TO CONSERVE TO EDUCATE

NATIVE PLANT SOCIETY OF NORTHEASTERN OHIO

Founding Chapter Of

THE OHIO NATIVE PLANT SOCIETY

6 Louise Drive Chagrin Falls, Ohio 44022 (216) 338-6622

On the Fringe

VOLUME 2

SEPTEMBER 1984

NO. 5

SEFTEMBER PROGRAMS AND EVENTS:

11th (Tuesday) - 7:30 p.m. - BOARD MEETING at Gene Spohn's.
74 Paw Paw Lake Drive, So. Russell (Rte. 306 to
Bell Rd. East to Paw Paw Lake. 1st house past
the Dead End sign.)

28th - (Friday) - 7:30 P. M. - Holden Arboretum
Walter Sturgeon, a noted authority on fungi
and past president of the Chio Mushroom Society
will be our speaker. His topic will be
MUSHROOMS OF OHIO.

29th (Saturday) - 9 a.m. - Meet at Holden Arboretum for a field trip with Walter Sturgeon.

OCTOBER PROGRAMS AND EVENTS:

6th - (Saturday) - 9 a.m. - Meet at the Mentor Marsh House for a field trip which will be led by a very know-ledgeable friend. We will be looking for Golden-rods, grasses and other fall flowers.

26th - (Friday) - 7:30 P.M. - Happy Days Visitor Center, Cuyahoga Valley National Park, Peninsula, Ohio (Rte. 303) K. Roger Troutman, expert on Ohio's Prairies, will speak to us on MILKWEEDS FROM NEAR AND FAR, AN OVERVIEW OF THE OVERLOOKED. He will introduce us to the plant family that is so crucial to the survival of the Monarch Butterfly.

Mr. Troutman is a man of many facets. He is interested not only in the Milkweed, thus the Monarch Butterfly, but also Ohio Prairies, one of which is in his backyard, birds and fish.

THE AMISH MEDICINE CHEST by Larry Giblock

In southern Ashtabula, northern Trumbull and southeastern Geauga counties, there is concentrated a community of people tied closely to the land, the Amish. These industrious people keep alive the traditional agrarian state amidst a chaotic high tech world.

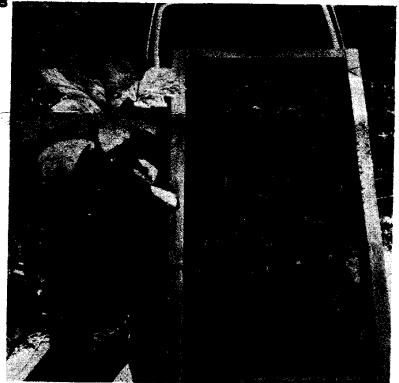
Driving down some of the side roads, you can see farming techniques from a previous century. You can see the plow being drawn through the field by a team of beautiful Belgians and bundled oats stacked together, with a bundle spread on top like a chinese hat to shed the rain.

Having lived in this area for some time now and with my interest in herbs, I have come to know many Amish. It is evident that most Amish view the

fields, roadsides and woodlands as their medicine chest.

The plant materials are gathered and dried. Most Amish herbalists advocate drying in paper bags in the attic - quick drying being the key for retaining color and essential oils. This method works well for leaves and flowers.

For drying roots, my
friend Elisabeth Miller
recommends wire racks in a
warm oven or the warming
shelf of a wood stove. Elisabeth uses a box that the Amish
call a "Schnitzdryer". This is
a wooden box, outfitted with
wire bottom trays. The box is
then placed on the warming shelf of the wood stove.



There are a variety of plants currently being used by the Amish to treat everything from the common cold to high blood pressure. The herbs are generally administered as a tea or as a bitter (a strong, cold tea) which is taken by the teaspoonful.

Chanomile (Anthemis arvensis) is widely used for upset stomaches, diarrhea and as a calming tea for colicky babies. In addition to tea, Ruma Byler makes pillows and stuffs them with Chamomile flowers. She finds this combination very effective for sleeplessness.

