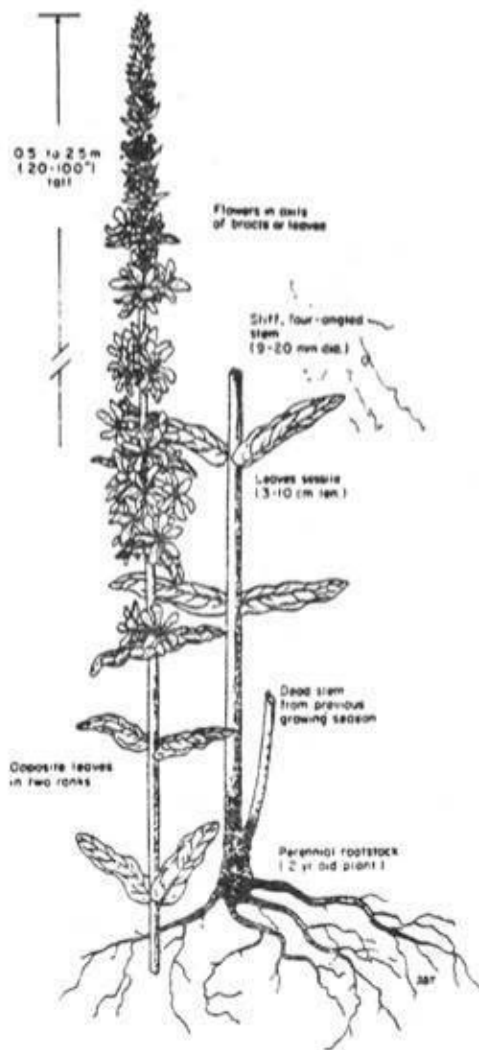




MINNESOTA PLANT PRESS

VOLUME 3 NUMBER 2 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY SPRING 1984

NATIONAL LOOSESTRIFE ALERT



The last issue of the MNPS newsletter included an article on the Purple Loosestrife, an escaped exotic that poses a serious threat to native vegetation. The following article describes the threat on a National level, delineating the important role eradication in Minnesota will play in hampering the further spread of purple loosestrife.

Purple loosestrife (*Lythrum salicaria*) is an erect, perennial, wetland herb that was probably introduced from northern Europe. By the late 1800's, it had spread throughout the northeastern United States and Canada. It caused few problems until the 1930's when it became an aggressive weed in Quebec pastures. Since then it has become a serious threat to native emergent vegetation in shallow-water marshes throughout the northeastern, northern, and central regions. In the last 20 years, *L. salicaria* has become established in reclamation projects and riparian wetlands in the West and Northwest.

Identification. Purple loosestrife is most easily identified during its long season of bloom (1 July to 10 September). At this time, the characteristic reddish-purple flower spikes can be identified with the naked eye at 100 yards.

--Continued on page 2--

Minnesota Native Plant Society Membership Registration

Mail to: MNPS, 220 Biological Sciences Center, University of Minnesota, St. Paul, MN 55108

___ New Member

___ Renewal

Membership Categories:

\$8.00	___ Individual	\$6.00	___ Senior(over 62 and retired)
\$10.00	___ Family (Two or more related individuals at same address)	\$15.00	___ Institution
\$6.00	___ Student (Full-time)	\$25.00	___ Donor

Name _____ Address _____

City _____ State _____ ZIP _____ Phone _____

Loosestrife Alert--from page 1

Reproduction and Spread. L. salicaria is a prolific seed producer; seeds begin to set in mid-July in early flowers and continue to mature as flower development progresses into late summer. Once seeds have been set by even a few plants within a watershed or basin, colonization to the limits of high water is probable.

Seed dispersal is by wind or water. Dispersal can also occur in dried mud on birds' feet, fur of muskrat or mechanical clippings can hasten the spread and dominance of the plant if allowed to float within an impoundment.

In addition to natural modes of spread, horticultural hybrids of Lythrum are shipped as rootstocks; segregates of these plants are frequently sources of local escapes. At least one apiculture supply house sells purple loosestrife seed for "naturalization" as a wetland honey plant.

Growth requirements. L. salicaria prefers moist, high organic soils but tolerates a wide range of texture and parent material including sand, silt, clay, and muck. Purple loosestrife seedlings can become established on a bare strand during an early summer drawdown. Once established, the seedlings can survive shallow flooding to a depth of 12 to 18 inches in waters of low turbidity.

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SEED EXCHANGE

Please keep the fall native plant seed exchange in mind this spring and summer when you're on wildflower trips. May Wright and Chris Soutter have provided the following guidelines for seed collection and storage.

Don't collect all the seeds from a plant or plant community. Remember that it is important to leave a portion of the seeds for natural dispersal and species proliferation. This is especially true with annuals. Be sure all fruits are fully mature before collecting. Fleshy seeds should be cleaned before drying, air dry all seeds, especially fleshy ones, to avoid chances of disease organisms or insects during storage. Label all seeds before storage! Store cleaned, dried seeds in a cool, dry place, checking periodically for insects or mold.

Please include the following information with each seed packet: scientific and common names, collection site, habitat type, date of collection storage requirements (approximate temperature and light levels), collectors name, address and phone number.

Sun
Soil

moisture requirements

If you have a news item, article or other information that should be included in the next issue of the Minnesota Plant Press, please send it to the editor: Neil Anderson.

WILDFLOWER OBSERVATIONS

RECORD OF WILDFLOWER OBSERVATIONS FOR THE MINNESOTA NATIVE PLANT SOCIETY

Place: RIVER BEND NATURE CENTER
 City: FARIBAULT, MN PO 265, 55021 Tel: 1-507-332-7151
 County: Rice Township: Walcott
 Landmarks: 6 mi. of marked trails (with trail signs)
 Habitat: Over 530 acres along the Straight River (flood plain); upland hardwood forest, and prairie areas (being developed). ***Because parts of the Nature Center areas had been heavily grazed and pastured, in earlier years, many flowers native to the area have disappeared. Therefore, these are being re-introduced into the Nature Center. Example: May Apples seem to be liked by cattle.
 Directions: Go east on State Highway 60, cross viaduct to Shumway Ave; turn right one block to Division St. East; turn left to 10th Ave. SE; turn right to Rustad Road; turn left to the Nature Center. (Two parking lots; Trailside Center at the lower parking lot, at end of road).
 Observer: Orwin A. Rustad, Naturalist

