



Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

www.mnnps.org

Volume 35 Numbers 2&3

Fall–Winter 2016

Minnesota Native Plant Society

A non-profit organization dedicated to the conservation and appreciation of Minnesota's native plants and plant communities through education and public awareness.

Monthly meetings

Thompson Park Center/Dakota Lodge
Thompson County Park
1200 Stassen Lane
West St. Paul, MN 55118

Meets are always the first Thursday of the month, October-December and February-June. Social period begins at 6:30 p.m. and the meeting runs from 7-9 p.m. Check at www.mnnps.org for more information.

Membership

The MNNPS membership year starts January 1st. Dues may be paid at the February meeting or mailed to P.O. Box 20401, Bloomington, MN 55420.

Membership categories are:

- Individual or family \$15
- Student or senior \$8
- Institution \$20
- Donor \$25
- Lifetime \$300

Save the Date: 2017 Annual Symposium

The annual MNNPS symposium will be held on Saturday, April 1st. The location this year will be at the Minnesota Landscape Arboretum due to the closing of the Bell Museum. A special thanks to David Remucal, Curator of Endangered Plants, for hosting us this year! We have a great line-up, exploring the subject of restoration, reintroduction, and recovery. A brochure with registration forms and information will be available soon, so please stay tuned and visit our website.

Monthly Programs – Fall 2016 - Spring 2017

October 6: Flora of Wisconsin's Interstate Park: Adventures and Discoveries in My Backyard, by Derek Anderson.

November 3: Local History and Science behind Eastern Hemlock, Minnesota's most endangered conifer, by Emily Ellingson.

December 1: A Look at the Gully 30 Calcareous Fen: Characterizing, Permitting, Constructing Through, and Monitoring a State Regulated Sensitive Wetland Resource, by Jim Arndt and Scott Milburn.

February 2: Ecology of Ordway Prairie, Minnesota, by Scott Zager.

March 2: Watching the Grass Grow; A Primer on Botanical Time-Lapse Imagery, by Steve Saupe.

MNNPS is a Volunteer Organization

You do not need to be a member of the board to contribute your time and skills. We always need field trip ideas and leaders as well as hospitality and logistics at monthly meetings. Ideas for monthly speakers are always welcome. Most importantly, we are still seeking a newsletter editor. The ideal person is someone who can write content consistent with our mission as well as to solicit writings from our membership. The newsletter is an integral and important part of the Society. It serves to not only inform our membership about the goings-on of the Society, but also educates the membership on plant related topics.

Society Leadership

Board members' names are followed with the year their term expires in parentheses.

President: Scott Milburn (2018)

Vice President: Welby Smith (2019)

Secretary: Mike Lynch (2017)

Treasurer & Membership: Ron & Cathy Huber

Board Member: Ken Arndt (2019)

Board Member: John Arthur (2018)

Board Member: Simba Blood (2019)

Board Member: Tom Casey (2017)

Board Member: Steve Eggers (2018)

Board Member: Otto Gockman (2017)

Field Trip Organizer: Ken Arndt

Conservation Chair: Tom Casey

Program Chair: Jyneen Thatcher

Symposium Chair: Otto Gockman

Website: Katy Chayka

Technical or Membership Inquiries:

contact@mnnps.org

MNNPS Board of Directors

We will be having board elections at the annual meeting which is the upcoming March monthly meeting. We currently have three open spots for those positions expiring this year. To be eligible to serve on the board, a person must be a member of the Society in good standing.



Photo of the MNNPS field trip to Seminary Fen in June, Photo courtesy of Steve Eggers.

Do you know your native dogwoods?

Welby Smith

If you spend much time outdoors in Minnesota you have probably learned to recognize red-osier dogwood (*Cornus sericea*). It's the wetland shrub with bright red winter twigs. Another native dogwood that people learn quickly is Pagoda dogwood (*Cornus alternifolia*). This one is more of a small tree than a shrub, and it has distinctly layered branches that make it look like a multi-tiered Japanese pagoda. Gray dogwood (*Cornus racemosa*) is another common shrub that occurs across most of Minnesota, but many people don't notice it until autumn when the leaves turn dark maroon.

