

# NATIVE PLANT SOCIETY OF NORTHEASTERN OHIO

Founding Chapter Of

THE OHIO NATIVE PLANT SOCIETY

6 Louise Drive  
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*On The Fringe*

THE JOURNAL OF THE OHIO NATIVE PLANT SOCIETY

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Vol. 8

January/February 1990

No. 1

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**YOUR 1990 DUES ARE NOW DUE!!  
PLEASE SEND IN YOUR PAYMENTS**

## Letter from our President:

"I appreciate the confidence all of you have shown in selecting me to once again preside over the Society. As we enter a new decade let's share some thoughts on our future direction.

For the first time since formation, we have raised dues. My feeling is we do so only as necessary to cover costs. I do not want to lose members for financial reasons.

To insure attendance at lectures sufficient to warrant guest speakers, we will try to schedule a few less but with speakers of wider topical appeal. Field trips will emphasize local areas since we rarely have good attendance farther away.

Your board always welcomes your suggestions on any issue; so please communicate your ideas.

We will strive to maintain the quality and slope of the newsletter. Again, I urge those who write well or have topic or author suggestions or better yet, connections to get in touch with me.

Expect details soon as our chapter hosting a weekend for all chapters throughout the State."

Thomas A. Sampliner  
President

## **PROGRAM:**

**January 8 (Monday) - Athens Chapter - 7:30 p.m.** - Rich E. Mosely, Chief of Division of Natural Areas & Preserves will talk on "Preserves & Natural Areas of China," seen on his trip there last summer. Meet at the First Christian Church in Athens.

**January 12 (Friday) Cincinnati Chapter - 7:30 p.m.** Avon Woods Outdoor Education Center. "Botanizing Along the Burma Road" by Vic Soukup.

**January 13 (Saturday) Columbiana Chapter - 10:00 a.m.** - Visit to Youngstown State University herbarium.

**January 14 (Sunday) Mansfield Chapter - 2:00 p.m.** - Kingswood Center. Duane Ireland will speak on photographing plants.

**January 15 (Monday) Columbus Chapter -** Dr. George Phinney will show us some of his favorite wildflowers, many of them photographed in Michigan. Meet at Nature Center of the Sharon Woods Metro Park.

**January 18 (Thursday) Cleveland Chapter - 7:00 p.m.** - Gary Farkas from Gary's New Shoots and Kate Harrington, volunteer at the Garden Center, will discuss "Plants That Work Well Together," landscape designs that incorporate plants from the eastern U.S. Meet in the Smith Room at the Garden Center.

**January 20 (Saturday) Wilderness Center -** Members slide show at 2:00 p.m. Members will have an opportunity to show slides or talk about their special plant experiences of 1989.

**January 22 (Monday) Dayton Chapter - 7:30 p.m.** - Cox Arboretum. Winter Botany with Paul Knoop.

**January 23 (Tuesday) Columbiana Chapter -** Meeting at Walt Sturgeon's. Bring covered dish and favorite slides. Lecture on mushrooms. Call for more information.

**January 28 (Sunday) Columbiana Chapter -** Field trip to Sandy Beaver Canal. Meet at 8:30 a.m. in the Courthouse parking lot in Lisbon.

**February 9 (Friday) Cincinnati Chapter - 7:30 p.m.** David Styer will talk about "The Flora of the Oxbow." Meet at Avon Woods Outdoor Education Center.

**February 11 (Sunday) Cleveland Chapter - 1:00 p.m. to 5:00 p.m.** Cleveland Museum of Natural History - Hope it is a good day for slide/print sharing from last year's field trips. There will also be an Audubon video on the plight of the western U.S. forests and a winter botany hike in Wade Oval. We have the projector and carousels. Please bring a snack to share if you can.

February 12 (Monday) **Athens Chapter** - 7:30 p.m. Dr. Henry Siebert of Ohio University will give a Belize travelogue. Meet at First Christian Church in Athens.

**February 18 (Sunday) Wilderness Center** - 2:00 p.m. to 4:00 p.m. At TWC Interpretive Building. A talk on Scenes and Plants from Argentina by Fritz and Alice Schmitthenner.

**February 19 (Monday) Columbus Chapter** - 7:30 p.m. Nature Center of Sharon Woods Metro Park. Dr. Robert Alrutz from Dennison University has a program on the history of Cranberry Bog State Nature Preserve, including aspects of the human, geological, and natural history of this fascinating nature preserve.

**February 24 (Saturday) Athens Chapter** - 10:00 a.m. Strouds Run State Park. Early Signs of Spring hike with botanist Marilyn Ortt. Call for information.

**February 24 (Saturday) Columbiana Chapter** - Lake Erie Bird Excursion. Meet at First Christian Church in Athens.

**February 26 (Monday) Dayton Chapter** - 7:30 p.m. Cox Arboretum. Plants and People with Dr. John Thieret, Professor at University of Northern Kentucky.

**February 27 (Tuesday) Columbiana Chapter** - Program by Columbiana County Soil 8. Water Conservation District office. Meet at Joint Vocational Center.

#### CHAPTER CONTACTS

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## THE OHIO FLORA PROJECT by J. Arthur Herrick

This is not meant to be a scholarly discourse. I am simply want to tell my younger plant-loving friends the story of this major development in Ohio botany.

Shortly after the appearance of the eighth edition of Gray's **Manual of Botany** (July, 1950) a group of Ohio botanists conceived the idea of an Ohio flora. Later, in December, 1950, the executive committee of The Ohio Academy of Science agreed that the academy should take action. Edward S. Thomas, curator of natural history, Ohio State Museum, and then president of the academy appointed a committee to explore the problem. The committee consisted of E. Lucy Braun, University of Cincinnati, as chairman; J. Arthur Herrick, Kent State University, secretary; and a support team consisting of G.W. Blaydes and J.N. Wolfe, Ohio State University; and E.S. Thomas, Ohio State Museum.

It is interesting to note that plant taxonomy was not "in style" in 1950. There was not one botanist in Ohio who had specialized in taxonomy. But, simultaneously with the growth of our Ohio flora project, taxonomy again became popular. Both Fisher and Cooperrider, later to chair this committee, were trained as taxonomists.

The committee first met in March, 1951. Dr. Braun had recently retired and had much time, energy and expertise to devote to this assignment. I was young, teaching at KSU, and had time and energy to spare. Fortunately, KSU was able and willing to support my efforts with abundant secretarial help, paper, postage, travel expenses and moral support. The other committee members provided valuable guidance.

Before discussing our plan of attack, a few background "facts of life" are in order. To the science of botany, a plant, to be recognized as occurring in an area must be represented by an herbarium specimen. Errors of identification are too common for science to accept a mere report that the plant was seen. The need for this project was emphasized by the fact that there was no scientific record (herbarium specimen) of sugar maple for Geauga County (Ohio's major producer of maple syrup). In short, Ohio's flora was very poorly documented or known.

