



MINNESOTA PLANT PRESS

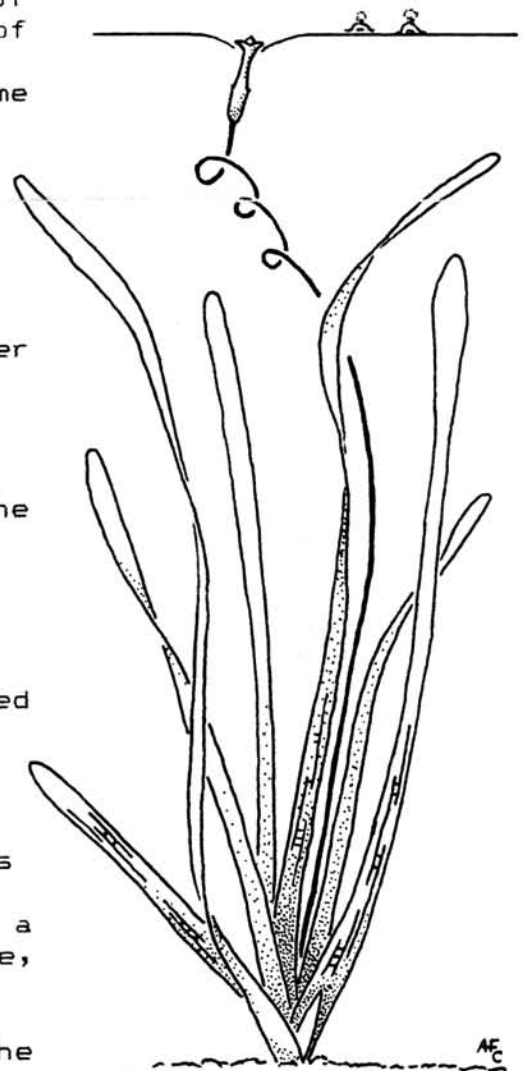
Vol. 8:1 NEWSLETTER OF THE MINNESOTA NATIVE PLANT SOCIETY Fall 88/89

FALL FLOWERING AQUATICS -- Vallisneria americana

Now that another Minnesota winter is close at hand, our botanizing activities begin to slow down. Fruits are often still to be seen and can sometimes present a challenge in identification of their producers, but plant hunting at this time of the year often is not extensive. Yet, there are flowers to be seen; members of the Asteraceae come readily to mind. Another plant still flowering but often overlooked is eelgrass (a.k.a. tapegrass, water celery).

Eelgrass, Vallisneria americana, is a submerged plant of quiet waters or slow streams where there is a muddy substrate. The genus is worldwide in distribution, though mainly in warmer waters, and is highly prized by aquarists as a natural oxygenator for fish tanks. The ribbon-like leaves may grow to two meters in length but less than a centimeter in width. Flowering, in Minnesota, occurs in August and September with the latest recorded flowering time of 26 September (probably reflects a lack of botanists in the field in the fall). The plants are dioecious (sexes are on different plants) with very inconspicuous flowers: three sepals and three white petals; the female flowers have three united carpels; the male flowers generally have two stamens. Initially developing underwater, the flowers rise to the surface just before opening.

The most interesting aspect of this plant is its mode of pollination. Each female flower is borne on a stalk (peduncle) that grows upward in a spiral fashion bringing the flower to the surface, where it sits in a little "dimple." The male flowers, however, are released by their inflorescence to rise to the surface. Once at the surface the perianth opens and forms a little



"upside-down canoe" supporting the stamens. Water and wind currents then blow the little male flowers around; as they approach a female flower, water tension causes an acceleration and the male flowers slide down the sides of the "dimple" and slam into the female flower. Bingo! Pollination! Once pollination occurs, the stalk of the female flower then begins contracting, pulling the ovary into the water where fruit maturation will take place. Population increase, however, is probably due more to vegetative reproduction (the plants are stoloniferous); the protein-rich male flowers are often eaten by various fish.

--- Nita Cholewa

(This pollination syndrome is described in greater detail in Meeuse & Morris, "The sex life of flowers," 1984, and in Wylie, Botanical Gazette 63:135-145, 1917.)

MNPS NEWS ****

Upcoming meetings

The general topic for our programs this year is to be the following:

Some Ecological Factors as They Affect Minnesota Plants.

For the first meeting on **Wednesday, 5 October**, we are pleased to have as our guest speaker, **Dr. Ed Cushing**, professor in the Dept. of Ecology and Behavioral Biology at the University of Minnesota. His topic will be:

Soils as a Factor Affecting Plant Distribution in Minnesota.

Following the program will be the annual seed exchange and a social period.

--- May Wright

General meetings are held the first Wednesday of each month (**5 Oct, 9 Nov, 7 Dec**), in **335 Borlaug Hall, UM St. Paul campus**. Meetings start at **7:30 pm** and are open to the public.