Date: July 18, 1983

Ron Osterbauser, Executive Director
 River Bend Nature Center

Some wildflowers at the RIVER BEND NATURE CENTER (A preliminary list)
 xx: reintroduced C: common

Species	Date of bloom	Observation
Anemone, Canada	June 14 C	
Anemone, False Rue (<u>Isopyrum</u>)	April 28 C	
Anemone, Rue	April 28 C	
Anemone, Wood	May 6 C	
Bedstraw, Northern	June 4 C	
Bellflower, American (Tall)	July 14 C	
Bellflower, European (Creeping)	June 14 C	
Bellwort, Large-flowered	May 4 C	
Bergamot, Wild (Horsemint)	July 14 C	
Bird's-foot-trefoil	June 28 C	
Bloodroot	April 10 C	
Blue Cohosh	May 5 C	
Bouncing Bet	July 12 C	
Butter-and-eggs	July 9 C	
Chicory	July 1 C	Along entrance road, 10th ave SE
Clover, Red	June 11 C	
Clover, White	June 11 C	
Clover, Whitesweet	June 29 C	
Clover, Yellow sweet	June 12 C	
Columbine	May 12 C	

Columbine
 Cow Parsnip
 Daisy Fleabane
 Dutchman's breeches
 Dwarf Dog-tooth Violet(Trout Lily)
 E. propullans
 White Dog-tooth Violet(Trout Lily)
 E. albidums
 Goat's Beard (T. pratensis)
 Golden Alexanders
 Hedge Bindweed
 Hoary Alyssum
 Jack-in the-Pulpit
 Marsh Marigold
 May Apple
 Meadow Rue, Early
 Motherwort
 Mullein, common
 Nodding trillium
 Ox-eye Daisy
 Rose-Smooth wild
 Salsify (Oyster plant) T. dubius
 Sharp-lobed Hepatica
 Spring Beauty
 Sweet Cicely
 Toothwort (Cutleaf)
 Vetch, American
 Violet, Downy Blue
 Violet, Yellow
 Virginia Waterleaf
 Wild Geranium
 Wild Ginger
 Wild Blue Phlox
 Wild Strawberry
 Yellow (large-flowered) Lady slipper

May 12	C	
June 11	C	Trout Lily trail
June 11	C	
April 24	C	
May 1	C	Trout Lily and Owl trail
April 27	C	Trout Lily and Oak trail
May 11	C	Rustad Rd, roadside
May 20	C	Trout Lily trail
July 16	Not	common
June 11	C	
May 6	C	(in limited areas)
May 8	C	Spring fed pond area
May 31	Cxx	Oak, Owl, Trout Lily trails.
May 6		
June 24	C	
July 8	C	
May 11	not	common, Oak and Owl trails
June 28	C	
June 11	C	
June 9	C	Rustad Road, roadside
April 23	C	
April 25	C	
May 27	C	
May 6	C	
June 5	C	
April 29	C	
May 20	C	
May 21	C	
May 12	C	
April 25	C	
May 12	C	
May 12	C	
May 18		Not common xx-reintroduce Near bldg. Trailside center.

PRAIRIE CONFERENCE REMINDER

Don't forget the Ninth North American Prairie Conference to be held in Moorhead, Minnesota, 29 July through 1 August, 1984. The Conference theme is: The Prairie: Past, Present and Future.

See the winter Minnesota Plant Press for further details or contact: Dr. R. H. Pemble,

ATTENTION ALL PHOTOGRAPHERS

Start planning what four botanical slides you will submit to the Minnesota Botany International Exhibition next October. This salon is cosponsored by the MNPS and the Mn. Nature Photography Club. The deadline for submission of slides is October 4, 1984, and the judging will be held October 13, 1984, at Twin City Federal at 50th and France (Edina). Visitors are Welcome. Entry forms can be obtained from Jean McIntosh.

SPECIES STATUS SHEET

SCIENTIFIC NAME:

Chrysosplenium iowense Rydb.

FAMILY: Saxifragaceae

COMMON NAME: a species of Golden Saxifrage

STATE STATUS: Endangered

FEDERAL STATUS: Currently under review by the Department of Interior for listing as a threatened species under the Endangered Species Act of 1973 (Public Law 93-205, enacted December 28, 1972; amended 1978. Federal Register 45(242):82480, December 15, 1980).

BASIS FOR MINNESOTA STATUS: This species is thought to be relict of Minnesota's pleistocene flora which survived the most recent glacial advance in the "Driftless Area". It remains isolated in the Driftless Area by severe habitat requirements that cannot be met in the glaciated portions of the state. All five Minnesota populations of this species occur within seven miles of each other. Two of these populations have been degraded by cattle grazing and one consists of only a few individuals and may not be viable.

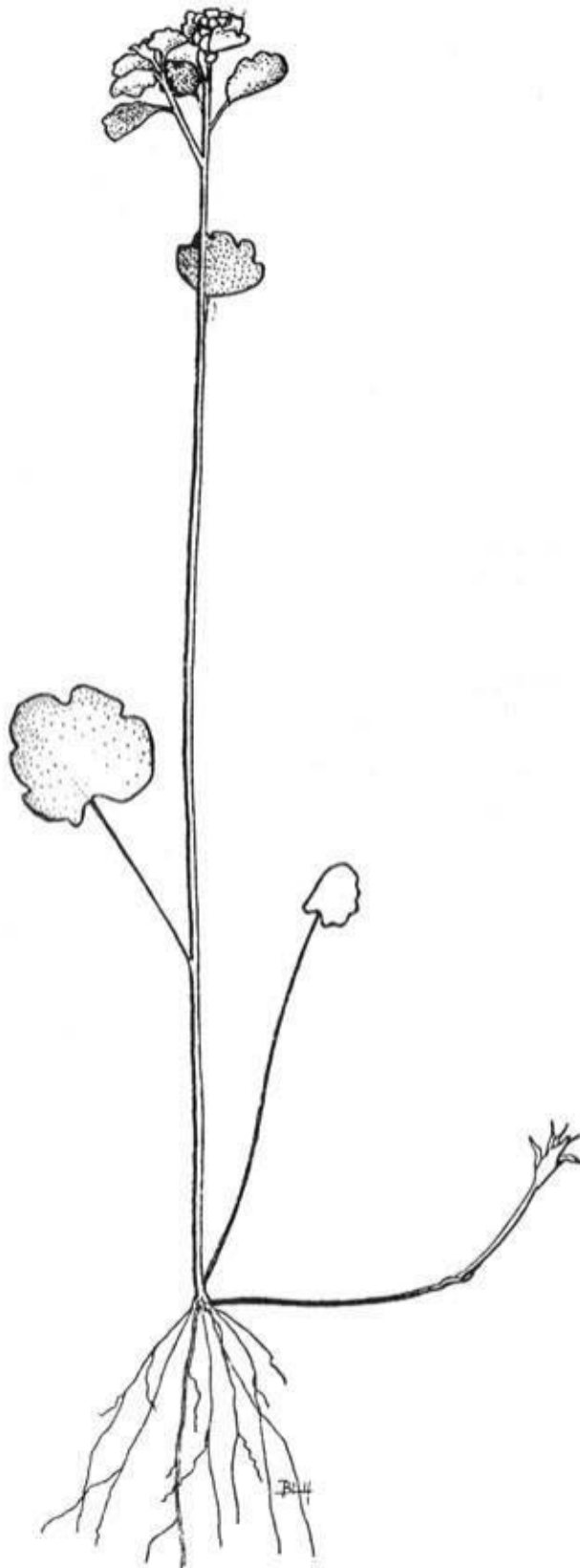
PREFERRED HABITAT IN MINNESOTA:

