

The Lady-Slipper



Kentucky Native Plant Society

Number 21:2

Summer 2006

A Message from the President:

I certainly hope that everyone is having a great summer. Ordinarily, this message would be from your newly elected President. However, we could not come up with a new slate of officer and board member candidates this spring so everyone is remaining in their current positions until our fall meeting. If anyone has any interest in serving as an officer or board member, please let one of us know as soon as possible. Our officers and board members will be meeting on September the 16th and a slate of candidates will be presented at that time.

Our spring meeting and wildflower weekend was a success as usual. One significant change should be noted. We voted to move our wildflower weekend and annual meeting back two weeks (swapping out with Herpetology weekend). Essentially, this is due to the general conception that everything has been blooming earlier over the last several years.

Don't forget about our fall meeting and for those in the vicinity, we will be offering two electives this fall at NKU for the Native Plant certification Program. These will complete the first cycle of courses at NKU and next spring, we will begin the second cycle with a couple of our beginning core courses.

Landon McKinney



In this issue--

President's Message	1
Profiles of Kentucky Botanists--P.A. Davies	2
Flora of Cherokee Park	5
Weed Alert: Lesser Celandine	6
Paving of Little Shepherd Trail	7
Write a letter to your lawmaker	8

Fall KNPS Meeting



www.kyhometown.com

Saturday, November 11, 2006

Shaker Village of Pleasant Hill
Harrodsburg, KY

10:00 Meeting and Guest Speaker Pat Haragan

Topic: The Flora of Cherokee Park and the Park's restoration project
(see related story page 5)

12:00 Potluck Lunch
Sandwiches and drinks will be provided.
Bring a dish to share.

A hike after lunch will be led by Shakertown
Naturalist, Don Pelly

*Voting for KNPS board members and officers will
take place at the fall meeting. Please join us to
select a new slate!*

Botanical timeline for Kentucky	8
Who Am I?	10
Native Plant Certification Courses.....	10
Invasive Plant Removal Work Day	11
Calendar of Events.....	12



is intended to be published by the Kentucky Native Plant Society [IRC 501(c)(3)] in March, June, Sept., and Dec. Deadlines are the 15th of the prior months, but Editorial Committee members welcome article submissions at any time.

Send dues and inquiries about membership status to:

KNPS Membership, P.O. Box 1152, Berea, KY 40403

FOR ALL OTHER BUSINESS contact an appropriate Officer / Board Member below:

KNPS Officers—

President: Landon McKinney - ASC Group, Inc., 1624 Burlington Pike, Suite D, Florence, KY 41042; 859-283-5377; LMCKinney@ascgroup.com

Vice-president: Mary Carol Cooper - #1 Game Farm Rd., Frankfort, KY 40601; 502-564-5280; marycarolcooper@insightbb.com

Secretary: Lela McKinney - 3964 Woodchase Dr., Erlanger, KY 41018; 859-283-5377; LMCKinney@ascgroup.com

Treasurer: Kathleen Jones - P.O. Box 1152, Berea, KY 40403

KNPS Executive Board Members—

Charlie Lapham - 16 Winn School Rd., Glasgow, KY 42124; 270-646-4060; lapham@srct.com

Steve Sensenig - 1694 Fairview Rd., Lawrenceburg, KY 40342; 502-604-1420; digger@wmbinc.com

Dave Luzader - 5646 Taylor Mill Rd., Taylor Mill, KY 41015; 859-356-8581- dluzader@insightbb.com

Jason (Zeb) Weese - Natural Bridge State Resort Park, 2135 Natural Bridge Rd., Slade, KY 40376; 606-663-2214; jason.weese@ky.gov

The Lady-Slipper Editorial Committee - Ron Jones (see contact info below); Landon McKinney (see contact info above)

Native Plant Studies Certification Committee Chair - Ron Jones - Biological Sciences, Eastern Kentucky University, Richmond, KY 40475; 859-622-6257; ron.jones@eku.edu

Grants Committee Chair - David Taylor - USDA - Forest Service, 1700 Bypass Rd., Winchester, KY 40391; 859-745-3167; dtaylor02@fs.fed.us

Communications Committee Chair - Amy McIntosh, 255 Sunset Ave., Richmond, KY 40475