Then there's bunchberry (*Cornus canadensis*) which is an ankle-high herbaceous plant rather than a shrub, but since it is in the genus *Cornus* I consider it an honorary dogwood. If you think you know your dogwoods then you might be thinking there are two left in Minnesota: round-leaved dogwood (*Cornus rugosa*) and silky dogwood (*Cornus amomum*).

That would have been true before this past summer when another species of dogwood was discovered in Minnesota; roughleaf dogwood (*Cornus drummondii*). It was found in Myre-Big Island State Park in Freeborn County, about 10 miles north of the Iowa border. I was with my friend Mark Widrechner, a retired botanist from Iowa. Mark knew roughleaf dogwood from Iowa and had been telling me for years that I could find it in Minnesota, but I had just about given up looking. The species is well distributed in the eastern third of Iowa and has been documented from only two counties in neighboring Wisconsin. The species has no protected status in Wisconsin, but it tracked by the state.

As we worked our way through dense brushy thickets we examined every dogwood we came across. Most had been the ordinary gray dogwood, but then we came across something that was clearly different. I was momentarily puzzled—it was a dogwood, but it didn't match anything I had seen in Minnesota. Mark was the first to realize we had found what we were looking for. The first clue was provided by its common name – the leaves were indeed rough to the touch. The upper surface felt like sandpaper and the lower surface felt like velvet. Then everything else fell into place. So, next time you venture out in southern Minnesota, test the leaves of any unusual dogwood you encounter, and there is no telling what you might find.

So what's a "warm-season" grass anyway?

Rhett Johnson

Before answering that question, it is important to note that plants need three things above all others: sunlight energy, water, and carbon dioxide. Sunlight warms plant leaves making them lose more water; plants get CO₂ through tiny holes in their surfaces called stomata and generally lose additional water in the process. So really, plants need to balance gaining energy (and heating), losing water, and gaining CO₂ in order to grow optimally.

So, what does "warm-season" mean? Some species of grasses (and other plants, in about 17 families) have developed a means of overcoming a physiological problem with photosynthesis. A very important enzyme, Rubisco, is the molecule that basically attaches a carbon dioxide molecule to a carbon chain to start the process of making sugar molecules (through an amazingly complex chain of reactions). During photosynthesis, plants also split water molecules and release oxygen, which builds up in their tissues if it can't diffuse out quickly enough. The problem is, when the oxygen levels in plant cells get too high, the oxygen binds up the Rubisco and the plant has to spend energy cleaning it up (this process is called photorespiration and reduces the efficiency of photosynthesis by up to 50%). This inefficiency is eliminated in warm-season plants (also called C₄ plants), which have developed specialized tissues and additional enzymes that enable the plants to actively concentrate carbon dioxide into the cells where they keep their Rubisco. This is a big advantage in warm, dry environments where water loss usually limits gas exchange and leads to high cellular oxygen levels. It is also advantageous in low nutrient environments because C₄ plants need much less Rubisco, and building Rubisco molecules takes a lot of nitrogen. The downside for C₄ plants is that concentrating the CO₂ takes some energy, so it is not advantageous in habitats where photorespiration is not a big problem.

These adaptations have direct implications for managing grasslands. For example, warm-season plants can generally handle dry, warm conditions better than cool-season species (also called C₃ species), so they grow later in the season. Management that includes early or very late season disturbance (such as fire or grazing) will hinder cool-season species (such as smooth brome (*Bromus inermis*) and Kentucky bluegrass (*Poa pratensis*)) and favor warm-

season species including big bluestem (*Andropogon gerardii*) and Indian grass (*Sorghastrum nutans*). Also, nitrogen additions (such as fertilizer) will favor cool-season species by allowing them to produce additional Rubisco—in other words, fertilizing prairie will favor non-native cool-season grasses. Climate change will likely impact grasslands as well, although the results are difficult to predict. Though the increase in atmospheric CO₂ might be a boon to cool-season species, this may be balanced by anticipated increased temperatures and drought. The verdict is still out on this issue.