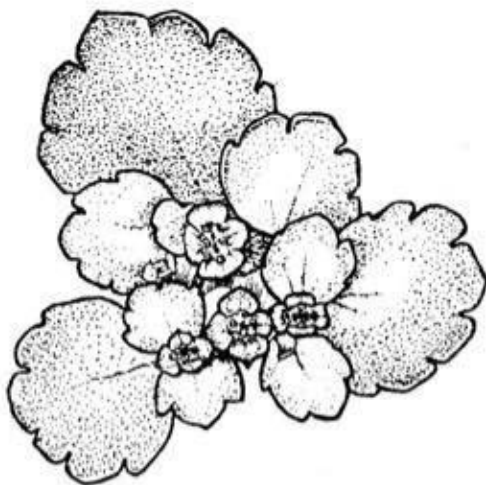
Chrysosplenium iowense has been found only on algific talus slopes associated with dolomite formations in the Galena geological group. The term "algific" means "cold producing" and results from cold air draining from ice caves in fossil talus slopes. These slopes are periglacial features and are often quite small (i.e. a few square feet). These phenomena are very localized and restricted to the unglaciated region in Minnesota and adjacent Iowa.

RECOMMENDATIONS: A high priority should be given to the preservation of the known algific talus slope habitats. Additional searches for undiscovered habitats should concentrate on the Root River Valley in Fillmore County.

SELECTED REFERENCES:

Packer, J. G. 1963. The taxonomy of some North American species of Chrysosplenium, section Alternifolia Francet. Can J. Bot. 41:856-103.





Rosendahl, C. O. 1947. Studies in Chrysosplenium, with special reference to the taxonomic status and distribution of C. iowense. Rhodora 49: 25-35.

PREPARED BY: Welby Smith, Botanist, Natural Heritage Program.

NEW BOARD MEMBERS ELECTED

At the April 4, 1984, monthly meeting of MNPS, elections were held to fill the four vacant positions on the Board of Directors. The election results are as follows:

Harriet Mason	40 votes
Steve Eggers	39
Roger Eliason	35
Neil Anderson	31
Sandy Hansen	30

Our new board members are: Harriet Mason, Steve Eggers, Roger Eliason and Neil Anderson.

Steve Eggers - works for the Army Corp of Engineers and has been instrumental in preserving wetlands along the Minnesota River. Steve has led field trips for the native plant society and has given a talk on wetlands. Steve will lead a field trip to the Weaver Bottoms area along the Mississippi River this spring.

Neil Anderson - is a native of Vermont who received his bachelor degree at Calpoly San Luis Obispo where he was a member of the California Native plant Society. Neil is serving as the MNPS newsletter editor. He is currently working on a masters degree at the Univ. of Minnesota in the horticulture program.

Sandy Hansen - received her bachelors from the University of Michigan and a masters in botany from the University of Maine. She was active in the Joslyn Botanical Society in Maine and focused her interests on response of plants to forest fires and forest herbs. Sandy is assisting with the layout of the MNPS newsletter.

Roger Eliason - Roger works in the University of Minnesota's soil lab on campus. Roger has been active in assisting the Minnesota Heritage program with ginseng monitoring.

Harriet Mason - Harriet is working on her doctorate in the botany department of the University of Minnesota. She is studying the floristics of Nerstrand Woods located in Rice County. Harriet has led trips for the MNPS and is active in the management of Nature Conservancy preserves.

The Board of Directors presently consists of: Peg Kohring, Welby Smith, Deb Brown, Steve Eggers, Neil Anderson, Roger Eliason, Harriet Mason, Evelyn Moyle and May Wright. Officers will be selected by the board in June.

Notice of Public Hearing

A public hearing will be held concerning the proposed expansion of the boundary of discretionary authority over wetlands adjacent to Savage Fen in Scott County, Minnesota. The hearing will be held on Wednesday, May 23, 1984, at 2:00 p.m. in Room 634 of the U.S. Post Office and Custom House, 180 East Kellogg Boulevard, St. Paul.

The U.S. Army Corp of Engineers has authorized the exertion of discretionary authority to require individual permits for any future filling activities in the 40 acre Savage Fen. All interested MNPS members are urged to attend. The Minnesota Native Plant Society will be officially represented at the meeting by Nancy Sather.

Although purple loosestrife is sensitive to high salinity or alkalinity, it has invaded seepage pastures in southwestern Idaho with pH 7.7. Purple loosestrife prefers full sun but can survive in 50% shade.

Control. Although *L. salicaria* can be controlled in local areas accessible to machinery with combinations of mowing, spraying or discing, the cost of control becomes prohibitive once the plant is established over a marsh basin or impoundment floodplain. Some form of biological control, in combination with the following local practices, is urgently needed.

