

The Lady-Slipper

The Official Newsletter of the Kentucky Native Plant Society



Volume 11, Number 3

August 1996

Contents

President's Message.....	1
by David A. Eakin	
Plant Places.....	2
Bernheim Forest by Varley Weideman	
KNPS Fall Meeting Set.....	4
by Charlie Lapham	
Education - KNPS Certification Courses	6
Curators' Corner.....	6
WKU Herbarium by Zack Murrell	
Input Sought for Boone Forest Plan.....	8
by Judith Rozeman	
Exotic Pest Plant Symposium	center insert
KNPS co-sponsored seminar	
Field Trips for 1996.....	10
by Clara Wieland	
Membership Renewal.....	11

The Kentucky Native Plant Society, Inc. was founded in 1986 as a botanical organization for all persons interested in the native flora and vegetation of Kentucky. The goals of the KNPS are to serve as a medium of information exchange, and to promote native plant conservation and public education in botany and botanical research in Kentucky. Annual dues of \$5.00 (\$7.00 family) may be sent to: KNPS Membership, c/o Department of Biological Sciences, Eastern Kentucky University, Richmond, KY 40475.

The KNPS Newsletter is printed Feb., May, Aug., & Nov. Deadlines for submissions are the 10th of the month preceding printing month. Send articles and correspondence to: KNPS Newsletter Editor, c/o Department of Biological Sciences, Eastern Kentucky University, Richmond, KY 40475.

KNPS Officers:

President: David Eakin, Biology Dept., ECU, Richmond, KY 40475 (606) 622-2258. Vice-President: Patricia Haragan, Davies Herbarium, University of Louisville, Louisville, KY 40207, (502) 852-0868. Secretary: Pam Long, 4601 Froggton Ln., Lexington, KY 40513, (606) 254-3101. Treasurer: Steve Sensenig, 1694 Fairview Rd., Lawrenceburg, KY 40342, (502) 839-7366.

Board of Directors:

Greta Fields, Box 217, Jenkins, KY 41537, (606) 633-1963. Charles Lapham, 16 Winn School Rd., Glasgow, KY 42141, (502) 646-4060. Deborah Harwell, 3325 New Boonesboro Rd., Winchester, KY 40391, (606) 745-7901. R. Hughes Walker, 115 Briarwood, Versailles, KY 40383, (606) 873-0032.

Editor: T. J. Weckman, Biological Sciences, Eastern Kentucky University, Richmond, KY 40475, (606) 622-1533.

President's Message

David A. Eakin

It has been said that "if you don't know where you are going, you are likely to end up someplace else!" This is true, both for individuals and organizations, yet most of us find it difficult to integrate planning into our busy lives. Part of the problem lies in equating efficiency with progress. We focus so much attention on improving *how* we do things, that we forget to ask *what* things we should be doing. We become preoccupied with building a better mousetrap, or developing more cost-effective methods. But learning to *do things right* is secondary to *doing the right things*. Planning must focus on *effectiveness* rather than *efficiency*. We must regularly stop, reflect and prioritize our lives and activities. What are your goals? Where do you want to be in five years? What are our goals in the KNPS? Where do we want to be in five years? If we don't know, then we are likely to end up someplace else, aren't we?

On October 12 and 13, at Maywoods in Garrard County, we are arranging a *strategic planning session* for the Society, and we want you to know that any of you who are interested are welcome. Of course, our officers and directors and committee chairs will be there. But if one of your goals is to find a more active leadership role in the KNPS, then you will want to participate also. Think of this as the Kentucky Native Plant Society's First Annual Long Range Planning Meeting. I admit that doesn't sound as exciting as a field trip to study the Fall composites or Kentucky's

remnant woodlands, but it is essential to our continuing efforts to provide such opportunities in the future. I hope this meeting will mark the beginning of a process which will assure that the KNPS will always be striving towards goals which maximize our resources as a group.

When I last wrote to you, I noted that every organization exists to accomplish goals which the individual cannot accomplish alone. By pooling our resources and talents, we can succeed where the individual will fail. And every group must determine their *purpose*. If I asked you to state the purpose or *mission* of the Kentucky Native Plant Society, what would you say? It is interesting to note that an autonym for the word purpose is the word "*accidentally*." We develop purposes and goals so that things don't happen accidentally. But goals must direct our actions and thinking or they are meaningless. Many groups go through the process of long range planning, writing a mission statement and determining goals, only to file them away someplace to be forgotten. By the way, where are your personal goals filed away? Our goals must govern our day to day activities or they are worthless.