It is interesting to think of how something that takes place on a molecular scale has such a bearing on what we encounter in managing prairies. It is also interesting to think that the C₄ photosynthetic pathway is thought to have originated in the grasses about 25-32 million years ago (for certain by 12.5 MYA based on fossils), with C₄ grasslands greatly expanding by 5 million years ago. C₄ pathways occur in 17-19 plant families and are thought to have independently evolved 40 to 60 times in different plant lineages, which shows how advantageous it is for plants to overcome photorespiration. The environmental drivers of this evolution included extended global warm periods, extended droughts, and also such things as continental shifts that brought monsoon cycles and the rise of the Himalayan Mountains and other mountain ranges (the degradation of fresh silicate rocks takes up a lot of CO₂, depleting the atmospheric CO₂ concentration).

The whole problem of photorespiration probably traces back to the evolution of photosynthesis in bacteria about 2.7-3.5 billion years ago when the atmosphere contained very little oxygen (the bacteria that put the O₂ into the atmosphere also put the iron in Northern Minnesota). While we are on interesting tidbits, only about 1-2% of plant species have the C₄ pathway, but about half of grasses and sedges do, and C₄ species contribute about 25% of global primary productivity and much of the world's food supply (largely from corn/maize).

Sometimes we can become myopic when viewing and managing prairies, but what we experience on the prairie today is the result of processes at many different scales of space and time. It is really amazing how so many factors have led to the prairies we have today, and further emphasizes the importance of retaining the remaining prairie lands and managing them to preserve their diversity and structure.

What is the creepiest plant or fungus?

Stephen G. Saupe

There are lots of good candidates including witch's butter (*Tremella mesenterica*), dead man's fingers (*Xylaria polymorpha*), Jack-O-Lantern mushrooms (*Omphalotus olearius*), and the ghost plant (aka Indian pipe, *Monotropa uniflora*). My vote is for a parasitic fungus with a benign name but a rather gruesome appearance, cedar-apple rust (*Gymnosporangium juniperi-virginianae*).

At its creepiest prime, cedar-apple rust reminds me of a brain that has exploded with tubes of orange gelatinous goo protruding in every direction.

The gelatinous tubes are actually one of the reproductive structures of the cedar-apple rust fungus. They produce tiny, seed-like structures called spores that are carried by the wind to an apple tree. The fungus emerges from the spores and infects the leaves forming bright orange circular lesions on the upper side of the leaves.

The fungus eventually grows through the leaf and erupts through the bottom releasing another crop of spores. This time the wind carries the spores back to an eastern red-cedar tree (*Juniperus virginiana*).

The spores germinate on the eastern red-cedar and then over the course of several months the fungus that emerges grows into a structure, called a gall, which looks like a reddish-brown brain. The surface is dimpled like a golf ball. These brain-like galls can grow to the size of a ping-pong ball, though most are closer to grape size.

The fungus overwinters in the galls. Then, in early spring the gelatinous tubes erupt through the dimples and release spores to complete the life cycle.

Thus, cedar-apple rust infects two different plants – apples and eastern red-cedar. The fungus doesn't normal kill either of its hosts, but it can significantly reduce apple yields and cause misshapen cedar trees.

To minimize infection in your apple orchard, you can cut down nearby eastern red-cedar trees. This will disrupt the life cycle. Unfortunately, the spores can travel great distances so it is not a particularly effective control method.

If you want to collect some of the galls to decorate for Halloween, you can find eastern red-cedars growing in old-fields, roadsides, and gravelly areas. The trees are particularly common in the southern half of Minnesota.

Eastern red-cedar produces a bluish, berry-like cone that is dispersed by birds. The ones that the birds don't eat can be harvested to flavor gin.

The wood is very aromatic. It is reminiscent of a hamster cage. That's because the shavings are often used for bedding.