It was obvious that we had a big, long-term assignment. We elected to do a non-taxonomic group--the woody plants--as a first installment. This, we figured, would be a very popular and widely used book. Time proved that we made a good choice.

A brief description of how we proceeded follows. To get started, I appeared at the spring, 1951, meeting of The Ohio Academy of Science to explain our project and the need for cooperation by all botanists. As the work progressed we published "**Progress Reports**" in the **Ohio Journal of Science** (1952, 1955, 1956). These I wrote. We used the mails extensively to gather records of available herbarium specimens in both professional and amateur collections. Some of the most important collections were those of amateurs. Thanks to the mailability of pressed plants, as well as money to pay for postage and travel, Dr. Braun personally checked, and often corrected the identity of thousands of herbarium sheets. We prepared and distributed lists, local botanists could easily do collecting to add to the records. Thanks to the National Science Foundation's financial support for travel, postage, the preparation of the drawings, and publication costs, **The Woody Plants of Ohio**, by E. Lucy Braun, appeared in the spring of 1961.

Our first volume was an instant success. It was soon out-of-print. A few years later (1969) it was reprinted. As this is being written, the OSU press plans to reprint this book as a paperback, to appear late in 1989. The book has summer and winter keys covering all species known to occur in the Ohio flora. There is a distribution map, drawings, and text for each species. Had this been the end of our project, it would have rated as a big success. By the time the woody plant book appeared, a second major work (the Monocots) was well underway.

The above somewhat summarizes the early history of The Ohio Flora Project. As the years slid by, the project grew. More people became involved and more publications appeared. The membership of the Ohio Flora Committee gradually changed. I am now the only living member of the original committee.

In 1959 T. Richard Fisher, then at OSU, became chairman. A decade later, Tom S. Cooperrider took over as chairman and principal investigator. His contributions have been tremendous. In recent years he has at times been on leave from KSU duties to work full time on The Ohio Flora Project.

In the interest of keeping this note short enough to fit the pages of our "**On the Fringe**" I will aim to be brief in my discussion of the post-woody plants era of The Ohio Flora Project.

Cooperrider (1988), in his foreword to Fisher's book on the composites states:

"The project has served as a stimulus for a major amount

of field work in Ohio, producing tens of thousands of new herbarium specimens from scores of individual research projects. The result is the acquisition of a detailed knowledge of the flora far greater than that known in 1950, and one that places Ohio's flora among the best known of any of the 50 states."

The woody plants book appeared in 1961. In 1967 **The Monocotyledenae** (Braun) was published. A large section of this book covering 159 species of grasses was contributed by Clara G. Weishaupt. In addition to these two books many shorter contributions to our knowledge of the flora were published. Cooperrider (1984) said:

"The actuation of The Ohio Flora Project in 1950 has stimulated a great amount of floristic research, both in the herbarium and in the field, during the past 34 years. The concept of the project has provided a framework for numerous theses, dissertations, and individual studies. It has given the massive amount of Ohio floristic work an intellectual underpinning. The scope of this effort and the number of professional botanists involved is, to my knowledge, without equal in any of the other 49 states."

For more details as to much of this work, you should see Cooperrider's story on **Ohio's Herbaria and The Ohio Flora Project** in the 1984 **Ohio Journal of Science**. Here, a brief and partial listing should suffice to indicate the high level of activity in this special niche of Ohio botany.

Cruden (1962) from OSU, wrote a paper on the Campanulaceae. At KSU, Cooperrider and his students have published studies on Dipsacaceae and Valerianaceae (1962); Rubiaceae (1964); Caprifoliaceae (1965); Orobanchaceae (1966); Scrophulariaceae (1978); Apocynaceae (1980); Asclepiadaceae (1980); Gentianaceae and Menyanthaceae (1981); Primulaceae (1983); Geraniaceae (1984); **Thaspium & Zizia** (Umbelliferae) (1985); the genus **Phlox** (Polemoniaceae) (1986); and Clusiaceae (1989); as well as numerous papers and notes on individual species.

Other Ohio works include those of Blackwell and Eshbaugh (Miami Univ.) and their students on Cactaceae (1972); Lythraceae (1973); Araliaceae (1973); Cistaceae (1974); Chenopodiaceae (1982); Solanaceae (1983); and Berberidaceae (1984).

From the Div. of Nat. Areas & Pres., O.D.N.R. came **Lithospermum** (Boraginaceae) by Cusick (1985) and Polygalaceae

by Burns (1986). Finally, the third major work of our project, the book by Fisher (Bowling Green Univ.) on the composites (**The Dicotyledaneae of Ohio. Part 3. Asteraceae.** 1988.)

In addition, numerous unpublished theses have dealt with the Ohio flora. A number of studies, with county distribution maps of individual species and genera have been published. Adams (1972), for example, reported distribution records for the Pteridophytes.

Allison W. Cusick and the Div. of Nat. Areas & Pres. staff at O.D.N.R. have, through sustained field work in recent years, made great contributions to knowledge of the present flora, including the discovery and rediscovery of many rare plant species.

Several other major works which have appeared in recent years are worthy of mention here. They are not a part of The Ohio Flora Project, but they are much related to it. In 1971 Clara Weishaupt published the third edition of her **Vascular Plants of Ohio** (This is a field manual for plant identification). In 1977 Cusick and Silberhorn published **The Vascular Plants of Unglaciaded Ohio** (O. Biol. Sur. Bull.). A companion volume by Barbara Andreas, **The Vascular Flora of the Glaciaded Allegheny Plateau Region of Ohio** is now in press (**O.B.S. Bulletin**) (Cusick, Silberhorn, Andreas, and Burns are all former Cooperrider students).

The data provided by the extensive collections stimulated by The Ohio Flora Project served to tell us much about endangered species. In 1982, Cooperrider edited an **O.B.S. Bulletin on Endangered and Threatened Plants of Ohio**. In 1984, McCance and Burns (Ohio Dept. of Nat. Res., Div. of Nat. Areas & Pres.) published "**Ohio's Endangered and Threatened Vascular Plants.**" Every other year, most recently in 1988, the Div. Nat. Areas & Pres., Ohio Dept. Nat. Res., issues updated status lists of rare native Ohio vascular plants, based on the continuing field work of their staff and other Ohio botanists.

Like the little acorn that grew into a mighty oak, this project and many related projects kept growing in scope and importance. Much of the work and success of the O.D.N.R., Div. of Nat. Areas & Pres., and of the Ohio Chapter of The Nature Conservancy, in acquiring more nature preserves, have depended upon the growing body of knowledge of our flora.

