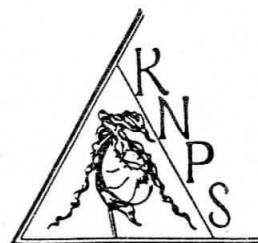


The Lady-Slipper

The Official Newsletter of the Kentucky Native Plant Society

Volume 11, Number 1



February 1996

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The Kentucky Native Plant Society, Inc. was founded in 1946 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.

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Biodiversity

David A. Eakin

In silent frustration the old fisherman sat mending his net. The last haul of fish had seriously damaged it. The many small breaks and holes in the web of knotted cords would require careful attention to repair. He could probably use the damaged net again, but he knew the risk involved. The weakened sections might give way and the entire net would be lost. Loss of a useable net meant loss of his livelihood. "Much like the connections among all of God's creatures," he thought. "Each knot is like a single organism in the web of life. Perhaps one or two knots can be lost and the web still hold together. But at some point, when we poke too many holes, the web no longer functions. And our own survival as a species on this planet is lost as well."

For many, *biodiversity* is just another buzz word among environmentalists, widely used but poorly understood. Could you clearly explain the concept to a friend? Unfortunately, even published definitions of biodiversity such as "the variety and the variability among living organisms and the ecological complexes in which they occur," [1] fail to help the layperson understand that *each of us* is a part of this great web of life, and that *our individual and collective actions* are weakening the interconnections that sustain us all.

And I believe there is a less obvious problem to be faced as we attempt to increase the public's awareness of the decline in biodiversity at all levels. Nature is resilient! Built into the web of life is an incredible

redundancy - a backup system if you will. We usually illustrate the concept of biodiversity by making an analogy between the food webs which interconnect all living creatures and a spider's web. Or as in the above illustration - a fisherman's net. However, food webs in nature are as dynamic and alive as the organisms which make up them up. When a species is eliminated a hole does not always appear in the web. Some new organism quickly fills the empty niche like a replacement player. Furthermore, a weakness in the web may be hidden from us for some time because the missing organism is only *one of several* food sources used by a predator. Let's examine a specific example using the red fox.

The food web surrounding the red fox changes as the seasons change. This reflects variations in the availability of food sources throughout the changing seasons. The basic diet remains the same, but the proportions of specific prey organisms changes dramatically. Fruits and insects predominate in the summer and fall of the year, but rodents comprise approximately 60% of the winter diet of the fox. Eliminating one or two species from the normal diet will not poke a hole in the food web, but it will weaken it. Should a dominant winter species be lost (e.g., due to habitat destruction), the fox population will not disappear from the web completely, yet the entire web has been weakened.

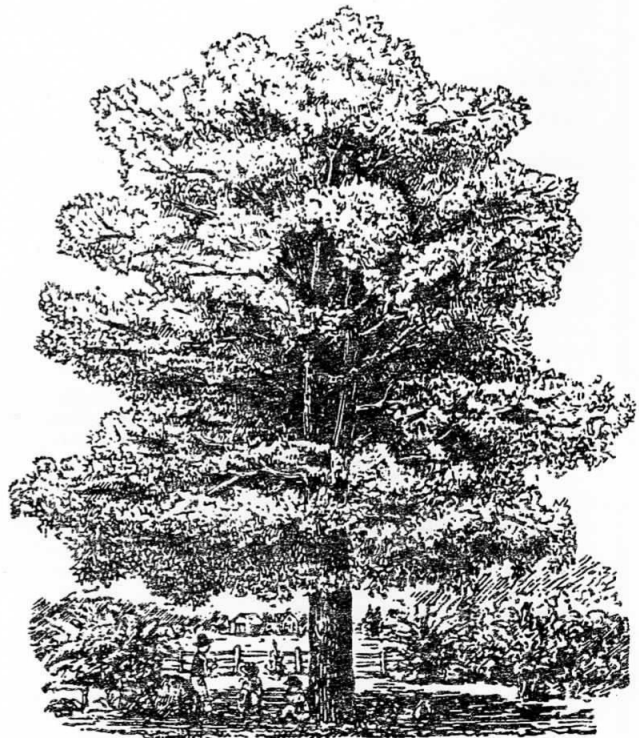
I believe this resiliency hides much of the damage we have done to the biodiversity of our natural systems. It is not enough to develop species lists, we must survey for changes in the overall diet of every organism in the entire system. We must recognize that while human activities may not always poke an obvious hole in the web, our alteration of natural systems has certainly weakened it in

ways we have yet to discover.

How many holes before the net is useless? How many species can be eliminated before the web of life is shredded to collapse? We are the only species on this earth which has developed the capability to alter the fabric of life on this earth to the point of destruction. And we are the only species among all of "God's creatures" which can reverse and correct the damage already done. Someone once said, "Ability + Opportunity = Responsibility." And that ability to respond is what separates us from the red fox. Each of us must first educate ourselves to the danger and then use every opportunity we have to teach others how to respond constructively!