The volatile chemicals that give the wood its odor repel insects and provide resistance to wood-rotting fungi. This explains why eastern red-cedar wood can be used to line blanket chests and dresser drawers and also why it is a very long-lived tree. In fact, one more than 475 years old has been reported in Virginia.

Prairie Perspectives Retreat Notes

Dianne Rowse

The second annual Prairie Perspectives Retreat was a treat for the senses. Co-led by Nancy Sather, Ecologist with the DNR, and Marilyn Garber, Director of the Minnesota School for Botanical Art, it was a unique combination of prairie field trips and botanical art enjoyed by about 30 participants. The lodging was at the sustainably designed Shalom Hill Farm Retreat Center near Windom, and food preparation was led by Rosemary MacFarlane. Participants were from the Minnesota Native Plant Society and the Minnesota School for Botanical Art, and there was great sharing of knowledge and experience. The difficult thing was having to choose between prairie trips with Nancy and hands-on art with Marilyn!

On Friday, I went with Nancy's group to explore Red Rock Prairie/Nature Conservancy, the best dry-mesic prairie in the area. It is across the road from Jeffers Petroglyphs. We saw small-flowered fameflower, (*Phemeranthus parviflorus*), with tiny pink flowers that open at 4:00 p.m., rock spikemoss (*Selaginella rupestris*), 2 species of prickly pear (*Opuntia fragilis* and *O. macrorhiza*), the Federally listed threatened prairie bush clover (*Lespedeza leptostachya*) and other species adapted to growing in dry conditions on shallow soil over the exposed bedrock. Nancy noted that Minnesota prairies in the fall feature the University of Minnesota colors, maroon and gold.

Another group went to Cottonwood River Prairie SNA. Both trips included examples of morphological adaptations of plants to site conditions, an important detail to consider when selecting a representative plant to draw.

Back at Shalom Hill, Marilyn taught drawing and watercolor. The group selected apples from a tree in the yard, and they created marvelous botanical watercolor paintings.

Evenings included presentations about the English botanical art of Beatrix Potter (of Peter Rabbit fame) and Franz Bauer (the first botanical artist of the Kew Gardens), natural dyes, twining (rope-making with plant fibers), weaving, photographing fungi, and dragonflies.

The other field trips I went on were at String Lake Waterfowl Production Area, a calcareous fen, and a private wet mesic prairie near Mountain Lake. Rhett Johnson, MN DNR grass specialist, gave us a wonderful introduction to grass morphology and identification before we headed out to String Lake. Interesting plants at String Lake included Loesel's twayblade (*Liparis loeselii*), false gromwell (*Onosmodium molle*), Plains muhly (*Muhlenbergia cuspidata*), gray goldenrod (*Solidago nemoralis*), Scribner's panic grass (*Dicanthelium* sp.), and prairie sandreed (*Calamovilfa longifolia*).

At the Mountain Lake site, plants included Sullivant's Milkweed (*Asclepias sullivantii*) and Great Plains ladies'-tresses (*Spiranthes magnicamporum*).

On Saturday evening, we had a botanical art show, including works that people did this weekend as well as works they brought to the retreat. A few people brought art they created for the Eloise Butler Wildflower Garden Florilegia, a collection of watercolor paintings accurately documenting the wildflowers in the garden. These were breathtaking!

Thank you to all who helped make this Society retreat a success. See you there next year!

President's Column

Scott Milburn

Much has happened since our last newsletter. Of major note is that we had a presidential election in the U.S. that will undoubtedly bring change. The Society has also had a change of sorts in terms of officers. Michael Lynch is now serving as the secretary, Welby Smith is vice president, and I am serving as president after a two year break. I would like to thank Michael for his contributions during this time. I would also like to note that Ron and Cathy Huber are still serving as the treasurer and membership chairs for the Society. We are extremely indebted to them for their service during their tenure over the last decade.

