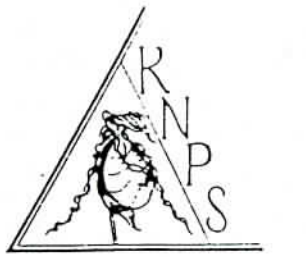
Kentucky
Native Plant
Society *NEWSLETTER*



Volume 8, Number 2. May, 1993

MESSAGE FROM THE PRESIDENT

by Landon McKinney

As I end my first year in office, my thoughts have naturally turned toward my accomplishments as President. Quite frankly, I find them to be insignificant in comparison to the accomplishments of our organization with little or no direction from me. Thanks to our editor and to the growing number of members willing to share their thoughts and expertise, our newsletter continues to be one of the best native plant society publications in the nation. Our officers and board members continue to address the needs of our Society as well as one could ever imagine. Our native plant certification program, after four courses, is off to an outstanding start thanks to the effort of Ron Jones as well as the many members who have participated. Our field trips continue to draw large numbers of interested participants. The Wildflower Weekend and our Annual Spring Meeting at Natural Bridge State Resort Park were, as always, a tremendous success thanks to the efforts of Wilson Francis, his staff, and all the many people who helped with registration, led hikes, sold tee-shirts, and did all the other chores associated with this event. While I continually try to think of ways to improve our Society, I find that the dedication of our officers, board members, and general membership leave me little to accomplish on my own.

Moving on to other business, our new set of bylaws (insert, last newsletter) was voted on and approved during our annual business meeting. Hughes R. Walker (Frankfort) was voted in as a new board member during our last board meeting. We have tentatively scheduled our annual fall meeting to be held at Eastern Kentucky University sometime during the month of October. This meeting will be a one day affair. We have asked Dr. Ross Clark (Chairman, Department of Biology, EKU) to provide us with what I know will be a very informative slide program. The exact time and date will be announced in our next newsletter.

We need to be thinking seriously about developing regional chapters to broaden our level of participation. I envision regional chapters in areas such as the Jackson Purchase, Bowling Green, Covington, and somewhere in the extreme eastern portion of the state. Please keep in mind that we are talking about general localities, and thus a regional chapter could be established just about anywhere. Anyone willing to help organize such an effort in their area, please let me know.

I would like to thank Clara Wieland for organizing an effort to help the city of Lexington maintain their roadside wildflower plots. I would also like to thank Andrew Cammack for orchestrating and managing another successful wildflower rescue (His report on this effort appears on pg. 11 in this newsletter).

As summer approaches, take time to get out and enjoy our native plants and the habitats in which they live. We have a number of interesting fieldtrips planned and we are also providing information on "Discover Kentucky" sponsored by Kentucky State Parks, Kentucky Department of Fish and Wildlife Resources, and the Kentucky State Nature Preserves Commission. This program includes a number of fieldtrips across the state to some of our finest natural communities known from state parks, wildlife management areas, and nature preserves.

Summer Events and Field Trips

Saturday, June 5, 1993 - Adventures along the Rockcastle near London. 10:30 A.M. (E.T.)

Leader: Julian Campbell, Botanist for The Kentucky

Chapter of The Nature Conservancy.
This will be a strenuous trip to the Rockcastle River through deep ravines to see prairie-like vegetation on gravel bars. Please call Julian at home (606) 271-4392 after 6:00 P.M. to register for this trip and for weather questions. We suggest you bring lunch. Meet at the parking lot of the Tourist Information Center. From the north, take I-75 south to the northern exit of London (KY Rt. 80). At the end of the ramp, turn right (west). Directly past the first gasoline station on the right is the Tourist Information Center.

Saturday, June 12, Sunday, June 13, Saturday, June 19, Sunday, June 20. DISCOVER KENTUCKY.
Many adventures and types of outdoor exploration of Kentucky's natural wonders are offered by the Kentucky State Parks, Kentucky Department of Fish and Wildlife Resources and Kentucky State Nature Preserves Commission. See pg. 11 for more information.

Saturday, July 10, 1993. A Summer Meander to Floyd's Woods. McLean County. 11 A.M. (E.T.)

Leader: Landon McKinney, Botanist for Kentucky State Nature Preserves Commission.
Floyd's Woods is small but one of the best remaining bottomland hardwood forests left in Kentucky. This is an easy walk of about two hours, but be prepared for wet feet. Meet at the backside of the county courthouse in Calhoun, Kentucky. Please register. Phone Landon at home 502-875-3823 or at work 502-564-2886.

Saturday, July 31, 1993. A Hunt for Treasure - The Purple Fringeless Orchid. Anderson County. 1:00 P.M. (E.T.)