[1] ... *Kentucky Alive: Report of the Kentucky Biodiversity Task Force*, 1995, p. 9.

Dr. David A. Eakin is an Assistant Professor in the Biology Department and Associate Curator of the Herbarium at Eastern Kentucky University. He may be reached at (606) 622-1531.



PLANT PLACES...

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

Management Strategies in Kentucky's Daniel Boone National Forest

WHY BURNS THE FOREST?

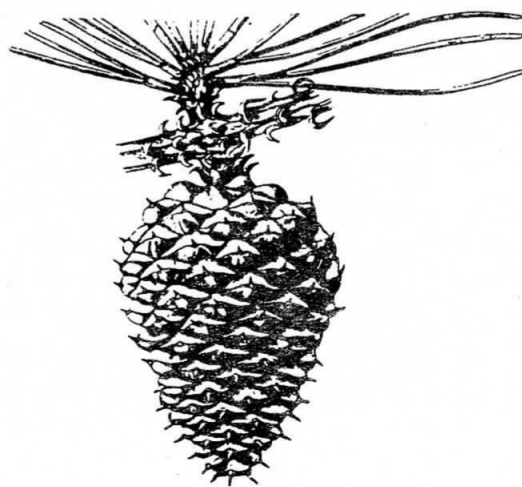
David D. Taylor

Sometime this spring, driving through the Daniel Boone National Forest south of the Rockcastle River, you might encounter a road sign which warns "SMOKE AHEAD." You may encounter the acrid yet sweet smell of burning leaves and puffs of white smoke. It's obvious the woods are on fire, but what's going on? Why burns the forest?

Most likely, you have come across a prescribed burning project on the Forest. "Prescribed burning? What's that?," you say. It is a good question. Prescribed burning or controlled burning are fires intentionally ignited under specific guidelines of humidity, temperature, wind factors, and fuel conditions. All of the guidelines for igniting, completing and monitoring the fire are spelled out in a prescription, hence the name "prescribed burning." Much like a doctor's written prescription following an examination, resource managers write burning prescriptions after they examine various resources such as timber, soil, accumulations of forest litter (leaves, twigs, branches, logs), natural communities, and the condition of rare plant and animal habitat. Based on their findings, as well as experience and knowledge from experts in other fields, a prescription is written

detailing how much fire to use, when to use it and under what conditions. Important to this process is a specific objective; prescribed burns are not carried out simply to watch a fire. Many different federal, state, and private agencies around the state and country use prescribed burning to reduce fire danger to private property, to control unwanted species in natural communities, and to maintain habitat for rare plant and animal species.

Burned woods usually do not look pretty following the fire, but in most cases, prescribed burning is used in ecosystems adapted to fire. Within a few weeks to a few months, both woody and herbaceous species sprout, and the burned area becomes green. By the second year after the fire, the casual observer will see little evidence of the burn. Smoke stains are often still visible on tree trunks and an occasional charred log is encountered, but the forest is green. The natural system is adapted to fire and responds with tremendous herbaceous growth. *A prescribed fire is not a wild fire.* The goal in using prescribed fire is not to destroy a forest, but rather to reduce fuel concentrations to protect both property and forest from wild fire or enhance or restore some element of the ecosystem.



In the west or on the coastal plain, the importance of fire to ecosystems and rare plants and animals is well understood. In places like Kentucky and Tennessee, knowledge about the role of fire is still evolving. Topography; distribution of species, especially rare ones in the state and their affinities to coastal plain communities; and evidence from descriptions of early travelers, pollen core samples, and archeology all suggest that fire was once more widespread in Kentucky and Tennessee than now observed. Part of the fire was lightning started, but most was probably anthropogenic (started by humans). What we see today in places such as the Barrens of western Kentucky and the pine and pine-hardwood forests of the southern part of the National Forest appears to represent remnants of a once, more widespread ecosystem.

Still, you wonder why the Forest Service prescribes fire on the forest land it manages. Foresters have used prescribed burning for many years. The primary reason for the burns was to reduce the amount of downed fuel which could promote a wild fire, possibly severe enough to kill most trees in the area. Many of these burns were conducted in areas where wild fire would have threatened private property. The Forest Service still does prescribed burning for this purpose. More recently, however, prescribed burns have had another purpose. The Forest Service has begun prescribed burning of upland pine and pine-hardwood forest to restore and enhance this ecosystem. About 40 rare plants and animals occur in the open pine or pine-hardwood ecosystem of Kentucky. This ecosystem is variously called savanna, barrens or open pine/pine-hardwood forest depending