In other news, most of you are aware that the old Bell Museum in Minneapolis is closed. That means we need a new temporary home to host our annual symposium which is scheduled for April 1, 2017. Fortunately, David Remucal, Curator of Endangered Plants at the Minnesota Landscape Arboretum has paved the way for the event to take place at the Arboretum. This year's theme deviates from the past formula, but it will still be a very intriguing and educational event. The focus this year will be restoration, from large systems to the species level. The work being done is positive, but we need to always emphasize the importance of preservation in the first place.

I would also like to mention the addition of two new board members this past year, Simba Blood and Tom Casey. Simba will be helping with our social media outreach including our Facebook page. Tom is now serving as the Conservation Committee chair and he brings with him his experience as an attorney. We are looking to grow this committee under the leadership of Tom. What we need is for folks to step up that have the time to attend events and hearings at the state capitol. We also need to have committee members that are able to track legislation, both positively and negatively, that is of interest to the Society and within the bounds of our mission.

More on our new board members: Simba joined the board this past year. She came to an appreciation

of native plants through a somewhat circuitous route. After working in several completely unrelated fields, she returned to college to complete her degree. Simba was particularly interested in the effects of man-made compounds in aquatic systems, and thought a career in research would be great.

While in school, she was able to take both ecology and plant biology at the Itasca Biological Field station. It was through this experience that Simba started to recognize that she really liked learning about plants.

After graduating with a BS in Ecology, Simba applied for an internship at the Ramsey-Washington Metro Watershed District to see what hands-on management was like. Turns out that working most days restoring native wetland and upland habitats is about the best job ever according to Simba. She has now been with the District for 16 years.

One of the things she greatly appreciates about the Society is the opportunity to deepen her knowledge of the plants that she is familiar with and the opportunity to become acquainted with plants outside of her everyday sphere. In joining the board, she hopes to be able to share her enthusiasm with folks from lots of different backgrounds as she continues to learn about the intricacies of our native ecosystems.

The other new board member, Tom Casey, has been a practicing attorney for over 40 years, with a focus on conservation, sustainable development, and renewable energy initiatives. He has represented hundreds of clients in their efforts to: conserve and protect our natural, archaeological, cultural, and historical resources; promote sustainable development, stop urban sprawl, and oppose big-box development; and advance sustainable energy and oppose the expansion of nuclear power and other non-sustainable energy sources. Tom is also a member of the Minnesota State Bar Association's Environmental, Natural Resources, and Energy Law Section.

He has a long list of community service including: founding board member and present Chair of Friends of Minnesota Scientific and Natural Areas; the Minnesota Association of Watershed District's

Legislative/Policy Committee; Minnehaha Creek Watershed District's Citizens Advisory Committee; Rule-Making Task Force; Aquatic Invasive Species Task Force; and received a Watershed District "Hero" award; the Metropolitan Council's Permanent Agriculture Task Force; City of Mound Park and Open Space Commission.

In his spare time, Tom loves to study natural history. He is a Minnesota Master Naturalist and an avid nature photographer, who has presented slide/lectures on: The Mountain Gorillas of Rwanda; The Animals and Conservation Issues of East Africa; The Natural History of Australia and New Zealand; and The Polar Bears of Hudson Bay. His photography trips have also taken him to Brazil, Ecuador and the Galapagos Islands, Costa Rica, and throughout North America.

Tom emphasizes that he is honored to be appointed as Chair of our re-organized Conservation Committee. Tom welcomes suggestions for our conservation priorities.

Plant Lore

Thor Kommedahl

What is rattlebox?

It is *Crotalaria sagittalis*, a native plant in the pea family.

What do its names mean?

Crotalaria means "rattle" referring to seeds within an inflated seed pod (the rattlebox). *Sagittalis* means arrow shaped, referring to the stipule shape.

What does the plant look like?

It is an annual, identifiable by arrow-shaped stipules that point down the stem and seeds that rattle in the black pods when mature. Winds blow the inflated seed pods to facilitate seed dispersal. The yellow, pea-like flowers bloom from June to September.

Where does the plant grow?