For flu and colds, a tea of Bonset (Expatorium perfoliatum) is most commonly used. Another herbalist, Melvin Miller claims that a pinch of ground Goldenseal root, taken at the onset of a cold or flu will "stop it dead in its tracks".



Goldenseal (hydrestis canadensis) is highly regarded among the Amish herbalists. The ground roots are used in almost every herbal preparation. It is considered a blood purifier and natural antibiotic. There are claims of its being used for high blood pressure, along with Ginseng (Panex quinquefolius) and Red Claras (Trifolium pretense). I've even heard of a weak tea of Goldenseal being used te treat poison ivy.

The Amish collect the roots of Goldenseal in late summer. Most dig on their own property or other private preperty. Many collect and propagate in their own gardens.

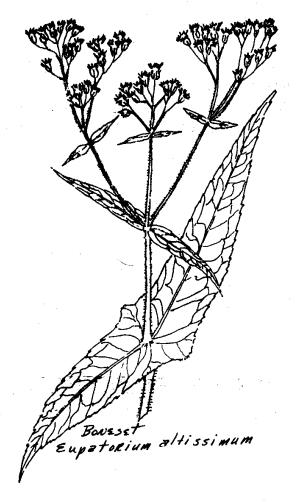
Another blood purifier is Comfrey (Symphytum officinale). The root is used as treatment for gall bladder problems. One quarter of a teaspeen steeped in a

large mmg and allowed to go almost cold, is taken morning and evening on an empty stomach. The leaves are used commonly as a poltise for bruises or sprains. The leaves should not be used for tea.

For the nerves, the Amish turn to Elue Vervain (Verbena hastata) and Motherwort (Leenurus cardiaca). An Amish weman used Motherwort for a year and a half to affect a cure for a nervous problem that she had. This may be a good time to note that most of the treatments are slow. The herbs are taken in small doses over a long period of time.

There are several relaxing teas used. As already mentioned, Chamomile tea and also Catnip tea (Nepeta cataria) help sleeplessness. Great Lobelia (Lobelia siphilitica) is also used, but Elizabeth Miller states it can be too relaxing. So, she mixes red pepper which is a stimulant, to buffer the action.

all of the herbalists advocate combinations of herbs. This is known as poly-herbal (mixture of herbs) prophylaxis (preventive medicine). The logic being, that if you take ten or more herbs reputed to have value for a given ailment, at least one will work with your system, producing the desired results. This thinking may not be too far off course, when you consider that close to



50% of folk remedies have a pharmacological rationale.

The Amish maintain this natural approach to medicine on the premise that our bodies readily accept an organic form of medication. An Amish woman told me that she was taught by her father, who was taught by an Indian. "My father would go to the doctor for the diagnosis and then go to the woods for the cure."

The use of these plants and many more are a way of life to these people The botanicals listed in this article are not intended as prescriptions. These people are not doctors, but those that use them have faith in their effectiveness.

Larry, a member of the NPS/NEO, lives in Windsor, Chio in a beautiful century home. His herb garden is one to be envied. His talents are many. These illustrations are his. GREAT:

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Some plants which resemble ferns and in a few instances are even called ferns ("Asparagus-fern", "Sweet-fern" etc.) are not really ferns at all, for they produce flowers and seeds. On the other hand, ferns of the genus Osmunda are sometimes called "flowering" ferns - a complete contradiction. And ferns such as the Adder's tongue (Ophioglossum Vulgatum) and Climbing Fern (Lygodium palmatum) express their individuality so strongly that they would not generally be thought of as fernlike. What then, in view of such outward confusion, are the elements which tie ferns together as a group and which distinguish them from other groups?

Ferns are part of an assemblage commonly referred to as pteridophytes, including clubmosses and hersetails. The components of this larger assemblage have certain characteristics in common, but it is now known that in terms of ancestry, not all of them are as closely related to one another as was once thought; in fact the major division of the plant kingdom which was long known as Pteridophyta is now usually separated into four divisions of the same rank, largely divorcing ferns from their so-called allies. In any case, pteridophytes reproduce by spores, not seeds. They share this characteristic with mosses, liverworts, and other cryptogams; but at the upper end of the scale, they share with seed plants they are vascular. The relative complexity of the venation of ferns is one of the factors which distinguish them from their more simply structured "allies".

