

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 III

September-October 1985

Number 5

FRIDAY, NOVEMBER 8, 1985 -- ANNUAL DINNER & LECTURE

It is time to start thinking about our annual bash at the Cleveland Museum of Natural History. This year's schedule is as follows:

Wine Hour: 5:30 to 6:15
Catered Dinner: 6:15 to 7:30
Speaker: 8:00

Our speaker for November is the highly respected Dr. Edward G. Voss, Professor of Botany and Herbarium Curator at the University of Michigan. In addition, he is the author of the **Michigan Flora**, the second volume of which will be published this year. Ed is a Fellow of the world famous Linnean Society of London, and has served as an official of the Bureau of Nomenclature at International Congresses in Seattle, Leningrad, and Sydney. He is currently serving as secretary, Commission on Nomenclature of Plants of the Division of Botany, International Union of Biological Sciences. His reputation as a plant taxonomist is worldwide. His curriculum vitae takes six single-spaced pages and it is a great privilege for us to have him come as our speaker. He is a native Ohioan and a life member of the Ohio Academy of Sciences.

His subject will be one that is of much personal interest to him: "Exploring Unknown Shores; Early Botanical Explorations Around the Great Lakes." He is an acknowledged expert on this subject and will bring to it his own enthusiasms.

The catering of the dinner will be done by the same good firm that did it last year, and we will have a good variety on the menu, including **VEGETARIAN FARE**.

ANNUAL DINNER & LECTURE - Cont'd

Because the caterer's cost went up 50¢ and we must pay a part of the cost of the speaker ticket this year, we are going to have to put the cost of the tickets at \$7.50 per person. Even at that price we will not be able to cover all the expenses, but we know that it is important to keep your costs at a minimum. Those members **not** coming to the dinner will have to pay the full Museum ticket of \$3.00 for speaker only.

MARK YOUR CALENDARS NOW!!! Dinner reservations may be sent to: 6 Louise Drive, Chagrin Falls, Ohio 44022. Make check payable to Native Plant Society.

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SEPTEMBER PROGRAMS AND EVENTS:

14TH (SATURDAY) OHIOPLYE FIELD TRIP - CANCELLED

✓ **20th (Friday) 7:30 p.m. - Holden Arboretum**

Carl Chueng, President of the Ohio Fern Society, and on the faculty of Youngstown University, will present a slide lecture on Ohio Ferns. Plan to attend, he is considered to be one of the most knowledgeable people on ferns.

OCTOBER PROGRAMS AND EVENTS:

✓ **6th (Saturday) 9:30 a.m. - Mentor Marsh**

We will be lead by one of our members on a field trip to study the composites. Any one in the group who thinks he understands all the composites can come along the help because I find this one of the most puzzling of all the families. Last Fall's walk was most rewarding, and we even found a peregrine falcon as a bonus.

✓ **18th (Friday) 7:30 a.m. - Holden Arboretum**

Dr. Sonia Teraguchi, Curator of Entomology at the Meseum of Natural History, will give an illustrated lecture on "The Relationship Between Ohio's Butterflies and Insects and It's Native Plants." Dr. Teraguchi is an expert on the Monarch butterfly and will educate us on the vital interdependence between such insects and the plants that are necessary to its survival.

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Programs for other chapters not available at press time - if interested call: Contact number for:

Cinci	-	Dr. Vic Soukup	513/761-2568
Cols	-	Dr. Jean Willis	614/882-4644
TWC	-	Bobbie Lucas	216/644-7682

REFINING THE DEFINITION OF A NATIVE PLANT BY Karl Smith

Big Bluestem (*Andropogon gerardi* Vitman) is the grass that dominates the Tallgrass Prairie Ecosystem Reassembly Project in the Brecksville Reservation, of the Cleveland Metroparks. It is native species to an area bounded on the southeast by Florida, on the west by Texas, on the northwest by Saskatchewan and on the east by Maine. Surely the Big Bluestem plants that grow in northern Ohio are different from those that grow in the rest of this widespread range.

Last August I stood on a tallgrass prairie in western Minnesota, and the Big Bluestem was in flower, yet less than three feet tall. In northern Ohio it usually is nine to ten feet tall. True, there is much less rainfall in western Minnesota than there is in northern Ohio, but the major difference between these two plants of the same species is that they are of different ecotypes.