Leaders: Becky Pass and Steve Sensenig, wildflower trackers, herp admirers, and avid wildflower photographers.
We will try to find the orchid in wet meadows that are bordered by streams. We may see other wetland species such as Cardinal Flower and Button Bush. This is on private land and the owner has graciously allowed the visit. There is an ABSOLUTE LIMIT of 12 PEOPLE. Phone Becky or Steve at (502) 839-7366. Meet at McDonalds in Lawrenceburg. Take the Bluegrass Parkway to the Lawrenceburg exit (Rt. 127). About three miles on Rt. 127 to Lawrenceburg you will come to West Park Shopping Center and McDonalds on your right. You enter the shopping center by turning right at the stoplight and then right into the center and to McDonalds.

Saturday, August 14, 1993. Glades in Summer: The Jim Scudder Preserve, Hardin County. 11:00 A.M. (E.T.)

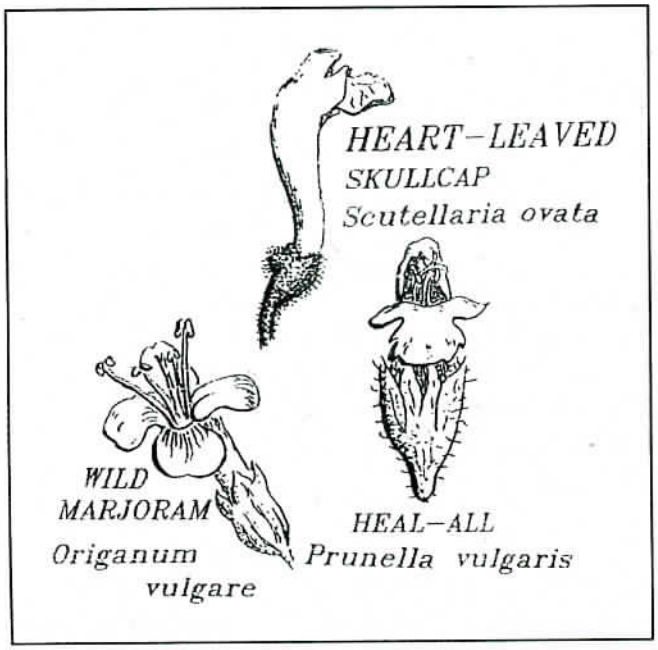
Leader: Marc Evans. Botanist for the Kentucky State Nature Preserves Commission.
Come join Marc to seek out the special plants of this ecosystem. Marc is just returned from India and promises not to seek out tigers. Be prepared for heat and a moderately strenuous trip. You need water and a snack for lunch. Meet in Elizabethtown Ky. at Shoney's on US 62. From the East, take the Bluegrass Parkway to Elizabethtown, go on I-65 North to the first exit (US 62), take a left at the light and Shoney's will be on the left. From Louisville, take I-65 South, exit at E-Town at the US 62 exit, take a right at the bottom of the ramp and Shoney's will be on your left. Call Marc to register at work, (502) 564-2886. Leave a message with the secretary if Marc is out of the office.

An Important Note about Field Trip Registration

We wish to thank all our field trip leaders who take the time and effort to guide us. It is time spent away from home, family, and work and we appreciate it.

You may wonder why we require registration for the trips. Recently, a leader talked about his trip. He said only two people called to register, but when he arrived, there were 39 people waiting to go on the trip. This enthusiasm is wonderful and we do not discourage it. However, a trip of that size needs at least two leaders for it to be a rewarding experience. Registering as we asked would have allowed the leader to limit the numbers or to seek an additional leader. Also, without a clue as to the interest for the trip, the leader may have just called the two registered and canceled the trip. Thirty-seven people would have shown up and not have had a leader.

People who wish to bring groups need to



Several treatments were prescribed but her parents, unable to afford a sacrificial chicken and a bottle of whiskey for a full-fledged ceremony, agreed to pay the lady to perform a "washing," which would fix things temporarily. The old Nahuatl-speaker removed from her bag a tied-together whisk-broom-like affair composed of freshly plucked sprigs of mint and briskly swept Nanaya's body with it until the whole area smelled pungently of mint. Apparently the treatment worked, at least temporarily, for in a few weeks the family hired the woman to return and conduct another washing.

Another time a Nahuatl man gave me the cook's tour of his family's garden which grew right next to their thatch-roofed hut. Among them were: *albacor*, decorations of which his people used to ease stomach cramps; *poleo*, like our pennyroyal, but stronger smelling, used to season beans, and; *toronjil*, used with springs of another herb called *pericon*, to rub over one's arms and legs to drive away fear.