Most ferns bear spores on the underside of certain leafy fronds in sori or fruitdots. Each sorus is a cluster of sporangia (spore cases), usually protected by a membranous indusium or in some cases by a recurved leaf margin (false indusium). Size, shape and placement of sori are significant in identification. In some species the fertile fronds, or sporophylls, are so modified as to be quite noticeably different from the sterile ones a condition known as dimorphism. A few species are so strongly dimorphic that their sporophylls have practically no resemblance to leaves, notably the common Sensitive Fern (Onoclea sensibilis), Cinnamon Fern (Osmunda cinnamomea), and Ostrich Fern (Matteuccia struthiopteria).

Regardless of where and how it is borne, a spore, if successful after dispersal, produces a little unfernlike plant, roughly heart-shaped as a rule, called a prothallus (gametophyte), which develops sexual properties. After fertilisation the prothallus gives rise to a young sporophyte and eventually to the mature

plant that is recognized as a fern. Chances of success in the completion of this two-generation cycle are slight, however, because viable spores rarely land in a location where moisture and other conditions are consistently suitable. (This is fortunate, since a single plant can bear millions of spores each season.) The above process may occasionally result in hybridization, especially among the Wood-ferns and Spleenworts, when prothalli of different species happen to be close together. Most hybrids are sterile; but some well-established fertile species are of known hybrid origin, having developed by way of the chromosomedoubling phenomenon called polyploidy.

Of course ferns also spread vegetatively, chiefly by means of the creeping rhizomes which are characteristic of many. Certain species may employ special asexual methods such as the various types of budding, including apogeny. Fronds of the Bulblet Bladder Fern (Cystopteris bulbifers) bear small structures which fall off to form new plants, and those of the Walking Fern (Camptosorus rhizophyllus) are capable of rooting at the tips.



It is often said that if we are to be precise we must use scientific names of plants and ignore common names, since the latter are so numerous, ambiguous and frequently associated with particular localities. This is generally true, but in the case of ferns, strict adherence to the principle can be troublesome. Taxonomy has long been extremely confused, and as genetic studies preceed, scientific nomenclature remains unsettled all the way from division down to form. Epithets, determined by chronological priority, can occasionally present difficulties even apart from the question of rank. A case in point is the Spinulose Woodfern, which is still often called <u>Dryopteris Spinulosa</u> in spite of convincing testimony in favor of D. carthusiana, generally ac-

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cepted abroad.

Clues to identification are numerous: general shape of the blade, degree and manner of dissection, relative length of stipe (stalk) and blade, relative size and shape of pinnae (leaflets) and pinnules (subleaflets), venation, shade of color, pubescence, scales, glands, general growth habits, habitat, etc. Overall size, though helpful, is greatly affected by soil, moisture, and light, as well as age of plants and individual fronds. Too much dependence upon sori can be a handicap, since they are evident only at certain times and on certain fronds, and their appearance is altered with the passage of time. And some plants are completely sterile. Field guides generally suggest that to identiify the Interrupted Fern (Osmunda Claytoniana) we should simply look for the "interruptions" on blades, caused by modified fertile pinnae near the middle; but plant after plant produces no sporophyllus, largely because of its curious habit of establishing itself in areas where there is insufficient sunlight. Variability often poses a problem. One of the most variable of ferns is the Intermediate or Evergreen Wood-fern (Dryopteris intermedia), the classic description of which emphasizes the shortness of the first lower pinnule in relation to the second. A But by no means does it always choose to follow the textbooks hence the need to consider a combination of characteristics.