The Lady-Slipper design and production - Amy McIntosh, 255 Sunset Ave., Richmond, KY 40475; 859-626-5207; amy_mcintosh6@eku.edu

Webmaster - Michael Thompson, 2212 Reidhurst Dr., Murfreesboro, TN 37127-6109; 615-867-3007; Michaelwthompson@comcast.net

Profiles of Kentucky Botanists: P.A. Davies (1896—1961)

by Ron Jones

Dr. Percy Albert Davies was a faculty member in the biology department at the University of Louisville from 1926 until his death in 1961. He was a native of Fort Collins, Colorado, and received his bachelor's and master's degrees from Colorado Agricultural and Mechanical College, and his Ph.D. from Harvard University. In 1931 Davies became head of the biology department and took over as chairman of the natural science division two years later. In 1956 he resigned the biology post to devote more time to the natural science division chairmanship. His responsibilities included planning and co-coordinating activities and programs of the university's biology, physics, chemistry, and mathematics departments. Davies also had responsibility for introductory courses in science and senior courses in the history and philosophy of science. He was also active in adult education programs at the university, and helped develop a training program for nurses.



Dr. Percy Albert Davies, ca. 1950

Photo compliments of Lois Davies Tyler

the history and philosophy of science. He was also active in adult education programs at the university, and helped develop a training program for nurses.

One of his chief interests was botany. He was instrumental in obtaining a greenhouse for U. of L., and became involved in the U. of L. Herbarium in the late 1940s and 1950s. During this period he became active in supervising graduate student studies and in publishing botanical articles, especially regarding the flora of Kentucky and the history of floristic studies in the state (see list below). From the mid 1950s to the early 1960s Davies and his colleagues and graduate students at the

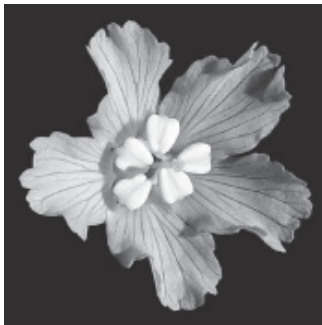


P. A. Davies with wife Celestia, at her graduation from U of L, 1930

Photo compliments of Lois Davies Tyler

University of Louisville were the most active in the state, producing a number of county floras and numerous other botanical articles.

Davies was particularly interested in the life of Charles W. Short and in *Shortia galacifolia*, Oconee Bells, which occurs only in the mountains of Virginia, the Carolinas, and Tennessee. *Shortia* was a legendary plant at this time, having been rediscovered after a century of searches, and a pressed specimen might sell for around \$50. It was



Shortia galacifolia

www.arrowheadalpinest.com

often grossly overcollected after its rediscovery, with some collectors hauling the plants out by the wagonload. But large populations covering several acres could still be found in the early 1950s.

At the time of his death he was working on a biography of Short and on additional studies of *Shortia*. Davies apparently felt a special connection to Short and *Shortia*, and once related to one of his colleagues that he hoped *Shortia* would be planted on his grave.

According to newspaper accounts, Davies suffered a heart attack while at his home. He had lectured earlier in the day but complained of not feeling well. He was survived by his wife Celestia, and his daughter, Lois Tyler (who kindly provided materials for this article). He was buried in Phoenix, Arizona. Celestia taught school in Louisville for many years and died at the age of 99.

During his 34-year career Davies was widely known and respected in the state and across the country. He served several terms as president of the Kentucky Society of Plant Physiology, the Kentucky Academy of Science, the Filson Club, the American Museum of Natural History, and the Botany Society of America.



