

Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 21 Number 3

Spring 2002

Monthly meetings

Minnesota Valley National Wildlife Refuge Visitor Center, 3815 East 80th St. Bloomington, MN 55425-1600 952-854-5900

6:30 p.m. — 1 6:30 p.m. — 1	Building east door opens Refreshments,
7 0	information, Room A
7 – 9 p.m. — 1 7:30 p.m. — 1	Building door is locked
9:30 p.m. — 1	Building closes

Programs

The MNPS meets the first Thursday in October, November, December, February, March, April, May and June. Check the Web page for additional program information.

May 2: "Gardening with Butterflies," by Dean Hanson; Plant of the Month: Wild Lupine, by Robert Dana, DNR.

June 6: "Sustainable Spiritual Design: Visioning Your Own Sacred Space," by Douglas Owens-Pike, Energyscapes; Plant Sale following the meeting.

Plant sale guidelines

Members are urged to donate plants for the June 6 sale, which is our annual fundraiser. Plants must have been grown in your garden or started from seed. Do not dig wild plants. Put the plants in individual containers and label them. Members who help will have first choice of plants. To volunteer, call Gerry Drewry at 651-463-8006.

MNPS Web site

http://www.stolaf.edu/depts/biology/mnps e-mail: MNPS@HotPOP.com

Buckthorn can be controlled or reduced

Part II

By Janet R. Larson, Consulting Arborist and Master Gardener [Note: Part I, published in the Winter 2002 issue, discussed the differences between common and glossy buckthorn and the reasons why both species are listed as noxious weeds in Minnesota.]

Control or reduction?

Where buckthorn has not completely infested an area, control is a reality. Where it has created a near monoculture throughout a sizable area, reduction might be a better reality than control. A single stem of buckthorn cut down to the ground and not chemically treated will resprout from the stump and grow many new stems up to six feet in a single season. In one to two years, the plant can be producing fruit again. "If you cut it, you just anger it," says Norm Erickson of Rochester. This aggressive re-growth must be stopped or the plant will soon reach its former size, take up more space, and continue to exist indefinitely.

Chemical treatments

For larger buckthorn control projects, some type of chemical treatment is the best control method. It is important *not* to treat during the spring-flush growth period. This is a time when the plant is using its stored energy reserves to grow, from the break of dormancy in late March until about June 1. During the spring-flush, the plant generally does not store energy, it spends energy. Chemical treatments work best when the plant is dormant or transporting sugars to its root system (storing energy).

Summer, autumn, and winter are the three seasons when chemical treatment of buckthorn is effective. Late September through November is a convenient time, since buckthorn leaves remain green and attached, while leaves of our native plants are turning color, falling, and gone. When using herbicides, always follow label instructions and take recommended precautions; be certain that your chemical is labeled for your site.

Be a Prairie Care volunteer at Wild River State Park

by Dave Crawford

If you like plants, being outdoors, and learning about the natural world, consider helping with Wild River State Park's Prairie Care Project. We need your help (and the help of other interested persons you know) to make the project a success this summer. You will make a big difference to the future of the park, and you'll learn about prairies firsthand.

There are two ways you can help. The ability to use maps and to walk off-trail on uneven ground are needed for both.

Species Steward: Locate, identify, and mark sites of occurrence and record blooming and ripening time of a native plant species assigned by park staff. Collect seed when it is ripe. Stewards are needed starting in mid-spring to mid-summer, with a minimum commitment of once

every two weeks throughout the process. Being a Species Steward will give you an opportunity to learn a tremendous amount about your species, and see parts of the park that you might otherwise miss. Wild River provides detailed data on identification, observation, and locations of your species.

Collector: Arrange in advance to come to the park on a specific day and collect seeds of one or more species that are ripe at the time of your visit, using directions we provide. We also need people whom we can call on short notice to collect seed that is ripe and about to be lost.