Board meetings are held in the St. Paul Student Center Cafeteria, at **5:30 pm**, on the same evenings as the general program. Board meetings are open to all MNPS members.

Annual Seed Exchange - 5 October

The annual exchange of seeds of native plants will be held as part of the **October meeting**. At the seed exchange, envelopes of seeds will be available to those attending the meeting, but contributors will be given first selection.

To prepare for the exchange, please collect only mature seeds that are free of insects and disease. Take only a small percentage of seed of wild plants. Label seed envelopes with name of plant, collection site, habitat, date of collection and your name. Please also indicate if the seeds are from a garden or a wild plant.

Please bring seeds to the meeting **by 7:15 pm.** If you cannot attend the exchange but have seeds to donate, please send them to: Dr. May Wright , by 28 September.

--- Chris Soutter

Lawsuit Settlement

Two years ago, a libel lawsuit was brought against MNPS by Tony Tonga of Nerstrand Woods State Park. The lawsuit was initiated because of our response to the destruction of a population of Erythronium propullans in the State Park. Early this summer the lawsuit was settled, by Court Dismissal. We extend our deepest gratitude to our lawyer, Stephen S. Eckman.

Although Mr. Eckman donated much of his time on this case, we still have some legal costs to pay. Our remaining balance is approximately \$3000; we hope to generate the money through donations and fund-raisers this year. As you renew your membership, please consider making a donation to the legal fund to help pay for these costs.

MNPS Committees Need Volunteers

Standing committees are an integral part of our Society. If you would like to help, in any way for as much time as your schedule allows, please consider contacting the appropriate chairman (see below). Last year's questionnaire indicated much support. Let's see it happen . . .

Education & lectures (includes helping arrange speakers)	May Wright
Publicity & welcoming (includes arranging refreshments)	Robin Fox
Workshops & field trips	Robin Fox
Membership	Pat Leacock
Historian & records	Chris Soutter
Conservation	Harriet Mason
Newsletter	Nita Cholewa

Proposed changes to our bylaws

During the past year, the Board has made several proposed changes to the MNPS bylaws, primarily to clarify some issues but also to reflect our Society's growth. In order for these changes to become effective two consecutive monthly ballots, regarding acceptance/rejection of the proposed amendments, are required. Voting will be by secret ballot at the October and November meetings. The following list indicates the proposed changes ("prev." indicates what the bylaws currently say; "prop." indicates suggested change):

Art. III - Membership

Sect.A - prev.: Specific dues listed for each membership category. prop.: Omit specific amounts of dues.

Sect.A #3 - prev.: "Student. **Under age 30 and** attends a school full time ..." prop.: "Student. Attends a school full time ..."

Sect.A #4 - prev.: "Senior. Over age 62 **and** retired ..." prop.: "Senior. Over age 62 **or** retired ..."

Sect.A #6 - prev.: "Donor. Those individuals or organizations who make a gift, devise or memorial of \$25.00 or more. Entitled to newsletter, does not include voting rights or privileges of holding office." prop.: Delete "Entitled to ... holding office" and add "Same priveleges as Individual."

Sect.B - prev.: "Dues are payable upon application for membership and annually on the 1st of **September**." prop.: "... on the 1st of **October** ..."

Sect.H - prev.: "Dues shall be one-half for persons applying for membership after January 1st." prop.: "... applying for **new** membership ..." Add "New members joining after April 1st shall be considered paid through September of the following year."

Art. IV - Meetings

Sect.A - prev.: "Monthly meetings of the membership shall be held on the first Wednesday of each month, October through **June**, ..." prop.: "... October through **May**, ..."

Sect.D Sent.3 - prev.: "The Treasurer shall prepare and give an annual accounting of the corporation's receipts and expenditures." prop.: **add** "which shall be published in the next newsletter."

Sect.F - prev.: "An identified absentee ballot may be cast by mail." prop.: **add** "An absentee ballot may be obtained from the secretary and must be returned to the secretary before the election."

Art. V - Board of Directors

Sect.F - prev.: "... propose a slate of three new Directors in time for notice of the proposed slate to appear in the January issue of the Minnesota Plant Press." prop.: "... to appear in the January (**winter**) issue ..."

Art. IX - Newsletter

prev.: "The Minnesota Plant Press newsletter shall be published in September, January, and May ..." prop.: "... published in September (**fall**), January (**winter**), and May (**spring**) ..."

1988 MINNESOTA BOTANY EXHIBITION *****

JOIN PSA !

THE PHOTOGRAPHIC SOCIETY of AMERICA

3000 United Founders Blvd, Suite 103
Oklahoma City, OK 73112 USA

Time once again for the annual Minnesota Botany Exhibition of International Photography, sponsored jointly by MNPS and Minnesota Nature Photography Club, and approved and listed by the Photographic Society of America. This year's MNPS showing will be narrated by Rick Haug of MNPC and Nita Cholea and Dave McLaughlin of MNPS.