Detail of drawing from Plate 3

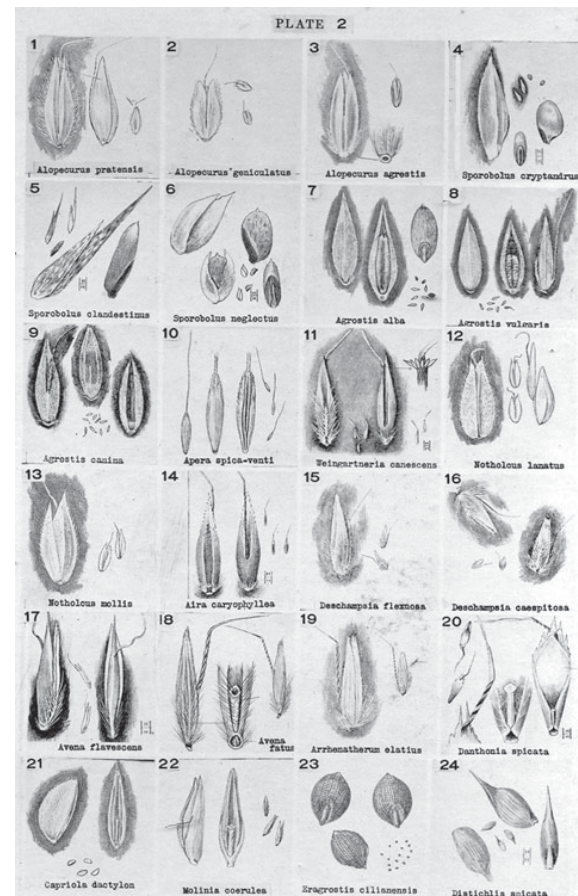
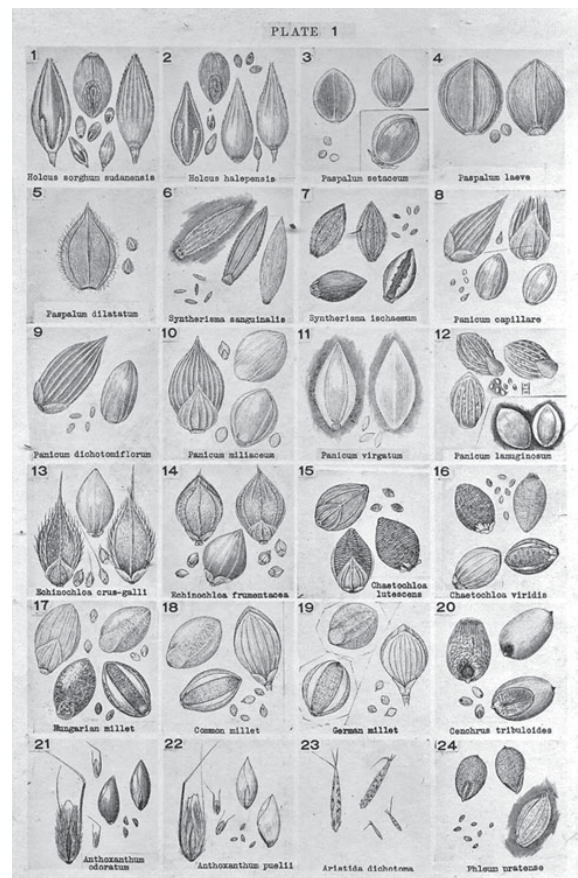
Note on the botanical drawings of P.A. Davies

Examples of botanical drawings, mostly close-ups of seeds and fruits, by P.A. Davies are presented in the newsletter. They were drawn prior to 1926 during his student days in Colorado and at Harvard University. A set of his

drawings were kindly provided by his daughter, Lois Davies Tyler. Currently accepted names along with common names are provided in the accompanying tables, with non-native species indicated by an asterisk (*) and state-listed species indicated by an exclamation mark (!). Other plates will be presented in future issues of the newsletter.

Selected Publications of P.A. Davies

- Davies, P.A. 1945a. Charles Wilkins Short, 1794-1863, botanist and physician. Part I. *Filson Club Hist. Quart.* 19: 131-55.
- . 1945b. Charles Wilkins Short, 1794-1863, botanist and physician. Part II. *Filson Club Hist. Quart.* 19: 208-49.
- . 1955b. A preliminary list of the vascular plants of Mammoth Cave National Park. *Castanea* 20(3): 107-27.