All seeds collected will be used on restoration sites within Wild River State Park. Prairie Care participants who meet or exceed our goals are eligible for recognition awards such as Prairie Care patches or certificates.

To volunteer with the Prairie Care Project, please call or e-mail Dave Crawford, Park Naturalist, Wild River StatePark, 39797 Park Trail, Center City, MN 55012, 651-583-2925 (Visitor Center), dave.crawford@dnr.state.mn.us.

MNPS Board of Directors

President: Joel Dunnette, 4526 Co. Rd. 3 S.W., Byron, MN 55920; 507-284-3914 (W); 507-365-8091 (H); dunnette.joel@mayo.edu

Vice-President: Harriet Mason, 905 5th St., St. Peter, MN 56082-1417; 507-931-3253; cmason@gac.edu

Secretary: Deborah Strohmeyer, Education and Outreach Chair, 7900 Wyoming Ave. S., Bloomington, MN 55438; 952-943-9743; debstrohmeyer@yahoo.com

Meredith Cornett, Conservation Committee Co-Chair, 1520 N. 9th Ave. E., Duluth, MN 55805; 218-728-6258; mwc@duluth.com

Linda Huhn, 2553 Dupont Ave. S., Minneapolis, MN 55405; 612-374-1435

Jason Husveth, 1284 N. Avon St., St. Paul, MN 55117; 651-222-2009; j.husveth@att.net

Janet Larson, 7811 W. 87th St., Bloomington, MN 55438; 952-941-6876; janetlars@pclink.com

Esther McLaughlin, Biology Dept., Augsburg College, Minneapolis, MN 55454; 612-330-1074; mclaugh@augsburg.edu

Ethan Perry, Conservation Committee Co-Chair, 1520 N. 9th Ave. E., Duluth, MN 55805; 218-728-6258; etperry@hotmail.com

Treasurer: David Johnson, 6437 Baker Ave. N.E., Fridley, MN 55432; 763-571-6278; MNPS@HotPOP.com

Listserve Coordinator: Charles Umbanhowar, ceumb@stolaf.edu

Editor: Gerry Drewry, 651-463-8006; gdrewry@infi.net

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.

Three field trips scheduled in May

Two Duluth trips May 19

The Minnesota Native Plant Society, the Hartley Nature Center, and the Arrowhead Chapter of Wild Ones are sponsoring two field trips in Duluth Sunday, May 19. Trip leaders will be Carol Reschke, DNR County Biological Survey ecologist, and Ethan Perry and Meredith Cornett, Minnesota Native Plant Society board members.

9 a.m. to noon: Magney-Snively City Park, Duluth

If the season progresses normally, this hardwood forest should host a wide variety of spring-blooming wildflowers at their most spectacular peak. Chances are that one of them will be *Moschatel*, a rarity of mature sugar maple forests that is listed as a species of "special concern" by the DNR.

1:30 to 3:30 p.m.: Lighthouse Point, Two Harbors

This will be a unique chance to have the unusual plants of the rocky shoreline identified and described by Carol Reschke, who studies the natural communities that persist in the harsh conditions along Lake Superior.

There is no cost for these trips, but each will be limited to 20 to 25 people. Register for one or both trips by contacting Ethan Perry at etperry@hotmail.com or by calling him at 218-728-6258. He will send directions to the meeting locations to those who sign up.

Wildflower Walk May 25

Jason Husveth will lead a Spring Wildflower Walk from 9 a.m. to 12:30 p.m. Saturday, May 25, at the Minnesota Valley Wildlife Refuge.

During the walk, beginners and experienced naturalists will learn

In memory of Tom Morley

Dr. Thomas Morley, professor emeritus at the University of Minnesota, died Saturday, Feb. 2, 2002, at his home. He was 85.

Dr. Morley received his A.B. (1940), M.A. (1941), and Ph.D. (1949) degrees in botany at the University of California, Berkeley. A scholar's son, his father, S. Griswold Morley, was the president of the Modern Language Association of America during the 1950s. Dr. Morley was predeceased by a sister, and is survived by her children and a brother.