on the person speaking. Essentially, the ecosystem is characterized by an open to closed canopy of primarily southern yellow pines (shortleaf, pitch or Virginia pine) and scattered hardwoods (white, scarlet, chestnut, and black oaks; blackgum, and red maple) which lack the frequently seen midstory/high shrub layer of many Kentucky forests. Individuals of small trees and tall shrubs are certainly present, but not in numbers to block sight through the forest. A low shrub layer of blueberries, huckleberries and other species may occur throughout. The herbaceous layer is a rich mixture of mostly summer and fall flowering composites, legumes and grasses. It is in this layer that rare plants such as eastern silvery aster, red-disk sunflower and betony-leaved false foxglove thrive, especially where the canopy is more open. On damp or wet sites in this ecosystem, one can find the rare or uncommon yellow and Virginia screwstems, New York Ironweed, and Yellow Fringed Orchid. Uncommon animals found in this ecosystem include the northern pine snake, glass lizard, and southeastern five-lined skink. A rare bird, the red-cockaded woodpecker (RCW) also calls this ecosystem home. It is for these species and the ecosystem they inhabit that much of the forest's prescribed burning is now accomplished.

Burning helps to maintain the forest in an open condition. The lack of a dense midstory layer in the forest allows much more light to reach the ground in these woods, promoting the rich herbaceous flora. This in turn encourages a range of insects (primary food for the RCW and many reptiles) to inhabit the area. The RCW primarily forages for insects on tree trunks and branches. The lack of dense midstory also keeps tree trunks open making it

easier for them to forage. Observations over the last few years also have shown that the prescribed burns promote many of the rare species. Following a burn in one area, three new populations of eastern silvery aster with a total of 130 plants were discovered. Red-disk sunflower has responded so well to the prescribed burning program (in one case from 50 flowering stems to 2000 flowering stems following a burn) that the Forest Service is preparing to drop it from their sensitive species list (Kentucky State Nature Preserves Commission has down-listed the species to state candidate level) and manage for the species using prescribed burns.

There is a tradeoff for this effort. The existing conditions and the species supported by them are changing. The existing conditions, however, are widespread. The ecosystem which is maintained and enhanced by prescribed burning is not. The corollary is that the species supported by the existing conditions are generally widespread; species supported by the fire-maintained ecosystem are not. The Forest Service recognizes the need to have the existing ecosystem and community represented. Accordingly, only a portion of the areas with potential to be restored or enhanced with fire will be treated with prescribed burns. Forest Service goals are to ensure biodiversity as well as the diversity of supporting ecosystems. To this end, some areas of common habitat types and species will be traded for the less common.

In summary, if you should encounter the sights, sounds and smells of prescribed fire on the forest, chances are strong that the effort is to reduce fire danger to the forest and private property or to protect and maintain the

ecosystem on which many of Kentucky's rare species depend. Although the area may be unattractive for several weeks immediately after the fire, try to revisit the area throughout the year and into the next season. The ecosystem responds remarkably well to prescribed burning and becomes a rich community supporting rare species and contributes to Kentucky's overall biodiversity.

With 635,000 acres, the Daniel Boone National Forest represents the largest publicly held tract of land in Kentucky. David Taylor is a KNPS Board Member and a Botanist with the USDA Forest Service. He may be reached at (606) 745-3167.

Pat's Weed Patch

Guest Columnist: James O. Luken

The Invasion of Amur Honeysuckle

Introduction

Residents of major metropolitan areas in central and northern Kentucky are probably familiar with Amur honeysuckle (*Lonicera maackii*). It is the upright, multi-stemmed, deciduous shrub that dominates roadsides, urban forests and other habitats. It may seem curious to devote an article to the species, considering that this publication is produced by the Kentucky Native Plant Society. However, it is possible that this particular non-indigenous species and its spread throughout the state may tell us many things about the status of native shrubs, especially in disturbed landscapes.

History

John Thieret and I began studying the botanical history of Amur honeysuckle in fall of 1994. We conducted library searches, and surveys of arboreta in an effort to trace the introduction of this plant in the U.S. The data suggested that Amur honeysuckle was first brought to North America in 1896 (actually to Ontario). Soon after this (1897) the species was introduced to the New York Botanical Garden and to the Arnold Arboretum of Harvard University. All of these plants can be traced to the St. Petersburg Botanical Garden in Russia. Plants were introduced to St. Petersburg from Manchuria.

Since initial introduction, Amur honeysuckle has been available from commercial nurseries primarily as an ornamental. It consistently produces large crops of glossy red fruits. In the 1960s, the USDA Soil Conservation Service (now the Natural Resource Conservation Service) began a program to develop an improved cultivar of Amur honeysuckle. They selected plants with particularly heavy fruit production, propagated these in seed production blocks, and then made the materials available to commercial nurseries and homeowners. The primary purpose here was erosion control and improvement of wildlife habitat. The Rem-Red cultivar is still commercially available, although it is interesting that anyone would actually purchase the plant since individuals of all ages are readily available in nature.