The very act of organizing requires that some members step forward to take on the role of leaders for the group. They will act as eyes and ears for the group, the part of the organization which senses changes which threaten the group, or which alerts the membership to new opportunities which can maximize the well-being of all the members. Note that I said leaders *for* the group, not leaders *of* the group. There is a big difference! It is always possible that a person will accept a position of leadership for his or her own

benefit, rather than for the good of the group. But most recognize that leadership means service, and service requires work. It has been said that "people more readily follow leaders who roll up their sleeves and set the pace, than those who issue orders from an armchair." So if you are ready to roll up your sleeves and continue the tradition of excellent leadership in the KNPS, let us know that you will be with us in October!

To provide input for discussion, or for directions to Maywoods to attend the KNPS Long Range Planning Meeting please contact David at (606) 622-2258.



PLANT PLACES...

The Best in Public Access Sites for Viewing and Studying our Native Flora

Bernheim Forest in Western Knobs

Varley E. Weideman

Bernheim Arboretum and Research Forest is a 14,000 acre preserve located 15 miles west of Bardstown on KY 245. The forest is in the

picturesque Knobs region of Bullitt and Nelson Counties. It was founded in the late 1920's by Isaac Wolfe Bernheim, a Kentucky distiller, to "be held in trust for the development...of a park, an arboretum, and, a museum, all of which are to be developed and forever maintained as a center...for the people of Kentucky and their friends, as a place to further their love of the beautiful in nature and in art...and for educational purposes..." The most obvious aspect of Bernheim is the 225 acre Landscape Arboretum that includes several small lakes, a Nature Center, and an Arboretum Center that provides for group meetings. The country's largest collection of holly trees are located in the arboretum. In addition to this beautiful public area there is a 2,000 acre Conservation Zone that has areas for picnicking and 35 miles of well-marked hiking trails, some of which now have trail brochures that point out significant features. Some of these trails provide excellent viewing of wildflowers, ferns and a variety of trees.

The greater portion of Bernheim, about 12,000 acres, is the Research Forest which is generally not open to the public. Gravel roadways through the Bullitt County portion of this area are open for walking however. The Nelson County areas are not open except by special arrangement with the Director of Research and Natural Areas.

Of interest to native plant enthusiasts is a recent planting of 200 "American" chestnut seeds provided by the American Chestnut Foundation. These seeds are from six different genetic stocks resulting from crossing of American Chestnut and Asiatic Chestnut, followed by back crossing. Hopefully this will be a start of the return of this magnificent tree to our Kentucky forests.

Late summer and early fall are excellent times to visit Bernheim. We have eleven native orchid species, six of which bloom in August or September (Rattlesnake plantain, Crested coral-root, 3 species of Ladies tresses, and Crane fly orchid). Other native plants that bloom from July to October include Tall bellflower, yellow passion flower, striped gentian, three species of Lobelia, common dittany (*Cunila*), six species of *Eupatorium*, tall thistle (*Cirsium altissimum*), thin leaved cone flower (*Rudbeckia triloba*), and Arrow-leaf aster among others. In addition, three species of saprophytic flowering plants can also be found. These often overlooked plants include Indian pipe, Pinesap, and Beech-drops.

So come to Bernheim, hike our trails and woods and see these and many more late summer and early autumn flowers in bloom.

Dr. Varley E. Weideman is Director of Research and Natural Areas at Bernheim Arboretum and Research Forest. For directions to Bernheim Forest or to speak with the author call (502) 955-8512.



Prairie Remnants and their Preservation: KNPS Fall Meeting Program

Charlie Lapham

The fall meeting of the Kentucky Native Plant Society with a focus on **Prairie Remnants and their Preservation**, will be held Friday evening through Sunday morning, September 20-22, 1996 at Western Kentucky University in Bowling Green.

A sizeable portion of the Mississippi plateau was open prairie (or barrens) in Daniel Boone's time. Unlike the Midwestern prairies which are kept open by lack of water, Kentucky prairies apparently relied on other factors to control tree cover. Bison grazing and fires set by Native Americans are two such factors.