Subject matter is restricted to BOTANY and its many facets: flowering plants, non-flowering plants (fungi, lichens, mosses, ferns), habitats, and fossil plant life. The photography should be done in such a fashion that a well-informed person will be able to identify the subject material and to certify to its honest presentation. Human elements, if present, should be unobtrusive and enhance the nature story. Photographs that depict artificially produced hybrid or horticultural varieties of plants may not be used. Photographs depicting still life studies, obviously set flower arrangements, mounted specimens, museum habitats or groups, derivations or any form of photographic manipulation that alters truth of the photographic statement are ineligible and should not be submitted. Exception: detailed micro or macrophotography. Entries restricted to 2 x 2 slides. **ALL SLIDES MUST BE SPOTTED IN THE LOWER LEFT-HAND CORNER AS VIEWED FROM AN UPRIGHT POSITION AND MUST BEAR THE NAME AND ADDRESS OF THE MAKER. DESCRIPTIVE TITLES ARE RECOMMENDED.**

This exhibit will follow the recommended procedures of PSA and is open to everyone, everywhere. All possible care will be taken to protect slides, however, responsibility cannot be assumed for lost or damaged entries. Entries without proper entry fee (\$3.50) will not be returned or forwarded. All Acceptances will be eligible for listing in PSA's "Who's Who" and will count toward "Star Ratings."

1988

ENTRY FORM

MINNESOTA
BOTANY

Entry No.

Name

Street

City

State

Country/Zip

Star Rating

TITLE Please print or type

Score

Award

1			
2			
3			
4			

RC

CK

C

Entry forwarded from

Forward to (enclose label)

ENTRY FEE: 4 Slides \$3.50 Make checks payable to MINNESOTA BOTANY EXHIBITION

OVERSEAS ENTRANTS: Underline family Name
Familienname unterstreichen. Prenom et nom. Souffigner le nom.

TO:

MINNESOTA BOTANY EXHIBITION
Richard Haug, CHMN
2514 Pennsylvania Ave.
Minneapolis, Minn. 55426 USA

Photographs for Exhibition to be returned to
sender

NO COMMERCIAL VALUE

FIRST CLASS MAIL

MINNESOTA BOTANY
Richard Haug, CHMN
2514 Pennsylvania Ave.
Minneapolis, Minn.
55426 USA

Photographs from Exhibition being returned to
sender. NO COMMERCIAL VALUE

REPORT CARD

MINNESOTA BOTANY
Richard Haug, CHMN
2514 Pennsylvania Ave.
Minneapolis, Minn.
55426 USA

CATALOGUE

Kenneth Olson FPSA
MN Botany Catalog CHMN
3 Woodhill Lane
St. Paul MN 55127 USA

NEXT ENTRY FORM

Eighteen medals to be awarded this year for: PSA Best of Show; Best slide by an exhibitor outside of USA; Best non-flowering plant; Best terrestrial orchid; 3 medals to the Best slide of 3 Minnesota residents; 11 medals - open category.

Calendar:

Closing deadline for entries	3 Oct
Judging	8 Oct
Report cards mailed	12 Oct
Total rejects mailed	18 Oct
All slides returned	17 Nov
Catalogues mailed	26 Nov

Showings:

7:30pm - 2 Nov, Borlaug Hall, UM St.P.
7:00pm - 14 Nov, Central Community
Center, St. Louis Park

For more information, contact Rick Haug,
(evenings).



1988 INVASIVE WEED SYMPOSIUM A SUCCESS ****

Through the generosity of the Belwin Outdoor Education Laboratory, the MNPS held its first symposium, "Plant Invaders," in Afton on 9 April 1988. Approximately 85 people, including many associated with regional parks and nature centers, gathered in the Belwin meeting room to hear three well-illustrated presentations from experts on plant invaders. Virginia Kline, Professor of Botany, Univ. of Wisconsin-Madison Arboretum, spoke on European buckthorn and hybrid honeysuckles. Calvin Messersmith, Professor of Agronomy, Univ. of North Dakota, Fargo, discussed leafy spurge. Bonnie Harper from Minn. DOT and Jay Rendall from Minn. DNR shared the platform to present the case against purple loosestrife. The following is a summary of their presentations.

European, or common, buckthorn (Rhamnus cartartica), leafy spurge (Euphorbia esula), and purple loosestrife (Lythrum salicaria - including the cultivated "Morden Pink") are major threats to the native vegetation of Minnesota. They share a common Eurasian origin, and they all were introduced to North America without the biological control agents that keep each in check in its native habitat. All of these weeds might be controlled someday by the introduction of natural predators, such as insects or fungal or other diseases, but at present no control agent is sufficiently well studied to be used with any of them. Each of these invasive plants occurs in a different habitat, although buckthorn and loosestrife may occur together in wetlands.

