

Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 28 Number 4

Monthly meetings

Thompson Park Center/Dakota Lodge Thompson County Park 360 Butler Ave. E., West St. Paul, MN 55118

Programs

The Minnesota Native Plant Society meets the first Thursday in October, November, December, February, March, April, May, and June. Check at www.mnnps.org for more program information.

6 p.m. — Social period

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

Nov. 5: "Decorative Harvesting from Minnesota's Spruce Bogs," by Norm Aaseng, plant ecologist, Minnesota County Biological Survey. Annual Seed Exchange.

Dec. 3: "Salvage Logging in St. Croix State Park," by Gretchen Heaser, St. Croix State Park Resources Specialist. Plant of the Month: Orobanche uniflora, oneflowered broom rape or cancer-root, by Ken Arndt, Critical Connections Ecological Services, Inc.

Feb. 4: To be announced.

Field trips being planned

Fall and winter field trips are being planned. For the latest information, go to the Society website.

MNNPS website

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

Conservation priorities, botanical workshops are among future plans

by Scott Milburn, MNNPS president

When the board recently met for our quarterly meeting, the discussion centered on committee direction, future programming events, and bylaw changes.

Over the last few years, the conservation committee has been revived under the leadership of Beth Nixon. In an effort to refine our efforts, the board decided that we need to narrow our focus. Each board member and officer was given the task of coming up with three potential conservation issues that directly involve our mission. The board will then decide on one of these issues to focus on in the upcoming years. Possible topics include biofuels, off-highway vehicle use, and sustainable forestry practices.

The board also discussed possible 2010 symposium topics, along with the concept of botanical workshops for the membership. The 2010 symposium committee will be the same committee as led this past year's event. The botanical workshops would ideally develop into annual events with a focus on a particular suite of species. It may be a year or two before we have our first botanical workshop, since we are currently at the conceptual stage. We are obviously open to suggestions and ask for membership participation.

Finally, the board is going to update both the bylaws and the operations manual. It has been five years since the last update, and it definitely is time

to incorporate some changes. Board member Russ Schaffenberg will serve as the lead for this undertaking. Members will be informed about future bylaw changes in the *Plant Press*, and these proposed changes will be voted on at the general monthly meetings. As always, we look forward to the continued involvement of our members, and to hearing from you.

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Mississippi River Basin Healthy Watersheds Initiative planned The USDA Natural Resources

The USDA Natural Resources Conservation Service is developing a new initiative in Minnesota and 11 other states to help improve water quality and the health of related natural resources in the Mississippi River Basin.

The program will be concentrated in priority basin watersheds in Arkansas, Kentucky, Illinois, Indiana, Iowa, Louisiana, Minnesota, Missouri, Ohio, Tennessee, and Wisconsin. \$320 million has been allocated for the initiative.

NRCS and its partners will work with producers in these priority watersheds to help them voluntarily implement conservation and management practices which avoid, control, and trap nutrient runoff. They will use a conservation systems approach to control soil erosion, manage surface and drainage water, improve soil quality, and provide wildlife habitat, thereby reducing the amount of nitrogen and phosphorus reaching basin waters.

The watersheds will be selected in consultation with state technical committees, using a consistent watershed evaluation process.

MNNPS is on Facebook

by Michael Bourdaghs

The MNNPS can now be found on Facebook. This is a social networking website where users can create their own profile page, join networks of other users organized by interests, and communicate in a variety of ways.

Have an announcement, want to start a discussion, or share a great picture with other members? You can do all of these quickly and easily on Facebook.

To find the MNNPS Facebook page, go to www.facebook.com and log in. First time users will have to create a new account and personal page. Type "Minnesota Native Plant Society" in the Search box, and then click the "Become a fan" link.

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, ecosytems.

6. Preservation of native 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.

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MDA releases weevils to fight spotted knapweed

The Minnesota Department of Agriculture is alerting farmers and other landowners about spotted knapweed (*Centaurea stoebe*), an invasive weed that is showing up with increasing frequency in parts of Minnesota. It is considered a threat to agriculture and the environment. Seedhead and root weevils are being used to help control it.