We are fortunate to have three fine prairie remnants in west central Kentucky and we will visit all three. The plant communities found in these habitats include grasses like big bluestem, little bluestem and Indian grass which are classic indicators of native tallgrass prairies. If you have never visited a high quality prairie remnant, you can be confident of seeing several new species and many of them should be blooming at this time of the year. (See KNPS Vol 10:3 issue for a sample of species we found at one site last year).

We also have several speakers who will explain prairie maintenance in our age. It's a lot more complicated now than just letting a herd of bison loose or setting a grass fire like the Native Americans did.

On Friday at 7:00 PM in room 224 of the Thompson Complex (north wing), our old friend and most dedicated leader of field trips, Dr. Julian Campbell will speak on the Burn Plan The Nature Conservancy is designing for the National Park Service at Mammoth Cave. The Nature Conservancy has the most expertise in controlled burns of any conservation group. The mere fact that The National Park Service has provided funding for a burn study is quite significant. This is the heart of Smoky Bear's former range and there was a dreadful fuss when they didn't put out the fire in Yellowstone a few years ago. We could be watching history in the making.



Saturday morning will begin with a visit to the Raymond Athey Barrens. This Kentucky State Nature Preserve Commission (KSNPC) site is generally closed to the public but Joyce Bender will lead us there and will explain the

KSNPC maintenance program. (Joyce is in charge of stewardship with the KSNPC so you might even get a chance to offer to help- I did.) We hope to find the rare striped Gentian, *Gentiana villosa* which showed up after an earlier burn. Raymond Athey, the site's namesake, has more Kentucky rare plant discoveries than anyone else by a wide margin and this was one of his favorite places, so there are plenty of interesting things there.

Also on Saturday, Randy Seymour will guide us through property recently acquired by Mammoth Cave National Park. This parcel was formerly Wandering Woods resort and it includes a fine prairie remnant with rare species. Randy, an amateur botanist and life member of KNPS, has been studying the flora of Mammoth Cave for several years and is preparing a book on the flora of the Park. Randy will guide us through the prairie and show how to identify the Kentucky and Tennessee endemic *Helianthus eggertii*. There is a state listed "threatened" nutrush, *Scleria ciliata*, there which we hopefully will be able to find. Mammoth Cave is an international biosphere reserve and boasts a very impressive flora which, unfortunately has been largely ignored by the public. Randy is committed to rectifying this situation and the KNPS can help.

Saturday evening's activities will include a short business meeting with the unveiling of KNPS's new publicity booth and pamphlet. Randy will talk to us about the flora of Mammoth Cave including those species that once were there and can no longer be found. For over 50 years park personnel have not interfered with succession and most of the open areas are now covered by the canopy. Hopefully, some of the lost species can be re-

established by controlled burning. Some of the native species' seeds remain viable for years waiting for fire to trigger germination. This may be an exciting area to watch for some time! We hope to have both the species' lists available at the lecture.

Sunday morning we will visit The Nature Conservancy's Eastview Barrens with Dr. Max Medley as our leader. Max is the author of the most recent listing of the Flora of Kentucky and is thoroughly familiar with the flora of Eastview. The final portions of Eastview have recently been acquired thanks in part to a lot of detail work by Dr. Campbell. This prairie varies from xeric sandstone to mesic limestone and virtually all the grasses are native. It is truly impressive! The Nature Conservancy has an active burn program here and we hope to be able to show you the positive results in the form of an impressive stand of the spectacular state endangered prairie gentian, *Gentiana puberulenta*, which should be in bloom. Bring extra film for this one, its particular blue hue is difficult to get on film.



If you have any acquaintances who think the wildflowers only bloom in the spring and everything else is a weed, this is the event to correct that misconception! Yes, it is football season, but if you tape the game, you can come to the weekend and fast forward through the commercials when you do watch it.

Accommodations in the Bowling Green area are recommended because of the evening lectures at Western Kentucky University. It's also centrally located between Mammoth Cave and Athey Barrens. Call Charlie Lapham (502) 646-4634 to register, for directions and accommodation information.