Big Bluestem, like most widespread species, is really a group of sub-populations. These sub-populations, called ecotypes, may have the very same outward appearance, or morphology. But they are very different physiologically, which means they may have different seasonal growth patterns, and most importantly, will have adaptations for growing in different environmental situations. Northern Ohio ecotype Big Bluestem is better adapted to grow here than in western Minnesota, and vice-versa.

A paper that was presented at the Ninth North American Prairie Conference last summer clearly showed that Big Bluestem from Nebraska that was planted in North Dakota, was killed by the winter weather. There is a big difference between North Dakota and Nebraska ecotypes, most are not this dramatic. If the Nebraska ecotype and the North Dakota ecotype were allowed to interbreed, the new ecotype would be suitable for neither North Dakota nor Nebraska.

This is a plea to maintain the purity of ecotypes, and to refine the definition of native plant to include

local ecotype. This means we do not allow plants of the same species that naturally occur more than 100 miles apart to interbreed.

As Aldo Leopold so elegantly stated in **Round River**, "One of the penalties of an ecological education is that one lives alone in a world of wounds." One of the wounds that I feel is the ongoing loss of native species. Perhaps we all share that wound. I am asking you take on a new wound and that is the ongoing loss of local ecotypes. We lose local ecotypes when non-local ecotypes are planted so that they interbreed with our local ecotypes.

What can you do? Do not plant seeds or plants that naturally occur more than 100 miles away from the planting site. Encourage others to do the same. Make the effort to visit plants in their native habitats. Do not buy native plants from distant nurseries. If it is a local nursery check the source of their breeding stock to be sure that it is local. Do what you can to discourage government agencies from planting non-native species and encourage them to plant native plants that are local ecotypes.

(Note: California is the seed source for the recent plantings along Ohio's State Highways.)

Please remember that non-local ecotypes can only weaken our local ecotypes and thus, to my mind, make them non-native plants.

One of the many joys of the Tallgrass Prairie that has been planted here in Brecksville is that they are native plants and local ecotypes interacting in a dynamic ecosystem.

REFERENCES:

Curtis, John T. 1959, The Vegetation of Wisconsin, The University of Wisconsin Press, Madison. (ecotype information)

Fernald, Merritt Lyndon, 1970, Gray's Manual of Botany, Eighth Edition, Van Nostrand Reinhold Company, New York (range of Big Bluestem)

Leopold, Luna B. (ed.), 1953, Round River - From the Journals of Aldo Leopold, Oxford University Press, New York.

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Karl D. Smith is the Resident Naturalist at the Brecksville Nature Center, Cleveland Metroparks System. The above article represents his personal opinions and values and not those of his employer.

PRESIDENT'S COLUMN

Please take special note of the announcement of our Annual Meeting. Last year we had an excellent turnout and I think everyone enjoyed the social hour, the dinner, and the speaker. This year promises to be even better. However, it is important to have as many of you there as possible. We have a very prestigious speaker and it would be embarrassing to have less than a full house. In addition, we are the guests of the Museum, and if they are to extend themselves so that we may have a lovely place for our dinner, then we should have a good turnout. **MARK YOUR CALENDARS NOW!!!** We have moved heaven and earth to provide you with an outstanding evening.

At long last!!! It looks like we could have the Toledo chapter going by next year. I had a great meeting with two dynamic women in the administration of the Toledo Metroparks who are dyed-in-the-wool native plant enthusiasts. They fully comprehend the need for and the benefits of a chapter. The Toledo Metropark System is an outstanding one and they have a philosophy of using native plants in their parks, including several areas devoted solely to wildflower gardens and prairies. We are also working on chapters for Athens and Marietta.

The long-range benefits of the chapters is beginning to show. A couple of our members joined the Cincinnati group at Hocking Hills the end of June, and everyone had a great time and made new friends, as well as exploring new areas of the state. Our field trip to the Darby Plains area in August was not well attended, but those who met with the Columbus group enjoyed each other too. It is very nice to have contacts in other areas of the state and to explore new land and discover new kinds of plants. Try it out in the coming year.