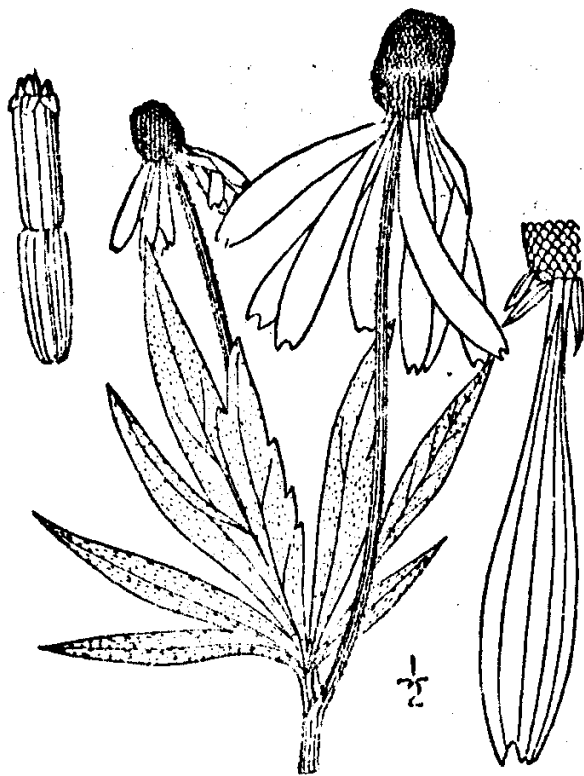
Dr. Herrick is Professor Emeritas in the Botany Department at Kent State University and was a founding council member of the Division of Nature Areas and Preserves.

Dr. Tom Cooperrider sent us the forward to Fisher's new The Dicotyledoneae of Ohio. Part 3. Asteraceae by T. Richard Fisher. He thought it might be of interest to our readers and give them a taste of what his new volume of The Ohio Flora contains. We pass it on to you for your edification.

**FOREWORD** by Tom S. Cooperrider

Asters, bachelor's-bottons, chrysanthemums, dahlias, daisies, dandelions, goldenrods, ironweeds, marigoals, zinnias-the composites color our gardens and fields and the natural landscape with a full spectrum of vivid hues. Everyone knows at least one or tow species. Artichokes, lettuce, and sunflowers provide items for the human diet. Ragweed causes an annual period of suffering for those allergic to its pollen. Canada thistle, another pernicious weed, invades pastures and cultivated fields, crowding out both grasses and crops. With some 20,000 species, the composites form one of the world's largest plant families. In this book, Dr. Fisher identifies and describes those members of the family that are a part of the Ohio flora.

The family has two scientific names: Asteraceae and Compositae. This anomaly is permitted by the rules of the **International Code of Botanical Nomenclature** because the usage of both names has become common in the scientific literature. The two are synonymous, and the use of either is equally correct.



1. *Ratibida pinnata* (Vent.) Barnhart.

Gray-headed Cone-flower.

The family is generally accepted by students of plant phylogeny as the most advanced, or highly evolved, of all dicotyledons. The plants' most remarkable structural feature is a tight inflorescence ("head") of flowers which simulates a single flower. What appears to be one blossom proves upon careful examination or dissection to be in fact a cluster of a few to a few hundred small flowers. Within the cluster a division of labor often occurs in which some flowers are adapted for attracting insect pollinations and others for producing either pollen or seeds,



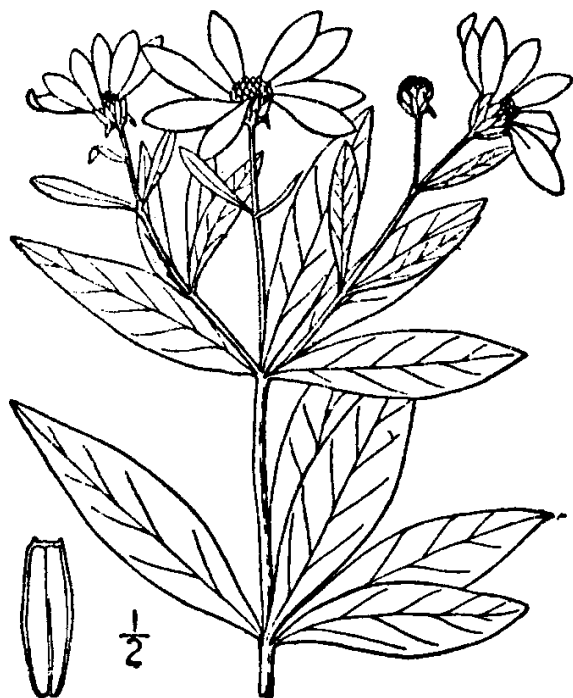
paralleling in function also the separate parts of a single flower.

The family is a highly successful one as measured by the number of species and its geographical distribution. Its species have moved into nearly every part of the earth inhabitable by flowering plants, from lakes to deserts, from prairies to woodlands, and from tropical to arctic and alpine climates. In line with this general situation, composites grow in every plant habitat in Ohio.

One-third of the Ohio composites are alien, mostly naturalized from Eurasia. Their frequency varies from a species such as **Heterotheca camporum**, golden aster, known from but a single site, to **Tussilago farfara**, coltsfoot, frequent in the eastern half of the state but scarce westward, to the ubiquitous **Taraxacum officinale**, dandelion. Alien species grow best in disturbed habitats, and composites are often the most conspicuous and showiest members of the weed communities inhabiting these sites. They are joined there by a few native composite species that also are able to compete successfully in disturbed places.

The other two-thirds of the species are native, or indigenous to Ohio. Some occur throughout the state. For example, **Solidaga canadensis**, Canada goldenrod, and **Vernonia gigantea**, tall ironweed, which thrive in a great diversity of habitats, are reported from virtually every county. **Eupatorium perfoliatum**, common boneset, and **Verbesina alternifolia**, wing-stem, have a similar broad distribution because of the widespread occurrence of the moist, open fields and thickets they inhabit.

**Coreopsis major** Walt. Wood or Greater Tickseed.



Many native species grow only in a particular part of the state. Their distribution maps presented here display an interesting set of patterns, often defining some particular aspect of Ohio's physiography.

**Eupatorium rotundifolium**, roundleaf thoroughwort, and **Coreopsis major**, a species of tickseed, are representatives of a group of species whose distribution is limited to the southernmost part of Ohio's unglaciated Allegheny Plateau.

This region has overall floristic affinities with the Appalachians and is home to a number of species that are outlets of the Appalachian flora.

Other native composites are among the most attractive members of Ohio's prairie flora. Occurring chiefly in the western half of the state, the distribution records of these plants come from present and past remnants of the tall-grass prairie that once extended across the Mississippi River and eastward through the central parts of Illinois, Indiana, and Ohio. Among Ohio's showy prairie composites are the six species of **Liatris**, blazing-star, and **Echinacea purpurea**, purple coneflower, **Silphium terebinthinaceum**, prairie-dock, and **Ratibida pinnata**, prairie coneflower.