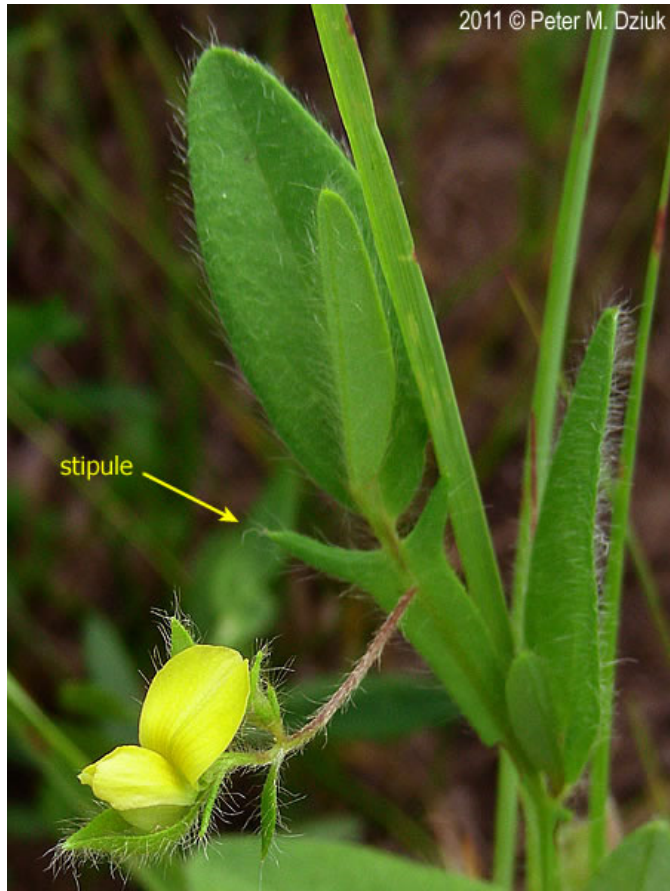
Rattlebox plants grow along the Wisconsin-border counties in southeast Minnesota. It grows on dry, open soil and wasteland.

Is the plant medicinal or poisonous?

Not medicinal but this and other *Crotalaria* species cause cirrhosis of the liver in horses that graze on it and the disease is known as “walkabout.”

Has it any useful properties?

The poisonous seeds, boiled or roasted long enough, make a tasty substitute for coffee.



Crotalaria sagittalis, Image courtesy of Minnesota Wildflowers

Umbilicaria mammulata

Otto Gockman

The lichen genus *Umbilicaria* is widespread in cool portions of the world as well as in arctic and alpine regions. Minnesota is home to eight (possibly nine) species of *Umbilicaria*, all of which are typically found in the northeastern portion of the state. The genus is characterized by a rounded thalus (lichen body) of varying size, with a central attachment point to its substrate, an umbilicus, which holds the lichen close to

the rock on which it grows.

This species is a large and fairly charismatic lichen which is common in much of eastern North America. It can be distinguished from the other species of *Umbilicaria* in Minnesota with the following combination of traits: The upper surface of the thalus is brown (greenish when wet) without much, if any, white pruina, the lower surface is densely covered by small black rhizines (root-like structures) which give it a velvety appearance, and the species very rarely produces apothecia (disk-shaped fruiting bodies) which manifest as black structures on the upper surface of the lichen thalus. Additionally, *U. mammulata* is the largest species of this genus in the state with thali that can reach upwards of a foot across!

In Minnesota, the species typically occurs on shaded rock outcrops in the Arrowhead, where cool temperatures and high humidity create the ideal environment for this lichen. When the species is present in an area it often covers the rocks on which it



Umbilicaria mammulata, Image courtesy of Otto Gockman.

occurs. Though the species is much more common in the northeast there are two noteworthy “disjunct” occurrences further south in the state. These are at Banning State Park in Pine County and Interstate State Park in Chisago County. It is noteworthy that the species has not been documented from the Paleozoic Plateau (Driftless Region) of Minnesota, where sandstone would be the likely substrate. In Wisconsin, this species is found in portions of Grant and Richland Counties which both include portions of this large geologic feature.