I must sadly explain the cancellation of the September 14 field trip to Ohiopyle. Only 6 people showed up in Columbus from Cleveland. Fortunately, there were enough Columbus people to make Guy Denny's day worthwhile. However, since Ohiopyle was a good three hours away, we took a straw poll of who might be considering coming. We found only one person. We did not feel that we could ask Paul Weigman to drive all the way from Pittsburgh to Ohiopyle and lead a day's walk for just a couple of people. And that is in fact what he told us. Hence, the cancellation.

PRESIDENT'S COLUMN - (Cont'd)

In view of this, we are not scheduling **any** field trips outside the Cleveland area next year. I think this is too bad, and that we are missing opportunities to view plants we might not otherwise see. But those of you who are interested will go independently, I'm sure. We are just about finished with the 1986 Program and Field Trip Schedule, and I hope that you are as excited about it as we are.

It is the time of year to consider new officers for next year. At this writing, I have not been able to find three people to serve on the Nominating Committee, nor do I have any volunteers to take positions. We **NEED**: President, Vice President, Secretary, Treasurer, 2 Members-At-Large, Newsletter Editor, and various other committee chairmen. If you want the Society to continue, someone must do the work. Things do not happen by themselves. Please let me hear from you. Nominations are to be announced at the September meeting with ballots going out in October.

We have a new member, Jim French, who is the President of the Canadian Wildflower Society and the editor of the new magazine, **Wildflower**. I have the first three issues and think it is a very interesting periodical. It is published four times a year and the subscription price is \$15.00. Send to Wildflower, 35 Bauer Crescent, Unionville, Ontario, Canada, L3R 4H3. I will bring the issues to the September meeting for you to see. In addition, one of our new members is Jim Hodgins, who with his wife, is the author of the absolutely gorgeous book, **Flowers of the Wild**.

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SUBSCRIPTIONS TO "ON THE FRINGE"

MAY BE HAD BY SENDING A CHECK FOR \$7.50 TO:

6 LOUISE DRIVE, CHAGRIN FALLS, OHIO 44022

THE NEWSLETTER IS PUBLISHED: JAN. MAR. MAY JULY SEPT. NOV.

EDITORIAL

Paul Weigman, Natural Areas Director for the Western Pennsylvania Conservancy, has just relayed shocking and disgusting news to this office. Last year we had the privilege of having a field trip to Titus Bog in northwestern Pennsylvania. This bog is a holding of the Presque Isle Audubon Society and contained a number of rare plants that included *Arethusa* and *Blephariglottis*. At peak bloom last year we estimated that there were easily 700 White Fringed Orchids and many *Arethusa*. The White Fringed Orchid is known in only one area in Ohio and just several in Pennsylvania.

Paul's news is that when one of the Erie members went into the bog at bloom time, **THERE WERE NO ORCHIDS LEFT**. And there were obvious signs of digging all over the bog.

This is a situation that completely boggles my mind. In the first place, those orchids **WILL NOT SURVIVE**. It must have taken gigantic efforts to dig and carry all of those plants out of the bog. And to no avail, because of all the fragile orchids, this one has one of the most stringent requirements for survival.

Paul's theory is that this was the operation of a large group who were going to sell the orchids on the International Market. He claims that people will pay huge sums of money just to say that they once owned one, even if it doesn't survive.