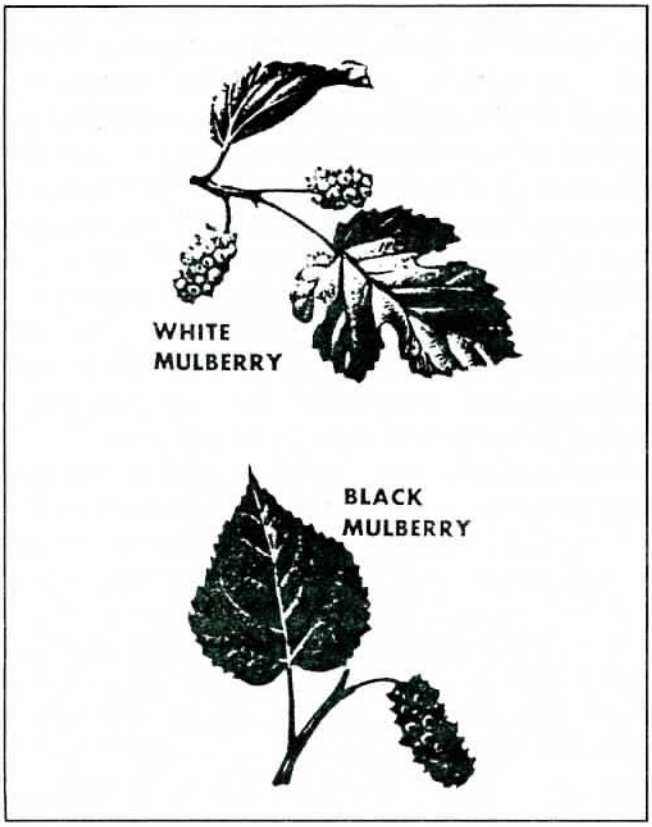
Well, see, to many people, mints are still special. If you can conceive of a world without manufactured perfumes, aftershaves, etc. where all odors are natural, and where rank stinks and assorted bilious emanations far outnumber nature's pleasing little fragrances, maybe you can see why. For my part, among various indigenous tribes I've learned sufficiently that a prime feature of daily village life is the perpetual interplay of odors of woodsmoke, sweat, mud, and various manures. In such circumstances, a cool cup of spring-water teased with a crushed spring of mint can seem downright elegant. When I return to the U.S. after long stays among mint-lovers, our overkill of hairsprays, perfumed talcs, aftershave, and such strike me as coarse and aggressive; my olfactory senses become blunted. I often yearn for more subdued circumstances where mere mint can be so delightful and even stir the spirit. I assume that our Kentucky ancestors honored mints no less passionately than my Nahuatl speakers. Several times in Kentucky I've wandered onto old homesteads where nothing remained but maybe a chimney, two lines of daffodils where once a footpath lead up to the porch, and, off in the bushes somewhere, a relic population of "old-time" mint, such as horehound, still hanging on.

Grieve's A Modern Herbal (1931) has several pages of information on the medicinal uses of various mints. According to this book, spearmint is a "stimulant, carminative, and antispasmodic. A carminative expels gas. Peppermint is best for flatulence and colic. Maybe there's something to my Nahuatl friends' use of *albacor* against stomach cramps...

Mulberry, a tree for all ages of man and history

by Elmer Gray, Western Kentucky University

My appreciation of trees began during childhood in the Appalachian area of Eastern Kentucky. Our home farm was surrounded by forest which linked with either private and public forests. Although trees were at the doorstep, my favorite tree was a mulberry located at the back of the farm. As spring slowly progressed into early summer, my anticipation of the ripe, sweet mulberries heightened. During the fruit-ripening period, we children would make frequent visits to the tree, climb into its branches, and eat the juicy berries. Upon returning to the house, our purplish lips provided all the necessary explanation of our absence. After I, the youngest son, left home for college, the birds enjoyed unchallenged access to the mulberries.



From Trees of North America,
Golden Press, New York

Disappointingly, little attention was devoted to the mulberry in my introductory college forestry course.

After college and a series of apartment- and mobile home-dwellings, characteristic of early married life mobility, my family had the opportunity to purchase a home in south-central Kentucky. One of the available homes had a mulberry tree at the edge of the patio. That tree contributed significantly to our family's life. Its fruits were enjoyed, especially by father and children. Unfortunately, the children liked to walk on the fallen berries, resulting in purple feet and footprints in unwelcome places. Frequent observations of this and other mulberry trees (recent inventory of the lot revealed more than 60 mulberry saplings and trees) resulted in deep interest in their growth and development. Careful study of these specimens has produced sufficient information for publication of three scientific articles, two that were co-authored by father and son, (*Castanea* 52(1):47-51, 52(3):216-224, 55(4):272-281).

Having been cultivated in Europe and Asia since time immemorial, the mulberry is one of the most valuable trees in its native habitat of China. It is universally planted around Chinese homesteads and is used for raising silkworms, for timber, and for other domestic uses.

Using *Plants of the Bible* (1952) by H.N. Mildenke and A.L. Moldenke as a secondary source reference, several plants are misidentified in the Bible (KJV). In particular, aspens are called "mulberries" and mulberries are called "sycamine." Thus, the tree mentioned by Christ (Luke 17:6) is believed to have been a black mulberry (*Morus nigra* L.). Subsequently, white mulberry (*M. alba* L.) was introduced into the Holy Land to support the silk industry.