I encourage MNNPS members to get out and explore our lichens, particularly as a way to get out during the winter months. If you get to the southeastern corner of the state keep an eye out for *Umbilicaria mammulata*. Though it is not particularly rare, it would be great to expand the known range of this unmistakable species within Minnesota.

Fens in the Lower Minnesota River Valley: MNNPS Field Trip to Savage Fen and Seminary Fen Scientific and Natural Areas

Steve Eggers

On June 5th 2016, thirteen participants enjoyed a day of fens, orchids and sedges as well as a first-hand look at recent management activities by the Minnesota Department of Natural Resources. First was Savage Fen SNA in Scott County where we discussed the characteristics of a “calcareous fen”—a groundwater-fed, seepage wetland on sloping or mounded organic soils where the groundwater is rich in calcium and magnesium bicarbonates, and sometimes calcium and magnesium sulfates as well. These calcareous fens are included under OPe93 (Prairie Extremely Rich Fen) of the Minnesota Native Plant Community Classification System. Larissa Mottl described the management activities already implemented and what is planned. Cutting of shrubs, primarily buckthorns (*Frangula alnus*, *Rhamnus cathartica*), had been done during winter 2015-2016. In places the buckthorn cover had been so dense as to preclude any herbaceous species. During our field trip we observed saturated soils now with full sun exposure and already showing a positive response by sedges and native forbs colonizing what had been bare soils with only buckthorn leaf litter.

Future plans include prescribed burns as well as surgical application of herbicide (eye-dropper application) on cut stems of common reed (*Phragmites australis*) on the edges of the large colonies of *Phragmites* invading calcareous fen plant associations.

We then travelled the short distance to Seminary Fen SNA in Carver County. A prescribed burn had been conducted a year previous so we could observe the one-year, post-burn results. The burn had successfully set-back buckthorn and created fresh germination/colonization microhabitats for native fen species. Extensive cutting of large buckthorn shrubs had also been conducted.

The highlight of the field trip was seeing and identifying sedges, for which the timing of the field trip was specifically targeted. We identified 14 species of *Carex* (**Table 1**) as well as hardstem bulrush (*Schoenoplectus acutus*), narrow-leaf cottongrass (*Eriophorum angustifolium*), twig-rush (*Cladium mariscoides*) and flat-stem spike-rush (*Eleocharis compressa*). These fens could be the most sedge-rich habitats in the Twin Cities metropolitan area. Unfortunately, the white lady’s-slippers (*Cypripedium candidum*) were past blooming but we did find the northern, small yellow lady’s-slipper (*C. parviflorum* var. *makasin*) in bloom at Seminary Fen SNA. Also in bloom were golden ragwort (*Packera aurea*) and spring cress (*Cardamine bulbosa*). Seven state-listed special concern or threatened species occur in these SNAs of which we saw four: white lady’s-slipper, sterile sedge, twig-rush and common valerian (*Valeriana edulis* var. *ciliata*).

It is remarkable that these large (each wetland complex is several hundred acres in size), sloping, groundwater-fed peatlands and associated diverse native flora have managed to survive within a highly urbanized landscape. Much work remains in the way of continued invasive species control, prescribed burns, and maintaining to even restoring groundwater flows by reducing high capacity well withdrawals from the aquifer that feeds the fens. Many thanks to the Minnesota DNR for its active role in managing these SNAs and MNNPS members should look for volunteer work days for opportunities to pitch in and assist with

TABLE 1	
Common Name	Scientific Name
Common Wood Sedge	<i>Carex blanda</i>
Buxbaum's Sedge	<i>Carex buxbaumii</i>
Limestone Meadow Sedge	<i>Carex granularis</i>
Porcupine Sedge	<i>Carex hystericina</i>
Inland Sedge	<i>Carex interior</i>
Lake Sedge	<i>Carex lacustris</i>
Wiregrass Sedge	<i>Carex lasiocarpa</i>
Woolly Sedge	<i>Carex pellita</i>
Prairie Sedge	<i>Carex prairea</i>
Sartwell's Sedge	<i>Carex sartwellii</i>
Tussock Sedge	<i>Carex stricta</i>
Sterile Sedge (T)	<i>Carex sterilis</i>
Stalk-grain Sedge	<i>Carex stipata</i>
Common Stiff Sedge	<i>Carex tetanica</i>