Plates 1 and 2 of R. A. Davies' early drawings

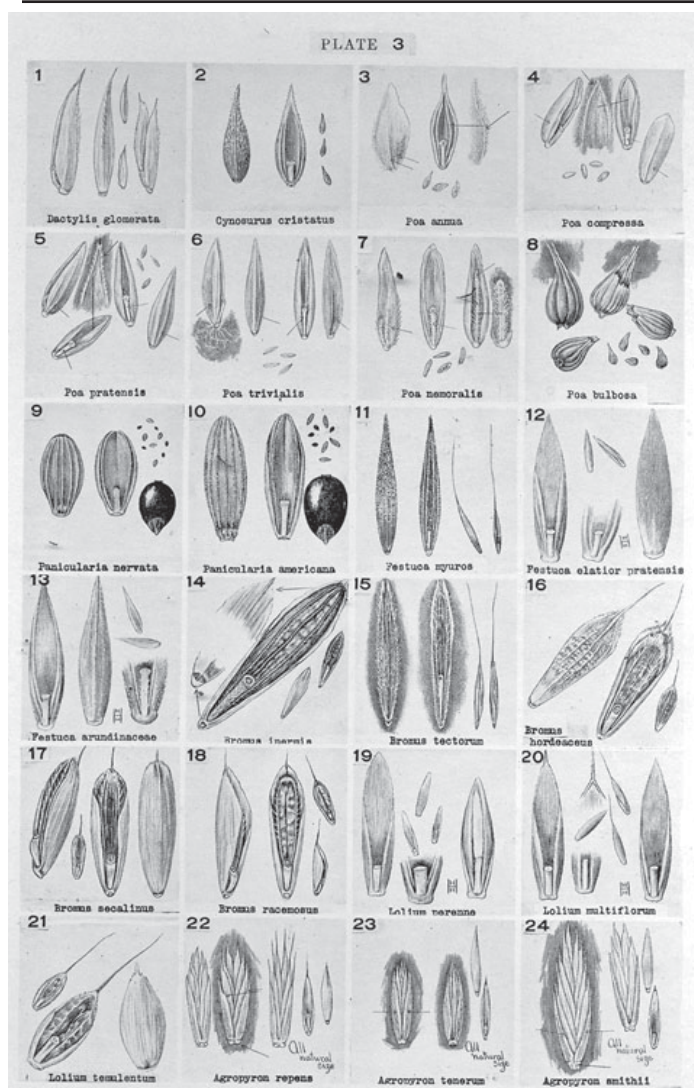


Plate 3 of R. A. Davies' early drawings

- 1949a. Flora of Pond Creek, Jefferson County, Kentucky. *Ann. Ky. Natural Hist. Soc.* 1:35.
- 1949b. Keys to the ferns and fern-allies of Jefferson County, Kentucky. *Ann. Ky. Soc. Nat. Hist.* 1(5): 33-4.
- 1950. Botanical history of Jefferson County, Kentucky. *Ky. Naturalist* 5: 3-8.
- 1952a. Structure and function of the nectary glands of the petals of *Frasera carolinensis*. *Trans. Ky. Acad. Sci.* 13: 228-34.
- 1952b. New stations for *Asplenosorus ebenoides*. *Amer. Fern J.* 42(2): 57-8.
- 1953. The status of floristic studies in Kentucky. *Trans. Ky. Acad. Sci.* 14: 49-58.
- 1955a. A preliminary list of the vascular plants of Meade County, Kentucky. *Trans. Ky. Acad. Sci.* 16(4): 88-97.

Plate 1

1. **Sorghum bicolor*. Sorghum.
2. **Sorghum halepense*. Johnson grass.
3. Sand paspalum.
4. Field paspalum.
5. *Dallis grass.
6. **Digitaria sanguinalis*. Hairycrab grass.
7. **Digitaria ischaemum*. Smooth crab grass.
8. Witch grass.
9. Fall panicum.
10. *Proso millet.
11. Switch grass.
12. *Dichanthelium acuminatum* var. *fasciculatum*. Western panic grass.
13. **Echinochloa crus-galli* var. *crus-galli*. Common barnyard grass.
14. **Echinochloa crus-galli* var. *frumentacea*. Common barnyard grass.
15. **Setaria pumila*. Yellow foxtail.
16. **Setaria viridis*. Green foxtail.
17. A European species of *Setaria*.
18. A European species of *Setaria*.
19. A European species of *Setaria*.
20. Sanddune sandbur.
21. *Sweet vernal grass.
22. **Anthoxanthum aristatum*. Annual vernal grass.
23. Churchmouse three-awn.
24. *Timothy.

Plate 2

1. *Meadow foxtail.
2. *Water foxtail.
3. **Alopecurus myosuroides*. Slender meadow foxtail.
4. Sand-dropseed.
5. !Rough dropseed.
6. Poverty grass.
7. **Agrostis gigantea*. Redtop.
8. *Agrostis capillaris*. Rhode Island bent grass.
9. Velvet bent grass.
10. *Silky bent grass.