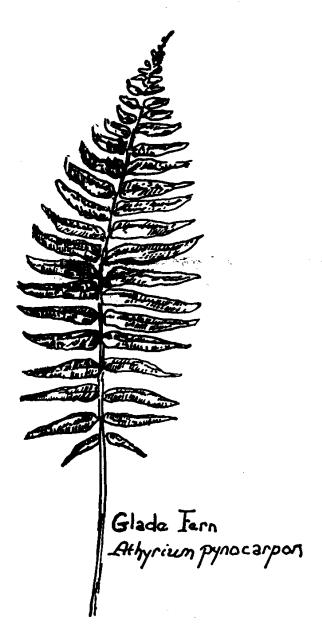
There are approximately sixty species in Ohio, but a precise count is not feasible, partly due to the lack of unamity regarding specific/varietal status in some instances. The figure would be higher, of course, if we were to include named hybrids. Obviously it would be unsuitable to attempt a complete catalog here, but a brief hypothetical visit to some likely habitats may be appropriate.

We might begin along the edges of a swampy area, where we can associate intimately with the shoulder-



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high fronds of the Cinnamon Fern and brush against the locust-tree-like Royal Fern (Osmunda regalis), which is apt to have its feet in the water. Possibly half hidden amongst the larger foliage is the charming Crested Fern (See previous page) (Dryopteris cristata), with its slender, dignified, venetian-blind-like sporophylls; and just a few steps away, scattered about in a semi-open maddy situation, the delicate and twisted fronds of the Marsh Fern (Thelypteris palustris) are likely seen.



Nearby on the gradual slopes, especially if the pH is a little higher. we might find the giant Goldie's Fern (Dryopteris goldiana), broad and spreading. This magnificent fern is always impressive, but it provides a special treat when seen in the company of the Narrow-leaved Glade Fern (Athyrium pycnocarpon). Though the latter may not be present, other members of its genus are almost cortain to be somewhere in the vicinity. Part way up the surrounding hillsides, as well as on hummocks in the lowlands we encounter the Interrupted Fern, which is usually not in close proximity with its Osmunda kin. Also in moist but better drained situations would be the yellow-green New York Fern (Thelypteris noveboracensis), the elegant Northern Maidenhair (Adiantum pedatum), (see next page) and the Bread Beech-fern (Phegopteris hexagonoptera). The latter, with its angularly winged rachis, typically occurs about midway between the top and bottom of a hill. If there are rock formations or stone walls a-

round, they might very well be decorated with some of the jewels that often choose crevices for their home: Spleenworts (Asplenium), the Fragile Fern (Cystopteris Fragilis), and Long Beech Fern

(Phegopteris connectilis). The Walking Fern and others have a preference for limestone, though not always to the exclusion of sandstone. On the other hand the Common Polypody or Rockcap Fern (Polypodium virginianum) especially enjoys mossy chunks of sandstone. It is less common in dome areas than it used to be, such as Cleveland Metroparks, but elsewhere, in Coshocton County for example, there are places where it is so abundant as to resemble ivy. Situated further south, but endangered in Chio, is its close relative the Resurrection Fern or Little Gray Polypody (Polypodium polypodicides), which plays dead in dry weather.

If we are lucky and sufficiently observant in our wanderings through moist woodlands and some open areas, we may occasionally stumble upon one of the succulent ferns of the Adder's tongue Family (Ophioglessacese), most of which are called grape ferns in reference to their vaguely grape-like clusters of sporangia. These are considered to belong to a different order from the "regular" ferns and have a number of distinctive characteristics. The most obvious feature is that a single fleshy stem divides to support the differentiated sterile and fertile portions, though in some

portions, though in some species the forking occurs very close to ground level. Less obvious is the fact that the gametophyte generation is subterranean. The Rattlesnake Fern (Botrychium Virginiamum) is fairly conspicuous, but others in the family are very small and elusive, some of them quite rare and on the Heritage Program list.

Adiantum Pedatum

Even a winter walk is not without its rewards, While the majority of ferns in our area are deciduous, there are a number

whose fronds, especially sterile ones, persist until the next year's growth begins, and their greenery contrasts sharply with the otherwise drab or white surroundings. Particularly noticeable are the Christmas Fern (Polystichum acrostichoides), Marginal Shield (Dryopteris marginalis), and Intermediate Wood-fern; but it is a delight to come upon the daintier and low-lying ones when visible.