The escape and naturalization of Amur honeysuckle have culminated in a major biological invasion. Forests and open sites in urban areas are heavily invaded. In fall, the

understory of most urban forests in Northern Kentucky turns to a swath of red as the fruits ripen. Thickets of Amur honeysuckle can express net primary production similar to that of entire forest communities.



Interactions

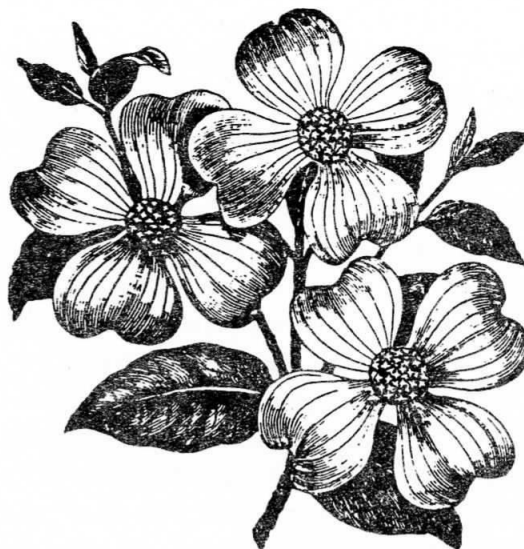
Most botanists and ecologists assume that Amur honeysuckle must be displacing native plants. However, this conclusion is based on the observation that extant Amur honeysuckle thickets support few other species in the understory. Indeed, it is probable that some dense Amur honeysuckle thickets do inhibit ground-layer species. However, this can also be said of *Rhododendron* thickets in the mountains of eastern Kentucky.

The best data dealing with this issue were collected by Todd Hutchinson and John Vankat at Miami University in Ohio. They sampled 93 forests near Oxford, Ohio and correlated Amur honeysuckle cover with

various other community characteristics. Forests closer to the center of town were more readily invaded indicating spread from points of introduction. Increased cover of Amur honeysuckle was negatively associated with herb cover, but it could not be determined whether Amur honeysuckle more readily invaded sites with low herb cover or whether Amur honeysuckle caused the low herb cover.

It is possible that Amur honeysuckle is occupying a vacant niche in urban forests. Clearly, native shrubs are not common in many urban forests. In Northern Kentucky, I find spicebush (*Lindera benzoin*) and coralberry (*Symphoricarpos orbiculatus*) only in rural forests. Perhaps these native shrubs have been extirpated by the long-history of varied human disturbances. On the other hand, Amur honeysuckle has many adaptations that favor population persistence in disturbed environments (e.g., high reproductive effort, high phenotypic plasticity, resprouting from basal buds). The preceding hypothesis indicates that a slightly different path of research may yield better understanding of biological invasions. We need to study how human-generated disturbances alter the fundamental attributes of biological communities. This would include studying how human disturbance alters population trends of native species; it would also include studying how such changes make systems more susceptible to biological invasions. Much botany and ecology are now done in remote, pristine environments; perhaps the important questions exist right in our own backyards.

Dr. Jim Luken is a professor in the Department of Biological Sciences at Northern Kentucky University. He may be reached at (606) 572-5300.



A Call to the Friends of the Forest

Martina Hines
& Kentucky ForestWatch

We are a coalition of concerned citizens asking for your help to protect the Daniel Boone National Forest. The Daniel Boone needs your help! Currently, Kentucky's only national forest is being commercially logged and abused by off-road vehicle use. The Daniel Boone is a beautiful forest, rich with caves, cliffs, wildflowers and wild streams. It is home to the highest concentration of endangered species in Kentucky. Unfortunately, the US Forest Service has zoned 75% of the Boone suitable for logging and virtually 100% of it open to off-road vehicles can help change this policy.

The Forest Service is currently revising its Forest Plan for the Daniel Boone, and all of us, now have an opportunity to change how the Daniel Boone is managed. We'd like to invite you to join Kentucky ForestWatch, a citizen

coalition which is actively working to protect the Daniel Boone as a haven of beauty, integrity and biodiversity. KY ForestWatch members are writing a Citizens' Alternative to propose to the Forest Service during the revision process. This Citizens' Alternative calls for an end to logging and off-road vehicle use in the Forest. Its mission statement reads as follows:

The Daniel Boone National Forest Citizens' Alternative is designed to protect and restore the ecological, recreational, historical and scientific values of the Forest. Under the Citizens' Alternative, management gives priority to conserving the Forest while fulfilling the needs that, in our increasingly developed world, are most difficult to guarantee, such as: 1) intact habitat for rare and native species, and 2) freedom to hike, hunt, study, and otherwise enjoy a natural unmanipulated landscape.

The Citizens' Alternative also proposes that people who use the Forest pay an annual fee based on their impact on the Forest. Hikers, for example would pay \$1.00/year. These user fees, like in the National Park system, would be used to cover maintenance costs.