11. *Corynephorus canescens*. Gray clubawn grass.
12. **Holcus lanatus*. Velvet grass.
13. **Holcus mollis*. Creeping velvet grass.
14. Silver hair grass.
15. !Wavy hair grass.
16. !*Deschampsia cespitosa*. Tufted hair grass.
17. **Trisetum flavescens*. Yellow oatgrass.
18. **Avena fatua*. Wild oat.
19. *Tall oat grass.
20. Poverty oat grass.
21. **Cynodon dactylon*. Bermudagrass.
22. *Molinia caerulea*. Purple moorgrass.
23. *Strong-scented love grass.
24. Saltgrass.

Plate 3

1. *Orchard grass.
2. Crested dogstail grass.
3. *Annual blue grass.
4. *Canada blue grass.
5. *Kentucky blue grass.
6. *Rough blue grass.
7. Wood blue grass.
8. *Bulbous blue grass.
9. *Glyceria striata*. Fowl manna grass.
10. *Glyceria grandis*. American manna grass.
11. **Vulpia myuros*. Rat-tail six-weeks grass.
12. **Festuca arundinacea*. Tall fescue.
13. Tall fescue.
14. *Smooth brome.
15. *Downy chess.
16. *Soft chess.
17. *Rye brome.
18. *Bald brome.
19. *Perennial rye grass.
20. **Lolium perenne* var. *aristatum*. Perennial rye grass.
21. *Darnel.
22. **Elytrigia repens*. Quack grass.
23. *Elymus trachycaulus* ssp. *trachycaulus*. Slender wheat grass.
24. *Elytrigia smithii*. Western wheat grass.

Update on the Flora of Cherokee Park, Louisville, Kentucky

by **Patricia Dalton Haragan**

Botanist, Louisville Olmsted Parks Conservancy

Cherokee Park, an urban oasis located within the city limits of Louisville, is the artistic legacy of the great landscape architect, Frederick Law Olmsted. Totalling 409 acres, the park is composed of rolling hillsides, rich mesic woodlands, and steep limestone outcrops, in addition to having sports fields, a golf course, playgrounds and picnic areas. The park's higher ground provides grand vistas of the Middle Fork of Beargrass Creek, open fields, tree tops, and the city beyond the park's boundary. Winding roads follow the gentle curves of Beargrass Creek crossing back and forth over historic stone bridges. Visitors from near and far make Cherokee Park one of the most heavily used urban parks in the state.

Lying within the Appalachian Providence, the park was once a part of the western and great mixed mesophytic forests of the eastern United States where majestic stands of oak, hickory, ash, and sycamores dominated the landscape. However, by 1800, the forests were cleared for farming and both cattle and sheep grazed the hillsides. With this, the flora and vegetation changed.

Little was known about the flora of the park until 1941 when Mabel Slack published her Masters Thesis, "A Survey of the Flora of Cherokee Park at Louisville, Kentucky." Mabel was a high school teacher and nature enthusiast who wanted to learn about the plants growing in her neighborhood park. Knowing very little about botany, she applied to graduate school at Cornell University and was accepted. Her advisor, Dr. Karl Wiegand, considered to be one of the greatest botanists in the world, approved her project in Kentucky. Mabel was granted permission by the Park Board to collect the woody and herbaceous plants of Cherokee and took to the field from September 1937 through June, 1941. At first, she collected "everything in site as all was new." By the end, she documented 523 taxa and collected over 1,100 herbarium specimens. This was the first published record of the plants of Cherokee Park.

Today, some 54 years later, a new survey of the plants of Cherokee Park is currently underway as part of the Woodlands Rescue Project spear-headed by Alan Nations, head naturalist and restoration specialist with the Louisville Olmsted Parks Conservancy. Realizing the severity of the declining woodlands, due in part to decades of inadequate funding for management practices, Alan sparked the interest of Board members and money was ear-marked to restore the park. Invasives, such as

Amur honeysuckle, garlic mustard, akebia, ground-ivy and lesser celandine now run amok while erosion from storm water run-off and problematic trails abound. In spring 2005, seven college interns were hired to remove the invasive plants (mostly Amur honeysuckle), replant native species in designated restoration sites and reroute eroded trails.