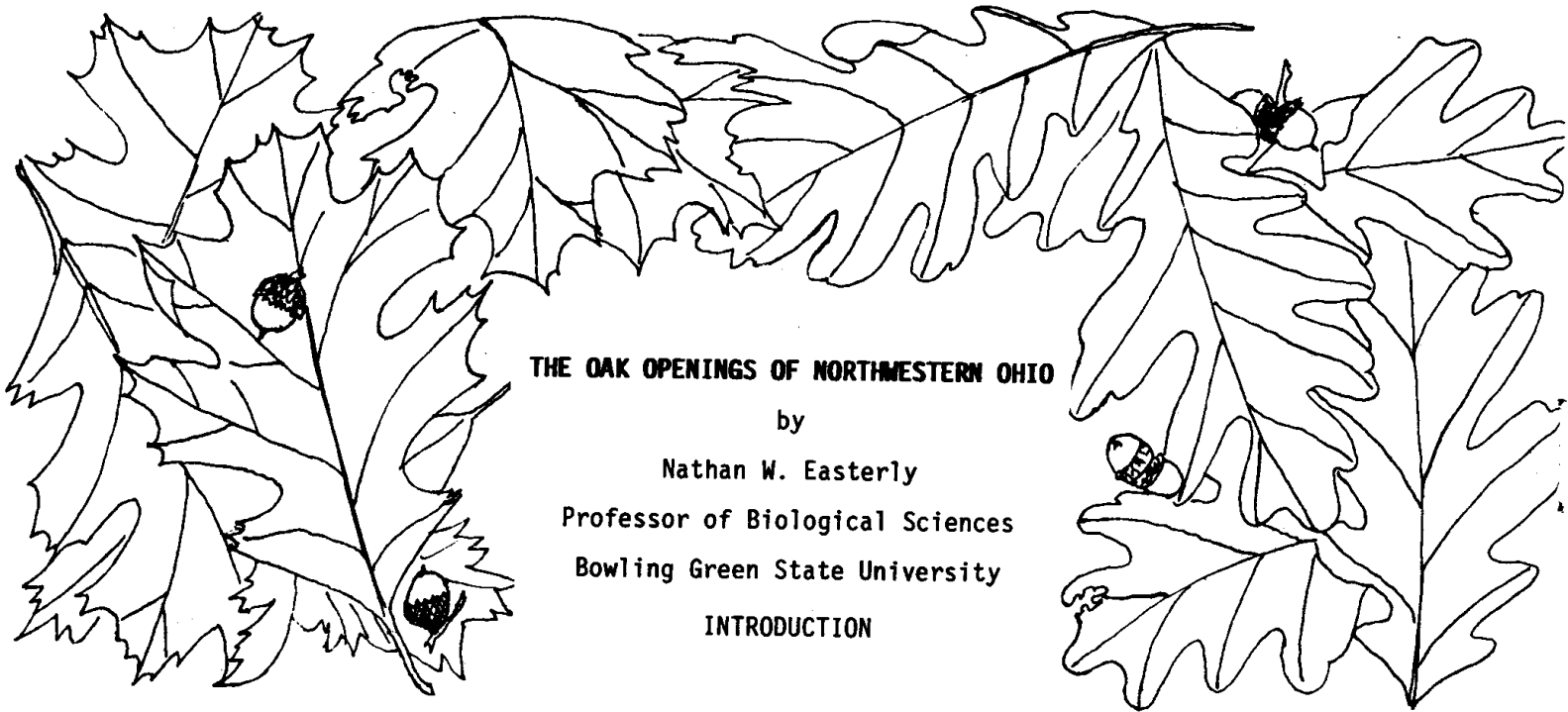
THIS IS IMMORAL AND UNETHICAL, NOT TO MENTION ILLEGAL!!!!

It is the purpose of our Society to campaign against this sort of thing and to educate the public concerning the necessity of protecting our rare and vanishing species of plants.

WHAT HAVE YOU DONE THIS YEAR TO HELP???

This is a tragedy that cannot be reversed. What is gone, is gone forever. The generations to come have been deprived of one of the world's miracles. To say that I am angry is a major understatement. We must **ALL** work harder to prevent this kind of thing in the future. **Each** of you has a responsibility.

IS THERE ANYONE OUT THERE, OR ANY GROUP WHO WOULD LIKE TO PUT UP A \$1000.00 REWARD FOR INFORMATION LEADING TO THE ARREST AND PROSECUTION OF THOSE WHO DID THIS HEINOUS THING???



THE OAK OPENINGS OF NORTHWESTERN OHIO

by

Nathan W. Easterly

Professor of Biological Sciences

Bowling Green State University

INTRODUCTION

Professor Edwin Moseley first visited the sandy habitats of the "oak Openings" west of Toledo, Ohio in 1897. In 1914, when Moseley came to Bowling Green State Normal School as a science instructor, he soon established a field study of this fascinating place. His efforts resulted in the publication of the "Flora of the Oak Openings" in 1928.