Local Eradication. At present, the key to purple loosestrife control lies in recognition of the first appearance of young plants; these should be grubbed or hand pulled and the entire plant removed from the wetland basin. Mature plants cannot be hand-pulled; on upland sites they can be spot treated with glyphosate or a 50/50 mixture of dicamba and 2,4,-D. Since neither of these formulations is cleared for use in marsh or aquatic habitats, we recommend spot application of 2,4-D with a hand sprayer. Whatever chemical you choose, be sure that its label includes clearance for aquatic sites.

Water Management Options. Once *L. salicaria* has become firmly established in a large wetland or watershed, control becomes increasingly expensive and the wetland manager loses options in shallow-water or moist-soil management.

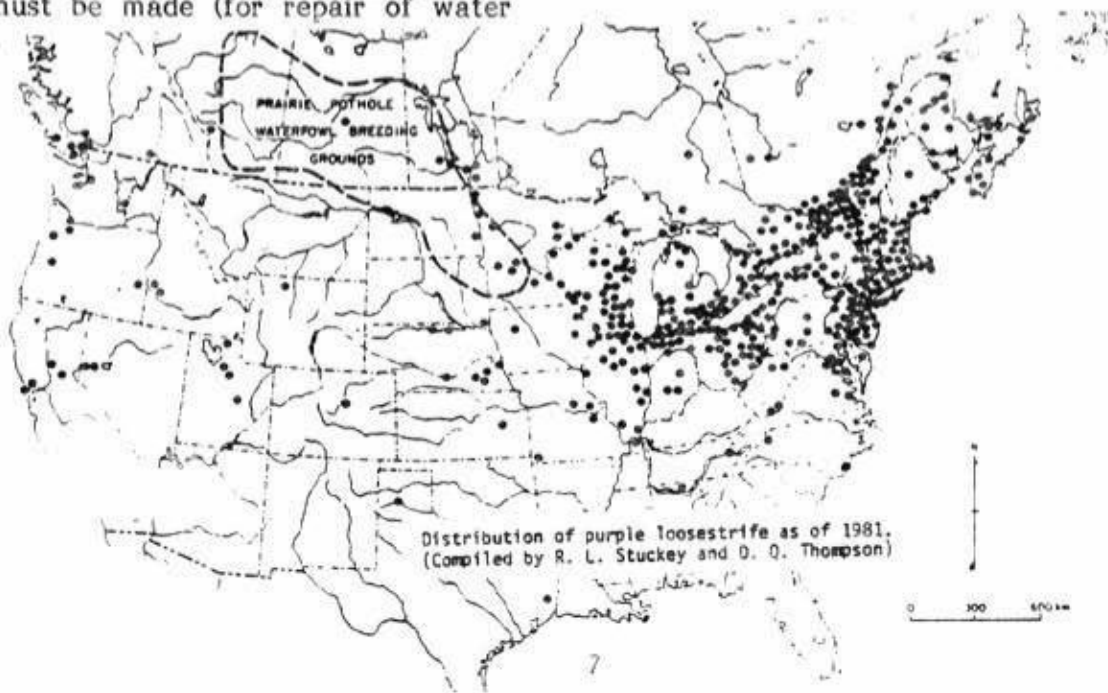
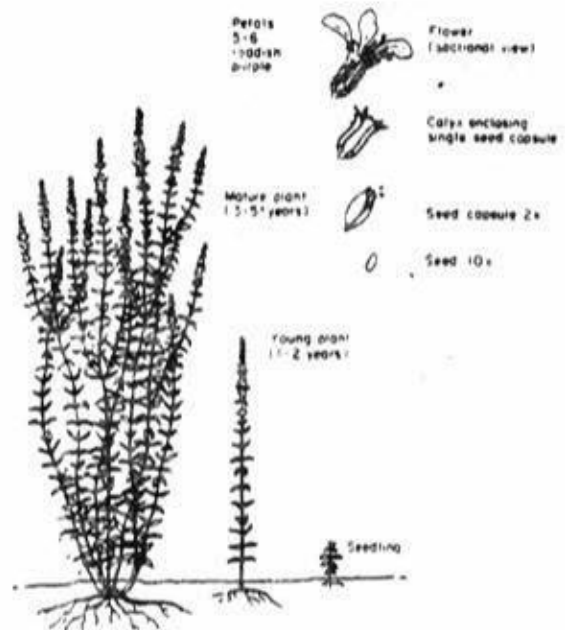
Minimum disturbance to the wetland community is the key to coping with *L. salicaria*. If a drawdown must be made (for repair of water

control structures, etc.), it should be delayed until mid-July or later so that the time for *L. salicaria* seedling development is minimized. This will assure maximum seedling mortality following reflooding.

IF YOU THINK YOU HAVE FOUND PURPLE LOOSESTRIFE IN ONE OF YOUR MANAGEMENT UNITS, CALL OR WRITE:

Daniel Q. Thompson, USF&WS
270 Aylesworth Hall, CSU
Fort Collins, CO 80523 Phone: 303 491-7002

Tom Jackson, USF&WS
Box 25007, Denver Federal Center
Denver, CO 80225 Phone: 303 234-5845



MAY & JUNE IN THE WILDFLOWER GARDEN

By May Wright

May and June are good months for just enjoying a wildflower garden. After the few early flowers of March and April, there is a rush of bloom in the deciduous woodland area. Dutchman's breeches, false rue anemone, trout lily, wood anemone, bishop's cap, trillium, yellow lady's-slipper, mayapple and many more parade in quick succession. Likewise in the prairie garden, the delightful pasque flower may be through blooming, but the prairie smoke, birdsfoot violet, hoary puccoon and blue lupine soon add spots of color. Goldthread, dog violet, starflower and bunchberry make intriguing designs under the evergreens after the early trailing arbutus and bearberry are gone.

These spring months are excellent for having picnics and enjoying the wildflower areas free of mosquitoes, but there are some gardening chores that can be done then, too, such as the following:

1. The over-winter mulch can be removed gradually. Now or a little later it can be replaced with mulches for summer *viz.* half-decayed leaf compost around the base of the plants in the deciduous woodland, pine-needle mulch in the north-woods garden and grass clippings in the moist prairie.
2. Extraneous material such as dandelions and chickweed should be pulled out by hand. Cultivation can injure shallow-rooted plants and disturb new seedlings. The ubiquitous elm and buckthorn seedlings should not be allowed to become entrenched.
3. Plants that spread rapidly, such as the swamp buttercup and wild ginger, can be kept in check by cutting them back each spring. Some violets, such as the common blue and confederate, are really not very "shv", they had best be put by themselves in a shady corner.

