ecosystems. He enjoys taking his six-month old son on nature walks and gardening with native plants.

Beth Nixon has been a follower of the Society since she was a graduate student in the University of Minnesota Botany Department. She and her husband, U of M Professor Bud Markhart, have diversified a wooded area in White Bear Lake with native plants and seeds. Beth is an executive board member of the North Central Chapter of the Society of Wetland Scientists and has more than 20 years of experience as an ecologist and wetland scientist. She is employed by Emmons and Olivier Resources.

MN NPS Board of Directors

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Conference on aspen parklands is Oct. 23

"Ecology of the Aspen Parkland," a day-and-a-half conference on "Life at the Edge," will be held Oct. 23 and 24 at the University of Minnesota, Crookston. Jim Brandenburg will give a special presentation. Registration, including meals, is \$35 for students, \$65 for all others. A brochure with program and registration details is on the university website, www.crk.umn.edu

Psathyrella rhodospora is a little brown Minnesota mushroom

Plant Lore

by David McLaughlin and Maj Padamsee. This is an abstract of David McLaughlin's "Fungus of the Month" presentation at the March 2 meeting.

Minnesota is home to several mushrooms known nowhere else on Earth. One of these is *Psathyrella rhodospora*, first collected in Minnesota in 1971. Psathyrellas are a group of little brown mushrooms or LBMs often overlooked by collectors. They get their name from the Greek word "psathyros," meaning fragile, because the caps of many species break readily when picked. They are actually a quite diverse group and have microscopic characters that can be used to identify them. *Psathyrella rhodospora* is a red-spored species, from which it gets its species name. It was collected first near Nerstrand Woods State Park and brought to Margaret Weaver, a keen student of mushrooms. She described and preserved it and sent it to Alexander Smith at the University of Minnesota, who gave it its scientific name.

Most psathyrellas have brown spore prints, but a few have red ones. Spore print colors are used to identify mushrooms. They are easily made by setting the cap on a piece of white paper for 1 to 12 hours under a cover to prevent drying. *Psathyrella rhodospora* is readily distinguished from the other red-spored species by its cap, which is not fragile but cracks on drying, by its larger size, fruiting bodies that grow in clumps, and by some microscopic features, including its spore size and some thick-walled sterile cells (cystidia) on the gills.

It was originally reported on a *Tilia* stump. We have found it recently in Hennepin and Ramsey counties on a cottonwood stump and at the base of a living poplar tree. We assume that it is involved in wood decay, i.e., in recycling dead wood, as this is the presumed role of most psathyrellas. We also know now that it can fruit from June until October or early November when sufficient rain is available.

One of the surprises was finding it on the University of Minnesota campus, which highlights how little attention is paid to many mushrooms, as we assume that it has been growing near or on campus for many years. But it also points out how little we know about mushrooms in Minnesota in general, as they require some effort to study.

We owe a great debt to Margaret Weaver, who was present at the March meeting when this talk was presented, for her contributions to the knowledge of Minnesota mushrooms. Her collections are an important part of the documentation for Minnesota fungi and are housed in the University Herbarium, Bell Museum of Natural History. Pictures and records of this mushroom and other rare as well as more common species can be seen on the herbarium website: www.fungi.umn.edu.



Photo copyright Bell Museum

SNA volunteer projects

The fall SNA volunteer schedule includes four sites for seed collection and/or brush removal. They are: **Lost Valley Prairie**, Washington County, Oct. 28 and Nov. 18; **St. Croix Savanna**, near Bayport, Nov. 11 and Dec. 2; **Wolsfeld Woods**, near Long Lake, Oct. 21; and **Zumbro Falls Woods**, near Zumbro Falls, Dec. 9. Contact Christine Drassal at Christine.drassal@dnr.state.mn.us

by Thor Kommedahl

What is hog-peanut?

Hog-peanut is *Amphicarpaea bracteata* in the pea family.

What do its names mean?

Amphicarpaea refers to its two kinds of fruits, one above and one below ground. *Bracteata* refers to bracts that subtend the pedicel. Hog-peanut is "much relished by hogs." Lewis and Clark in their journal (10/11/1804) wrote that while camped in South Dakota, they ate the plant that the "frontiersmen called the hog-peanut."

What do plants look like?

It is an annual, twining vine with ovate leaflets in threes, and two kinds of flowers: pale-lilac or white flowers in upper parts of plants, but flowers without petals at the base of the plant. Upper pods contain three to four seeds, and basal flowers produce pods underground containing single seeds.

Where do plants grow?

Hog-peanut is a native plant growing in moist woodlands throughout Minnesota.

Are the "peanuts" edible?

Underground seeds are edible raw or cooked (15-20 minutes and served with butter). They can be harvested throughout winter. Upper seeds can be cooked and served like lentils. Hog-peanut was an important source of food for the American Indian, especially those living in the Missouri Valley. Indian women in fall and winter would rob nests of mice and other rodents who stored seeds; Dakota Indians would leave corn or other seeds in exchange in the nests.

Are plants poisonous or medicinal?

They aren't poisonous, and American Indians made root infusions to treat diarrhea.

Are there economic uses?

Not really. Some have grown hog-peanut as a ground cover in shady areas. Growing it as a crop is not practical because of low yield. Being a legume, it will fix nitrogen in soil.

Minnesota Native Plant Society
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Cattail control

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understand first why this plant is invasive. Many hypotheses have been proposed to explain the success of invasive cattails, including the hybridization, novel weapon or human disturbance hypotheses. The success of the hybrid cattail may be because it has the tolerance of *T. angustifolia* for deep water and the ability of *T. latifolia* to spread rapidly vegetatively.

The novel weapons hypothesis states that a non-native plant may disrupt the native community by the release of chemicals not previously present in the environment. The success of the non-native cattail *T. angustifolia* may be due to the possible presence of allelopathic chemicals released by roots.

Human disturbances, such as changes in hydrology or nutrient cycles, often alter an environment

over a short period of time, and native plants cannot adapt quickly enough to maintain their competitive advantage. Research has shown stabilization of the hydrology of a wetland and increased nutrient loading increases the presence of invasive cattails.

Invasive cattails can be managed through a variety of mechanisms, including biological, physical and chemical controls. Muskrats provide a natural and efficient biological control by creating openings in cattail stands for waterfowl to use.

Cattails can be physically controlled by discing or hand/mechanical cutting. The stems should be cut at the sediment surface in late summer or early fall and then submerged in water to prevent rhizomes from receiving oxygen. Cutting too early in the season can actually stimulate growth. Flooding can kill *T. latifolia* but may be ineffective for *T. angustifolia* and *T. x glauca*.

Finally, cattails can be controlled through chemicals such as glyphosate, a non-selective systemic herbicide. Glyphosate can be wiped onto plants with paint brushes or cotton gloves over PVC gloves. Also, since cattails have a waxy coating on their leaves, a surfactant should be used to increase the uptake of the herbicide. Please note — the herbicide should be for aquatic use.

In addition, management should also focus on preventing the establishment of cattails by educating professionals and the general public on the invasiveness of cattails.

For more information, contact Cindy Kottschade at 612-868-2924 or cindy.kottschade@mnsu.edu.

Correction

Joe Beattie wrote the article, “Hastings turns industrial park into prairie,” that was in the summer issue. We apologize for the incorrect attribution.