Legends inform us that juice of the mulberry was used to incite elephants to fight and to blacken the devil's boots. Mulberry preserves was a favorite fairy-food. From classic mythology we learn that splashed blood during the death of two lovers created the red mulberry.

During the 17th Century, mulberry was imported from China to support an unsuccessful silkworm industry in the New World. After escaping cultivation, mulberry became naturalized in the eastern and central United States. Mulberry trees are scattered, but ubiquitous, in the Appalachian Region, occurring most commonly around dwellings, along roadsides, in waste places, and in fence rows, especially near the posts, which is not a matter of chance. Many different birds relish mulberry fruits and, consequently, disseminate the seeds. Since the fruits have a cathartic effect, the seeds are purged quickly before their viability is lost.

The variability within mulberry (*Morus L.*) encompasses different species and cultivars that have been developed for intensive production in the silkworm industry and for ornamental landscape use. Two species, white (*M. alba* L.) and red (*M. rubra* L.), coexist in their natural habitat in Bowling Green, Kentucky.

An unusual amount of variation in flowers, fruits, and leaves exist within mulberry. The flowers of mulberry are unisexual and borne on spike-like structures (catkins) extending from the axils of leaves. My observations indicate that the majority of mulberry trees are dioecious (male and female flowers on different plants); however, some are monoecious (separate male and female flowers on the

same plant). Monoecism encourages, and dioecism necessitates, cross-fertilization, bringing together genetic materials from different individuals. This mode of reproduction produces maximum variability in the offspring, thereby enhancing mulberry's chances of adapting to diverse environmental conditions and of survival over time.

The most conspicuous and intriguing characteristic of mulberry is its leaf shape. Leaves are either unlobed or variously lobed. Lobation results in different leaf forms on the same tree. In an extended study of location, leaves were classified according to the number of divisions or sinuses. Lobe pattern distributions differed for individual trees. Juvenile plants produced more highly lobed leaves than did mature trees. Leaf location varied significantly from branch to branch within most trees, for individual trees from one year to the next, and by position on the branch.

Likewise , samples of berries (drupes) were taken from producing trees and measured and weighed. Differences in berry dimensions and weights were pronounced between years, among trees, and among branches within most of the trees.

Mulberry has developed specific ways of adjusting to the environment. The high level of within-tree or nongenetic variation in leaf and fruit characteristics is an indication of phenotypic plasticity, permitting the individual tree to adapt itself during development. For a perennial tree rooted in a particular site, phenotypic plasticity is itself its only means of responding to disruptive changes that occur during its lifetime. The presence of tree differences or genetic variation contributes to population diversity and to its survival. Thus, plasticity of the individual tree and differences among trees have enabled mulberry to survive over changing times and in diverse environments.

In his *Manual of Woody Landscape Plants* (1983), M.A. Dirr describes mulberry as a "garbage can" tree, indicating that it is not the most desirable landscape plant, especially during the fruit-ripening period. However, on the positive side, he reported that mulberry transplants readily and has high tolerance levels for drought, low temperatures, variable sunlight, and salt concentration. These traits enhance mulberry's adaptability to environmental changes associated with advancing technology and urbanization.

A major component of the natural program, America the Beautiful, is directed toward planting and maintaining trees, thereby improving environmental quality and resource sustainability. The loss of trees through urban expansion and the high mortality of replacement trees require that urban planners use tree species that promote an ecological landscape by selecting those that fit the climate, soils, and moisture conditions of the particular urban site.

In Bowling Green, Kentucky, mulberry inhabits many environmental niches. The area's karst geology includes many sinkholes. Mulberry trees growing in and around these sinkholes contribute to soil stabilization and, therefore, restrict further enlargement of the sinkholes. Their presence in the vicinity of aerial utility lines often necessitates severe pruning; however, they quickly recover and regain their more natural form. Mulberry's persistence in close proximity to homes and other centers of urban activity appears to be unequaled by other locally grown tree species. In this region, mulberry's prevalence and tenacity justify its inclusion in the "alley cat" category of trees. This feral resilience will become even more important in mulberry's survival as the area becomes more urbanized.

In view of man's unprecedented destruction of the earth's natural environment, survival of trees--especially in the urban setting--is a serious problem. Requirements of species survival in this ever worsening environment are largely unknown. It is known that mulberry has a long history of survival, a wide distribution at present, and a strong potential for the future.