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Two exciting fern discoveries were recently reported by Allison W. Cusick in AMERICAN FERN JOURNAL. In 1982, when he was accompanied by Rebert McCance, Brian Parsons, and Tom Kates, colonies of the perennial Appalachian Gametophyte (Vittaria sp., Lineata?) were found on property of the Holden Arboretum in Geauga and Lake Counties. This remarkable organism, when it occurs north of Florida, does not go through the customary sporophytic (spore-producing) generation, but is capable of producing new gametophytes vegetatively. Though known for some time in unglaciated southern Ohio, it had not previously been reported in the watershed of the Great Lakes. In 1983, a small population of the hybrid Graves' Spleenwort (Asplenium X gravesii) was discovered in Hocking County. There had been earlier reports of its existence in the state, but without confirmation.

Fern literature is voluminous and can only be touched upon briefly. No one book will suffice; and in order to really keep abreast, the use of current periodicals is necessary. The only book devoted exclusively to Ohio is Harry H. Vannorsdall's FERNS OF OHIO (Wilmington, OH, 1956), but it is sadly outdated and has long been out of print. For most purposes the best single book currently available is still John T. Mickel's HOW TO KNOW THE FERNS AND FERN ALLIES (Wm. C. Brown Co., 1979). Hopefully it will be updated from time to time. On cultivation, Dr. Mickel's HOME GARDENER'S BOOK OF FERNS (Holt, Rinehart, 1979) is rivaled in America by an assortment of works by Barbara Hoshizaki. old standby in the Peterson Field Guide series, Broughton Cobb's FIELD GUIDE TO THE FERNS (Houghton Mifflin, e1963) is still quite helpful, but it should be used with caution because of its age and various inaccuracies. Though frequently reprinted, it has not been revised for two decades. Eugene C. Ogden's FIELD GUIDE TO NORTHEASTERN FERNS (University of the State of New York, 1981) is especially good for its illustrations and unique keys,

but its coverage does not specifically include Chio. Another pictorial guide, James S. Key's FIELD GUIDE TO MISSOURI FERNS (Missouri Department of Conservation, 1982) is truly a model of its kind, though lacking a detailed identification key. It is surprisingly useful in spite of its non-Chio emphasis. Ray Cranfill's FERNS AND FERN ALLIES OF KENTUCKY (Kentucky Nature Preserves Commission, 1980) is a must for the serious student. Robert H. Mohlenbrock's ILLUSTRATED FLORA OF ILLINOIS: FERNS (Southern Illinois University Press, 1967) is excellent, but its date requires that we use in conjunction with it, the updated material in ERIGENIA NO. 3 (Southern Illinois Native Plant Society, 1983). Rolla and Alice Tryon's expensive FERNS AND ALLIED PLANTS (Springer-Verlag, 1982) is a monumental work which cannot be ignored by the scholar, but it is clearly not addressed to the lay person, and it has strong emphasis on tropical America. Of course there are countless books on the ferns of other lands, an important one being C. N. Page's THE FERNS OF BRITAIN AND IRELAND (Cambridge University Press, 1982).

ILLUSTRATIONS by Cathy Ricks. Really beautiful, Cathy. Thanks.

Jay Beswick, the author of the article on ferns was for many years with the Cleveland Public Library and retired as Head of the Literature Department. He developed his interest in Botany and especially Ferns 10 - 15 years ago and now owns an extensive library which includes not only new and foreign editions, but also rare books and periodicals.