Tom Morley joined the Botany Department (now Plant Biology) in the fall of 1949 to share in the teaching of taxonomy with Gerald Ownbey (then curator of the herbarium). He was successful in helping recruit such distinguished faculty as Eville Gorham. After advising several graduate students, including Kingsley Stern, Lawrence C.W. Jensen, and Barbara Delaney, he retired in 1987.

Dr. Morley was a specialist in the genera *Mouriri* and *Votomita* (tropical trees of the *Melastomataceae*), and he described several new species in these groups from central Amazonia, where he conducted field work around Manaus and Belem, Brazil. During his tenure at the University of Minnesota, Dr. Morley also developed an extensive, firsthand knowledge of Minnesota's native flora. He revised and updated Frederic Clements' original "Guide to Spring Flowers," which is now used as a standard spring text. He co-authored with Gerald Ownbey "Vascular Plants of Minnesota: A Checklist and Atlas," another seminal work for the state.

A strong advocate for the preservation of nature, Tom Morley was a charter member of the Minnesota Chapter of the Nature Conservancy and served on the board during the 1970s. He was also active in the Minnesota Native Plant Society, having a special concern for rare plants and serving as an early champion of buckthorn eradication in Minnesota natural areas. He enjoyed canoeing and was a generous contributor to the Friends of the Boundary Waters Wilderness.

In retirement, Tom Morley maintained an office adjacent to the herbarium in the Biological Sciences Building on the Saint Paul campus of the University. He was a familiar face around the department — remembered for his habit of walking to work each day across the expanse of experimental fields, even in the coldest of Minnesota winters. His daily routines contributed to the rhythm of life at the University, including his climbing the eight flights of stairs to his office, which he performed until the very day before his death. A soft spoken and kind man, he is missed by his colleagues.

The family asks that memorials be sent to the Lake Itasca Forestry & Biology Station, University of Minnesota Foundation, 200 Oak St. NE (Suite 500), Minneapolis MN 55455.

how to identify herbaceous plants, shrubs and trees in the valley.

Participants will meet in the Fireplace Room at the refuge at 9 a.m. Jason, a professional ecologist/ botanist, will give an introductory talk on the spring flora and the use of plant keys and wildflower guides. Participants will visit prairie, forest and wetland plant communities close to the building.

The walk will be held rain or shine, for up to 30 participants. Bring a wildflower guide, boots and a hand lens or magnifying glass. To register, call the refuge at 952-854-5900.

Buckthorn

Continued from page 1

Cut stump treatment

During cutting and brush-hauling operations, stumps are easily lost under leaves and debris. Marking stump locations with wire flags, similar to those used by utilities to mark underground pipes or wires, is helpful when it comes time to locate the stump for treatment after an area has been cleared. Secure the flags well, so they will not be dragged away with the brush.

Stumps can be chemically treated with a paint brush, a wick applicator, or with an ultra low volume spray nozzle and wand. It is very important that bark on the sides of the stump, including exposed root flares, be treated as well as the top of the stump. Under the bark, many latent buds have the capability to re-sprout with vigor. Chemicals are most effective if applied within 24 hours, but can be applied up to 48 hours after the cutting.

Frill cuts with chemical spray

Wound the bark with an axe at a 45degree angle around the circumference of the tree, to create a frill. It's not necessary to girdle the stem completely. Then apply herbicide spray to exposed cut areas and adjacent bark. This is an effective method when trees can be left standing. Consider this method especially when buckthorn has overtaken steep slopes. If you physically remove all the buckthorn, you set the site up for erosion. This method works well on stems greater than 4 inches in diameter.