Land Between The Lakes - An Overview

by Edward W. Chester, Austin Peay State University

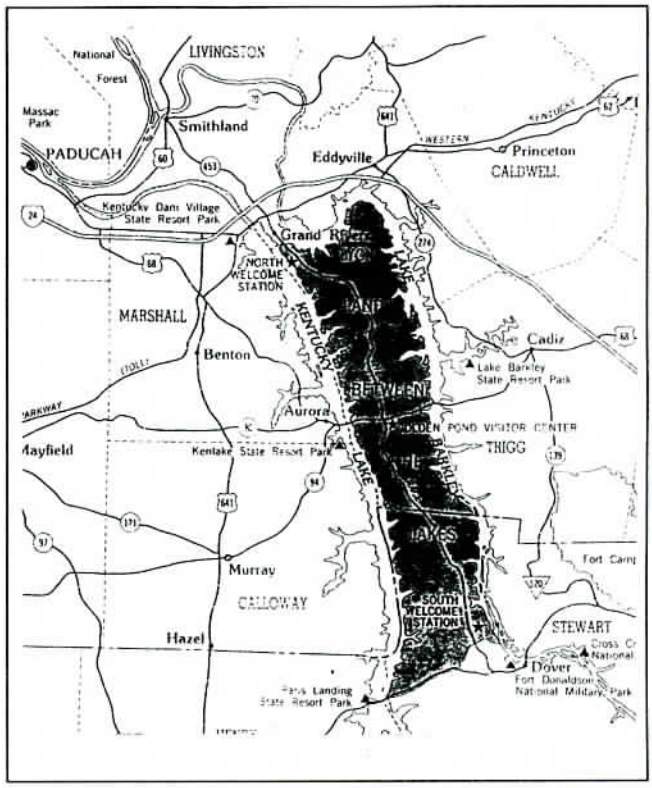
One of the most unique physiographic features of the southeastern United States occurs in southwestern central Kentucky and northwestern middle Tennessee where the lower Cumberland and Tennessee rivers flow northward and nearly parallel for about 40 miles. At the northern (downstream) end of the parallel segments, the Cumberland turns westward, flowing to within 3 miles of the Tennessee before the two rivers diverge but continue mostly

northwestwardly to the Ohio River. About 15 air miles south of the Ohio, equilatitude high dams were built on the Tennessee River in 1944 by TVA, and on the Cumberland in 1966 by the U.S.A. Corps of Engineers. To aid navigation, the reservoirs were connected by a man-made canal just south of the dams, also in 1966. The resulting 170,000-acre peninsula, 8-12 miles wide, 40 miles long, with over 300 miles of shoreline, was converted to public ownership in the early 1960's and named Land Between The Lakes (LBL). About two-thirds of the area lies in Lyon and Trigg counties, Kentucky, and one-third in Stewart County, Tennessee. TVA was granted stewardship in 1964 with the mandate to develop a National Demonstration Area for conservation, education, and recreation.

History

A few settlements were established in the "Land Between The Rivers" by Europeans between 1779 and 1800. Many early settlers were Carolinians who had been given land grants in exchange for Revolutionary War services. All Indian occupation had ended prior to 1800 but threats of attack from groups living west of the Tennessee River hindered settlement until after 1820, and even then the rugged terrain did not attract many settlers. Agriculture and lumbering were the economic base, but an abundance of timber and mineral resources resulted in development of an extensive iron industry in the middle 1800's, with a subsequent increase in population. By the 1870's production had slowed due to depletion of both ore and timber required for charcoal, and the population declined.

The Civil War heavily involved both the people and resources since the rivers were important transportation avenues. Even after the war, guerilla bands roamed the area and the populace was faced with survival in an area torn by war, fear, hunger, crime, and such diseases as typhoid, malaria, and smallpox. Land grants fragmented into smaller farms and some corporately-owned lands. No railroads or significant industries entered the area after the iron furnaces closed and no cities were established. By the turn of the century, economic conditions were bleak, life extremely hard, and the people isolated. For the next several decades, the area was best known for whiskey production, where quality was exceeded only by illegality.



Major changes came to LBL and its people after 1930, mostly as the result of federal projects. The existing Honker and Hematite lakes were built by WPA forces in the middle 1930's. Kentucky Woodlands National Wildlife Refuge was developed by the U.S. Fish & Wildlife Service in 1935, Kentucky Reservoir inundated the rich Tennessee River bottomlands in 1944, and plans were made in the late 1950's for Barkley Dam that would inundate the Cumberland River bottoms. Federal ownership was proposed for the entire peninsula in 1961, and soon after the farms, country stores, churches, homes, corporately-owned woodlands, and other properties were acquired, resulting in one of the largest publicly-owned tracts in the southeast. At that time, the sparse population consisted of about 950 families and 5,000 people. There were no doctors, hospitals, or public water-sewer systems, and only scattered communities had telephone service.

Today, there are no privately-owned lands in LBL; the people and buildings characteristic of rural homesteads, small farms, and communities have been gone for nearly 30 years. The wildlife refuge, mostly inundated by Lake Barkley, was moved southward

and outside of LBL in 1962, becoming Cross Creeks National Wildlife Refuge. Several hundred cemeteries, at various levels of maintenance, are scattered throughout and remain the major part of the area not under TVA management.