Charlie Lapham is a KNPS Board member and is working on updating the flora of Barren County. He may be reached at (502) 646-4060 or E-mail: lapham@scrtc.blue.net

KNPS Certification Program in Native Plant Studies

Fall 1996 Course Offerings

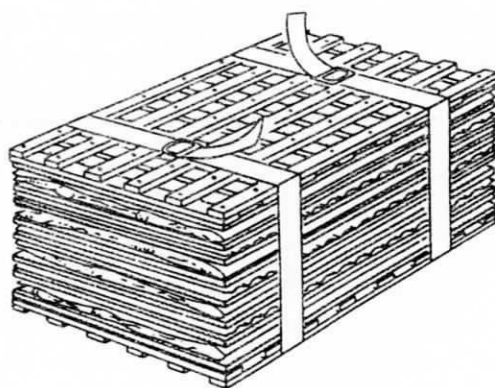
Certification courses are offered by the KNPS as part of a curriculum developed to educate KNPS members in native plant studies. For more information on the KNPS Certification Program, please contact Dr. Ron Jones, Biology Department, Eastern Kentucky University, Richmond, KY 40475. (606) 622-3056, or EKU Herbarium (606) 622-6257.

Plant Ecology for the Amateur Naturalist
Dr. Gary Janicke, Associate Professor,
Department of Agricultural, Eastern Kentucky
University. (606) 622-2231.

Do you want to see more than just a sea of green leaves when you see a forest? Do you want to understand why your azaleas don't do well in the clay soil and bright sun of your front yard? We will study how environmental factors and species interactions influence the patterns of abundance and distribution of plants in nature.

Saturdays October 26, November 2, 9 & 16.
1:00 to 4:00 pm. Carter Bldg. Room 12., ECU
Campus, Richmond, Ky.

Tuition: \$76.00, book fee \$10. Register with
EKU Special Programs at (606) 622-1228.



CURATORS' CORNER

**The Western Kentucky University
Herbarium at Bowling Green**

Zack Murrell

The herbarium at Western Kentucky University (WKU) has recently undergone some changes with the semi-retirement of Kenneth Nicely after 20 years of curation. Dr. Nicely started the herbarium in 1967, after

completing his Ph.D. at N.C. State University under the direction of Jim Hardin. Ken's research at Western included a continuation of his Ph.D. study of *Calycanthus* as well as floristic studies of the surrounding area. During Ken's tenure as curator the herbarium at WKU has grown to include 15,000 specimens of vascular plants, as well as a 600 specimens in a teaching collection of fungi. The herbarium contains plants collected by E. O. Beal, some Raymond Athey specimens, as well as the Barren County collections of George Johnson.

I was hired two years ago as the new curator. My Ph.D. work at Duke University involved the genus *Cornus*, the dogwoods, and I'm continuing that work at Western. My dissertation work included a traditional examination of morphological characters in a monographic study of the sixty species of dogwoods found in eastern Asia, eastern North America, the Pacific Northwest, and the mountains of Mexico. My post-doctoral research took me into the world of molecular biology, and I am currently using DNA sequencing in conjunction with morphological characters to examine relationships among the dogwoods.

Several students have been working in the herbarium at WKU over the past two years. Pat Carroll is completing a Master's thesis examining species boundaries in *Hexastylis contracta*, one of the "little brown jugs" growing in the Cumberlands of Kentucky and Tennessee, with a few populations in North Carolina. Nick Drozda has begun a study of another *Hexastylis*, *H. heterophylla*, which grows throughout the Southeast and is variable in leaf and flower shape. Nick is doing a pollination study and a taxonomic

study of this plant. Jamie Estill is an undergraduate working on the genus *Spiraea*, (specifically the Virginia spiraea), in Tennessee, Kentucky and North Carolina. Jamie is completing this study as an Honor's thesis and plans to begin a Ph. D. Program in Systematics at the University of Tennessee this fall.

My interests as a plant taxonomist involve the use of the herbarium for traditional studies, but also include the use of a molecular laboratory and the scanning electron microscope facility at WKU. This work uses a broad array of tools to help students study plant evolution from different perspectives, examining morphological and developmental processes, changes in molecular components of DNA, micromorphological analyses using Scanning Electron Microscopy (SEM), and field studies to compare habitat and distribution of related species. Several students have been using the SEM to study trichome morphology in dogwoods and *Spiraea*.

Plans are being made to continue the growth and development of the herbarium at WKU. Charlie Lapham is helping with the computerization of the collections. WKU has provided funding for a new computer that will be used in the computerization, as well as with a morphometrics laboratory to study shape variation among various plant groups. We are presently exploring ways to house the animal collections at WKU (the Lancaster collections, both birds and insects) with the herbarium, and we hope to have an integrated plant and animal collection within the next three years. My students and I have begun floristic studies in Allen County and in the Cumberland Plateau that will continue to increase the size of the WKU herbarium.