**Solidago gymnospermoides**, a species of goldenrod, and **Artemisia caudata**, a species of wormwood, are two of a small group of species whose Ohio distribution is limited to northern sites near Lake Erie. In the southern part of the state, **Antennaria solitaria**, single-headed everlasting, and **Rudbeckia fulgida**, orange coneflower, represent a group of species which reach in southern Ohio the northern most limit of their range. Still other Ohio composites have an eastern or western distribution. **Prenanthes racemosa**, wild lettuce, grows in the calcareous soils found chiefly in western counties, while **Hieracium paniculatum**, paniced hawkweed, is part of a group of species found primarily in the acidic soils of eastern counties.

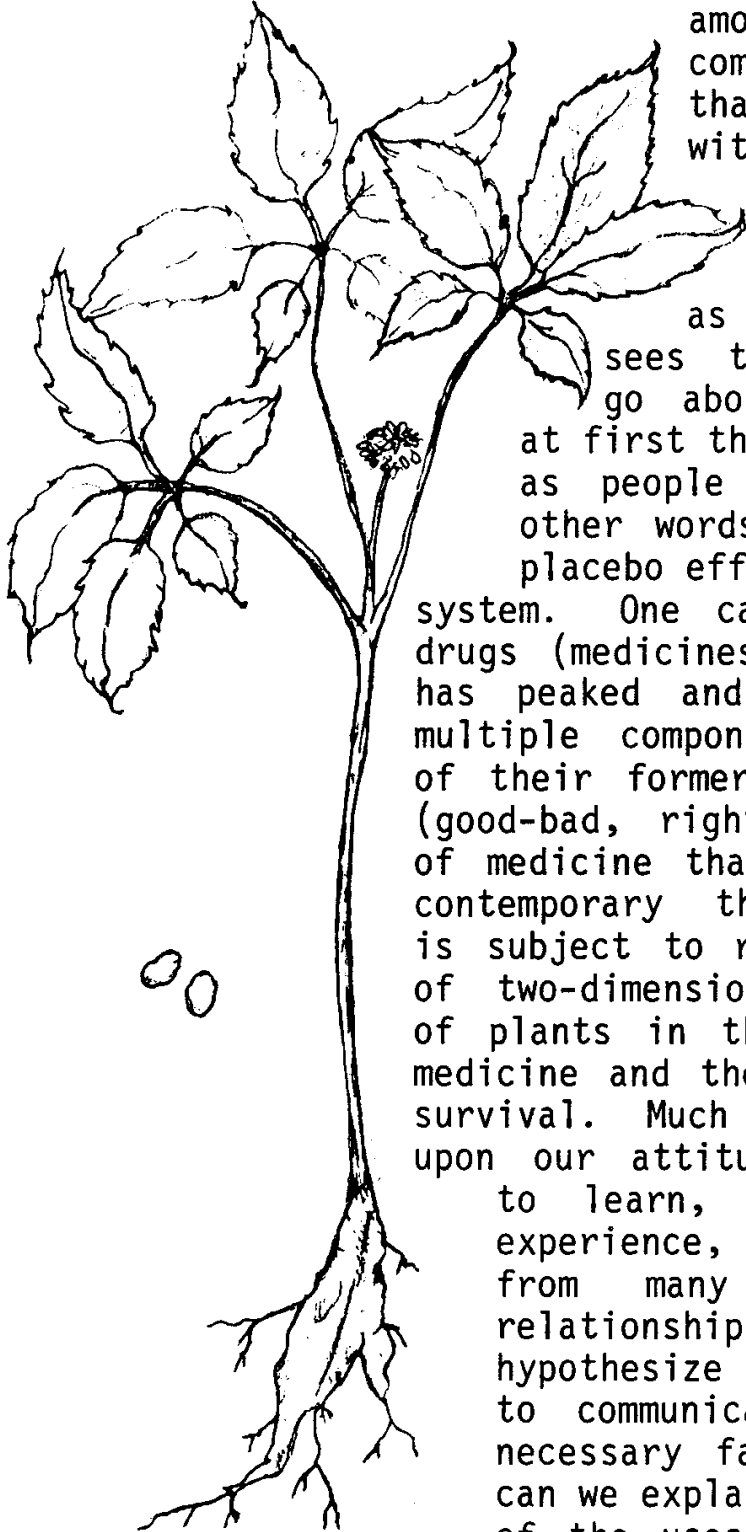
It is anticipated that the three parts of the dicot volume will be published in reverse order. The **Dicotyledoneae of Ohio. Part I. Saururaceae through Leguminosae**, scheduled to appear last, is currently under preparation by Dr. John J. Furlow. This part will include introductory material on the Ohio dicots as a whole. I am now writing **Part 2. Linaceae through Campanulaceae**, scheduled to appear second. Publication of the dicot series begins with this book by Dr. T. Richard Fisher, **Part 3. Asteraceae**. This article is reprinted by permission of the publisher, Ohio State University Press.

#### NOTICE ON NEWSLETTER SUBSCRIPTIONS FOR STATE MEMBERS

If you wish a subscription to "On the Fringe" they are available at the rate of \$10.00 per year. Send your check made payable to: Native Plant Society, 6 Louise Drive, Chagrin Falls, OH 44022.

## SOME MEDICINAL PLANTS OF OHIO by James C. Cavender

Our approach to medicinal plants is forward-looking as well as traditional, somewhat similar to the one I will paraphrase from Barbara Griggs in her book **Green Pharmacy**: that in the past 50-100 years medicinal plants have been the victims of extreme prejudice



among the medical and scientific communities in the western world and that they should be regarded, therefore, with a good deal more worthiness than is generally given them. If one examines the history of medicine in the United States

as has been done by Andrew Weil, one sees that systems of medicine come and go about every 50-100 years. Successful at first they gradually lose their effectiveness as people lose their faith and belief. In other words, according to Weil, the so-called placebo effect plays a large role in any medical system. One can sense that the effectiveness of drugs (medicines of a single chemical constituent) has peaked and that herbal medicines (which are multiple component) are beginning to regain some of their former prestige. The rigidity of belief (good-bad, right-wrong) that accompanies the type of medicine that is in vogue shows how easily our contemporary three dimensional mental structure is subject to regression into the irrational world of two-dimensionality (Gebser). The depreciation of plants in the past 100 years has hurt botany, medicine and the earth and is threatening our very survival. Much of what plants can do for us depends upon our attitude which must include an openness to learn, not so much from someone else's experience, but from our own. To know a plant from many perspectives requires that a relationship be established with it. I hypothesize that the very process of attempting to communicate with a plant will elicit the necessary faculty for understanding. How else can we explain some of the incredible discoveries of the uses of plants made before humans were capable of scientific objectification. Learning the traditional medicinal uses of plants has great value for its own sake in developing

the proper respect for plants which we definitely need today for our survival since, on a sustainable basis, we are totally plant-dependent.