Basal bark treatment

When mixed with a diluent (a solvent that may contain dye that can be mixed with some herbicides), ester formulations of Triclopyr can be applied directly to the bark at the base of the tree to provide effective control. Spray the lowest 1 1/2 feet of bark around the entire

circumference of the tree. For diameters 2 inches or less, only one side of the stem needs to be sprayed. This is a fast, effective way of controlling trees up to 6 inches in diameter on large sites. Dead trees can be left standing or cut at a later time. Garlon 4 and Crossbow are effective brand-name chemicals for basal bark treatment.

Herbicides that work well

1. Roundup (now off patent; Glyphosate active ingredient) = Razor, GlyStar Plus, others. Mix with water for stump, frill and foliar applications.

- A 25 percent solution is needed for stump and frill methods.
- A 3 percent solution is needed for foliar spray.

2. Rodeo (now off patent; for aquatic use; Glyphosate active ingredient) = Aqua Neat, others.

 Same rates as Roundup apply for Rodeo

3. Garlon 3A (Triclopyramine active ingredient) = Ortho Brush B-Gon

• Mix with water for stump and frill applications.

4. Garlon 4 (Triclopyr ester active ingredient) = Crossbow, (Pathfinder is ready-to-use)

- Mix with diluent or kerosene for stump, frill, and basal bark treatments
- Mix with water for foliar applications

Tordon is not recommended.

Spraying in a buckthorn thicket

1. In densely infested areas, use a hand-held tank sprayer; backpack sprayers can be difficult to negotiate through the woods.

2. An ultra low volume spray wand can cut chemical use by 75 percent.

3. Wear appropriate clothing when using chemicals, especially when mixing concentrate. Use neoprene gloves, not latex, cloth, or leather. Wear goggles or safety glasses when mixing chemicals. Be sure to read and follow label instructions.

Mechanical control

Mechanical control is not possible with large infestations of buckthorn; it is extraordinarily labor-intensive. The following methods are recommended for people who wish to avoid chemicals and have small areas to clear.

Hand pulling

Pulling plants out of the ground by hand works well for stems 1/2-inch diameter or less. The soil must be moist, or your efforts will be frustrating and with very little result. When the soil is dry, the plants won't budge. If they do budge, they break off, leaving the root system intact. To remove, pull at the base of the stem lightly to loosen the soil, then pull again to dislodge the plant from the ground. When you pull buckthorn, you will discover buckthorn's dense, black, highly successful, fibrous, root system.

Digging

With a sharp shovel blade, it is possible to cut the roots around small stems (about 1 inch in diameter or less). Stomp your shovel blade into the ground up to a foot away from the stem, and pull the shovel handle back; this will sever roots, but may need to be repeated. Do this all around the stem until all lateral roots are severed. There will likely be a couple of central roots to cut, too. This method works well with singlestemmed plants, but is quite difficult with shrubby individuals that have re-sprouted after a previous cutting.

Wrenching

A few tools are available on the market to facilitate the manual leveraging of a woody stem or stems out of the ground. With a steel clamp or claw, a stem is grasped; then the tool handle becomes a lever, bending the stem down and lifting the roots out of the ground. Tools range in size and will pull stems up to 2 inches in diameter. The largest tools are heavy and need to be wielded by large, strong individuals. Some communities have organized to purchase various wrench sizes and have made them available for free rental from local hardware stores.

Continuous cutting

Cutting buckthorn without chemically treating the stump is not recommended unless there are only a few plants to remove and you are willing to re-cut new sprout-growth nearly every week for the entire growing season and beyond. Continuous cutting will exhaust the plant of its extensive energy reserves. It may exhaust you, too!

Tin can method

This approach, developed by Steve Glass, University of Wisconsin Arboretum, is only recommended for very small removal projects and for stump sizes small enough to fit under a metal can. Find a can large enough to fit over the stump and root flare. Cut the stump 1 to 2 inches shorter than the height of the can. Since buckthorn re-sprouts from latent buds under the bark, including stump bark, it is important that the inverted can cover all exposed bark. Drive long nails through the can into the stump to secure it in place. Sprouts that grow into the can will not have enough light and will die. Leave the can in place for one to two complete growing seasons.