Buckthorn -- a shrub to small tree native to open oak woods, thickets and floodplains. The male flowers are produced on separate plants from the female; if only male plants were sold, it would help limit their spread. In North America seedlings are generally most successful in wetlands and oak woods, but at the Wisconsin Arboretum buckthorn and honeysuckle are major weeds in all ecosystems except prairie. Birds eat the fruits and are the major dispersal agents. The fruits are also eaten by other animals, such as mice and elk, and they can float for several days without losing viability. A second related species of buckthorn (alder-buckthorn, R. frangula) is also becoming a problem in wetlands.

Leafy spurge -- an herbaceous plant several feet tall that can be identified by the yellow bracts and by a white latex in the sap. It is adapted to cool regions and is a major threat on grasslands of the northern Great Plains. Seventy percent of the dry weight of vegetation in some infested areas is leafy spurge. It is avoided by cattle and ruins grazing lands. Its seeds are spread by birds and other wildlife but, in addition, the capsules open explosively, throwing seeds up to 15 feet away. Leafy spurge has very deep roots, to 30 feet, and produces new shoots from buds on horizontal rhizomes. Its ability to regenerate and its deep roots make it particularly difficult to control.

Purple loosestrife -- is a handsome herb two to seven feet tall. It has pubescent leaves, which may aid in its identification, but it is easily confused with native lythrums. It is best not to plant any lythrums from nurseries. Purple loosestrife seeds are dispersed by floodwaters, waterfowl and other animals, and by boats. Eight natural plant communities in Minnesota are affected by it, including sand beaches, marshes, sedge meadows, calcareous fens, and wet

blacksoil prairies. Habitats for many animals, such as northern pike, loons and ducks, are adversely affected by purple loosestrife because it outcompetes native plants. Undisturbed wetlands are unlikely to be invaded but beware - drought leads to outbreaks as low water opens previously submerged land to colonization.

[Control] -- The most effective means of control for all of these plant invaders is the selective use of herbicides. Other methods, such as digging, burning, or flooding wetlands, fail for a variety of reasons. Cutting buckthorn shrubs in the fall and treating stumps with a higher concentration of "Roundup" (20%) than is recommended on the label has worked well. The number of native plants at the Univ. of Wisconsin Arboretum increased 3-10-fold in 1-2 years after control began. For leafy spurge "Tordon" is recommended. It is necessary to spray 15 feet around an infestation to get at the roots and dispersed seeds. [Editor's note: It is best to check with your County Extension Agent before using any herbicide. Side effects to the environment are not always listed on the package] Although leafy spurge can be controlled, eliminating it is unlikely. Purple loosestrife infestations should be reported to the DNR. "Rodeo" will eliminate mature plants but does not control seedlings. A permit (available free from the DNR) is necessary to apply "Rodeo." MNPS members should get further details on control methods before trying them because a number of additional herbicides may be more suitable in particular situations.

MNPS members can assist in controlling these invasive plants in several ways. Alert your neighbors to the dangers of planting some horticultural plants. If only male buckthorns were planted or if female plants were removed, the buckthorn problem would be greatly reduced. Weeding uncultivated or natural areas to remove young buckthorns is effective. New infestations of purple loosestrife should be reported to your local office of the DNR (or Jay Rendall, 612-276-2835). One plant per acre is a major purple loosestrife infestation because of the high seed production. Leafy spurge, if sprayed when the population is small, can be kept under control.

In addition to the guest speakers, several elegant displays on these invaders were set up to acquaint the audience with the plants. David Biesboer and Willard Koukkari, professors of Botany, Univ. of Minnesota, St. Paul, explained their research on leafy spurge; Jay Rendall had a display on the DNR's control program for purple loosestrife; specimens from the Univ. of Minnesota Herbarium and live plants were also available for examination.

MNPS is grateful to our speakers, two of whom made long trips to share their knowledge of these plants with us; to the Belwin staff for helping us get set-up; to Esther McLaughlin for coordinating the symposium; to Vera Wong for designing the brochure; and to the many members and students who assisted in making the symposium a success. We will be soon be asking for help with this year's (1989) symposium; it is a great way to get acquainted with members of the Society.

--- Dave McLaughlin

A final thought from Virginia Kline: there should be a tax on horticultural introductions with the funds dedicated to fighting the problems caused by ornamental invaders.

1988 SUMMER CAMPOUT SPECTACULAR ****

The first annual MNPS campout was held the weekend of 24-26 June at the Engels' farm in Aitkin County of central Minnesota. Those who couldn't come missed a great time!

Friday evening was spent setting up tents, relaxing, getting acquainted and trying to cool off. Saturday brought a perfect day with a refreshing breeze to keep away the deer flies and cooler temperatures. After an outdoor breakfast we headed for the Long Lake Conservation Center, located south of Palisade. (The Center annually provides several thousand school children the opportunity to study the environment, learn about conservation, and gain an appreciation of their natural surroundings.)