As far as actually using plants as medicines is concerned one needs proper training because of the potential dangers. There are some medicinal plants that are quite safe for home use, some with which one must be very careful and some that are definitely poisonous and should be left alone. Duke has a useful rating in which he compares each plant in terms of toxicity to 2 cups of coffee, a dose he regards as moderately detrimental. One needs to remember that all plants are toxic to some degree for this is their means of protection.

My own use of herbs has been based on experimentation. In addition to their physiological effects which are generally but not always so subtle it is hard to notice them, I enjoy the taste of herbs as well as the colors of their alcohol extracts. These tinctures are a convenient way to use herbs. I routinely use tinctures of cayenne, goldenseal, nettle, ginseng, scullcap and echinacea. Some are home-made, some purchased from local herb crafters.

Over the years since 1979 when Medicinal Plants of Ohio was initiated as a course, in perception of the role the herbalist Mannaseh Cutler played in the founding of Ohio University, there have been a number of Ohio medicinal plants which have excited special interest.

During the week of the class we visit four different habitats characteristic of Southeastern Ohio, each of which has its outstanding group of herbs: mesic cove forest, xeric oak woodland, swale and marsh, and mature conifer plantation.



In the mesic cove forest the outstanding attraction is ginseng, **Panax quinquefolius** L. in the ginseng family (Araliaceae). Large specimens of this plant are exceedingly hard to come by. A root of prime medicinal value needs to be 60-100 g, which can be achieved under cultivation in about 7-8 years. However, in the wild this may take 150-200 years (Weiss). Most of these old granddaddy ginseng disappeared long ago. What a thrill it would be to find one today. Don't you think we should put a stop to the harvesting of wild ginseng in Ohio to allow these

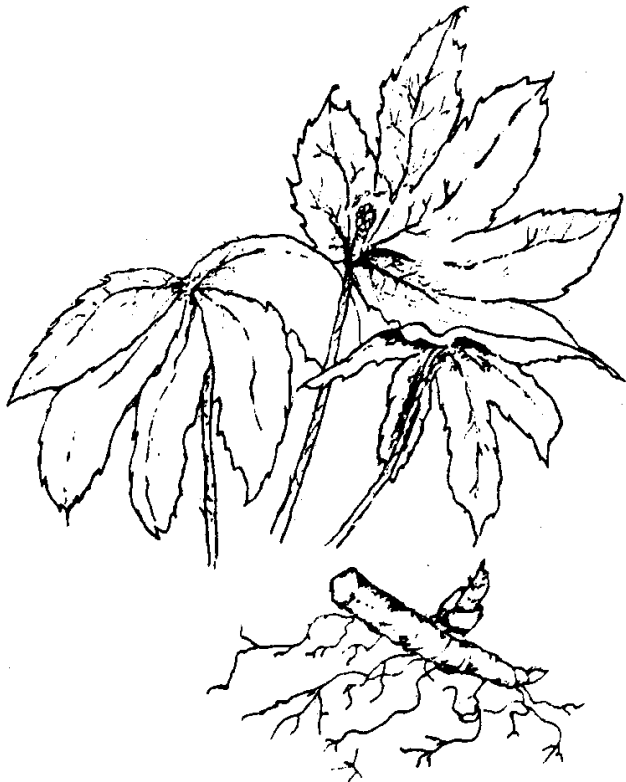
plants to recover?. They can be semi-cultivated from seed in an appropriate habitat. Instructions for cultivation may be obtained in publications of Ralph Von Aling, Millersburg, Ohio, a veteran Appalachian herb dealer. One often finds the parent plant with an array of youngsters scattered to the downhill side where the seeds were dispersed, a cozy little family group Ginseng is a delight to stalk, find and photograph, particularly in the fall when it has bright red berries. It often seems to play hide and seek with the hunter.

Medicinally, ginseng is much admired as a general tonic, in fact it is spoken of as the king of tonics. According to many users it stimulates body energy and is useful in overcoming stress. It also has a beneficial effect on the heart and circulation as well as normalizing blood pressure (Minear, et al).

Another herb of the moist tulip-buckeye-maple forest is golden-seal **Hydrastis canadensis** L. in the crowfoot family (Ranunculaceae). The name alone elicits curiosity and the sight of the beautiful bright-yellow rhizome excites the mind's eye. When conditions are ideal it grows in dense clusters of dozens of plants. This habit insures that this plant can be a profitable endeavor for the small hill farmer who may find that by keeping the forest from a clear cut he/she can in time achieve both a greater profit and the satisfaction of preserving the forest as well. Starting one's own ginseng and goldenseal patches is relatively easy by making a little nursery from seed in a convenient shady place and then setting out one of two-year roots in the early spring in one's favorite cove or even in one's backyard if the dense shade of sugar maple is available.

Goldenseal is a valuable antiseptic and disinfectant with activity against both Gram positive and Gram negative bacteria as well as protozoa such as the **Giardia**. When taken with another herb it increases the tonic properties for the specific organs that are being treated (Tierra).

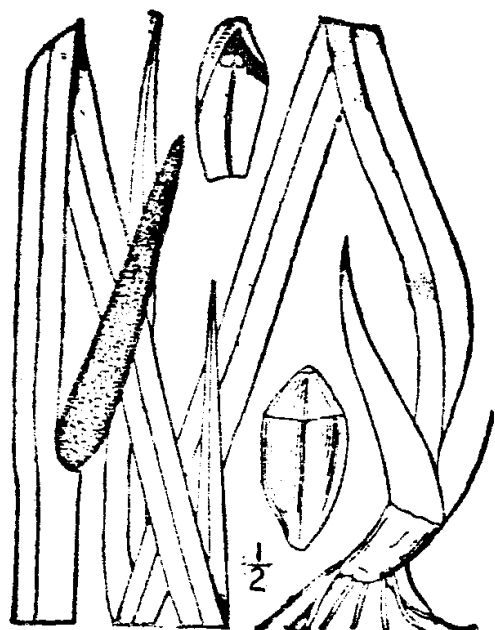
In the southeastern hill region one can cross over from the mesic forest to the opposite slope to find the xeric oak forest where one is immediately struck by the relative paucity of herbs. In this habitat the soil is much less fertile.