4. Diseased plants or parts of plants should be removed. Steps can be taken to cut down on slug damage. Stale beer or yeast in warm water in a shallow dish usually reduces their numbers. It has also been found that coarse hair clippings around a favorite plant can keep them away.
5. Notes taken on time of flowering and on the weather and its effects may help in next year's planning.

Up to this point we have been dealing with the established wild flower garden. If, instead, you would like to start one or expand the one you have, there is still time. As in all gardening, it is best to plan ahead. Early spring-blooming plants had best be ordered and planted in the fall while they are still dormant, but some of the later-flowering ones can be planted in the spring. There are a few nurseries in the Twin Cities and surrounding area that propagate some of the native wild flowers, along with their cultivated perennials, and sell them as potted plants in the spring. Try Windsor Nursery in St. Paul or Park, the Rice Creek Garden, and Merle Kratoske's in the Minneapolis area.

Easy plants to start with are the wild geranium (*Geranium maculatum*) and wild columbine (*Aquilegia canadensis*) and cardinal flower (*Lobelia cardinalis*) can be used in low, moist, sunny spots or in partly shaded areas. The tiny long-leaved bluet (*Houstonia longifolia*) and the narrow-leaved purple coneflower (*Echinacea angustifolia*) of the Minnesota prairie should have lots of sun and a sandy soil that gives good drainage. Of course potted plants will be more expensive than the bare-rooted ones that can be obtained in the fall from various nurseries.

To expand the garden, some vegetative propagation can be done in early May. Don't disturb those in flower or about to flower, but

others can be divided. The basal rosettes of the cardinal flower can be separated and similarly, the offsets of the large-flowered penstemon can be cut apart. Native ferns add interest in the wild flower garden. One of the most satisfactory is the maiden-hair fern. Before its curled up fronds, "fiddleheads", are fully opened, the end pieces of the rootstock can be cut off to start new plants.

Because they need long cold periods prior to germination, many wild flower seeds germinate better when planted in the fall or very early spring. There are others however that do quite well with no cold treatment or with only a couple of weeks of cold (40°F.). The latter can be given their necessary two weeks and still

be planted in May. Here are a few examples: blue flax (Linum lewisii), hare bell (Campanula rotundifolia), black-eyed susan (Rudbeckia hirta), wild bergamot (Monarda fistulosa), purple cone-flower (Echinacea purpurea) and among the grasses, blue grama grass (Bouteloua gracilis). Lupine (Lupinus perennis) does well with fresh seed that can be obtained at this time. With older seed scratch the coat lightly and soak the seed in water for a few hours before planting. As with other legumes, a dusting of the seed of Nitrogen (a powder of nitrogen-fixing bacteria) helps the seedling to grow. Fresh seeds of bishop's-cap (Mitella diphylla) can be obtained during these months. They will germinate quickly.

Seeds of native plants may be obtained from seed exchanges such as that of the National Rock Garden Society and our Minnesota Native Plant Society, also from the following:

Midwest Wildflowers, Box 64, Rockton, IL 61072
Little Valley Farm, RR1, Box 287, Richland Center, WI 53581
Prairie Restorations, Inc., P.O. Box 327, Princeton, MN 55371
Stock Seed Farms, Inc., RR1, Box 112, Murdock, NE 68407

Some of these places offer seeds of plants other than natives. Shun the introduced species.

If seeds had been set out in flats or other containers in the fall, they will need to be transplanted when the true leaves appear. Put into separate containers, they can develop further and be hardened gradually until strong enough to be put into their permanent place. It is necessary to do this transplanting early in the spring so that the seedlings will be large enough to withstand the summer.

Take time in May and June to walk through the woods and prairie preserves. Learn about the plants that are new to you. Find out their names and note their growing conditions and their companion plants. Apply this knowledge in your garden. Southeastern Minnesota is particularly rich in wild flowers in bloom during these months.

Wild flower gardening is one way of learning about our native plants and enjoying them thru their various stages. Only those who know and appreciate them are likely to put an effort into preserving them and their habitats for future generations.

PRESERVATION OF GENETIC PURITY

By Douglas Wade

During the past 40 years, there have been used in all of the prairie peninsula states thousands of pounds of western strains (including named cultivars) of prairie grasses and a few forbs. Furthermore, by about 1978, there were at least twelve prairie nurseries in Wisconsin, Illinois, and Minnesota, and an increase of agricultural and horticultural seed companies and nurseries marketing prairie species. There has even been free distribution of western-origin prairie "cultivars" by the Soil Conservation Service.

Much of this activity has resulted in a biological invasion which should be viewed with alarm. It is threatening to the genetic and ecological integrity and diversity of natural prairie remnants and has opened a genetic Pandora's box, because of widespread collection and distribution of seeds and plants from reconstructed prairies. Operators of several large concerns have gone so far as to advertise Eurasian species as native to North American prairies; others have offered them in their prairie listings, without comment.

With this perspective, there is great need to clarify such matters as the mixing of prairie plant gene pools and the aggressiveness and phenology of western strains when introduced into eastern sites. Perhaps a moratorium is needed on certain kinds of distribution. Or, ideally, why shouldn't there be a strong ethical movement aimed at keeping as pure as possible the whole prairie movement, including restorations and the whole range of landscaping, horticultural, and agricultural efforts? Admittedly, in facing this question certain aspects of rangeland and prairie pasture or hay use will be tough to resolve, though one guiding principle should clearly be that high-quality, pristine tracts should be stringently protected in order to preserve a diversity of indigenous gene pools.

Indeed, any broad-based ethic involving all kinds of prairie management will be most difficult to invoke: the prairie constituency is widespread geographically and diverse in aims and background. Nevertheless, prairie workers need to debate and come to terms with ground rules to strengthen a genetic heritage ethic. This is

the spirit of the following provisions which can be refined or amplified: 1) Don't contaminate high quality native prairie remnants with outside introductions; 2) help to develop and honor a careful system of permission and techniques applicable to seed collecting on dedicated preserves and scientific areas; 3) on prairie reconstructions, use seeds from the closest sources known to be free of western strains or other far-distant introductions; and 4) if you buy prairie seeds or plants, carefully check out the dealers and avoid those who sell cultivars or exotics and are vague about the sources of their seeds and plants.

from RESTORATION & MANAGEMENT NOTES
Vol. 1(1), June, 1981

ENDANGERED OR THREATENED?