To a casual observer, this sandy tract of land might have been considered worthless. Nothing was there except barren sand subject to wind erosion and drought, or low swampy areas that bred mosquitoes. During the fall of 1871, the time of the great Chicago Fire, fires raged throughout the oak openings and adjacent Michigan. After 1871, much of the land was sold for taxes. Prospective settlers had a choice of the dry unproductive sand, or the swamp land that was impossible to manipulate. To the naturalist, however, this land provided a remarkable display of floral variety.

Lou Campbell in 1946 speaks of the thousands of orchids that once grew in the wetter habitats. At one time, there was commercial production of cranberries. The Michigan Lily covered acres of ground. The open sand areas were covered with Blue Lupine and Prairie Phlox. Wetter habitats supported showy displays of Cardinal Flower, Blazing Star, and Sundews. Much of the lavish display of plant species is gone from the landscape today, but naturalists still can find most of the species listed by Moseley in 1928.

This present study has provided a splendid opportunity to compare the flora of Moseley's time (1928) with the flora half a century later in 1978. Although much of the original landscape has been altered, there are preserved natural areas (e.g., Maumee State Forest, Oak Openings Metropolitan Park, Irwin Prairie, Secor Nature Center, and Schwamberger Preserve) that will serve as the caretakers of approximately one thousand plant species now known to be present in western Lucas County, northeastern Henry County, and southeastern Fulton County.

THE SOILS OF THE OAK OPENINGS

The predominant soils found within the oak openings habitats, as outlined by Edwin L. Moseley in 1928, belong to the Granby-Ottokee-Tedrow Association. Soils of the Granby Series cover approximately 40% of the land area; those of the Ottokee Series, approximately 35%, and the soils of the Tedrow Series, about 15% (Soil Survey, Henry County, Ohio, USDA, November, 1974). Other minor soils, as far as acreage is concerned, include those in the Oakville, Spinks, Ceresco, and Sloan Series.

The deep-dark-colored Granby Series soils are formed in low places on neutral to slightly acid fine sand (An Inventory of Ohio Soils, Lucas County, Progress Report No. 52, Ohio Department of Natural Resources, 1977). These soils are usually inundated with water during the spring and early summer. The Ottokee soils, formed on sand ridges and dunes, are deep, light-colored, and moderately well-drained. The water table is high in these soils only for a short time during the spring.

The Tedrow Series of soils formed in keep, calcareous sands. The terrain is nearly level (0-2% slope). These soils are somewhat poorly drained with a high water table during the spring and early summer. Oakville soils are found on the sand ridges and dunes, but



differ from the Ottokee soils by their darker color, lower pH, and by their scarcity. Another series of sand ridge soils that are even darker than Oakville belong to the Spinks Series. These dark brown soils are sometimes found on steep topography, and may be found on terraces along Swan Creek.

Soils adjacent to Swan Creek belong to the Ceresco Series or to the Sloan Series. The Ceresco soils are sandy loams, are somewhat poorly drained, and contain a high organic content. The Sloan soils are silty clay loams, are very poorly drained, and are darker in color than the Ceresco soils. Swan Creek originates in Swan Creek Township, Fulton County, and flows in a zig-zag fashion near Brailey, Swanton, Whitehouse, Monclova, and finally empties into the Maumee River in Toledo.

PLANT COMMUNITIES WITHIN THE OAK OPENINGS

Distinct plant communities are associated with the many varied microhabitats present within the Oak Openings area. These microhabitats vary from completely dry sand to swampy conditions. The pH of the soil also is variable, ranging from 5.6 in dry sand under pine trees to 6.8 in the shallow sand over the limestone bedrock. In a disturbed habitat, such as is found along the Norfolk and Western Railroad, one may find an alkaline-loving plant, Marsh Marigold (*Caltha palustris*), growing a few feet from an acid-loving plant, Huckleberry (*Gaylussacia baccata*). The Marsh Marigold has the ability to get started in the thin acid soil before it becomes firmly established in the alkaline soils beneath the surface layers.