The KNPS field trip on September 14, will begin at the WKU herbarium with a tour of the herbarium and the laboratory. We will also walk in a small pristine gorge in the north end of Warren County (Shanty Hollow). This walk and the KNPS Fall Meeting September 20-22, will both be opportunities to come call on the WKU herbarium, and I and my students look forward to your visits.

Zack Murrell is Curator of the WKU Herbarium. He may be reached at (502) 745-6008.



Public Input Sought for Daniel Boone National Forest Plan

Judith Rozeman

The U.S. Forest Service is currently seeking public input for the revision of the Daniel Boone National Forest Land and Resource Management Plan (Forest Plan) that has been published this summer. The public is given 90 days to make comments on the proposed revision. **You have until September 19, 1996 to make your concerns known to the Forest Service.**

According to the *Boone Planner*, the newsletter for the Daniel Boone National Forest (vol.1 no 2 July 1996), the kinds of decisions that a forest plan can affect include the following:

- The establishment of forest wide multiple use goals and objectives
- The establishment of forest wide management requirements
- The establishment of management areas and management direction for each area
- A determination of what areas of the forest are suitable for the production of timber
- A determination of the amount of timber that could be harvested on a sustained basis (allowable sale quantity)
- The establishment of monitoring and evaluation requirements
- Recommendations for Congressionally-designated areas, such as Wilderness; and
- A designation of lands available for oil and gas lease.

Several major parts of the current Forest Plan are targeted for change. KNPS membership input on these issues will be especially helpful during this period of public review. These changes may encompass issues such as an added emphasis on ecological approaches to forest management, changes in projected timber yields based on protecting sensitive forest resources and cost efficiency, consideration of pest and exotic species, a response to the demands for "special forest products" such as ginseng, medicinal herbs, moss, grapevines, shrubs and the like, and

consideration for recreational uses (horseback riding, motorized trail bikes, hiking, etc.).

Public comments during this current review period will be used to refine issues that the public have identified over the last ten years. These have been summarized into the following questions on which the Forest Service is especially interested in having input:

What actions and land allocations are necessary to insure the biological diversity and sustainability of ecosystems, considering the plant, animal and human interactions?

What combination of land allocation, forest regulations, facilities and services should the national forest furnish to assure public recreational opportunities which provide a minimum of conflict between users and protection of natural resources?

What road and trail system is needed on the forest and how should it be managed?

What should be the balance of specially designated areas, such as wilderness, zoological and botanical areas, which are needed to conserve unique forest characteristics?

Should the Daniel Boone make land allocations and take action to maintain and or improve opportunities for hunting and fishing experiences and enjoyment of wildlife?

What role should timber harvesting play in ecosystem management, and in contributing to meet the demand for wood fiber by the American public? What economic considerations should be applied?

What additional management options, if any, should be used for the extraction of "miscellaneous forest products" such as moss and other plant materials?

How should the Daniel Boone manage federally owned minerals?

As part of the botanically educated public, members of the KNPS should write to the Forest Service with our concerns and ideas for forest use and management. Copies of the *Boone Planner* Newsletter, which provides a more complete outline of changes likely to be made to the Forest Plan may be obtained from the Forest Service office in Winchester, or by calling (606) 745-3100.

Write before September 19, 1996, and send your comments to:

Forest Supervisor's Office
Daniel Boone National Forest
1700 Bypass Road
Winchester, KY 40391
(606) 745-3100.

Judith Rozeman has previously written about mosses for the KNPS newsletter. She may be reached at Berea College at (606) 986-9341, ext 6494.



KNPS Sponsored Field Trips & Regional Events of Interest for 1996

Clara Wieland, KNPS Field Trip Coordinator

Please Note: To ensure that enough participants will attend a trip and that the leader(s) can do an effective job **REGISTRATION IS REQUIRED FOR ALL FIELD TRIPS**. Unless otherwise noted, please call Clara Wieland at (606) 266-5548, to register.

VISIT A LIMESTONE GLADE IN SUMMER- JIM SCUDDER PRESERVE,

Saturday, August 24, 1996. 10:00 am Eastern Time. Hardin County.

Leader: Joyce Bender, Stewardship Director, Kentucky Nature Preserves Commission.