About 80% of the land is forested, but all forests are secondary and most were severely disturbed prior to 1962 by cuttings, fires, and pasturing. Current TVA forest management includes rotational harvests ranging from selective cutting to clear-cutting. However, a few woodlands are relatively old or have other significant features and are protected. Also, LBL was recently designated as a Biosphere Reserve and this will result in protection for other sites. Most non-forested lands still show the results of various anthropogenic influences before 1962. Successional fields, old ponds, fences, roads, orchards, and gardens, as well as ancient iron-ore pits and furnaces, are prominent features. Also, many homeplaces are yet well-marked by foundation stones and persisting introduced species.

The years of TVA management have seen development of campgrounds, hiking trails, an off-road vehicle area, visitor's center, nature center, picnic areas, wrangler's camp with barns and riding trails, and various educational, conservation, and demonstration areas, including a working 1850's model farmstead. A herd of about 50 American bison is maintained in a fenced area exceeding 100 acres. Wildlife management (deer, turkey, small game, non-game species) is a major objective and operations include food and cover plantings, subimpoundments, waterholes, and moist-soil areas. Many old fields and powerline rights-of-way are maintained by "bushhogging" and area farmers lease some fields for corn, soybeans, and hay, leaving a portion for wildlife. Beaver are often overabundant and flocks of turkey abound. Whitetail deer are commonplace and a small, breeding herd of long-ago introduced European fallow deer roam free in and around an environmental education area. Environmental education, hunting, fishing, camping, hiking, and picnicing are major activities.

Physical Setting

LBL is within but at the western edge of the Western Highland Rim Subsection, Highland Rim Section, Interior Low Plateaus Physiographic Province. The bedrock is cherty limestones of the Mississippian System. Surface exposures are uncommon except along the rivers and major streams. Most soils are infertile, droughty, inferior for agriculture, and subject to excessive erosion unless protected.

The topography is that of a maturely dissected plateau with narrow ridges, steep slopes, and ravines, often with only a gulley floor. The parallel river valleys and reservoirs are the major topographical features. Closely spaced tributaries, often intermittent or seasonally flowing and mostly running east or west, butt against each other to form a narrow drainage divide that is somewhat closer to the Tennessee than to the Cumberland River. This divide, the Tennessee Ridge, has been used as a roadway since Indian times and probably was a game trail before that; portions of the present "Trace" (the N-S highway through LBL) follow the divide. Elevations range from 354-650 feet above sea level. Slopes range from 0-10% in bottomlands to 50% and more above some streams and ravines, and a few bluffs are perpendicular.

Vegetational Setting

LBL is within the Western Mesophytic Region of the Eastern Deciduous Forest Formation. This region is transitional from the more mesic Mixed Mesophytic Region to the east and the more xeric Oak-Hickory Region to the west. There is no single climax type; instead a mosaic of types occurs, with local factors (climatic, edaphic, topographic) determining specific vegetation conditions. As a result of topography and influences of the adjacent riverine systems, a number of habitat types occur. These include:

Wetlands. These result from or are directly influenced by fluctuating water levels of the reservoirs which flood natural depressions, old channels, and low bottomlands. The forests, marshes, swamps, and wet meadows of bottomlands are best visited in late summer and fall when water levels have dropped and the flora is most diverse. Then, extensive stands of mallow (*Hibiscus*, 2 species), cardinal flower (*Lobelia cardinalis*), monkey flower (*Mimulus*, 2 species), sticktights (*Bidens*, numerous species), and several dozen others, especially

composites, turn these areas into seas of color.

Upland Forests. Most of LBL is vegetated by secondary forests of oaks and several other hardwoods, especially hickories, in various combinations. Most slope and ridge forests include such oaks as scarlet, blackjack, chestnut, post, black, and white. Common upland hickories are pignut, sand, and mockernut. In a few cases, sprouts and stumps indicate the former importance of American Chestnut. Other common species are shadbush, black gum, and sourwood. The more mesic slope forests include, in addition to many of the above species, southern and northern red oak, red and shagbark hickory, wild cherry, and sugar maple. The most mesic, usually north-facing, slopes invariably include sugar maple, bitternut hickory, American beech, tulip tree, black gum, and wild cherry. Narrow ravines and streambanks include boxelder, red and silver maple, black birch, blue beech, hickories (bitternut, shagbark, big shellbark), sugarberry, hackberry, white ash, green ash, black walnut, sweetgum, sycamore, black willow, and American and red elm. Oaks of terraces, streambanks, and bottomlands are overcup, swamp chestnut, cherrybark, pin, and Shumard.

With the exception of red cedar, which is found throughout in successional situations, native gymnosperms are limited. However, bald cypress is frequent along Kentucky Reservoir, several stands of Virginia pine occur on dry promontories above Kentucky Lake, and one extensive area of shortleaf pine occurs in Stewart County.

The herbaceous flora of ridges and drier slopes is usually scant in spring, but several species of aster (*Aster*) and goldenrods (*Solidago*) occur in late summer and fall. Most diversity will be found on lower (mostly north-facing) slopes and in adjacent ravines, especially where there are limestone outcrops. The spring flora is frequently spectacular with such showy species as adder's tongue (white and yellow *Erythronium*), crested iris (*Iris cristata*), recurved and white Trillium (*Trillium recurvatum* and *flexipes*), Virginia blue bells (*Mertensia virginica*), Dutchman's breeches (*Dicentra cucullaria*), and numerous others.