Minnesota for the first time has an official list of state endangered, threatened and special concern species. A total of 287 native plants and animals have been listed: 57 species as endangered, 49 species as threatened and 181 species as special concern. The effort which began in July 1981, in accordance with the provisions of Minnesota's new Endangered Species Law (MN Statute 97.488), was completed in January of this year. DNR staff worked closely with a 30-member technical advisory committee that was appointed specifically to assist in the process of developing a state list.

The establishment of a state list is a great step forward. DNR views the educational value of this list as one of its most important contributions to natural resource management. A state list acts as an early warning system, alerting natural resource managers and the public that species and, hence, the habitats they depend on are experiencing problems. These problems can then be addressed at a state level before they become of concern at the national level. The list, in this manner, serves as a critical guide for establishing priorities for both state and private management activities and conservation efforts.

Copies of the State list are available from the DNR. Section of Wildlife, Box 7, St. Paul, MN 55155.

FIELD TRIPS

SPRING WILDFLOWERS AT NERSTRAND WOODS (RICE COUNTY)

Date: Saturday, May 5, 1984
Time: 9:30 a.m. to 3:00 p.m.

Meeting place: Picnic area parking lot in Nerstrand State Park. The park is located between Cannon City and Nerstrand. Travel directly west of Nerstrand following the Park signs to Nerstrand State Park.

Description: Nerstrand Woods is a fine example of a Minnesota maple-basswood forest. Carpeted with wildflowers in spring, this state park is a photographer's paradise. Participants will learn about land use and how it affects the structure of the forest.

Leader: Harriet Mason. Harriet is studying Nerstrand Woods for her doctoral dissertation in Botany at the University of Minnesota. Harriet and her husband Charles also serve as local TNC monitors for Kasota Prairie.

Accommodations: Camping sites are available at Nerstrand Woods State Park.

TRIP TO RICHTER WOODS COUNTY PARK

Date: May 12, 1984
Time: 10:AM at Richter Woods County Park Parking lot

Directions: Hwy 13 south to Montgomery take Co. hwy 26, 1½ miles west to Co Rd. 163, go south about ½ miles to the Richter Woods County Park on the west side of the road.

Description: A tour of Richter Woods — one of the finest old growth maple-basswood forests remaining in the state. The forest has a spectacular spring wild flower display.

What to bring: appropriate shoes for possibly muddy trails

Leader: Keith Wendt - plant ecologist

Note: Early Birders may meet beforehand at Nerstrand Woods State Park, 7 a.m. for additional warbler watching. This 1280 acre remnant of the big woods, 16 miles southeast of Northfield, hosts many bird species. For directions and further information call Pat Leacock at 866-1266. Those interested can join Pat in camping at Nerstrand Woods Friday night and wake up to the dawn chorus of birds.

TRIP TO MAY WRIGHT'S FLOWER GARDEN

Date: Saturday, May 19, 1984
Time: 10 am to 1 pm

Directions: The address is 4157 Bellaire Ave., White Bear Lake. Take #61 north to Co. Rd. F. Then east on Co. Rd. F (about 1.5 miles) to Bellaire Ave., Then north ½ block. The house is ½ block from the lake, south of it, between Co. Rd. F and south Shore Blvd. Or, if coming north on East County Line (#120) go west on Co. Rd. F to Bellaire Ave.

Description: Example of the construction of several Minnesota habitats and their characteristic flora.

What to Bring: If the day is pleasant bring picnic lunch. Tea and coffee will be furnished.

Leader: Dr. May Wright

Note: If arrangements can be made, we may be able to go to Warner Nature Center in the afternoon to see the bog there. It is just a little farther north.

MNPS BROCHURE BEING MADE

The Minnesota Native Plant Society is formulating ideas for an official brochure designed to acquaint prospective members and the public at large with the Society. If you have copies of brochures from other native plant societies, they would provide useful ideas for the layout of the brochure. Contact Nancy Sather,

if you have brochures or suggestions.

TRIP TO JIM MC KEE PRAIRIE

Date: Saturday, June 9
Time: 9:30-11:30 a.m.

Description of trip: Jim McKee Prairie is an undisturbed remnant of tall grass prairie in Ramsey County. The three-acre site is remarkable for its purity and diversity. Stargrass, Indian paintbrush, blue-eyed grass, puccoon, spiderwort and bearded bird-foot violet are among the plants flowering on the prairie in late spring. Jim McKee Prairie is owned by the City of Maplewood and is managed by Maplewood Nature Center.

Directions: Meet in the parking lot of Bulk Service Corp., 1300 N. McKnight Rd. (between Larpenteur Ave., and Maryland Ave.) in Maplewood. From Minneapolis, take I-94 east to McKnight Rd. Go north on McKnight until it intersects with Minnehaha Ave. and Stillwater Ave. (about one mile). Go northeast on Stillwater Ave. to the stoplights. Go north at the lights on Lakewood Dr. to Maryland Ave. (Beaver Lake will be on your left). Turn west on Maryland, then north on McKnight. Bulk Service Corp. is a few blocks north on the east side of McKnight just before the railroad tracks.

What to Bring: Wear long sleeves and long pants. Terrain is not difficult, but may be damp. May want to bring binoculars, hand lens, camera or sketch pad.

Leader: Chris Soutter, naturalist at Maplewood Nature Center.

SUSIE ISLAND: A BOREAL ADVENTURE (COOK COUNTY)

Date: July 21-22, 1984
Time: 10 a.m. to noon both days

Meeting place: Grand Portage Hotel parking lot, located along Highway 61 just west of Grand Portage.

Description: Due to the unpredictability of the weather, the trip is flexibly scheduled so that one day (we hope!) will be a visit to Susie Island and the other a tour of the Grand Portage area,

which may include Mt. Josephine, Partridge Falls, or Hat Point. Wave-washed Susie Island is as remote and inaccessible as anywhere in Minnesota. Along its rocky shores grow 10 species of rare plants, hundreds of miles south of their normal Arctic range. Lichen-draped spruce-fir forest rooted in thick peat covers the island interior.

Leaders: Jon Sanger and Tom Savage. Jon, a biology teacher at Ohio Wesleyan University, is a north shore native with extensive knowledge of the area's ecology and geology. Tom is a former Minnesota Chapter Chairman and has a special interest in Susie Island and the Grand Portage area.