"Spotted knapweed has attractive pink flowers, but it is not a good neighbor," Geir Friisoe, MDA plant protection director said. "When it becomes established in an area, it crowds out forage plants and other desirable vegetation. This can lead to loss of pasture productivity, erosion problems, and degradation of wildlife habitat."

There are extensive infestations in the northwest part of the state, and it has been found recently in several central Minnesota counties. Spotted knapweed arrived in North America in the early 1900s as a contaminant in crop seed.

The MDA has teamed up with the Departments of Natural Resources (DNR) and Transportation (Mn/ DOT) to introduce seedhead weevils at multiple sites in Chippewa County to reduce the spread and impact of knapweed in that area.

Seedhead weevils lay their eggs on knapweed flowers, and the larvae eat developing seeds. The larvae of the root weevil feed and develop in knapweed roots, weakening or killing the plants.

Small infestations can be controlled by gloved hand-weeding, followed by herbicide treatment to kill remaining seeds. Weevils may be the better option for larger sites. For additional information, go to www.mda.state.mn.us/plants/ badplants/skw-origin

MNNPS helps fund native plantings for campus wetland

by Andrés F. Morantes

If you commute west of the State Fair Grounds on Como Ave., you may notice an urban green space on the north side of the road. This urban wetland is known as Sarita Wetlands, and it serves as a major component in stormwater drainage for the University of Minnesota St. Paul campus. In recent years, the campus community has promoted the restoration of this green space, and MNNPS has contributed to the efforts.

The recent efforts began in the winter of 2005 when students from the Fisheries, Wildlife, and Conservation Biology (FWCB) Club and University staff outlined a vision for having an on-campus living laboratory to complement the education of natural resource studies. To achieve an urban space with a diversity of native insects, birds, and other subjects for study, the vision outlines a need to restore the native vegetation.

The efforts continued during the spring of 2006 and 2007 with tree plantings to increase the diversity of the future canopy and removal of some of the heavy boxelder and cottonwood cover. In 2008, MNNPS President Scott Milburn guided student planning for increasing the herbaceous diversity in the wetland shorelines and surrounding woodland uplands at Sarita.

Most recently, FWCB students planted shoreline vegetation in the spring of 2009. Funding for plant material in 2009 came partly from MNNPS, which donated \$250 to the student-led project. Plantings in 2009 included wildflowers such as boneset (*Eupatorium perfoliatum*), monkeyflower (*Mimulus ringens*), and great blue lobelia (*Lobelia siphilitica*), and a variety of sedges, including bristly sedge (*Carex comosa*), fringed sedge (*Carex crinita*), and needle spike-rush (*Eleocharis acicularis*).

This project is a unique ongoing effort that is only possible through the continued cooperation and leadership of FWCB students, campus staff, professors, and outside organizations like MNNPS. While student leadership in the project changes from year to year, several campus faculty have played a major role in the project, most notably Professor Peter Jordan, a past presenter for MNNPS. To date, the university has not officially committed to sponsoring the project. Therefore, future success of this project will continue to rely on volunteers, grants, and donations.

DNR seeks volunteers for varied projects

The DNR needs assistance with collecting prairie seeds, brushing trails, bud-capping trees, surveying trail users, installing tree shelters, transcribing historical interviews, and river clean-ups throughout Minnesota.

Volunteer opportunities are posted on their website at www.

dnr.state.mn.us/volunteering/index. Individuals, families, and groups are welcome to participate. Children under the age of 16 must be under adult supervision to volunteer.

If a DNR opportunity is not listed for your area, contact your local DNR office to inquire about available volunteer positions. For the number and location of your local office, call the DNR Information Center, 1-888-646-6367.

What's in a name? Mastering Latin nomenclature and pronunciation of botanical names

by Rebecca Dolan, Ph.D., Butler University Friesner Herbarium

Intimidated by multisyllabic Latin plant names? Understanding why Latin names are used may make them more tolerable. Here are some principles to help you deal with them effortlessly.

Formal scientific names of plants and other organisms are given in Latin so that the language is international and unchanging. I can look at a paper or book in Japanese or Russian and still distinguish scientific names. While visiting my sister in Holland, I bought a wildflower identification book written in Dutch but illustrated with very nice photographs and Latin scientific names. Thus I could learn the plants and see their relationships with our North American flora.