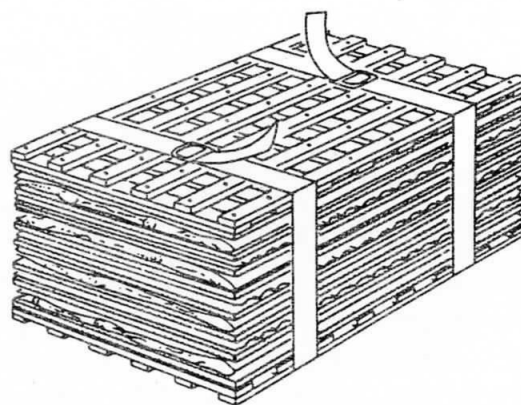
According to a 1994 University of Kentucky study, 74.2% of Kentuckians oppose logging public land--but the Forest Service will continue logging unless it hears from you.

Please join the effort to protect the Daniel Boone!

For a complete copy of the Citizens' Alternative Proposal for management of the Daniel Boone National Forest and information

on Kentucky ForestWatch, write or call: (606) 453-2105. Kentucky ForestWatch, P.O. Box 298, Livingston, KY 40445.

Martina Hines an ecologist with the Kentucky Nature Preserves Commission and a member of Kentucky ForestWatch. She may be reached at (502) 573-2886.



CURATORS' CORNER

KNK: The Herbarium at Northern Kentucky University

John Thieret & Robert F. C. Naczi

The Northern Kentucky University Herbarium (KNK is the official acronym for the herbarium), was founded in 1973 when Dr. Thieret came to Northern from Louisiana. The nucleus of the collection was 700 specimens donated from his personal herbarium. From that the herbarium gradually grew to its present size of nearly 27,000 specimens. Accretions have come about mainly through collections made by herbarium

faculty but also through exchange of specimens with other schools, gifts, and student collections.

The herbarium faculty consists of Robert F. C. Naczi, director, and John W. Thieret, director emeritus. Rob Naczi, who joined the NKU faculty in 1992, and is an avid collector. He has contributed many of the herbarium's Atlantic Coast and Southeastern specimens.

Dr. Thieret's collecting trips have taken him to many areas including California, the Great Basin, western Canada, the Canadian arctic, Florida, Nebraska, the New Jersey pine barrens, Newfoundland, St. Pierre and Miquelon. During a trip to Cape Cod last summer, he collected specimens in Rhode Island, Connecticut, and Massachusetts, the last of the U.S. states from which he had never botanized. The KNK herbarium now has specimens representing each state, each Canadian province and territory, and a few from Mexico, South America, and Europe. The oldest specimen is one collected by Lindheimer in 1849 in Texas.

The herbarium's particular strengths are in the grass family, the genus *Carex*, (thanks to the work of Rob Naczi), aquatic and wetland plants, weeds, and woody plants. The cones for each gymnosperm collection are stored separately in paper sacs, each bearing a duplicate label of the appropriate herbarium sheet. Some of the illustrations of pine cones in volume 2 of Flora of North America, were based on KNK specimens, which were loaned to Missouri Botanical Garden.

A great resource that supports the work of the herbarium is Cincinnati's Lloyd Library, one of

the top botanical libraries in the United States. Much of the research done is made possible by that fine collection.

KNK's herbarium provides a free public service to local townspeople or anyone needing plant identifications or information about plants. As part of these activities, talks and workshops are given for various organizations, including the Cincinnati Nature Center, Herb Society of Greater Cincinnati (HSGC), Cincinnati Wildflower Society, Cox Arboretum (Dayton, OH), Sierra Club, and others. Working with interested amateurs has been a benefit to all concerned.

Like most other herbaria, the KNK herbarium needs more herbarium cases to house the growing collection. Northern Kentucky University provides funds for the "basics" (mounting paper, glue, occasional student aids), but funds for herbarium cases are slow in coming. It is difficult for small collections such as KNK's to attract grant funding. It did receive, a few years ago, a grant from the HSGC, enabling the purchase of two cases. Each of these cases bears a bronze plaque telling of the HSGC grant.

Northern Kentucky University's herbarium welcomes visitors during usual "business" hours--and, indeed, at any other time; just give us a call. Come see us!

John Thieret is Curator Emeritus and Rob Naczi is Curator of KNK Herbarium. They may be reached at (606) 572-6390, or by mail at NKU Herbarium, Biological Sciences, Northern Kentucky University, Highland Heights, KY 41099.

President's Message

Wilson Francis, Interim President

Spring Meeting and Election of KNPS Officers

The Spring Meeting of the KNPS will coincide with the annual Wildflower Weekend at Natural Bridge on May 3-5, 1996. As this is the tenth anniversary for the Kentucky Native Plant Society, I encourage all members to make an effort to attend the programs, and to enjoy the friendship and comradery of the society.

This year's guest speakers will include Tom Barnes, University of Kentucky Department of Forestry. Dr. Barnes is an accomplished wildflower photographer and has conducted a number of workshops on the art. His program on Friday night will highlight the landscape approach to wildflower photography--an interesting change from the usual close-up pictures of wildflowers we usually see in presentations.