Burning

John Moriarty, Ramsey County Parks and Recreation Department, reported on a study he conducted with Hennepin Parks to control buckthorn in Carver Park. Burning can be a good technique for forest or park-like settings, but is not really practical for homeowners. Burn timing is very critical, and it may be difficult to coordinate factors such as ground fuel, moisture, wind speed in the woods, and approval from the local fire department. Fire is a management tool, but it will not eliminate buckthorn. A recent study out of DePaul University explains why it is difficult to burn in buckthorn-infested sites, due to the rapid degradation of the leaf litter.

Overwhelmed by it all?

If you've worked in a heavily buckthorn-infested area, it is easy to feel overwhelmed. Don't give up. Buckthorn has had decades to get a root-hold ahead of those of us who would like to eliminate it. However, with the control methods described here, total elimination is not really a possibility. These plants are simply too widespread, and the volume of their biomass is staggering. The cost in terms of human-power, time, equipment and funds is unreasonably high in economic terms. Reduction of the critical mass is a possibility. Following are my suggestions for those who would like to do something, but have limited time and budget. Prioritize. Doing something is far better than leaving the invasion unchecked.

Priorities for a limited budget

1. Partner with conservation groups, neighborhood groups, your municipality, volunteers.

2. Search locally for potential grant funding, then write grant proposals. Ask local businesses and foundations for assistance.

3. Survey your site to find treasure pockets of remaining native plants. Clear around these plants first to release them from their buckthorn competition. Protect them during cutting and removal. Sometimes these natives are very, very small, but when they are freed, they bounce back with new growth. Find a local native plant expert to help you with identification. Mark them with flags.

4. Protect quality areas that are only marginally infested.

5. Remove female buckthorn first. Mark them in late fall, when full of fruit, for later removal. 6. Prioritize removals to be in highprofile areas (along bike paths, parkways, play areas).

7. Publicize what you're doing. Put up informational signs in the project area, distribute flyers to nearby residents, write an article for your local paper or association.

8. Stop to answer questions of all those who inquire.

Hope for a biological control

"Good news came this month," wrote Cynthia Boyd in the St. Paul Pioneer Press, Sept. 26, 2001, "in a \$20,000 report commissioned by the state Department of Natural Resources from the Center for Applied Bioscience International in Delmont. Switzerland. The 100page research paper includes a list of 14 insects that are possible natural predators (of buckthorn), thus potential control agents." According to Luke Skinner and Jay Rendall, coordinators in the DNR's exotic species program, the feasibility study was completed in August, but the entire study may take up to 10 years to complete, provided funds to continue the research materialize. The next step will be to test the 14 species and determine which ones harm buckthorn exclusively. Taxdeductible contributions can be made to: DNR Buckthorn Research Fund, Exotic Species Program, 500 Lafayette Rd., St. Paul, MN 55155-4025.

A Web page within the MN DNR Web site contains buckthorn biocontrol research updates at: www.dnr.state.mn.us. (Search on buckthorn biocontrol).

The herbicide information given in this article is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement is implied.

The MNPS has received a donation to the Think Native Program in memory of Wright and Elizabeth Reed.

Birds are most diverse in rural areas

by Kim Chapman, visiting assistant professor, biology and environmental studies, Macalester College. Abstract of his Nov. 1, 2001, talk on "For the Birds: Nature reserves, rural lands and suburbs' contribution to the avifauna of the Twin Cities region."

Kim Chapman spoke about his doctoral research. His message was positive, yet cautionary. The increasingly intensive use of land which the Twin Cities region is experiencing raises concerns that species might disappear from the regional biota. Kim studied the responses of bird, tree, and shrub species to the variety of land-use types and habitats in the region. Working in some 300 plots located in nature reserves such as Wild River State Park and Sherburne National Wildlife Refuge, in rural lands, and in the suburbs of the north metro area, Kim measured species abundances in a variety of habitats, from grasslands to forests. He sought to understand how communities or species simultaneously varied as land use and habitat varied.