Common names are important and often carry historical information, such as medicinal uses of plants, but they have limitations. For example, very rare plants may not have common names. Some plants share common names, and some plants have different common names in different parts of the country. The use of scientific Latin names overcomes these problems.

Pronunciation of Latin is much easier than English. All letters are pronounced; there are no silent vowels or consonants. The main trick is knowing where to place the emphasis. Most words have the emphasis on the next-to-thelast syllable; others may have the emphasis on the syllable before that. Take comfort in knowing that even professional botanists pronounce the same names differently. It doesn't really matter.

Here's another trick: Think about what a Latin term means. Often the term relates to some obvious feature of the plant. A botanist describing a new species must follow international rules of botanical nomenclature. The new name given the plant must be an original combination of genus and species names, but the choice of a specific epithet (or species name) is entirely up to the investigator.

The name usually reflects a physical trait of the plant, but it may indicate where the plant was first collected, the geographic area where it grows, the name of the person who first collected it, or someone who has done a lot of work with related plants.

Personal names are "Latinized," and generally the genus and species names end with matching masculine (-us) or feminine (-ia) endings. Some terms are borrowed from Greek and Latinized.

We can use these terms to examine names for some oaks. All oaks are in the genus *Quercus*. White oak is *Quercus alba*, scarlet oak is *Quercus coccinea*, and red oak is *Quercus rubra*. However, *Quercus nigra* is water oak, and black oak is *Quercus velutina*, apparently because of velvety hairs on the undersurfaces of the leaves.

Reprinted with permission from INPAWS Journal: News and Views from the Indiana Native Plant and Wildflower Society, Spring 2009.

Commonly encountered Minnesota epithets

by Shirley Mah Kooyman, MNNPS vice president and Minnesota Landscape Arboretum coordinator

angustifolia (narrow-leaved) – *Lavandula angustifolia* (English lavender)

argentea (silvery) – Salvia argentea (silver sage)

aurea (golden) – *Potentilla aurea* (golden-flowered potentilla)

borealis (northern) – *Linnea borealis* (twinflower)

caeruleum (deep blue) – *Polemonium caeruleum* (Jacob's ladder with blue flowers)

candidum (white) – *Lilium candidum* (lily with white flowers)

coccineus (scarlet) – *Phaseolus coccineus* (scarlet runner bean)

cernuum (nodding) – *Trillium cernuum* (nodding trillium)

esculentus (edible) – Abelmoschus esculentus (okra)

farinacea (mealy) – Salvia farinacea (mealy sage, mealy cup sage)

graveolens (aromatic) – *Pelargonium graveolens* (rosescented geranium)

hirta (hairy) – *Rudbeckia hirta* (black-eyed Susan)

latifolia (broad-leaved) – *Typha latifolia* (cat-tail with wide leaves)

maculatum (spotted) – *Lamium maculatum* (spotted dead nettle), *Geranium maculatum* (wild geranium)

nana (dwarf) – *Betula nana* (dwarf birch)

odoratus (scented) - Lathyrus

odoratus (sweet pea), *Reseda* co *odorata* (mignonette)

officinale (medicinal) – *Taraxacum officinale* (dandelion), *Calendula officinalis* (pot marigold)

pallida (yellow) – Echinacea pallida (yellow-flowered coneflower), Impatiens pallida (yellow-flowered impatiens)

palustris (growing in bog) – *Caltha palustris* (marsh marigold)

pratensis (of meadows) – Salvia pratensis (meadow sage), Trifolium pratense (red clover)

pumila (dwarf) – *Mahonia pumila* (dwarf Oregon grape)

procumbens (prostrate) – Sanvitalia procumbens (creeping zinnia), Gaulteria procumbens (creeping wintergreen)

radicans (rooting stem) – *Campsis radicans* (trumpet

creeper)

reptans(creeping)–*Polemonium reptans* (creeping Jacob's ladder)

sativa (cultivated) – *Lactuca sativa* (lettuce), *Cannabis sativa* (hemp)

scandens (climbing) – *Cobaea scandens* (cup and saucer vine)

sinensis (of China) – Camellia sinensis (tea), Miscanthus sinensis (silver grass)

suaveolens (sweetly scented) – *Mentha suaveolens* (mint)

sylvatica (of woods) – *Myosotis sylvatica* (forget-me-not)

tomentosum (hairy) – *Cerastium tomentosum* (snow-in-summer)

virgatum (wand-like)–*Panicum virgatum* (panic grass)

viridis (green) – *Salvia viridis* (salvia with green bracts)

vulgaris (common) – *Linaria vulgaris* (common toadflax)