The guest speaker on Saturday night will be Jim Butler, Professor of Parks, Wildlife and Conservation at the University of Alberta. Dr. Butler was formerly the Chief Naturalist of the Kentucky State Parks but left the deciduous forest for the wilds of western Canada. An advocate of "deep ecology," he is active in environmental issues around the world. He is known as a gifted speaker, and his program will be memorable.

As usual, there will be field trips and workshops, as well as programs for the children. The Wildflower Weekend

registration begins at the Hemlock Lodge, 3:00 pm Friday. The evening program begins at 8:00 pm. The weekend events will conclude about mid-day on Sunday. Registration fees are \$3.00/ person, or \$5.00/ family. For more information, contact Natural Bridge State Resort Park at (606) 663-2214.

As this is an election year for the Kentucky Native Plant Society, I want to encourage as many KNPS members to attend as possible. The nominating committee (Julian Campbell, Ron Jones and myself) has developed the following slate of candidates for the society. Please review this list carefully. Additional nominations for officers and directors may be taken from the floor at the meeting. Elections will be conducted during the Wildflower Weekend Program. We want all members to have a voice in this process.

Nominations for KNPS Officers and Directors:

President: David A. Eakin

David is an Assistant Professor Biological Sciences and Associate Curator of the Herbarium at Eastern Kentucky University. His research speciality is mosses. He has been active in KNPS as an instructor in the Certification program and as a field trip leader. David lives in Frankfort.

Vice-President: Patricia D. Haragan

Pat is Associate Curator of the Davies Herbarium at the University of Louisville. She was a founding member of KNPS, and the first Secretary of the organization. She is the author of "Weeds of Kentucky and Adjacent States," and continues to research the weed flora of the Southeast. Pat lives in Louisville.

Secretary: Pam Long

Pam is our current Secretary. She is a teacher with the Berea Independent School System, and is an active wildflower enthusiast. Pam lives in Lexington.

Treasurer: Steve Sensenig

Steve is our current Treasurer. He has taken a number of Certification courses and is an active participant on many of the field trips. He lives in Lawrenceburg.

Directors:

Greta Fields. Greta is a current Director and a long-time KNPS member. She lives in Jenkins and is an outspoken advocate for preserving the eastern Kentucky landscape.

Deborah Harwell. Deborah is pursuing native plant certification through the KNPS program. She has an avid interest in natural landscaping. Deborah lives in Winchester.

R. Hughes Walker. Hughes practices law in Frankfort and is a current Director. He has provided legal advice for the Society and recently helped re-write the KNPS By-Laws.

Charles Lapham. Charlie is currently a KNPS Director. He holds the record for having taken the most Certification courses. When he is not learning he is learning by doing; doing a flora of Barren County. Charlie lives in Glasgow.

KNPS Certification Program in Native Plant Studies***Winter - Spring 1996 Course Offerings***

These courses are offered by the KNPS as part of a curriculum developed to educate KNPS members in

native plant studies. Courses are not limited to KNPS members. For more information on the KNPS, please contact Dr. Ron Jones, Eastern Kentucky University, Biology Department, Richmond, KY 40475. (606) 622-3056, or ECU Herbarium (606) 622-6257.

Introduction to Spring Wildflowers in Kentucky Tim Weckman, Biological Sciences Department, Eastern Kentucky University, Richmond, KY.

This beginning course will focus on Kentucky's spring ephemerals. Students will learn to identify our spring herbs through use of keys and manuals. An introduction to the use of plant keys and the basic terminology needed for identification of unknown wildflowers will be provided. The major families most likely to be encountered in Kentucky will be emphasized. Course will consist of lab work and one field trip.

Tuition \$76.00 ECU Campus, Moore Building, Rm 202. Saturdays, April 6, 13, 20 and 27, 1996. 9:00 am - Noon. Registration through ECU Community Education. (606) 622-1228.

Bonsai for Beginners: KNPS Special Topics Course. Dr. Ross Clark, Biological Sciences Department, Eastern Kentucky University, Richmond, KY.

Students of bonsai (pronounced "bone-sigh") or penjing (the Chinese equivalent) strive to create miniature living scenes that grow more beautiful and satisfying year after year. This class will introduce you to the origins, philosophy, practical techniques and sources necessary for developing and caring for your own bonsai. After the first class session, you will work individually with the instructor on your own plants. Please do not bring plants to the first class, and be prepared to spend \$20-40 in addition to tuition. Class is limited to 12 people to allow for individual attention.

Tuition \$76.00, plus self selected plant material. 5 Saturdays, April 27 through May 25, 1996. 1 to 4 pm. ECU, Richmond, Moore Building, Rm 202. Registration through ECU Community Education, (606) 622-1228.