As part of that team, I was hired as a field botanist to document the flora of the park and to update the work that Mabel began half a century earlier. Since that time, I have been working to identify, collect herbarium specimens (deposited in the new Louisville Olmsted Parks Conservancy Herbarium), and map the plants growing within each of the park's eleven management areas. Using Mabel's publication as a comparison for my own research, it has become clear that many changes in the flora have taken place over time.

Since 1941, native wildflowers have disappeared due to natural succession, unauthorized collecting, and other disturbances. Species such as fire pink, wild geranium, purple cliffbrake, northern maiden-hair fern, partridge-berry, nodding ladies tresses, spring coralroot, and shooting star, which Mabel documented as rare, are no longer found in Cherokee Park. However, others that were rare in Mabel's study are still found today, including broad leaved toothwort, spring cress, lizard's tail, dissected grape fern, and sharp-leaved hepatica. Some new species, both native and non-native that were discovered last year are puttyroot, small bluet, green dragon, blue scorpion-grass, water scorpion-grass and helleborine.

Perhaps, one of the most important finds is soft agrimonia (*Agrimonia microcarpa*). This yellow-flowered member of the rose family was listed as frequent in 1941 but to date, only a few plants were found in Cherokee Park. Considered to have a more southern range, this species is extremely rare in Kentucky.

There are a large number of invasive plants that are new to Cherokee Park since Mabel's study. Two of the more troublesome invasive plants thriving within the boundaries of Cherokee, akebia (*Akebia quinata*) and lesser celandine (*Ranunculus ficaria*), are actually rare throughout the rest of the state (see **Weed Alert**, page 6, for more information regarding *R. ficaria*). In 1941, Mabel stated that akebia was found

climbing over rock walls and banks, but was infrequent. An escaped ornamental, this woody, Asian vine grows quickly and can kill existing ground vegetation as well a climb over, and smother, canopy trees. In one area, it looks like a huge green tent towering above the forest floor to at least 80 feet high and twining around everything above and underneath the massive shroud.

Lesser celandine is another ornamental plant that has escaped and is locally abundant throughout the park. This showy buttercup is a vigorous groundcover that forms dense patches in low wet ground and in shady woodlands. This exotic perennial flowers from late February through April and has glossy green leaves. It spreads primarily by vegetative means through underground tubers and bulbets, each which becomes a new plant once separated from the parent plant. It is a major threat

to the spring wildflowers and has totally taken over rich mesic woodlands at Cherokee. It is interesting to note that other invasive plants not mentioned in 1941, but troublesome today are: Nepalese eulalia, Johnson grass, Amur honeysuckle, English ivy, poison hemlock, and Japanese knotweed.

The Woodlands Restoration Project continues this year and botanical field work as resumed. Using Mabel Slack's historical data has allowed us to see the changes in species composition over time. This, coupled with the present day flora has been invaluable. The more we know about our immediate surroundings, the better the management of the Louisville Olmsted Parks Conservancy will be able to develop sound polices to protect, and build upon, our rich botanical heritage and what remains in this priceless urban green space.

WEED ALERT: LESSER CELANDINE

Issued by the Louisville Olmsted Parks Conservancy Herbarium

Lesser celandine (*Ranunculus ficaria*), also known as fig buttercup and spring messenger, is an herbaceous perennial that was introduced into the United States as an ornamental groundcover. Native to Eurasia, this attractive member of the buttercup family has bright buttery-yellow flowers that are produced on long stalks and blooms in February through April. The leaves are shiny, dark green and heart-shaped, about two inches wide and appear as early as January. By June, the above ground parts die back and totally disappear from sight.

The root system consists of a mass of small, finger-like tuberous roots and tiny, light-colored bulbets which easily break off from the parent plant either by flooding, animal or human activities. These new



Ranunculus ficaria in bloom

bulbets easily take hold and once established, even small infestations can spread rapidly invading forested floodplains, wet fields, stream banks, moist limestone ledges and upland woods. This species greatest impact is on the native spring flowering plants

which are unable to penetrate through the dense, thick carpet of leaves.