Joyce plans to introduce us to prairie glade vegetation, and explain management strategies used to keep these systems healthy. These rare habitats are populated by grasses and composites not found in other areas of Kentucky. Meet in E-town at Burger King off I-65 and Rt 62. From Louisville, take I-65 to E-town and exit for Rt 62. From Lexington, take BG Parkway to E-town. Take I-65 North about .6 mi to exit 94 (Rt 62). Moderate walk. Bring water, snack, hat & sturdy shoes. Limit 14.

SHANTY HOLLOW POCKET WILDERNESS AND WKU HERBARIUM

Saturday, September 14, 1996. 11:00 am Eastern Time. Warren County.

Leader: Zack Murrell, Botanist, Western Kentucky University.

Zack will host us at his Plant Systematics and Molecular Laboratory at WKU. He will also lead us to Shanty Hollow, a limestone and sandstone gorge, with cliffs, deciduous forests and ferns. Meet in Bowling Green at the Cracker Barrel, at I-65 exit 22, Scottsville Rd. (Rt 231). Bring a bag lunch. Limited to 20 people.

KNPS FALL MEETING: Prairie Remnants and their Preservation, Bowling Green, KY,

Friday through Sunday, September 20-22, 1996. See details pages 5 -7.

MUSHROOM FORAY - NATURAL BRIDGE STATE RESORT PARK

September 27, 28, 1996. For more information call the park at 800-325-1710.

FALL PLANTS AND ECOLOGY OF AN OPEN CORRIDOR AND ADJACENT PINE-HARDWOOD WOODS

Saturday, October 5, 1996. 10:30 am Eastern Time. Cumberland Falls area, Whitley County.

Leader: David Taylor, US Forest Service Botanist.

David has volunteered to lead us to this diverse habitat again. David prepared a checklist and brochure on how this area "happened." Thirty-four different composites were found on the last field

trip. Don't miss this opportunity to see this mosaic of plants. Meet at Dupont Lodge, Cumberland Falls State Resort Park. Take I-75 to exit 25, which is the Rt 25W and Rt 90 exit. Follow Rt 90 West and signs to the State Park Lodge. Bring a lunch and water. Limit 12.

KNPS LONG RANGE PLANNING MEETING: Maywoods, Garrard County, KY
Saturday and Sunday, October 12-13, 1996. See details on pages 1-2 of this issue.

THE IMPACT of EXOTIC PLANTS on KENTUCKY'S BIODIVERSITY
Saturday, October 19, 1996. East Kentucky Power Cooperative, Winchester, KY
See details on pages 11-12 of this issue.

A FALL AFTERNOON AT GRIFFITH WOODS - THE LAST ASH-OAK SAVANNAH
Sunday, November 3, 1996. 1:00 pm Eastern Time. Fayette County.
Leader: Martina Hines, Kentucky State Nature Preserves Commission
Canceled!

Kentucky Native Plant Society 1996 Membership Form

Memberships are for calendar year (Jan-Dec). Dues are modest, please keep your membership current. Membership expiration is listed at the top of your mailing label.

Name _____ Address _____

City _____ State _____ Zip _____ KY County _____

Please mark membership category, enclose **check** (please do not send cash) payable to "KNPS", and remit to: KNPS Membership, c/o Biology Department, Eastern Kentucky University, Richmond, KY 40475

Membership Renewal _____

New Membership _____

_____ Annual Individual Membership (\$5.00)

_____ Annual Family Membership (\$7.00)

_____ Lifetime Individual (\$100.00)

_____ Lifetime Family (\$140.00)

KNPS ACTIVITY CALENDAR FOR 1996

- August 24: Jim Scudder Preserve Field Trip
September 14: Shanty Hollow/ WKU Field Trip
September 20-22: KNPS Fall Meeting: Prairie Remnants and their Preservation, Bowling Green
September 27-28: Mushroom Foray, Natural Bridge State Resort Park
October 5: Fall Composites / Old Field Ecology Field Trip
October 12-13: KNPS Long Range Planning Meeting, Maywoods, Garrard County, KY
October 19: Exotic Plants and their Impact on Biodiversity Conference
November 3: Griffith Woods Savannah Field Trip-Canceled!!

**The Kentucky
Native Plant Society**
c/o Department of Biological Sciences
Eastern Kentucky University
Richmond, KY 40475

NON-PROFIT ORG.
U.S. POSTAGE
PAID
RICHMOND KY 40475
PERMIT NO. 116