It is also drier, warmer and more acid while erosion is accelerated. The herb we like to find here is dittany **Cunila origanoides** (L.) Britt. in the mint family (Labiatae). A small tufted plant with purplish flowers: it has a very hot taste. Although it is not common to traditonal herbal medicine one would expect it to have a stimulating effect on circulation, which it does, similar to cayenne pepper. Dittany makes a nice addition to the herb garden when transplanted. If the dittany is too hot for one's palate a chew of the sourwood leaf **Oxydendrum arboreum** (L.) DC. in the heath family (Ericaceae) can be quite satisfying. The sour taste is very refreshing on a hot day. It is also strongly diuretic used as a tea for those with fevers. This small tree is very handsome in the fall when the leaves turn scarlet.

The oak trees themselves, particularly the white oak **Quercus alba** L. are a source of an important medicine in their bark. Oak bark is a very effective astringent and hemostatic. Their usefulness continues for the enterprising individual. One can use the young oak logs, thinned from the stand, for cultivating shi-itake mushrooms **Lentinus edodes** [Berk.] Sing. These mushrooms have been shown by the Japanese to lower blood cholesterol as well as inhibit certain tumors in addition to being highly prized for their flavor (Cochran). Cultivation is a simple matter, as I can attest, while information is available from Stephen M. Bratkovich of the Ohio Cooperative Extension Service.

The marsh and swale are very special places for certain herbs. Some are extraordinarily aromatic such as mountain mint **Pycnanthemum verticillatum** (Michx.) Pers. which smells like pennyroyal, or, calamus, **Acorus calamus** L., in the arum family (Araceae). This is not a native but is a descendent of an ancestor with a 4000 year history as an



article of commerce in the Near East. Although foreign to America it was quickly adopted and widely dispersed by Amerindians for its medicinal powers. The scent of this plant alone provides a very stimulating effect. It has bright green sword-shaped leaves arising from thick white rhizomes. This was one of the strewing herbs of old, spread in cathedrals to scent the air, repel biting insects, and inspire transcendental thought. The aromatic leaves can be woven into place mats. The rhizome contains many pharmaceutically active

**Acorus Calamus** L. Sweet Flag. Calamus -14-  
or Flag-root.

substances such as beta alarone, a substance whose spectrum of activities includes the sterilization of female insects. In India it is very popular in an after-dinner chewing mixture to settle the stomach and is even regarded as an aphrodisiac. Small amounts of rhizome were used for hyperacidity associated with the stomach and intestines. Since the oil from the Indian variety of calamus has been shown to induce cancer when fed to rats, Weiner does not recommend its internal use until all varieties are tested. It is well known that certain herbs have both cancer-inhibiting as well as cancer-promoting effects depending on the concentration used. Duke also does not recommend use of this herb by the inexperienced.

Another herb common in the marsh or swale is gravel root or Joe-Pye weed **Eupatorium purpureum** L. in the composite family; a tall very handsome, summer-flowering plant with whorled leaves and pinkish-lavender domed inflorescences. Its appearance, from the right angle, is pagoda-like. When bruised it gives off a sweet vanilla scent. A few years ago when Michael Tierra, the well known California herbalist, visited Athens, it was quite a site to watch him, down on his knees, eagerly and excitedly digging the roots of this eastern plant which he had not seen before in the wild. One could sense the respect he had for its curative powers from his reaction to this initial meeting. Tierra recommends one ounce of root in a pint of water boiled for one hour and taken a quarter cup at a time for water retention and joint pains caused by uric acid deposits or for gravel and stones of the kidney and bladder.

The white pine **Pinus strobus** L. is not native to southeastern Ohio but grows very well when planted. Stands 70-80 years old become mixed with hardwood such as tulip-poplar **Liriodendron tulipifera** L. The humus underneath is thick and acid perfect for such rare plants as orchids and many kinds of mushrooms. We like the excellent wild edible, Indian cucumber root, **Medeola virginiana** L. in the lily family (Liliaceae). The whorled leaves arise from a horizontal, surprisingly white tuber that is easily dug out, wiped clean and eaten. This traditional Indian food tastes remarkably like a cucumber but more crispy and woody. Medicinally, Indian cucumber has been described as a hydrogogue, promoting the loss of water. We have not experimented enough with this plant to know what a medicinal dose is. Finding Indian cucumber in southern Ohio is an immediate reminder of the North-Country. In the Green Mountains of Vermont one can literally wade through wild gardens of this species. For us it is more likely a chance encounter but all the more appreciated as such, to make our woodland wandering a memorable experience.

These are but a few of the fascinating medicinal plants in our natural habitats waiting for our curiosity to provide the sti-

mulus to get us up and out into a brighter more sustaining world than we can ever know completely in one life time.

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- Dr. Cavender is a professor of Botany at Ohio University and teaches a course each summer on medicinal plants of Ohio.
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## PROPAGATION OPPORTUNITY

The 1990 Seed List of the New England Wild Flower Society offers seeds or spores of more than 150 varieties of wildflowers and farms, suited to a variety of habitats. Many are difficult to obtain from commercial sources.

For a copy of the seed list, send \$1.00 and a self-addressed, \$.45 stamped envelope (business size) to Seeds, New England Wild Flower Society, Garden in the Woods, Hemenway Road, Framingham, MA 01701. Requests for the list must be received by March 1, and the deadline for orders is March 15. Requests are filled in the order received.

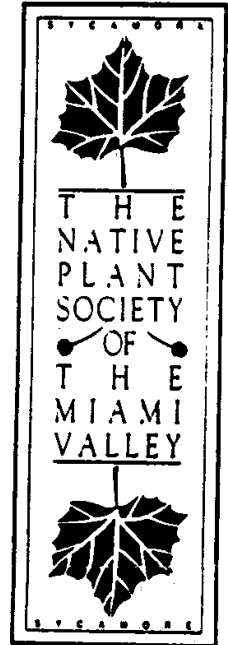




# The Annual Meeting of the Ohio Native Plant Society

April 20-21, 1990

at Hueston Woods State Park  
College Corner, Ohio



## SCHEDULE

Friday, April 20

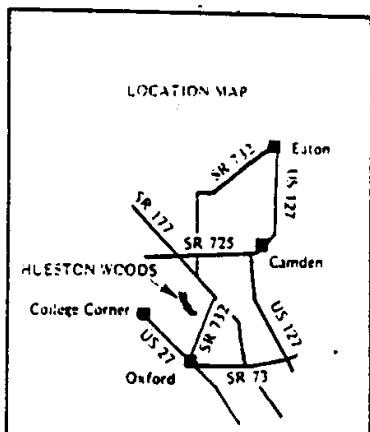
- 7 - 8 p.m. Registration at the lodge
- 8 p.m. Chapter slide shows and mixer