NOTE: Because of the sensitivity of the area and difficulty of transportation, THIS TRIP IS LIMITED TO 20 PEOPLE. RESERVATIONS ARE REQUIRED. Please contact Julie at the Minnesota Chapter Office to secure your place. There will be a charge for boat rental (\$10-20). Bring bag lunches each day and dress for a potentially windy and wet boat ride. Participants are responsible for their own overnight accommodations. Possibilities are: Northwinds Cabins, Naniboujou Lodge, and other Grand Marais are motels or resorts. Rustic camping is available at Judge C.R. Magney State Park near Hovland.

PRAIRIE AND THE IRON HORSE: DODGE COUNTY PRAIRIE (DODGE COUNTY)

Date: Sunday, August 5, 1984
Time: 9 am - 1 pm

Description: An outstanding 34-acre remnant tallgrass prairie nestled between two railroad lines, Dodge County Prairie is one of the Chapter's newest acquisitions. Six rare plant species, including Sullivant's milkweed, wild quinine, and valerian thrive here. Amazingly enough, this gem was only discovered in 1981.

Meeting place: In front of the Cottage Shop Restaurant in downtown Hayfield.

Leader: Welby Smith, botanist for the Minnesota Natural Heritage Program and discoverer of the prairie. Welby is an expert botanist and can point out many of the 300+ plant species growing on the tract.

Rest facilities/accommodations: In hayfield.

PRAIRIES, PETROGLYPHS, AND OUTCROPS:
SOUTHWESTERN MINNESOTA (COTTONWOOD
COUNTY)

Date: August 11, 1984
Time: 8 a.m.

Description: Expandier Wildlife Management Area harbors 240 acres of prime, virgin tallgrass prairie dominated by lush stands of big bluestem. Upland sandpipers, marbled godwits, grasshopper sparrows, and numerous other prairie birds are found here. At nearby Jeffers Petroglyphs historic site visitors can explore prairie and ancient petroglyphs etched into the Sioux Quartzite bedrock. Stops at privately owned rock outcrop prairies with several rare plant species are also planned.

Meeting place: The east side of Courthouse Square in the center of Windom. Meet just across the street from the Uptown Expressway Cafe (a good breakfast spot). Bring a bag lunch and footwear for a possibly soggy prairie.

Leaders: Doug Wells and Keith Wendt. Doug, the DNR Area Wildlife Manager in Cottonwood County, manages Expandier WMA and is an expert birder. Keith is the plant ecologist for the Minnesota Natural Heritage Program.

Rest Facilities/Accommodations: Plan to make a weekend of it by staying at Kilen Woods State Park, with beautiful prairie and oak savanna. There are many other nearby sites to visit on your own on Sunday. Doug can give directions to these. Accommodations also available in Windom.

WEAVER BOTTOMS CANOE TRIP

Date: 18 August 1984
Time: 10 am

Directions: Weaver Bottoms is located in Wabasha County between Kellogg and Minneiska. From the Twin cities, take Highway 61 south to the Weaver boat landing. The landing is just off the east side of Highway 61. Look for the U.S. Fish and Wildlife Service refuge sign and the Weaver railroad shack. If you cross the Whitewater River, you've gone too far south. It's about a 2.5 hour drive from the Twin Cities.

Description: Weaver bottoms is a backwater of the Mississippi River and is composed of a diversity of wetland plant communities including deep marsh, shallow marsh and floodplain forest. The emphasis of the trip will be observing and identifying wetland plants. The highlight of the trip will be (hopefully) observing the extensive lotus beds in bloom. We will see a wide variety of submergent, floating-leaved and emergent plants. Also observed should be a number of species of waterfowl and wading birds. We will not be canoeing any great distance; we will simply be using the canoes for easy access to the wetland plant communities. This will be a joint trip with the St. Paul Audubon Society.

What to Bring: Canoe, insect repellent, lunch, rain gear, camera

Trip leader: Steve Eggers, an ecologist with the St. Paul District Corps of Engineers.

TRIP TO PRAIRIE RESTORATIONS, INC.

Date: August 25
Time: 10 am at the Nursery

Description: This trip will include a tour of our plant and seed production areas at the nursery. Greenhouse propagation, field production and seed processing will be discussed. Following lunch at the nursery we will travel 5 miles east to tour our seed production farm and also a small but highly diverse wet prairie remnant. An auto tour of the Sherburne National Wildlife Refuge 4 mi. west could close out the afternoon.

Directions: Five miles south of Princeton and 0.6 miles west of Highway 169 on Sherburn County Road.

Bring: Lunch, hiking clothes and field glasses. Water and a rest room are available at the nursery.

Leaders: Ron Bowen, John Bowen, Robin Suhsen, Lois Miller

A FEN IS MORE THAN A SWAMP: BLACK
DOG PRESERVE

Date: September 22, 1984
Time: 9 am to noon

Description: Black Dog Preserve is a unique fen and prairie complex in the metropolitan Twin Cities area. The preserve is a joint project of the Minnesota Chapter of the Nature Conservancy and the Minnesota Department of Natural Resources

Meeting place: Coming south from Minneapolis on 35W, take the Cliff Road exit immediately after you cross the Minnesota River. Follow the road east back under the freeway and then turn left onto Cliff Road. Park on the south end of the MTC Park and Ride Lot.

Leaders: Bob Djupstrom and Peg Kohring. Bob is Supervisor for the Scientific and Natural Areas Program of the Department of Natural Resources. Peg is Assistant Director for the Minnesota Chapter.

FALL ODYSSEY: ITASCA'S PINES AND BOGS
(CLEARWATER COUNTY)

Date: October 13, 1984
Time: 9 am - 3 pm

Description: Itasca, the oldest of Minnesota State Parks, is a refuge for towering 200-year old pines, soaring bald eagles and lumbering black bears. The 2,000-acre Itasca Wilderness Sanctuary, located within the park, will be the focus of this trip. A car caravan through the ten-mile wilderness drive (alive with fall colors, we hope!) will include several stops for hikes into the Sancturay.

Meeting place: In the parking lot for the Douglas Lodge, located in the park. This is a car caravan trip. Be sure to bring a bag lunch and "bog-stomping" boots.