NEW MEMBERS: Robert McCance, Jr. Dolores T. Lad Erna Kordesch

J. C. Price

RENEWALS:

Thomas J. Denbow J. Arthur Herrick Guy Denny

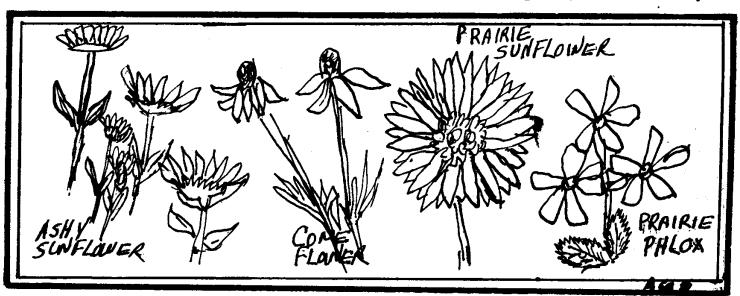
DAN BEST - is a native of Avon Lake Living in Chardon. He graduated from 0.S. U. in 1979 with a degree in Environmental Intrepretation and is now working as Naturalist at the Shaker Lakes Regional Center where he has been for the last five years.

castalia Prairie by Dan Best

One of Chio's finest prairie tracts is found right here in northern Chio within easy reach of Cleveland. The Castalia Prairie is found within the Resthaven Wildlife Area on the outskirts of Castalia, a town just south of Sandusky. At over 100 acres, it is the largest remaining prairie stand in the state, yet it is only a tiny remnant of the once vast prairies of the Erie County/Sandusky Bay region.

The Castalia Prairie, ranging from wet to mesic, occurs on an area watered by a network of natural springs emitting from solution openings at the base of a ridge of limestone bedrock rising to the south of the prairie area. Disselved lime in the spring water precipitates to form a hard calcareous substrate known to geologists as "tufa". Earlier in this century, much of this tufa er marl, as it's commercially known, was quarried for cement production and agricultural lime. The Chio Division of Wildlife acquired the devastated landscape, converted the marl pits to fishing and waterfowl ponds and manages the area for public fishing and hunting. Fortunately, the prairie was not destroyed by marl mining.

By September, the prairie is at its peak in height and beauty. Although many beauties have bloomed in a passing promenade that began in April, September's grand finale is spectacular with goldenrods, rough blasing star, fringed gentian as well as such radiant yellow composites as tall coreopsis, sneezeweed,



PLACE TO GO (Continued) whorled rosinweed, giant and sawtoothed sunflewers. State champion stands of prairie deck are found here, towering as tall as Goliath.

Perhaps the most awe-inspiring aspect of the Castalia
Prairie is the grasses. Under the management of the Chio Dept.
of Natural Resources, this prairie enjoys the rejuvenating effects
of fire which have perpetuated prairies in the past. Relieved of
encroaching woody vegetation and Eurasian weeds, the prairie grasses
have responded dramatically. Indian grass, little bluestem and
prairie cord grass abound, but when the wind blows, it sends waves
across a sea of big bluestem that clearly defines the area managed
with fire. Wade in a few yards and you'll find yourself in over
your head, swallowed up. Here you experience the grandeur and discover the true meaning of tall grass prairie as related by the
early explorers and surveyors. A real treat at this time of year
is to hang around 'til sunset. As the glowing orange sphere sinks
in the western horison, the browning grasses glow with a beautiful
red-violet hue.

To get to Resthaven Wildlife Area take Rt. 2 west to Rt. 101. Take this road southwest into the town of Castalia, then take Rt. 269 north out of town. Resthaven is right on the outskirts. Several dirt roads adjoining Rt. 269 traverse Resthaven and prairie plants are found throughout. The best prairie, however, is found south of Oxbo Read.

For a meal or a cold drink after a hot afternoon on the prairie, you may want to stop in at the Corner Store Restaurant or the Cold Creek Tavern of Rt. 101 in downtown Castalia. You needn't feel self conscious about the casual look of your field apparel. You may also fill out your day by visiting the famous Blue Hole across from Resthaven. Admittedly a tourist trap, it nonetheless displays one of the largest "bottomless" limestone solution holes in the area. Another pleasant diversion is to continue north on Rt. 269, then head east on Rt. 6 where you can stop at Steuk's Country Market and Winery before you hop back to Rt. 2 to head back towards Cleveland.

QUESTIONS? RESTHAVEN MAP?

Call Dan Best: (216) 321-5935 during the day 286-3621 evenings.