Saturday, April 21

- 8 a.m. Late registration
- 8:30 - 11:30 a.m. Guest speakers
- 11:30 - 1:00 p.m. Catered lunch
- 1:15 - 5:20 p.m. Field trips
- 6:30 p.m. Dinner and Special guest presentation

*More information to follow; stay tuned.*

*\$30.00 Registration includes Friday snack and Saturday Lunch/Dinner.*



Please make your own lodging reservations:

Call 1-800-ATA-PARK

*ask for Ohio native plant  
Soc. reservations*

Lodge	Single	\$62.13
	Double	\$73.08
	2-bed cabin	\$76.30 (includes tax)
Camping	Class A	\$9.00
	Class B	\$4.00

Secure reservations before March 20, 1990

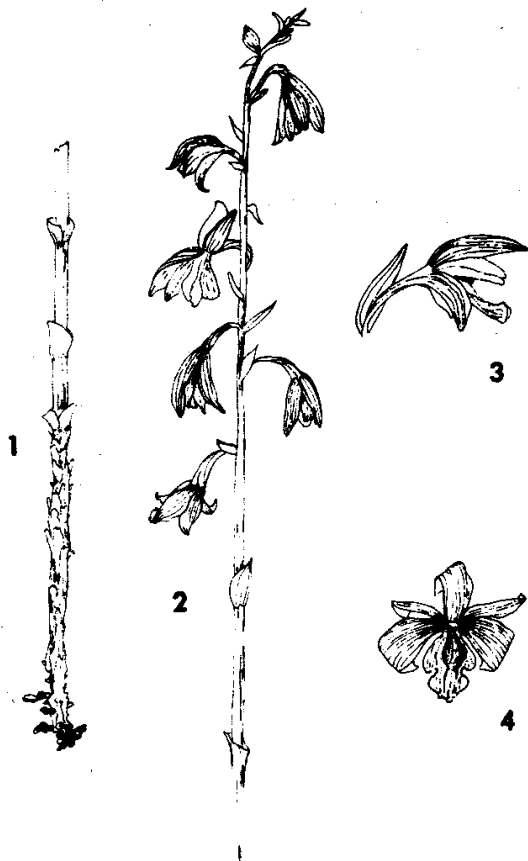


## LYNX PRAIRIE by Jeff Knoop

"The land here is the worst I had seen since I had left the banks of the Ohio; it had been gradually worse from about two miles behind Squire Leedom's, and for the last two miles before we came to Marashon's it had degenerated into natural prairies or savannas, with very little wood, and none deserving the name of timber, but well clothed with brush and low coarse vegetation." This description of the Adams County landscape was taken from notes of Dr. F. Cumming in the year 1807 on a walk along Zane Trace from the Ohio River at Aberdeen to Sinking Spring at the Adams-Highland County line.

In 1959, the Ohio Chapter of The Nature Conservancy acquired its first parcel of land in Adams County, Ohio, a 42 acre parcel named Lynx Prairie. The steep, rocky hills that surround the town of Lynx from which the site's name is derived, are renowned for harboring some of the rarest plant species in Ohio. Today, the preserve has grown to over 200 acres ensuring protection for one of the region's unique natural features.

As a testimonial to the regional significance of the area, Lynx Prairie was designated as a National Natural Landmark by the United State Department of the Interior in 1967. The preserve is also called the E. Lucy Braun Preserve, in honor of the eminent ecologist whose early studies of this region and of the eastern deciduous forest are now indispensable sources of knowledge.



When we speak of prairie, most people visualize large expansive, treeless, grassland areas stretching from horizon to horizon. However, the physical setting for the prairies around Lynx is much different, and the prairies appear as grassland "oases" in an otherwise forested area. In fact, so different are the prairies at Lynx that botanists and scientists refer to these grassy, open areas around Lynx not as prairies, but as cedar barrens or prairie glades.

A cedar barren or prairie glade, not unlike a "true prairie," has a ground cover of grasses and forbs that are sun-loving

and intolerant of woodland shading. Cedar barrens differ in that they have a significant amount of trees and shrubs, most importantly eastern red cedar. For example, a typical barren at Lynx may contain a fifty percent cover of red cedar. In between these "islands" of red cedars are located many rare prairie plants.

Another characteristic of cedar barrens is shallow soil. For the most part the barrens around Lynx have very shallow, well-drained soil. In fact, in some spots the limestone or dolomite bedrock is at the surface, creating a very inhospitable environment for both trees and shrubs. These treeless areas provide prime habitat for prairie plants and the ultimate development of cedar barrens.

In addition to big and little bluestem grass, Indiangrass, and sideoats grama grass, the prairie glades near Lynx boast a long roster of regionally rare broad-leaved herbs. Among these are globally threatened species like the robust tall larkspur, the dainty Michaux's glade cress, and the stunning Great Plains ladies'-tresses orchid. The prairies also support a number of plants considered endangered in Ohio, including the delicate wedge-leaf whitlow grass. Bicknell's panic-grass, plains muhlenbergia, and the handsome crested coral-root orchid. In addition, a 1985 discovery at Lynx Prairie revealed a large population of ear-leaved foxglove. This globally imperiled species, currently known from only five states, is under federal review for listing as an endangered or threatened species.



***Draba cuneifolia* Nutt.** Wedge-leaved Whitlow-grass.

Although the eastern red cedar may be a dominant woody species in glades, there are also a whole host of trees and shrubs that can withstand the austere glade environment. These include the gnarly dwarf hackberry, stunted oaks, hazel, shrubby St. John's-wort and others. The glade environment is truly a diverse mosaic of plant communities and plant species alike. An inventory of Lynx Prairie has documented over 300 plant species including 30 or more state threatened plants.

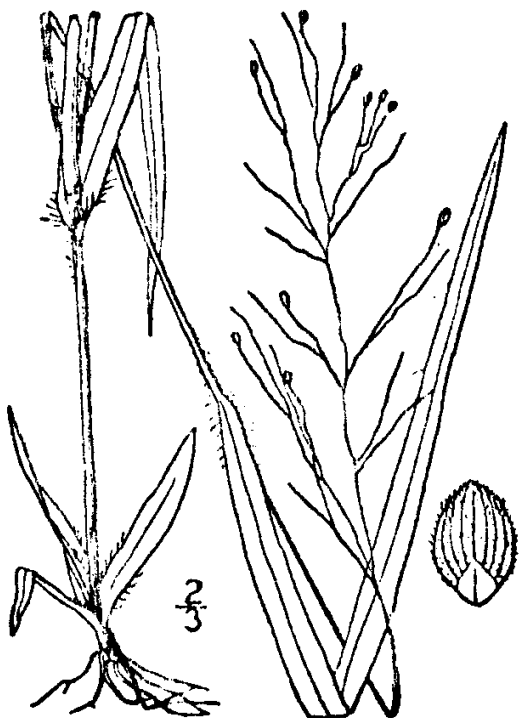
There are several hypotheses regarding the migration of prairie plants into Ohio and the eastern United States. When, where, and

how did this migration and ultimate prairie establishment occur? The most widely accepted view today is that the grassland species that populate these prairies migrated into Ohio some 5,000 years ago during a warm, dry era called the Xerothermic Period (xero = dry, thermic = warm air). These migrations, occurring over thousands of years, brought plants from the central and southwestern U.S. into Ohio. As the forest shrunk the prairie plants and animals migrated into Ohio and became an important part of the southwestern Ohio landscape. A recent return over the past several thousand years to the wetter climate of today has allowed the forest to reinvade at the expense of the prairie. Today, in Ohio we only find prairie communities where the soil is thin and bedrock near the surface (such as central Adams County), on steep hillsides, along river valleys, and along railroad right-of-ways.