Leaders: Ben Thoma and Paul Rundell. Ben, a biology teacher at Willmar Community College, is the park's head naturalist, with 25 years of experience at Itasca. Paul is the Regional Resource Coordinator for the DNR out of Bemidji, and a certified bog fanatic.

Rest facilities/accommodations: Camping available in the park.

MEMBER RELEASES BOOK

A reprint of Evelyn Moyle's book entitled Northland Flowers will soon be released! Available soon at your bookstore for \$12.95 (paperback), and \$19.95 (cloth).

BOOK SALE

Wildflowers of the United states by Harold William Rickett (Vols. 1-6 and Index) will be available for sale to the public at prices substantially lower than those offered by the publisher. The sale of these out-of-print volumes is being sponsored by the New York Botanical Garden. Promotional brochures will be mailed to MNPS members telling how you may purchase these.

IMPROVE YOUR WILDFLOWER PHOTOGRAPHY

The Nature Camera Club's monthly meeting on May 14 is entitled "Close-up Methods and Electronic Flash". The presentation, by Gary Ash (from the National Camera Club) will stress wildflower photography. The Camera Club meets at 7:30 p.m., in the community room in the basement of the Twin City Federal Bank building on the corner of 50th and France Avenue in Edina. Call Bruce Edinger at 332-1939 (evenings) for more information.

WILD INDIGO PRAIRIE STATE SCIENTIFIC AND NATURAL AREA

By Bob Djupstrum, DNR

A twelve and one half mile remnant of Southeast (SE) Minnesota (MN) Tallgrass Prairie, a plant community threatened throughout its range is to be found at Wild Indigo Prairie SNA. The unit occupies a former railroad line in Mower County which was one of the oldest railroads in the state. Less than 500 acres of this plant community type are known to exist in Minnesota.

Wild Indigo Prairie is an excellent example of SE MN Tallgrass Prairie, the most diverse prairie community type in Minnesota. The dominant grasses of this community are big bluestem and Indian grass. Broad leaved plants restricted to this community type and found on Wild Indigo include prairie wild indigo (state special concern species), wild quinine, (state endangered species), and Indian plantain (state threatened species). Additional rare species to be found include valerian (state threatened species), prairie mildweed (state threatened species), and white lady's-slipper (state special concern species).

Wild Indigo is a delight to visit from late April until snow fall since the prairie undergoes constant changes. Late April finds the princely flowering stalks of swamp saxifrage intermingled with vast members of valerian's bright green flowering stalks dominating the spring prairie landscape. Large patches of prairie smoke soon attempt to outcompete the valerian and saxifrage only to be soon outdone by other spring prairie species. Though early spring on Wild Indigo is so different than other Minnesota prairies, it is the middle of summer when the area really shines. The wild indigoes, compass plant, coreopsis, wild quinine, prairie clovers, prairie lily, blazing stars, gentians, native grasses, and many, many other common as well as rare species put on a show unlike any other to be seen in Minnesota.

For those interested in visiting Wild Indigo Prairie SNA it is an easy 2 hour drive to Brownsdale in Mower County, the heart of the unit. Numerous road crossings east and west of Brownsdale provide excellent access. Walking the area is quite easy by staying on top of the former railroad grade. Development of a rustic bike path on top of the railroad grade this summer will provide even better access in the future.

If you visit the area keep an eye out for the prairie white fringed orchid and prairie shooting star. Though these species have not yet been found on the unit there is a strong possibility that they may exist. Other rarities to look for include blundings turtle and upland sandpiper. If you should locate any of the above rare species notify the SNA Program.

Please remember to take nothing but pictures and memories of the area and leave your pets at home. If you desire further information please call the SNA Program at 297-3288 or write Box 6, 300 Centennial Building, St. Paul, MN 55110.

TREASURER'S REPORT

Nov.1, 1983 to March 15, 1984		
<u>Receipts</u>	\$692	692
(Membership dues)		
<u>Expenses</u>	217	217
(Printing and mailing)		
<u>Balance on Hand</u>		\$1,341
<u>Reconciliation</u>		
Draft Account	\$724	
Savings Account	597	
Petty Cash	20	\$1,341

ATTENTION!
 HAVE YOU PAID YOUR MEMBERSHIP FEES FOR THIS YEAR? YES NO
 IF NOT, PLEASE FILL OUT THE FORM ON THE INSIDE OF THE FRONT COVER.

- May 2 - **MNPS monthly meeting** consisting of two presentations: (1) Barbara Coffin, of the Minnesota Natural Heritage Program, Department of Natural Resources, presents: "The Flora and Vegetation of Old Growth Northern Hardwood Forests in Minnesota"; (2) a slide show on past field trips of MNPS, plus a discussion of upcoming trips.
- May 5 - Nature Conservancy trip to Nerstrand Woods (Rice County) to see spring wildflowers. 9:30 am to 3:00 pm.
- May 12 - Field Trip to Richter Woods County Park. 10 am.
- May 19 - Field trip to May Wright's wildflower garden. 10 am to 1 pm.
- June 9 - Field trip to Jim McKee prairie. 9:30 am - 11:30 am.
- July 21-22 - Nature Conservancy trip to Susie Island: A Boreal Adventure (Cook County). 10 am to noon. Reservations required. Charge for boat rentals.
- August 5 - Nature Conservancy trip to Dodge County Prairie. 9 am - 1 pm.

- August 11 - Nature Conservancy trip to south-western Minnesota (Cottonwood county) to see prairies, petroglyphs and outcrops. 8 am.
- Aug. 15 - Next MNPS newsletter deadline
- August 18 - Weaver Bottoms Canoe Trip. 10 am
- August 25 - Field trip to Prairie Restorations, Inc. 10 a.m.
- Sept. 22 - Nature Conservancy trip to Black Dog Preserve (Dakota County). 9 am - noon.
- Oct. 13 - Nature Conservancy trip to Itasca's Pines and Bogs (Clearwater County). 9 am - 3 pm.

Minnesota Plant Press is published by the Minnesota Native Plant Society, 220 Biological Sciences Center, 1445 Gortner Avenue, University of Minnesota, St. Paul, Minnesota, 55108. Peg Kohring, President; Welby Smith, Vice-President; Deb Brown, Secretary; Steve Eggers, Treasurer; Evelyn Moyle and May Wright, Directors-at-large; Neil Anderson, Editor. Minnesota Plant Press may be obtained through membership in the society:
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