

From Shore to Shore

For Minnesota citizens promoting the health of our rivers & lakes

September - October 2008

#87

Minnesota Invasive Species Conference 2008: Acting Locally to Protect Our Legendary Lands and Waters

October 26 - 29, 2008
Duluth Entertainment Convention Center

This first annual statewide conference on invasive species will be held in Duluth to encourage exchanges of information on topics relating to both aquatic and terrestrial invasive species. The conference is designed to strengthen awareness of invasive species issues, as well as promoting prevention and management activities. If you're a researcher, land manager, natural resource professional, university staff person, landscaper, nursery manager, agricultural or forestry employee, environmental specialist, lake association member, or agency and non-governmental organization member, this conference is for you!

Pre-conference workshops for the general public and professionals will be held Sunday, Oct. 26, for nominal fees. They include terrestrial topics such as earthworms and gypsy moths, and aquatic topics such as lake vegetation management.

Conference co-chairs are the Minnesota Chapter of the Soil and Water Conservation Society and Minnesota Sea Grant. It is hosted by the Minnesota Invasive Species Advisory Council.

To view the preliminary program or register, visit: www.minnesotaswcs.org/Invasives.htm.

For the most current listing of Shoreland Education workshops, visit www.extension.umn.edu/shoreland.

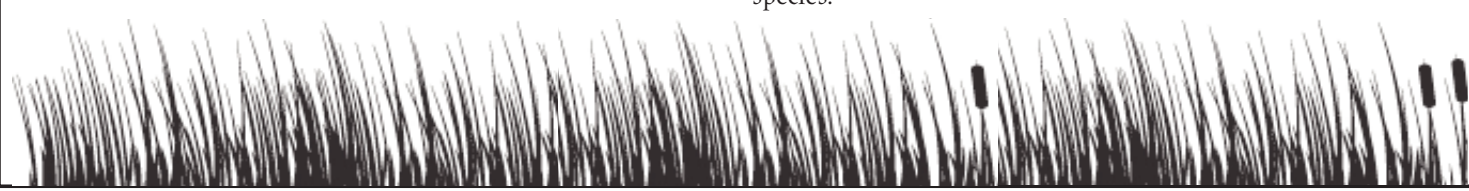
U of M Extension Yard and Garden Online

The screenshot shows the website layout with a sidebar on the left containing navigation links like 'Current Issue', 'Find information on:', 'Diagnostic Modules', and 'Questions?'. The main content area features a 'A Fresh New Look!' announcement, a 'What's up with that?' section with a butterfly image, and an 'Upcoming Workshops' section.

Learn about plants, how to identify and control weeds, find lawn care tips and much more at the newly updated University of Minnesota Extension Yard and Garden Web site: www.extension.umn.edu/gardeninfo/index.html.

One of the features under the Diagnostics section is entitled, "Is this Plant a Weed?" It categorizes plants by type (broadleaf, grass, sedge, etc.), and then provides information and photographs of weed species within that group. An especially nice component for each weedy plant is a list of similar species, which might help in assuring that you correctly identify your plant.

Other features you will find on the Yard and Garden Web site: upcoming workshops, Q & A Library, *Ask a Master Gardener*, current and archived issues of *Yard and Garden News*, and a wealth of information on hundreds of plant species.



Spirit Lake Phase II Shoreline Restoration

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Spring of 2008 saw a lot of shoreline habitat restoration activity on six private lots on Spirit Lake in Menahga, MN. The six lots, with a seventh in the works, were the second phase of a shoreline habitat restoration that began in 2003. The Phase I restoration plan was a product of a Spirit Lake Management Plan, funded through a BWSR Challenge grant, that prioritized shoreline restoration. A DNR Shoreline Habitat Restoration Grant focused on city property from the boat landing past the fishing pier to the public city beach. Phase I also addressed placement of a storm drain treatment pond that utilized native vegetation as a filter before storm water reached the lake.

Phase I and II of this lake-wide restoration project have both been a community-wide learning experience. A major struggle with the Spirit Lake Restoration is that through years of raking and mowing, a large sugar sand beach has formed around the lake. A sugar sand beach is wonderful for sunbathing and swimming, but to the fish, insects, and birds it is literally a desert with no food, shelter, or safe habitat. It has taken education and dedication for lake residents to come to terms with the idea that they can enjoy the sand but also need to restore some to natural habitat. Six residents have stepped forward and decided to share their shoreline with other inhabitants such as fish, frogs, butterflies, and birds.