Stewardship, management, and research play an integral role in preserving the cedar barrens at Lynx and restoring them to their presettlement condition. As trees and shrubs continue invading the barrens the Conservancy works to halt the succession of prairie to forest. Selective hand cutting the woody vegetation has been the traditional and ongoing method of maintaining the openness of the Lynx Prairie cedar glades. Research has shown that fire has also played a role in maintaining these glades. As a result, the Conservancy has experimented with prescribed burning on several glades to stop the invading trees and rejuvenate the prairie plants (similar to what some farmers do to maintain

the vigor of their pasture land). These management methods and their results are being studied, with an eye to applying the most successful techniques to the management of other Adams County glades.

The Lynx Prairie is jointly owned and managed by The Nature Conservancy and the Cincinnati Museum of Natural History. The area is extensively used for outdoor education and recreation by school classes, researchers, and the general public. Public access to Lynx is by way of a footpath located near the southeast side of the East Liberty Church and Cemetary property.



**Panicum Bicknellii** Nash. Bicknell's  
Panic-grass.

For more information contact: Peter Whan, Preserve Manager, Edge of Appalachia Preserve Manager, 17 Abner Hollow Road, Lynx, Ohio 45650, (513) 544-2880.

Jeffrey Knoop is the Director of Land Registry and Protection and has been a long time member of The Native Plant Society.

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Ohioans! You can help preserve and protect part of your rich natural heritage.

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Director

## EASTERN NATIVE PLANT ALLIANCE PLANT ALERT

The Eastern Native Plant Alliance (a consortium of native plant societies, botanical gardens and arboreta, nurseries, universities, and garden clubs) met over the weekend of July 29-30. Participants gave particular attention to two nurseries selling Pink Lady's-slipper (**Cypripedium acaule**) and Trilliums (especially **Trillium grandiflorum**) as "nursery-grown" and "not wild collected." Private communications with the nurseries (Van Bourgondien and Spring Hill) as well as the Mailorder Association of Nurseries have not yet persuaded them to stop the practice. Therefore, ENPA participants agreed to write these and other nurseries requesting them not to label wild-collected plants as "nursery-grown."

ENPA urges all its members to join this campaign. Please compose your own letters based on the following points accepted by the Eastern Native Plant Alliance.

**\*\*No nursery in the world is propagating *Cypripedium acaule*.** At the recent Chadd's Ford, PA, conference of orchid propagators from the U.S., Canada, and the United Kingdom, the consensus was that no commercial propagation of this species is as yet possible. All plants of this species offered for sale come from the wild.

Plants dug from the wild may be placed in nursery beds, containers, or barrels of peat until sold, but there is no evidence of propagation. Bare-root transplants of this species may send up a bloom in the first year, but in our experience, these transplants rarely last past the first several years. Therefore, the vast majority of bare-root **C. acaule** are dug from the wild, and will die in customers' gardens.

**\*\*Trillium** propagation is slow, generally inefficient, and consequently expensive.

**Trillium grandiflorum** needs between 5 and 7 years to reach flowering size when grown from seed; when propagated by division, it usually yields one new division per plant per year. Cutting of the rhizome or bud to induce bud formation is possible, but still requires several years for plants to reach saleable size. Tissue culture propagation of this species is in the experimental stage. Therefore, at this time, commercial propagation on a large scale is not feasible.

Production of this species by division requires stock beds containing thousands of plants **that are maintained year-round (not sold each year)**. No known nursery maintains thousands of

these plants in beds as permanent stock plants for division. Therefore, any nursery selling large quantities of this species must be obtaining these plants from the wild. As with **Cypripedium**, plants usually are dug from the wild, placed in nursery beds or barrels in the fall or early spring, and then sold as soon as possible.

\*\*In North Carolina and perhaps other states, "nursery grown" means that a plant has been held for one growing sequence (one flush of growth, perhaps as short as a few weeks) and **does not address** the issue of a plant's origin. In other words, the term is irrelevant to this conservation concern.

\*\*Therefore the term "nursery grown," when applied to plants that cannot be commercially propagated, is misleading and potentially deceptive to the public. The connotation of "nursery grown" is that plants have been propagated by a nursery. However, in the case of these two species at least, such propagation is not commercially possible at this time. Similarly, claims that plants collected from the wild and placed in holding areas are "not wild collected" leads the public to believe that the plants are propagated.

Collection of plants from the wild for commercial sale is a complicated issue. At the local level, unscrupulous and damaging collection of native plants occurs, but the effect of commercial collection over the entire range of common species has yet to be established. Until accurate data on the effects of commercial trade is compiled, ENPA recommends purchasing **only** propagated plants. In the meantime, proper labeling of native plants is essential. Therefore, we urge all plant society members to write to the organizations listed below. Please request that the terms, "nursery grown" and "not wild collected" be applied only to plants that are **propagated and subsequently grown to saleable size** in the nursery.

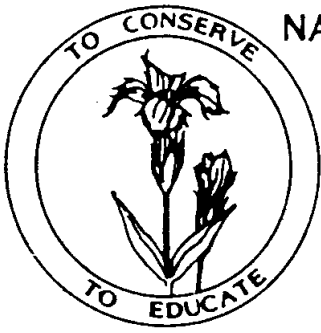
K. Van Bourgondien & Sons  
Box A  
Babylon, NY 11702

William E. Brumback  
Propagator  
New England Wild Flower Society

Spring Hill Nurseries  
6523 N. Galena Road  
Peoria, IL 61632

Richard W. Lighty  
Director, Mt. Cuba Ctr. for  
the Study of the Piedmont Flora

Mailorder Association of Nurseries  
8683 Doves Fly Way  
Laurel, MD 20707  
Attn: Ms. Camille G. Chioini, Exec. Dir.



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Please enroll me as a member of the NATIVE PLANT SOCIETY OF NORTHEASTERN OHIO

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Membership runs from January through December and is not pro-rated.

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