IT IS AUTUMN - YOU CAN TELL BY THE COLORS

Spring is a time of new beginnings and rejuvenation. Fall is the prelude to winter, a time of restfullness and quiet. The colors of spring are bright and eye-catching - sometimes breath-taking. The colors of Fall can be just as pleasing to the eye. Let us examine some of the wildflowers that "present their colors" with the passing of summer.



Chicory or wild endive is a common summer flower that occurs throughout Ohio. It takes on beauty in dry late summer when bloom is less plentiful. The bright blue blossoms go well with the white of Queen Anne's Lace and the bright gold of Blackeyed Susans which grow along the roadsides.

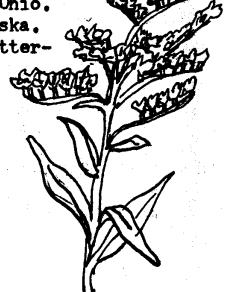
Chicory root is used as a coffee additive that lends a distinctive flavor to coffee in New Orleans and throughout the south where is it favored. In times of depression, the root is gathered, dried and ground up to be used as a coffee substitute. It is also eaten as a pothers and the blanched leaves are used in salads. Wherever you see Chicory, look for Goldfinches.

Chicory is an alien from Europe. Clear-blue stalkless flowers are

square-tipped and fringed. The flowers are closed by noon and can be pink (rarely) or white.

There are many species of goldenrod in Ohio. It is the state flower of Kentucky and Nebraska.

It is fragrant and widely visited by butterflies and bees. In fact, it is an
important honey plant and much of
the late dark honey is made from
this plant. The dried heads are
eaten by deer. Dry leaves from
blooming plants make sweet, aromatic tea. Sweet Goldenrod's
crushed leaves smell like anise.



IT IS AUTUMN-Continued

If you will look at our logo on the cover-page you will see our next autumn flower. The Fringed Gentian shows its "true blue" color from September to early November in wet woods where limestone is present. It grows one to three feet tall. The lilac blue flowers are fringed, have four petals and white throats. It can also be found in meadows and on banks. Few Ohioans know it because of its scarcity due largely to habitat destruction and also the lateness of the blooming season.

There are eight species of Gentians listed in Peterson's Field Guide to Wildflowers. Less rare is the perennial bottle gentian which blooms a month earlier and one to two feet in height. The closed flowers are fertilized by bumble bees. It grows in wet meadows.

When the gentians arrive fall is fully here.

GENE SPOHN

THE HERB WOMAN

She harvests yards and countryside

And hangs the drying snippets, tied

Or braided, their aromas reeling

From the rafters of her ceiling
Fennel, bergamot and yarrow

Plucked to song of thrush and sparrow

Rosemary, thyme and lavender

Sweet of bee tree's gold liqueur

Coriander, mustard, squill

Bay and basil, anise, dill

Catnip, sage and elderflowers

Blessed in potent thundershowers

Witch hasel leaves and cherry bark

Frilled with snows of winter dark...

Granny listens . . . gives advice Dispensing freely herbs and spice.

ELSIE S. LINDGREN DE BARY, FLORIDA

Taken from A.A.R.P. Magazine





6 Louise Drive Chagrin Falls, Ohio 44022 THE OHIO NATIVE PLANT SOCIETY Founding Chapter 9

15 Ma-4 € NATIVE PLANT SOCIETX OF MORTHEASTERN OFFO



IMPORTANT

On November 30, 1984 at 7:30 p.m. Frederick W. Case, Jr. will address us at the Cleveland Museum of Natural History on "Rare Wildflowers and Orchids of Eastern United States".

This program will follow our Annual Meeting and dinner at the Museum. IT IS ESSENTIAL THAT YOU KE YOUR RESERVATIONS NOW OR IN THE VERY NEAR

NEAR	FUTURE	I will attend the annual meeting. There will be of us.					
			will not attend the annual meeting.				
			Signed				
Mail	or c	Ann	Malmquist:	6 Louise (216)	Drive, S. 338-6622	Russell,	0. 44022