The following is a list of the microhabitats with examples of the plant species that are associated with the habitat. 1. Sand Barrens: Thimbleweed, *Anemone cylindrica*, Sand Milkweed, *Asclepias amplexicaulis*, sweet-fern, *Comptonia peregrina*, Dwarf Dandelion, *Krigia virginica*; 2. Moist to Wet Prairies: Grass Pink *Calopogon pulchellus*, Leggett's Pinweed, *Lechea leggettii*, Cross-leaved Milkwort, *Polygala cruciata*, Lance-leaved Violet, *Viola lanceolata*, Riddell's Goldenrod, *Solidago riddellii*, Yellow-eyed Grass, *Xyris torta*; 3. Mesic Woods remnants: White Baneberry and Red Baneberry, *Actaea pachypoda* and *rubra*, Maidenhair Fern, *Adiantum pedatum*, White Ash and Black



Ash, *Fraxinus americana* and *nigra*; 4. Dry Oak-Hickory forest remnants with many blueberries, both *Vaccinium angustifolium* and *vacillans*. At the edge of these remnants, the Sand Cherry, *Prunus susquehanae*, can be found. 5. Swamp Forests: Small Purple Fringed Orchis, *Habenaria psycodes*, Purple Chokeberry and Black Chokeberry, *Pyrus floribunda* and *melanocarpa*, and Sessile-leaved Bellwort, *Uvularia sessilifolia*; 6. Aspen Thickets: Poisonous Angelica, *Angelica venenosa*, Water-Parsnip *Sium suave*, Whorled Lossestrife, *Lysimachia quadri-folia*, and the bristly Greenbrier, *Smilax hispida*; and 7. Sphagnum-mat remnants: Round-leaved Sundew and Spatulate-leaved Sundew, *Drosera rotundifolia* and *intermedia*, Cross-leaved Milkwort, *Polygala cruciata*, Rose Pogonia, *Pogonia ophioglossoides*, and Grass Pink, *Calopogon pulchellus*. Even within the distrubed habitats along railroads, roadsides and the excavated sand areas, the observant naturalist can find the Black Spleenwort, *Asplenium platyneuron*, Indian-Pipe, *Monotropa uniflora*, Fall-blooming Lousewort, *Pedicularis lanceolata*, Cardinal Flower, *Lobelia cardinalis*, Speckled Alder, *Alnus rugosa*, Purple-flowered Milkweed, *Asclepias purpurascens*, and Gay Wings, *Polygala paucifolia*.

Every effort must be made to preserve the Oak Openings of north-western Ohio as a viable scientific study area and as a refuge for threatened and endangered species. Approximately 10% of the flora within this fascinating place is on the threatened or endangered list prepared by the Division of Natural Areas and Preserves, Ohio Department of Natural Resources. Much of what Professor Edwin Moseley saw in the 1920's remains in the hidden areas within the Oak Openings. We should strive to keep it that way.

* * * * *

Saturday, September 21 at 2:30 p.m. the Nature Conservancy will dedicate the Charles Dambach Nature Preserve on Pond Road, Burton-Newbury Townships, Geauga County. This site has *Wolffiella Florida* where it was first discovered in Ohio. Bog stumping is available after the dedication. Dr. Dambach was a graduate of Burton High School and took his degree from Ohio State University. He has been Chief, Ohio Division of Wildlife; Director, Ohio Conservation Laboratory for Teachers; Regional Biologist, U.S. Soil Conservation Service; Director of the Natural Resources Institute of Ohio State University; Administrator of the Ohio Biological Survey; and a founder of the Ohio TNC.



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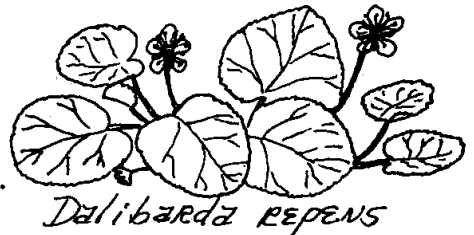
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NATIVE PLANT SOCIETY OF NORTHEASTERN OHIO
Founding Chapter of The Ohio Native Plant Society

"to promote conservation of all native plants and natural plant communities through habitat protection and other means; encourage public education and appreciation of native plants; support proper ethics and methods of natural landscaping; encourage surveys and research on natural plants and publication of the information; and promote cooperation with other programs and organizations concerned with the conservation of natural resources."

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- | | |
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