ANNOUNCING:

KENTUCKY NATIVE PLANT SOCIETY
RESEARCH GRANTS FOR STUDENTS

KNPS is pleased to announce its latest program furthering botanical knowledge and understanding in Kentucky. Beginning in May 1996, up to two annual grants of \$250 will be awarded for field-based botanical projects which contribute to the knowledge of Kentucky's flora or natural communities. Grants will be awarded to students attending a Kentucky college or university. Both graduate and undergraduate students are eligible with one grant reserved for each level.

Proposals will be reviewed by the KNPS Grant Committee. Proposals must include:

1. Curriculum vitae;
2. Proposal (not to exceed two single-spaced typed pages) describing the proposed research and the role the grant would play;
3. Itemized budget;
4. Two letters of recommendation, one of which must be from the major professor or project director.

Applicants are encouraged to become members of the KNPS, but membership is not required to be awarded a grant.

Submit three copies of all items listed above including letters of recommendation to:

David D. Taylor, USDA Forest Service, 1700 Bypass Road, Winchester, Kentucky 40391

Deadline for receipt of all materials: **19 April 1996**

In Sincere Appreciation...

The President, Officers and Board of Directors would like to offer a special thanks for the generous support of **Mr. George D. Trent**, of Louisville, Ky. We would also like to acknowledge the following new life members for their support in 1995: **William & Louise Foley**, the **Gebbers**, **Marie Jenkins**, **Terri L. Koontz**, **Sue Martin**, **Randy Seymour**, and **David Wrede**. Individual contributors such as Mr. Trent, and other lifetime members enable the Kentucky Native Plant Society to fulfill its mission, promoting an understanding of our native flora and furthering botanical research in Kentucky.

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) 266-5488, to register.]

What a January! Today it is cold gray and snow flurries are being blown about by stiff winds. Weather forced cancellations of two field trips last year, but we aren't wimps, just careful. All this brings to mind the amount of time, effort and responsibility our trip leaders give to the KNPS. Their patience with the same questions (What is this plant?) is amazing. Their hope must be that some of us will learn to appreciate the habitats visited and be active in their preservation.

This will be my last year as field trip coordinator. I hope the trips were and are of interest to you the members. Several members graciously invited us to their homelands and favorite haunts. We thank them and encourage others to do so. Our visit with the Tennessee Native Plant Society and the field trips there have opened my eyes to the possibility of other trips to adjacent states. I still have a long list of natural areas and plant places to visit. I will still work with the field trip committee and, of course, there are always more Orchids to find! Hope to see you this year on a field trip. Enjoy! Thank you all.

EARLY BLOOMERS AT JESSAMINE CREEK GORGE

Sunday, March 24, 1996. 1:00 p.m. Eastern Time. Jessamine County

Leader: Clara Wieland, seeker of orchids and other native plants

This limestone gorge, protected in part by the Nature Conservancy, and the friends and owners of Jessamine Creek, is home to several rare species of plants and animals. We hope to see snow trillium (*Trillium nivale*), in bloom and perhaps *Sagina fontinalis*, the Kentucky Pearlwort that grows on the dripping limestone ledges, as well as a familiar array of spring bloomers. We will amble down to the creek and return. Wear good traction shoes. Meet at the parking area near the railroad tracks in Wilmore, KY. From Lexington, take Harrodsburg Rd (Rt. 68) south, bear left onto Rt 29 south about 6.6 mi south of the Fayette/Jessamine county line and follow Rt. 29 into Wilmore. Turn left at 2nd light onto Ky 1268. Railroad tracks are just ahead about 2 blocks. Limit 14 people.

SPRINGTIME AT PINE KNOB AND THE ST. CLAIR FARM

Sunday, April 21, 1996. 12:30 pm Central Time. Grayson County.

Leaders: Joyce Porter, Doralee St.Clair and perhaps Julian Campbell

Come celebrate John Muir's birthday by being out on the land and seeing the native plants of west central Kentucky. Our leaders, wild flower enthusiasts, farmers, birders, (among other talents) will show us the Spring flora at Pine Knob and at the St. Clair farm. Meet at the Quick Stop at junction of Rts. 54 & 79, Short Creek, KY. From the WK Parkway take exit 107, (Rte 259) north to Leitchfield. Proceed 3/4 way around the town square and take Rt. 54 west to Short Creek, (about 11 miles west of Leitchfield on Rt. 54). Sign up for this trip with Joyce Porter, evenings 502-879-9765, or Clara Wieland.

GREAT SMOKY MOUNTAINS WILDFLOWER PILGRIMAGE

Thursday-Saturday, April 25-27, 1996. This is the 45th annual Pilgrimage. It includes many field trips, presentations and workshops. Call University of Tennessee (615) 974-2256, for brochure and more information.

KENTUCKY NATIVE PLANT SOCIETY 10th YEAR CELEBRATION, NATURAL BRIDGE WILDFLOWER WEEKEND

Friday-Sunday, May 3-5, 1996. (See details page 10, this issue.)