Our morning hike was through a northern hardwood forest with maple, basswood, and oak. The path went past alder thickets and a small "kettle," which had fertile rattlesnake ferns, Botrychium virginianum. Although most of the forest flowers were past, Dave McLaughlin (mycologist, UM) was pleased to find that the rain of a week before had induced a number of fungi to fruit. We found an interesting variety of mushrooms and a very colorful slime mold.

Lunch was eaten on the shore of Long Lake and then it was off into a tamarack-black spruce bog. Here again, most of the plants were past the flowering stage but we learned to identify various ericaceous plants by their fruits, e.g., Ledum, Kalmia, Vaccinium, Andromeda, and Chamaedaphne. The cranberry, Vaccinium oxycoccus, was the only one still flowering. There were also several kinds of unique fungi nestled in the sphagnum. Although the area had been parched by the summer drought we stood in ankle deep water on the 15 sq.mi. bog, while enjoying the fragrance of Labrador tea, Ledum groenlandicum, and listening to the song of a white throat. As far as we could see there were black spruce and tamarack with open areas of sphagnum decorated with white dots of cotton grass, Eriophorum.

Next, we explored the lake shore and its band of floating sedge mat, a new experience for some. This proved to be the most productive in terms of flowering plants. Welby Smith (botanist, DNR) helped to identify the plants and he also found the not-so-obvious tiny Drosera intermedia, a sundew with elongate leaves. Also of interest were several sedges, marsh cinquefoil - Potentilla palustris, swamp candle - Lysimachia terrestris, pitcher plant - Sarracenia purpurea, and a bladderwort Utricularia. We were also pleased to find two lovely pink orchids, Calopogon pulchellus and Pogonia ophioglossoides. In the water were species of Polygonum, Nymphaea, Brassenia, Sagittaria, and Sparanium.

One couple took time for a cool dip in the lake and then we all went back to the farm for an outdoor dinner. Another hike in the evening along the Mississippi River took full advantage of an unusual Minnesota summer without mosquitos. Because of the drought the river had a wide mud bank, upon which many annuals, not normally seen, were growing. Of interest were several species of Scrophulariaceae. One with tiny lavender flowers and forming low mats was Lindernia dubia; taller plants were the monkey flower, Mimulus ringens; and a tiny

white-flowered speedwell, Veronica peregrina. There were numerous plants with arcs of yellow-green flowers, the ditch stonecrop, Penthorum sedoides, as well as silver-leaved everlasting, Gnaphalium obtusifolium.

After exploring the riverbank we returned once more to the farmhouse and spent some time looking at a display of fungi collected on the day's hikes and identified by Dave McLaughlin. There were many families represented, a pleasant surprise for such a dry summer. Not willing to end the busy day, Audrey Engels and Dave McLaughlin also presented a slide show that included flowering bog plants, a review of other plants seen that day, Minnesota orchids, and some of the fungi one would expect to see in the habitats we had visited.

Everyone headed home early on Sunday, but agreed it was a successful weekend and wished to make it an annual event. Hosted by John and Audrey Engels, the group included Dave and Esther McLaughlin, Welby Smith, Vera Wong, Nick Rowse, and Mary Anne and Brad Beisel.

--- Audrey Engels



1988 Summer Campout: Nick, Vera, Welby, Brad, and Mary Anne look on as Dave explains about an unusual mushroom.

UM DEPT. OF BOTANY REORGANIZATION *****

Thanks to our members and friends who took the time to make legislative contact in support of the Dept. of Botany (legislators received an overwhelming amount of letters).

The Dept. apparently will not be disbanded as the new dean had suggested. Instead, a reorganization is now underway that may broaden the scope and improve the quality of the Department, which will also be renamed the Dept. of Plant Biology. The plans now call for the Department to be answerable to the colleges of Biological Sciences and Agriculture. Existing botany staff may be augmented by additions from other departments (e.g., Dept. of Genetics and Cell Biology and Dept. of Horticultural Science). Administrative details still need to be hammered out but the prospects seem encouraging.

While cautious optimism is probably the appropriate mood, continuing vigilance will be necessary to insure that courses and research in whole organisms and their classification, anatomy, diversity, evolution, etc. remain at the center of the Department's mission. We will keep the membership informed as this reorganization takes shape. Thank you again for your support!

--- Nita Cholewa, Dave & Esther McLaughlin

CONSERVATION CORNER *****

1988 Minnesota Environmental Congress -- State environmental officials will travel to five MN cities in September and October to discuss environmental issues with interested citizens. Groundwater pollution, air pollution, protecting human health, protecting wildlife habitat, water protection plans, and financing environmental protection are some of the issues to be addressed. The Congress, sponsored by the MN Environmental Quality Board, is open to the public. Information gathered from these meetings will be compiled into a report for the Governor and the Legislature.