Unexpectedly, within single plots he found that bird richness and diversity were equal at all land-use intensities — in nature reserves, rural lands or suburbs. But looking across the entire region, the rural lands supported the greatest bird richness and diversity, with reserves being slightly lower. His results for trees and shrubs (which he did not present) were somewhat different than results for birds. For example, rural lands supported fewer species of woody plants than reserves and suburbs, but the increased woody plant diversity in suburbs was largely due to planting of non-native species.

In general, suburban style development depressed bird species diversity and shrub abundance over large areas. In suburban"structural" grasslands and savannas, often with short grass, pavement and buildings, the abundance of non-native species was much higher than elsewhere in the region. But on a positive note, wild vegetation and forest remnants in suburbs were used by several native bird species, such as Gray Catbird and Baltimore Oriole.

Interestingly, the bird communities of forests in reserves and rural lands were similar, while the grasslands and savannas in reserves and rural lands were less similar to each other. Those species most likely to require special management, or which were decreasing steadily in the region, preferred grasslands, savannas, and nature reserves.

Kim and his colleagues in the field encountered some 120 species of birds in the two-year study. Of 63 bird species common enough for detailed analysis, one-fifth appeared intolerant of development (e.g., Vesper Sparrow, Eastern Towhee, Least Flycatcher), two-fifths tolerated agriculture but not suburbanization (e.g., Eastern Bluebird, Indigo Bunting, Yellowthroated Vireo), and 29 percent benefited from suburbanization (e.g., House Sparrow, House Wren, Gray Catbird). Even though forest songbirds have been considered quite sensitive to habitat fragmentation, the grassland and savanna birds of the region are more vulnerable because grassland-savanna habitat loss is greater than forest loss in the region, and grasslands and savannas are more intensively used.

Kim presented several recommendations for conservation. Reserves may best serve as refuges for regionally declining grassland and savanna birds, while suburbs could support large populations of development-tolerant native birds if development were concentrated and modified, leaving more vegetation and larger expanses of wild land and forests. Rural lands represent an unrecognized conservation opportunity threatened by dispersed residential and suburban-style development. Conservation measures taken in rural lands would increase the likelihood that most members of the region's biota would persist well into the future.

Showy locoweed in Minnesota

by Michael Heinz

Oxytropis splendens (showy locoweed) thrives on the northern plains, but in Minnesota this handsome species of locoweed has been collected only once. On June 25,1853, while members of a railroad expedition camped on the Chippewa River in Pope County, in the west-central part of the state, one of the scientists added the species to the expedition's extensive plant collection.

Members of the surveying party, under the command of Lt. E. G. Beckwith, had left Pike Lake and stopped at the Chippewa before heading to a camp on the Bois de Sioux River, which flows out of Lake Traverse along the South Dakota border. In a report published by the U.S. War Department, John Torrey and Asa Gray listed the specimen as *Oxytropis splendens* Dougl.

They wrote: "A most elegant plant, with its crowded silvery-villous foliage and spikes, and deep blue corollas. It was gathered on the Chippewa River." This note refers to the specimen in the collection at Gray Herbarium. Showy locoweed

Minnesota fungi are on centralized database

by David J. McLaughlin, Professor, Department of Plant Biology, and Curator of Fungi, Bell Museum of Natural History, University of Minnesota, St. Paul

The fungi of Minnesota are poorly documented. To aid in their study, a centralized database for mushrooms, plant pathogens, and other fungi has been produced as a result of consolidation of the two University of Minnesota fungal collections, with support from the Legislative Commission for Minnesota Resources. Access to the database is available at www.fungi.umn.edu.