Barrens. Several barrens-grasslands are maintained by periodic burning and/or clipping. The flora includes such prairie stalwarts as big and little bluestem (*Andropogon gerardi* and *scoparius*), Indian grass (*Sorphastrum nutans*), switchgrass (*Panicum virgatum*), and numerous herbs and forbs such as blue sage (*Salvia azurea*), hirsute milkweed (*Asclepias hirtella*), and white prairie clover (*Dalea candidum*).

Cultural Communities. This category includes those communities resulting from anthropogenic influences, such as old lawns, ponds, meadows, fields, fencerows, orchards, roadsides, cut-over forests, and the many other remnants of a landscape that, until 1962, was a small community and farming area. Also included are monoculture forests, some pre-dating TVA management, of even-aged stands of white, loblolly and Virginia pine, and bald cypress. The flora is a mixture of native and introduced species typical of the region.

Floristic Summary

As now known, the LBL vascular flora consists of 1310 taxa. Four families (the composites, 164 taxa; grasses, 142; sedges, 82; and legumes, 76) dominate. Sedges (*Carex*) are by far the largest genus with 44 taxa, followed by panic grasses (*Panicum*, 25) and oaks (*Quercus*, 21). Other large genera include nut sedges (*Cyperus*, 17), smartweeds (*Polygonum*, 16), goldenrods (*Solidago*, 16), and asters (*Aster*, 15). The woody flora consists of 91 taxa of trees, 105 of small trees and shrubs, and 33 of woody vines. Major woody genera are oaks (*Quercus*, 21 taxa) and hickories (*Carya*, 10), but elms (*Ulmus*, 5) and maples (*Acer*, 4) contribute significantly. Wild grapes (*Vitis*, 8) and greenbriars (*Smilax*, 4) are the major woody vine genera. Non-native taxa (307 or 23.4% of the flora) include exotics and species native to other parts of North America or even to Tennessee and Kentucky but known only from planted material in LBL. At least 50 species are considered rare in Kentucky and/or Tennessee; one federally-threatened species (Price's Potato Bean) is known from two sites in Trigg County.

Summary

In summary, LBL is unique for a number of reasons, including its great size and public ownership, the fact that it is an interior peninsula interfacing with several physiographic regions, and a varied historical legacy represented by various artifacts

today. TVA provides numerous recreational opportunities, especially camping (primitive and easy-living), hunting, fishing, and hiking; various opportunities for environmental education are also available. Some say that the plant life is not spectacular and is mostly that of upland oak forests. However, only the latter is true; LBL is truly a botanical crossroads. Floristic elements may be found from prairies to the north and west, from the Coastal Plain to the south and west, and from the more mesic forests to the east. In addition, the Tennessee River has provided a migratory pathway for Appalachian elements, and the Cumberland River likewise has provided a pathway from the limestone floras of Middle Tennessee. The massive reservoirs have resulted in new habitats and, as a consequence, the introduction of new species and the expansion of preimpoundment ones. It's worth a visit just to see the massive dams, reservoirs, and canal, but don't stop there. Travel the back roads and hike the trails, find the wetlands, the dry ridges, cemeteries, old homesites, Civil War trenches, and abundant wildlife. Camp if you like, or stay at one of three adjacent State Parks (Barkley and KenLake in KY, Paris Landing in TN). I think you will agree that LBL is one of the best-kept secrets in Kentucky and Tennessee.

For additional reading: Wallace, Betty Joe. 1992. *Between The Rivers, History of The Land Between The Lakes. 294 pp., PB. $8.00 + 1.00 S & H.* From The Center for Field Biology, Austin Peay State University, Clarksville, Tennessee 37044.

The Weed Patch

by Dennis Feeback

A co-worker I have known for many years retired four years ago. Having idle time on his hands did not suit his temperament too well so he delved into a number of projects to occupy his time. Last summer he was smitten by the wild flower bug and a wild flower plot became one of his projects.

In the autumn he mowed and had me till a spot in his yard. He obtained seeds from me and others and planted them with great enthusiasm. He was immensely pleased that he had a wild flower plot.

As sometimes happens when people no longer work together, I didn't see him for quite some time. The following spring I happened to see his wife at the wild flower plot. Her reply was "You know, he's just crazy about that little weed patch."

While this remark may seem naive to the hard core wild flower enthusiast, it is revealing of how many, perhaps the majority, feel about wildflowers. It is something that must be addressed if wildflowers and native plants are to become a standard part of the right of way management on Kentucky's highways.