For more information about the Environmental Congress or to pre-register, contact the MN Environmental Quality Board, 300 Centennial Office Building, 658 Cedar St., St. Paul, MN 55155, or call 612-296-2603. Individuals who pre-register will receive background materials prior to the sessions.

--- Sheldon Mains

GARDENER'S CORNER ***

New England Wildflower Society 1989 Seed List

The New England Wild Flower Society is again offering for sale more than 150 varieties of wildflowers and ferns, adapted to a wide range of locations. All requests for the 1989 Seed List must be received by 1 March because seed sales close 15 March. Send a self-addressed, \$.45-stamped envelope (#10, business size) to: Seeds, New England Wild Flower Society, Hemenway Rd, Framingham, MA 01701. **No requests for lists will be honored without the stamped envelope.** Requests will be filled in the order received.

References and Nurseries for Minnesota Flora

The following information is often requested and here provided for your benefit. I have compiled these lists from my own experience and have tried to keep them restricted to the Minnesota area.

---- May Wright

Guides for Identification of Many Minnesota Wild Plants

Britton, N. L. and A. Brown. 1913. An illustrated flora of the northern United States, Canada, and the British Possessions. 3 vols. New York: Scribner. (Illustrations)

Fernald, M. L. 1950. Gray's manual of botany. 8th ed. New York: The American Book Co.

Monserud, W. and G. B. Ownbey. 1971. Common wild flowers of Minnesota. Minneapolis: Univ. of Minnesota Press. (Illustrations)

Morley, T. 1966. Spring flora of Minnesota. St. Paul: Dept. of Botany, Univ. of Minnesota.

Moyle, J. B. and E. W. Moyle. 1977. Northland wild flowers. Minneapolis: Univ. of Minnesota Press. (Colored photographs)

Peterson, R. T. and M. McKenny. 1968. A field guide to wildflowers of north eastern and north central America. Boston: Mifflin Co. (Colored illustrations)

Rosendahl, C. O. 1928, 1955. Trees and shrubs of the Upper Midwest. Minneapolis: Univ. of Minnesota Press. (Illustrations)

Smith, H. V. 1961. Michigan wildflowers. Cranbrook Institute of Science, Bulletin #42. Bloomfield Hills, Michigan. (Illustrations)

Sources of Information on the Cultivation and Propagation of Native Plants

Aitken, G. D. 1968. Pioneering with wild flowers. New York: Prentiss Hall.

Birdseye, C. and E. G. Birdseye. 1951. Growing woodland plants. London: Oxford Univ. Press. Reprinted in 1972 by Dover Publications, New York.

Curtiss, W. C. 1978. Propagation of wildflowers. Framingham, Massachusetts: New England Wildflower Society, Inc.

Northington, D. Clearinghouse Information. National Wildflower Research Center. North Austin, Texas.

_____. 1974. Seeds of woody plants in the United States. Agricultural Handbook, No. 450. Forest Service, U.S.D.A.

Rock, H. W. 1971. Prairie propagation handbook. 6th ed., 1981. Milwaukee County Dept. of Parks, Milwaukee, Wisconsin.

Smith, J. R. and B. S. Smith. 1980. The prairie garden. Madison: Univ. of Wisconsin Press.

Smithberg, M. and M. L. Wright. 1976. Growing wildflowers from seed. Amer. Horticulturist 55(6):12-13, 32.

_____ and _____. 1981. Cultivation and germination procedures for wild flowers. Minn. Horticulturist 109(4):105-108.

Sperka, M. 1973. Growing wildflowers. New York: Harper & Row.

Steffek, E. 1954. Wild flowers and how to grow them. New York: Crown Publishers, Inc. Revised ed. 198

Sullivan, G. A. and R. H. Daley. 1981. Directory to resources on wildflower propagation. Prepared at the Missouri Botanical Garden. National Council of State Garden Clubs. 4401 Magnolia Ave. St. Louis, MO 63110

Wright, M. 1977. Try growing wildflowers. The Minnesota Volunteer 40(231):50-57.