Searching for rare plants



Lynden Gerdes, on Seahorse Lake, is documenting rare flora of the Boundary Waters Canoe Area. He was participating in the ongoing Minnesota County Biological Survey of the Border Lakes. Photo by Scott Milburn, who was also on the survey team.

How botanical names are created

by Shirley Mah Kooyman

Prefix: macro (large, *Aster macrophyllus*)

Suffix: florus (flowered, *Trillium grandiflorum*)

General personality: debile (weak, *Sedum debile*)

Color: argenteus (silvery, *Salvia argentea*)

Markings: maculatus (spotted, *Geranium maculatum)*

Shape: campanulatus (bell-shaped, *Agapathus campanulatus*)

Texture: laciniatus (slashed, *Rudbeckia laciniata*)

Direction: cernuus (nodding, *Trillium cernuum*)

Habitat: montanus (of mountains, *Centaurea montana*)

People: Kalmia (for Peter Kalm, a student of Linnaeus, Kalmia latifolia)

Places: neapolitanus (Naples, Italy, *Allium neapolitanum*)

DNR studying how to increase diversity of plants, insects to aid grassland birds

The DNR is conducting a research project on increasing plant diversity and insect populations to benefit grassland birds and their broods, including pheasants, prairie chickens and meadowlarks.

The project is being conducted on portions of 15 state Wildlife Management Areas and one federal Waterfowl Production Area which were originally planted with a heavy rate of grass and few if any broadleaf plants. Prescribed burns will be conducted on each research unit. They will be interseeded with forbs. For details, go to http://news.dnr. state.mn.us/index.php/2009/09/17

MNNPS members tour the Aspen Parklands

by Derek Anderson

The prairie-aspen parkland is a Canadian ecoregion that extends across Manitoba, Saskatchewan, and Alberta. A small section also extends into northwestern Minnesota, adding an under-appreciated facet to the state's fabled reputation as the meeting place of major biomes. As a follow-up to the Native Plant Society's spring symposium featuring this biome, nearly 40 plant society members and local citizens attended a series of field trips on the weekend of July 11-12.

Many of the natural features of this landscape are the legacy of Glacial Lake Agassiz, which left the level Red River Valley in its former lakebed and a series of beach ridges on its former eastern shore. The beaches themselves support dry prairie and savanna communities. Between the ridges, the interbeach zones support wet brush prairie, including the habitat of Minnesota's largest populations of western prairie fringed orchid.

Saturday trips included a choice of explorations of Polk County's Agassiz Dunes SNA and Thorson Prairie WMA with University of Minnesota, Crookston, instructor Rhett Johnson; or joining DNR botanists Derek Anderson and Nancy Sather to learn about the life history of the western prairie fringed orchid, assist with the annual census of flowering plants, and assist with demographic monitoring. A number of trip participants remained in the area to help DNR monitoring crews later in the week. A thank you is extended to all who helped; the monitoring



Above: Western prairie fringed orchid, Platanthera praeclara. Right: Some of the field trip participants exploring the savanna. Photos by Derek Anderson.

could not have been completed in the short flowering window if it were not for volunteers.

On Sunday, about 25 people explored Skull Lake WMA and Caribou WMA with Robert Dana. who spent several years as an MCBS plant ecologist documenting communities native plant in Kittson County. Another group accompanied Nancy Sather, whose avocation is landscape history, in a retracing of the Pembina Trail Oxcart route along the beach ridges from Old Mill State Park in Marshall

County to Hwy. 2 in Polk County, stopping to view prairies and the Old Crossing of the Red Lake River along the way.