RARE PLANTS OF THE BLUEGRASS

Saturday, May 11, 1996. 10:00 am Eastern time. Fayette and adjoining counties.

Leader: Tom Bloom, Botanist

Tom will head up this day long car caravan to several sites in the Bluegrass. Our target list includes Running Buffalo-Clover (*Trifolium stoloniferum*), Braun's rock-cress (*Arabis perstellata*), and Lesquereux's Bladderpod (*Lesquerella globosa*). Tom says we will see at least four rare plants, hopefully in flower. Bring a bag lunch. Meet in the far end of the parking lot of the Henry Clay Estate (Ashland), corner of Richmond Road and Sycamore Rd., Lexington. Limit 20 people. (Car pooling encouraged; a line of 20 vehicles is very unwieldy!)

HIGH ROCK TRAIL, BAD BRANCH NATURE PRESERVE

Saturday, May 25, 1996. 10:00 am Eastern Time. Letcher County.

Leader: Kyle Napier, Preserve Steward

Kyle will lead us through the unique habitats of Bad Branch. Bad Branch is jointly administered by the Nature Conservancy and the Kentucky Nature Preserves Commission. In the preserve, expect strenuous going, but also many rarely encountered plants including American burnet, (*Sanguisorba canadensis*), Fraser's sedge, (*Cymophyllus fraseri*), and Painted trillium, (*Trillium undulatum*). Do not miss this special experience! There are wetlands on the top and a terrific view. Bring lunch and water. Meet at the Whitesburg McDonald's, junction of Rt. 15 and US 119. (Suggestion: drive all or part of the way to Whitesburg the night before. Stay at Parkway Motel or Super 8 in Whitesburg, or a motel in Hazard, or even part of the way near London.) Two routes from Lexington area: Mountain Parkway to Campton exit, then Rt. 15 to Hazard & on to Whitesburg, or I-75 south to London, then Daniel Boone Parkway east to Hazard and then Rt. 15 to Whitesburg. Bonus: If you arrive early enough for dinner, the Courthouse Restaurant in downtown Whitesburg is recommended. Limit 15 hardy people.

EXOTIC PLANTS AND THEIR IMPACT ON BIODIVERSITY:

Saturday, June 8, 1996. Winchester, KY

A day long seminar on the problems presented by invasive exotic plants. This event will bring Dr. John Randall, The Nature Conservancy and UC- Davis, Dr. Randy Westbooks, USDA -APHIS, Whiteville, NC, Patricia D. Haragan, Associate Curator of the Davies Herbarium, author of Weeds of Kentucky and Adjacent States, Joyce Bender, Kentucky Nature Preserves Commission, and others together to discuss the threats to our native flora.

This conference will address some of the invasive non-natives that displace native plants and help us begin to think about solutions. (Final program details in next newsletter and in a special flyer.) Please plan to attend!

Summer/Fall Field Trips: (details in next newsletter)

EXPLORE THE REMNANT WETLANDS OF CENTRAL KENTUCKY

Saturday, July 20, 1996. 10:00 am Eastern Time. Madison and surrounding counties.

Leader: Ron Jones, Botanist, Eastern Kentucky University

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.

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.

MUSHROOM FORAY - NATURAL BRIDGE STATE RESORT PARK

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

FALL PLANTS & ECOLOGY OF AN OPEN CORRIDOR & PINE-HARDWOOD WOODS

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

Leader: David Taylor, US Forest Service Botanist.

A FALL AFTERNOON A GRIFFITH WOODS - THE LAST ASH-OAK SAVANNAH

Sunday, November 3, 1996. 1:00 pm Eastern Time. Fayette County.

Leader: Martina Hines, Ecologist, Kentucky Nature Preserves Commission

Kentucky Native Plant Society 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)

ACTIVITY CALENDAR 1996

- March 24: Jessamine Creek Gorge Field Trip
April 1996: KNPS Introduction to Wildflowers Course at EKU
April/May 1996: KNPS Special Topics Course: Bonsai for Beginners at EKU
April 21: Pine Knob/ St. Clair Farm Field Trip
April 25-28,: 45th Annual Wildflower Pilgrimage at GSM National Park
May 3-5, 1996: Annual Wildflower Weekend at Natural Bridge State Resort Park
May 11: Rare Plants of the Bluegrass Field Trip
May 25: Bad Branch Field Trip
June 8: Exotic Plants and their Impact on Biodiversity Conference
July 20: Remnant Wetlands of Central Kentucky Field Trip
August 24: Jim Scudder Preserve Field Trip
September 14: Shanty Hollow/ WKU Field Trip
September 27-28: Mushroom Foray, Natural Bridge State Resort Park
October 5: Fall Composites / Old Field Ecology Field Trip
November 3: Griffith Woods Savannah Field Trip

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

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