This database provides information on the distribution, ecology, and history of the fungi of the state. It includes a non-technical general introduction to the fungi, illustrations of mushrooms and plant pathogens, a history of the collection and the state of knowledge of the fungi of Minnesota, and a taxonomic outline

Showy locoweed Continued from page 6

grows about a foot tall from a taproot and woody root crown. The collector probably was James Snyder, who is credited by Torrey and Gray with collecting and submitting many of the expedition's plants, including all of those from Minnesota.

The expedition was following the Red River Cart Trail used to transport goods from Selkirk's settlement at Pembina, on the Canadian border, to St. Paul. Quite possibly, the seeds of *Oxytropis splendens* were transported from the settlement, an area within or near the species' range, to the hills of the Chippewa in Minnesota. The chief range of the species is from the northern counties of North Dakota into the prairie provinces of Canada. It reappears on the foothills of the Rockies. for the specialist. The database is searchable in multiple ways, including by plant host and habitat, and it can produce reports that can be sorted by up to three fields. The database contains about two-thirds of the herbarium records. Record entry is continuing.

An example of the way the database can be used is in analyzing the results of last summer's North American Mycological Association Foray held at St. John's University, Collegeville, July 5-8. Half-day collecting trips were made to various sites, including three Scientific and Natural Areas, Quarry Park, Partch Woods, and Clear Lake. Specimens were brought to a laboratory on the St. John's University Campus for processing and identification by scientists. Through the efforts of staff of the Field Museum of Natural History, Chicago, especially Dr. Patrick Leacock, the data have been compiled and specimens processed. Vouchers specimens will be deposited in the University herbarium.

The specimens collected during this foray not only provide an important initial survey of the fleshy fungi for these Scientific and Natural Areas, but also are among the first mushroom records for Stearns County. Our previously documented collections showed 19 Stearns County records, but almost all of these are microscopic plant pathogens. Continued surveys are needed to obtain a complete picture of the fungal diversity, i.e., to observe species that appear in early spring, late summer, and fall.

Of the 217 species collected during this foray, approximately 45 are new state records. Members of the Minnesota Native Plant Society can make an important contribution to the study of Minnesota fungi by assisting in future collecting, documenting, or processing of specimens.

Plant Lore

by Thor Kommedahl What is blue cohosh?

Blue cohosh is *Caulophyllum thalictroides* in the barberry family. It is a perennial that grows in moist woods throughout most of Minnesota except in the northeast. Another common name is blue ginseng.

How did it get its names?

The name cohosh comes from an Algonquian word that means rough because of the knotty, rough rhizomes; its stems and pea-sized seeds are bluish. *Caulophyllum* is derived from the Greek words stem and leaf and alludes to the emergence in spring of a naked stem that ends in a compound leaf without a petiole. The stem seems to form a stalk for the three-parted leaf.

What about thalictroides?

Its leaves resemble meadow rue, in the buttercup family, whose genus is *Thalictrum*.

What about its growth?

It is striking in spring as the unfolding leaf is prominent over the still barren forest floor. Later, the attractive, large, cluster of blue seeds captures one's attention. The ovary wall splits to expose two blue drupelike seeds. It is somewhat shrub-like and can be two to three feet tall. It blooms from April to May.

Has it medicinal properties?

Yes, American Indians used infusions from the roots for treating rheumatism and in aiding childbirth. The Chippewa Indians used a strong root decoction as a contraceptive. Research since then has shown its value in treating menopausal symptoms, and the root is officinal in the "U.S. Pharmacopeia."

Is any part of the plant edible?

Plant parts, including seeds, can be poisonous. The plant is also an irritant to the skin. Its seeds have been roasted to make a beverage. Minnesota Native Plant Society University of Minnesota 220 Biological Sciences Center St. Paul, MN 55108

NON-PROFIT ORG. U.S. POSTAGE PAID Minneapolis, MN Permit No. 2233

Spring 2002 Issue