DNR preparing 10year forest plan for Aspen Parklands

The DNR is preparing a Subsection Forest Resource Management Plan for the Aspen Parklands ecological subsection in northwestern Minnesota. They hope to implement the plan in 2010.

The plan is to provide strategic direction for vegetation management of the Aspen Parklands, to identify harvestable timber stands, and to outline harvest levels for the next decade.

The state manages about 12 percent of the area. Forests and woodlands (96,000 acres) will be considered for forest management; state brushlands and prairies (250,000 acres) will be considered for biomass. The remainder of state lands (9,000 acres) is in state parks or scientific and natural areas and will not be considered for forest management.

A public comment period was held Sept. 15 - 30. The planning team will now produce a document that addresses issues and provides a draft list of forest stands for possible harvest. They will seek public comment on that draft plan. For additional information, go to www. dnr.state.mn.us/forestry/subsection/ aspenparklands/index



Plant Lore

What is steeplebush?

Steeplebush, *Spiraea tomentosa*, is a member of the rose family. It is sometimes called hardhack.

What do its names mean?

Spiraea comes from the Greek word *speira*, a wreath. Theophrastus applied this name for plants used in making garlands. The name steeplebush comes from the flower cluster, which is shaped like a church steeple or spire. *Tomentosa* refers to the tawny, woolly undersides of leaves. Hardhack means "hard to cut."

Where do the plants grow?

It is native to the east-central counties in Minnesota. It grows in swamps and wet meadows, and often appears abundantly after a fire.

What do the shrubs look like?

The woody shrubs grow up to four feet tall. The alternate leaves are egg- or willow-leaf-shaped and have hairy undersurfaces; the veins are prominent. The red, pink, or magenta flowers are borne closely packed (6-10 per centimeter of axis) in panicle-like clusters and produce brown fruits (follicles) that mature September to mid-October, splitting open in November and December to shed seeds in winter.

Does it have edible or medicinal properties?

It is not edible. Roots and leaves were used as an astringent by Osage Indians and by herbalists. The Blackfeet Indians made tea from it to serve as an enema and for vaginal infections. It was a country remedy for dysentery.

Spiraea species contain methyl salicylate and other salicylates that are ingredients in aspirin. In fact, the term "aspirin" is derived as "a" for acetyl and "spir" from *Spiraea*. (Acetylsalicylic acid is aspirin.) The "in" is a standard suffix—because the salicylates were found

in *Spiraea*. As an inflammatory, *Spiraea* extracts lack the side effects of aspirin. Of course, salicylic acid was named from willow (*Salix* species), which also contains aspirin ingredients.





Spiraea tomentosa flower and shrub. Photos by Peter Dziuk.

MNNPS finances

Treasurers Ron and Cathy Huber report that on Sept. 30, the Society had total assets of \$26,255.82. Income for the year totaled \$11,003.26 mostly from dues and the symposium. Expenses totaled \$9,909.92; the largest were for the symposium and Dakota Lodge rent.

Reminder: *It's time to pay your dues*

The Society now operates on a calendar-year basis, so dues are payable in January. Members may pay at the November or December meeting, if they wish. (We do not meet in January.)

We do not send out dues notices, so this reminder will be the only one that you receive.

You can download the membership form from our website (www.mnnps.org) or get one at a meeting.

Mail the form or just send the information and your check to: Minnesota Native Plant Society P.O. Box 20401 Bloomington, MN 55420.

Membership categories

• \$15 - Individual

• \$15 - Family (Two or more individuals at the same address)

• \$8 - Student (Full time)

• \$8 - Senior (Over 62 or retired)

- \$20 Institution
- \$25 Donor

Include your name, full address, telephone number (work and/or home) and e-mail address.

MNNPS welcomes new members

The Society gives a warm welcome to four new members who joined during the third quarter of 2009. They are:

Debra Gagner, Minneapolis Diane Lindgren, Edina Jim Mulvey, St. Paul Ramsey Conservation District, Arden Hills Minnesota Native Plant Society P.O. Box 20401 Bloomington, MN 55420

Fall 2009



Directions:

Take MN Hwy. 52 to the Butler Ave. E. exit in West St. Paul. Go west on Butler 0.2 mile to Stassen Lane. Go south on Stassen Lane to Thompson County Park.