Sources, in the Minnesota and Adjacent Areas, of Wildflower Plants and/or Seeds

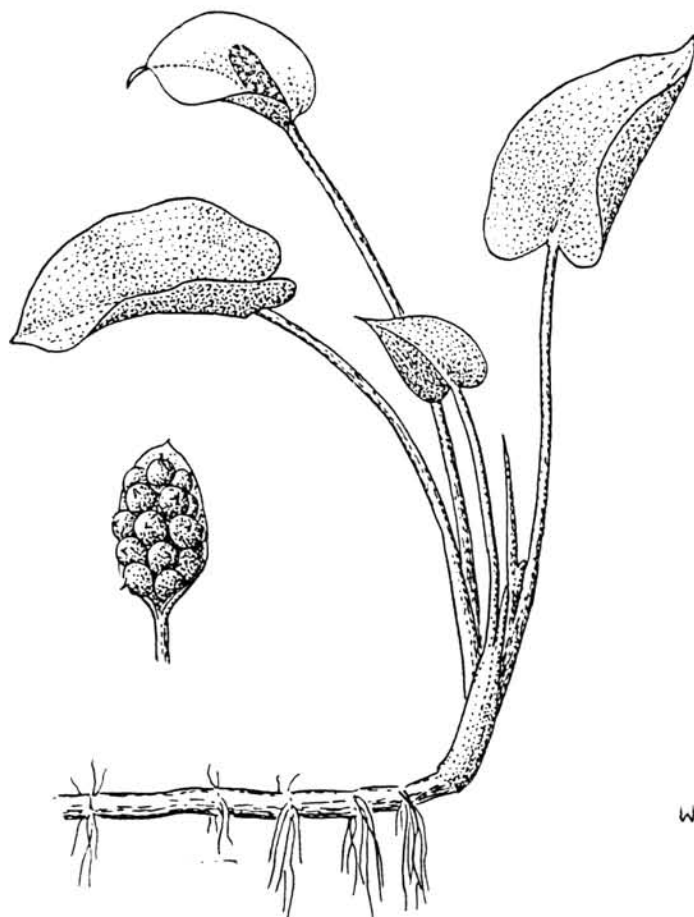
NAME	PLANTS (P) OR SEEDS (S)	ORIGINAL SOURCE OF MATERIAL
American Rock Garden Society 15 Fairmead Rd. Darien, CT 06820 (Seed Exchange)	S	Some from MN
Ferndale Garden Center P.O. Box 218 Askov, MN 55704	P	MN
Landscape Alternatives, Inc. 1465 N. Pascal St. St. Paul, MN 55108	P,S	Many from Twin Cities area
Little Valley Farm R.R.1 Box 287 Richland Center, WI 53581	P,S	Wisconsin
Midwest Wildflowers Box 64 Rockton, IL 61072	S	Illinois
Minn. Native Plant Society 220 Bio. Sci. Center Univ. of Minnesota St. Paul, MN 55108 (Fall Seed Exchange; Spring Plant Sale)	P,S	Many from MN
Orchid Gardens 2232 - 139th Ave. NW Andover, MN 55307	P	MN, especially northern MN
Prairie Moon Nursery Rt.3 Box 163 Winona, MN 55987	P,S	Driftless Area of MN and adjacent areas
Prairie Restoration P.O. Box 327 Princeton, MN 55371	P,S, Seedlings	Most MN
Prairie Ridge Nursery RR.2 9738 Overland Rd Mt. Horeb, WI 53572-2822	P,S	Wisconsin
Prairie Seed Source P.O. Box 83 North Lake, WI 53064-0083	S	Southern Wisconsin

NAME	PLANT (P) OR SEED (S)	ORIGINAL SOURCE OF MATERIAL
Regent Gardens 2460 Regent Ave. N Golden Valley, MN 55422	P	Some MN, Michigan, various
Rice Creek Gardens 1315 66th Ave. NE Minneapolis, MN 55432	P	Some MN, Michigan, various
Univ. of Minnesota Landscape Arboretum 3675 Arboretum Dr. Box 39, Chanhassen, MN 55317 (Spring Plant Sale)	P	Some MN, various

Apologies to May Wright

The Spring 87/88 issue of Minnesota Plant Press carried an article providing some tips for growing native wildflowers. Your editor inadvertently neglected to say that the information was compiled by May Wright and was based on her many years of gardening experiences. My apologies, May, for not giving due credit; an unintentional slip.