These residents on Spirit Lake are being assisted through a DNR Shoreline Habitat Restoration Block Grant. This grant, awarded to the Wadena SWCD in 2006, focuses on targeting local resources to assist shoreline owners through the restoration process. In addition to the DNR, several partners are assisting. For example, the U of M Extension Water Resources Team has offered workshops and hands-on experience, and the Spirit Lake Association has provided funding for training and the small extras that help make projects successful. The block grant approach has worked well for Spirit Lake because all the landowners work as a team. They attended classes and purchased plants together, and can discuss progress with each other. The Minnesota Conservation Corps was hired to help with site prep and planting, and they worked efficiently; completing one lot and moving right on to the next. Plant purchases were also streamlined; orders for each lot were combined into one large delivery and then divided at a staging area for placement at each site.

Although all six restorations of Phase II were on Spirit Lake, each is unique. Through shoreline restoration classes taught by the U of M Extension and with assistance



*One of the six lots on Spirit Lake, showing plants in an erosion control blanket that will help retain moisture in the sand.
Photo credit: Karen Terry*

from the Wadena water resource technician, restoration plans have been developed for each landowner. Three lot owners took to heart the “no mow, let it grow” idea and were surprised to see how many favorable shoreline plant species have appeared. Unfortunately, reed canary and some other weeds have also appeared, but one important component of the master plan is to remove weeds and add more native species to create a more diverse shoreline.

There are challenges. For both phases, sugar sand proved a difficult medium for restoration. The lake, which does not have an outlet, is also negatively affected by drastic fluctuations in water level. But as we go into autumn, it is reassuring to see that many of the plants that were planted either as plugs, seeds, or self-contained bricks are surviving. We are making positive strides toward a healthier Spirit Lake!

Note: A story about Spirit Lake Phase I ran in the Jan/Feb 2005 issue of *From Shore to Shore*. You can access that issue online at www.shorelandmanagement.org/shore_shore/newsletter_archive.html. ■

A View From a Great Lake – Lake Superior

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Most of us enjoy boating around our inland lakes enjoying the view, but few of us get the opportunity to view the shoreline of Lake Superior from the water. A View From the Lake, an educational program sponsored by Minnesota Sea Grant and the University of Wisconsin Extension, allows participants to do just that. About 450 people each summer for the last five years have boarded the *L.L. Smith, Jr.* for a three-hour educational experience on Lake Superior. Participants can choose from eight different ports in the western end of Lake Superior, leaving from and returning to the same port. The program changes each year but always makes connections between our day-to-day resource and land use choices and the impacts of those choices on water quality. Join us next year for A View From the Lake. For more information, visit www.seagrants.umn.edu/vfl/. ■



Ferns: A Natural History (Part II)

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Maidenhair fern (*Adiantum pedatum*)

Photo Credit: Michael Clayton

The history of ferns was discussed in the last issue of *From Shore to Shore* (available online at www.shorelandmanagement.org/shore_shore/newsletter_archive.html). In this issue, we describe a few of the 85 fern species native to Minnesota.

Ferns thrive in cool, moist, shady conditions found in the forested areas of our state – primarily the hardwood or mixed hardwood forests located in the southeast and throughout the glacial moraines of central and northern Minnesota. The maidenhair fern (*Adiantum pedatum*) is one of the most beautiful ferns in rich woods and also a favorite in shade gardens.

Low, wet areas throughout the state support some of our more robust ferns. Reaching up to four feet in height, the cinnamon, royal, interrupted and osterich ferns (*Osmunda cinnamomea*, *O. regalis*, *O. claytoniana*, and *Matteuccia struthiopteris*) are handsome species that prefer wet feet, but are also commonly used in upland perennial gardens.

Bracken fern (*Pteridium aquilinum*) is perhaps the most widespread plant in the world – found on all continents except Antarctica. In Minnesota, it grows to four feet and spreads aggressively into open, dry, disturbed areas such as fields and roadsides.

A few fern species also grow in very specific conditions.

The shaded limestone rocks or cliffs in southeastern Minnesota may harbor the small and unusual walking fern (*Camptosorus rhizophyllus*) which, as its name suggests, spreads vegetatively when the tips of its long, narrow fronds touch the ground and root, producing a new plant.

The cliffs, crevices, ledges, and rocky slopes of the Arrowhead Region are host to several species that prefer more acidic, rocky conditions. The rusty woodsia (*Woodsia ilvensis*) is a small fern usually found on exposed sites in this region where it survives drought conditions by rolling up its hairy fronds to conserve moisture.

Our most unusual ferns are the quillworts (*Isoetes spp.*). These tiny plants grow completely submerged in shallow water - primarily in lakes in the northeastern part of the state. They can be distinguished from aquatic plants with similar appearance by spore packets at the bases of their long narrow leaves.

Resources:

Flora of North America Editorial Committee. 1993. *Flora of North America North of New Mexico, Volume 2*. New York: Oxford University Press.

Tryon, R. (1980). *Ferns of Minnesota, Second Edition*. Minneapolis: University of Minnesota Press. ■

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