Scientific and Natural Areas Profile

Sugarloaf Point SNA

Scott Milburn

Sugarloaf Point SNA is probably very well known to those who travel along State Highway 61. The SNA is just south of Finland State Forest in Cook County, Minnesota. The area was originally homesteaded in 1889 by a Norwegian immigrant. Eventually his family sold the property to a paper company in the 1940s. Following this transaction much of the forested areas were logged while the portion of the property along the shore of Lake Superior was used as a landing area for the pulpwood. The land was then donated to The Nature Conservancy in the mid-1980s. The state went on to purchase over half of the donated land from The Nature Conservancy around that time. Then in 1992, a 3.5 acre segment of the State owned portion was officially designated as a Scientific and Natural Area. This was due to the unique geology which was the result of volcanic activity, glacial influences, and natural erosional processes. Additional acreage has since been added to SNA with the remaining acreage then donated to Sugarloaf Interpretive Center Association which is now the North Shore Stewardship

Association.

What is appealing about the site is the magnificent view of Lake Superior and it serves as an excellent distraction from everyday life. There is not a tremendous amount of vegetative diversity associated with the point itself, but there are a few species worth pointing out. The Panicked bluebells (*Mertensia paniculata*) is present throughout the summer, but best to catch in bloom during June. This is the northern relative to the showy Virginia bluebells (*M. virginica*). Another interesting species is the shrub ninebark (*Physocarpus opulifolius*), a member of the rose family. The common name itself is based on the exfoliation of the outer layers of bark that ultimately reveals the inner bark as the branches mature. Another member of the rose family that you can see if you look hard enough is the three-toothed cinquefoil (*Sibbaldiopsis tridentata*). Also present is the hairy goldenrod (*Solidago hispida*). This is a species with distribution throughout the forested provinces of the state, but it is commonly found along the North Shore. The site is worth a visit and provides an opportunity to stretch one's legs.

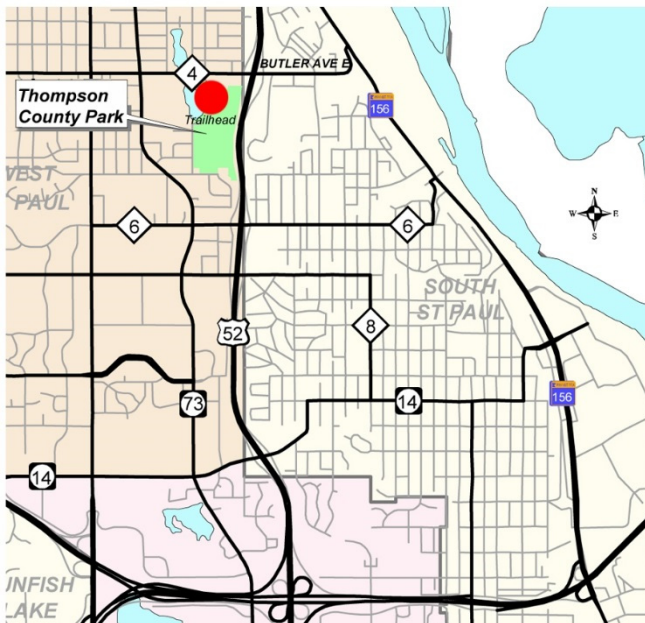


Sugarloaf Cove SNA, Image courtesy of Scott Milburn.

Minnesota Native Plant Society
P.O. Box 20401
Bloomington, MN 55420

FALL-WINTER 2016

Dakota Lodge, Thompson County Park
1200 Stassen Lane, West St. Paul, MN 55113



Directions:

Take Highway 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 the parking lot at the end of the road in Thompson County Park