--- Nita Cholewa



Water arum (Calla palustris)
from Monserud & Ownbey, 1971

OTHER UPCOMING EVENTS ****

September

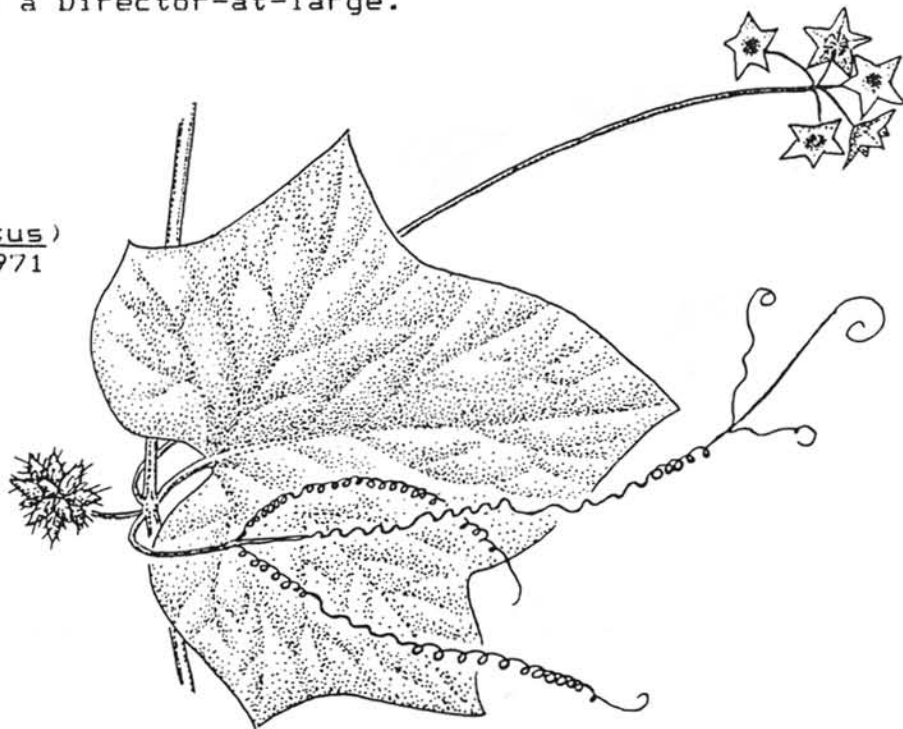
- 8 MN Environmental Congress - Mankato
- 10-11 UM Landscape Arboretum Flower Show
- 15 MN Environmental Congress - Alexandria
- 16-18 Bryological Foray at Black River Falls, Wisconsin. For more information, contact John Christy of the Milwaukee Public Museum.
- 22 MN Environmental Congress - Duluth
- 24 UM Landscape Arboretum Fall Festival

October

- 3-7 UM Twin Cities "Just One U" - special all-University week long open house with displays and guest speakers. Call for additional details.
- 4 Open house at UM Herbarium (8th floor, Bio Sci Center; St. Paul campus) from 2-6 pm.
- 6 MN Environmental Congress - Bemidji
- 17-20 Management of Natural Communities - workshop sponsored by the Shawnee NF, US Forest Service Eastern Region, The Nature Conservancy, and Illinois Dept. of Conservation; Paducah, KY. For additional information call Larry Stritch, Illinois Dept. of Conservation at 618-949-3304 or Mike Spanel at 618-253-7114.
- 20 MN Environmental Congress - St. Paul
- 22 UM Landscape Arboretum Seminar: Fred Case - Native orchids of Minnesota.

MANY THANKS TO HARRIET MASON, who has served MNPS as President these past two years and who gave so much of her time on behalf of the Society, especially in the matter of the Tonga Lawsuit. Harriet will remain on the Board as a Director-at-large.

bur cucumber (Sicyos angulatus)
from Monserud & Ownbey, 1971



MNPS MEMBERSHIP RENEWALS ARE NOW DUE !

While new members may join at any time, as stated in our bylaws all memberships are to be renewed each fall. To avoid a delinquent membership and missing issues of the newsletter, please have your membership dues **paid by 1 October 1988**. A self-addressed envelope is provided for your convenience with this newsletter. Some people have paid their memberships several years in advance, so please check the mailing label for your membership term.

THIS WILL BE YOUR ONLY RENEWAL NOTICE !

Minnesota Native Plant Society Membership Registration

Make checks payable to: Minnesota Native Plant Society and mail to:
Minnesota Native Plant Society, 220 Rio Sci Center, Univ. of
Minnesota, St. Paul, MN 55108

_____ Renewal

_____ New member

Membership categories:

\$8.00	_____ Individual	\$6.00	_____ Senior (retired)
\$10.00	_____ Family	\$15.00	_____ Institution
\$6.00	_____ Student	\$25.00	_____ Donor

Name _____ Phone _____

Address _____

City _____ State _____ Zip _____

If of M campus address _____

As stated earlier in this newsletter, the lawsuit with Tony Tonga has been settled (case dismissed). We must now arrange for payment of the balance of our legal fees, approximately \$3000. Please consider making a donation to the lawsuit fund as you renew your membership.

\$ _____ donation to lawsuit fund

1988/1989 MNPS Board of Directors

David McLaughlin, President (1990)
May Wright, Vice-president (1989)
Welby Smith, Secretary (1989)
Ruth Phipps, Treasurer (1989)
Steve Eggers, Director-at-large (1990)
Robin Fox, Director-at-large (1991)
Harriet Mason, Director-at-large (1990)
John Moriarty, Director-at-large (1991)
Gerald Ownbey, Director-at-large (1991)

Minnesota Plant Press may be obtained through membership
in the Minnesota Native Plant Society.

If you have a news item, article, or other information
that should be included in the Minnesota Plant Press,
please send it to Dr. Anita Cholewa, Dept. of Botany, 220
Bio Sci Center, Univ. of Minnesota, St. Paul, MN 55108.
The editor reserves the right to edit all newsletter
submissions.

Minnesota Native Plant Society
Dept. of Botany
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