We must take into account that many members of the motoring public are not wild flower enthusiasts if this program is to succeed. When told that tax money is being used to plant wildflower beds, they expect to see flower beds, not weed patches. To these nonbelievers, the distinction between a wild flower plot and a weed patch is exceedingly fine. I fear that most, like my friend's wife, would opt for the latter designation. They simply do not have an appreciation of wild flowers and cannot look past the other plants to see the beauty.

To counter the weed patch syndrome, everyone interested in the use of wild flowers and native plants on right of ways and in public places must work together to solve the technical as well as the public relations problems involved. We must combat the soil bank seeds and pioneer species that invade the plots. We must consider the selection of species that are to be used for a particular site. What is to be considered a wild flower? Should only native or indigenous species be used? Are no naturalized species appropriate? Maintenance programs must be developed that will provide not only for the needs of the plants but also overcome the weed patch look and still be feasible with the Highway Department's limited resources. Perhaps something along the lines of the litter control program where organizations (KNPS members?) volunteer to maintain plots.

As many wild flower and native plant groups as possible need to be involved. Not just as advocates of the use of these plants but to address the technical problems that government agencies do not have the resources to study. The program is past the trial plot stage but specific procedures and

management practices still need to be worked out.

The public relations problem may be the hardest of all. How can the uninterested be prompted to an interest in wildflowers? Obviously, all cannot. However, solving the technical problems would go a long way in converting the non-believers. A flower bed is a lot easier to sell than a weed patch.

Franklin County Wildflower Rescue: Another Success

by Andrew Cammack

Our second, and equally successful wildflower rescue took place on consecutive Sundays, April 25 and May 2, at a site just north of Frankfort along US 127 north near its junction with Elkhorn Creek. The area is where the Kentucky Department of Transportation is rebuilding the highway and is also in the same general vicinity as last year's rescue. As last year, this effort was sponsored by KNPS and Shooting Star Nursery.

Altogether, approximately 120 folks *participated, meaning hundreds* of wildflowers such as Larkspur, Purple Phacelia, Bloodroot, Wild Ginger, Celandine Poppy, Wild Geranium, and Hydrangea were rescued from ultimate destruction. Everyone had fun and each left with a true sense of accomplishment.

Many of the participants were not members of KNPS, but a number of these took home membership applications and hopefully will become valuable members of our organization. While I orchestrated this effort and supervised the entire process, others provided assistance including Marc and Sherry Evans, Landon McKinney, Robert Pugh, and Mary Lynn Collins. Robert and Mary will receive free, one year memberships to KNPS for their assistance.

No future rescue attempts are currently planned, but anyone who becomes aware of an area to be destroyed due to highway construction, etc., please call me at (502) 227-4326, Landon McKinney, or Marc and Sherry Evans for advise or assistance with any planned effort.

I would like to thank KDOT, and K & K Construction, London, Kentucky, for giving permission for us to conduct this successful effort.

Discover Kentucky

More than twenty hikes, canoe trips, and cave explorations are scheduled on the weekends of June 12-13 and 19-20 by Kentucky State Parks, Kentucky Department of Fish and Wildlife Resources, and the Kentucky State Nature Preserves Commission. Several of interest to KNPS members are described below. For more information or to preregister call the Kentucky State Nature Preserves Commission at (502) 564-2886. **Note that all times are local times.**

Saturday, June 12

10:00 AM. Brigadoon State Nature Preserve (Barren County)
A 1.5 hr., 1 mile walk through old growth beech and tulip poplar.

1:00 PM. Bad Branch State Nature Preserve
A 3 hr., moderately strenuous 1.5 mile hike to Bad Branch Falls.

Sunday, June 13

1:00 PM (ET) Quiet Trails State Nature Preserve (Harrison County)
A 2 hour moderately strenuous walk through woods and fields to the Licking River.

Saturday, June 19

9:00 AM Pilot Knob State Nature Preserve (Powell County)
A 3 hour, 1.5 mile strenuous hike to the top of Pilot Knob led by a botanist.

Sunday, June 20

9:00 AM Logan County Glade State Nature Preserve
A 1.5 hour easy walk through a limestone glade to see rare plant species.

10:00 AM Sand Gap Trail Hike, Natural Bridge State Park
A 6 hour, 8.5 mile, strenuous hike to see the geology and flora of this region. The Rhododendrons should be in full bloom. For this trip only call Wilson Francis at (606) 663-2214.

The Kentucky
Native Plant Society

Department of Natural Science
Eastern Kentucky University
Richmond, KY 40475

Contents
(Volume 8, number 2)

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 KNPS are to serve as a medium of information exchange, to promote native plant conservation, public education in botany, and botanical research in Kentucky. Annual dues of $5.00 (Family $7.00) may be sent to KNPS, c/o Tom Bloom, 900 Keenon Rd., Harrodsburg, KY 40330.

The KNPS NEWSLETTER is published quarterly (Feb., May, Aug., Nov.). Please notify us four weeks in advance of any changes of address. Back issues of the NEWSLETTER are available for $1.00 each. Send articles and correspondence to:
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