Lesser celandine has been reported in four counties in Kentucky: Jefferson, Gallatin, Campbell, and Lewis, all located along the Ohio River, but suspected in others. At Cherokee Park, in Louisville, acres of land have been heavily infested, especially in the woodlands and fields along Beargrass Creek.



R. ficaria showcasing roots

Control is limited and the window for effective treatment is timely. Individual plants, or small clumps may be dug up by hand or trowel, but it is essential to get all the underground roots. For more information, visit <http://www.nps.gov/plants/alien/fact/rafi1.htm>, or contact Alan Nations, the Conservancy's Staff Naturalist, at Alan.Nations@olmstedparks.org, for information concerning control practices currently underway in Cherokee Park.

To help prevent, or minimize the spread and establishment of new infestations, the Louisville Olmsted Parks Conservancy is alerting concerned personnel to be on the watch for this aggressive exotic plant. For any questions on the identity of lesser celandine or to report any sightings, please contact Patricia D. Haragan, botanist, who is documenting the spread of this species in Kentucky at Patricia.Haragan@olmstedparks.org.

State stirs anger by paving trail

Opponents had been told it wouldn't happen

Editor's note: On June 14, 2006 this article was published on the Lexington Herald Leader's website (www.kentucky.com). It is printed here with permission. Since the article's appearance, the state has completed the project. After paving, this section of Little Shepherd Trail endured nearly 2.5 times the automobile traffic during July 28-30, 2006 as compared to 2004's average daily figures (according to a press release from Transportation Cabinet Information Officer, Sara George).

by Lee Mueller with contributions from the Associated Press

After state assurances last summer that they didn't have anything to worry about, opponents of a proposal to pave the Little Shepherd Trail on Pine Mountain in Eastern Kentucky were stunned yesterday to learn the dirt and gravel path is being blacktopped anyway. "It caught me off guard and I



photo: Amy McIntosh

live on the mountain," said Jim Webb, a staunch opponent. "My only feeling is they snuck in there to do this and there's no telling what kind of skulduggery is involved."

View from Little Shepherd Trail in Kingdom Come

The Little Shepherd Trail runs for 14 miles along the 2,000-foot-high ridge line on Pine Mountain, from U.S. 119 in Letcher County to Kingdom Come State Park at Cumberland in Harlan County. It follows the fictional path traveled by Chad Buford, a mountain orphan in John Fox Jr.'s epic novel, *The Little Shepherd of Kingdom Come*.

The controversy began in April last year after Gov. Ernie Fletcher came to Letcher County to announce \$500,000 had been appropriated to pave the trail. Instead of approval, however, the news ignited a firestorm of protests. "It's not what people want," Letcher County resident Archie Fields told The Associated Press in May. "They want to see it natural."

In late July, such protests apparently were defused when state officials said \$500,000 wasn't enough money for the project. "I wouldn't think they have anything to worry about," Sara George, spokeswoman for the Kentucky Transportation Cabinet, told the AP at the time.

Local residents expressed relief, but in January — without issuing a news release — the highway department awarded a \$1,073,252 contract to Mountain Enterprises to pave 11.22 miles of the trail, now known as Ky. 1679. The blacktopping is scheduled to be finished on July 1.

"All this was on the (agency's) Web site," George said yesterday in an e-mail. Webb was furious. "Why would we check their Web site?" he asked. "They led us to believe they'd fixed it and that was it."

Doug Hogan, a spokesman for the governor, did not return a phone call. Webb said he thinks the state intentionally did not issue a news release on its decision to resurrect the project. "I know why they didn't," he said. "Something's going on. Nobody I know is for this, yet they spent a million dollars on it. Something's going on."

George said the state found the extra money to pave the trail in an \$80 million reserve earmarked for resurfacing projects. Local residents have been pleased with improvements to the trail that including grading, graveling and ditching, Webb said. "They did all they needed to do," he said. "It's in the best shape it's ever been in — exactly what it needed to be." But Mark Williams, commissioner of highways, said the unpaved road was in a "deplorable" condition, unsafe for drivers and tourist alike.

"We wanted to put something there that would serve as an adequate state highway," Williams said. "We need to maintain a decent roadway, not only for people who want to ride horses and hike out there. As a state highway, it needs to be adequate for automobile traffic."

Webb said most Letcher Countians wanted the Little Shepherd Trail, not a state highway, on the mountain. He called the project a \$1 million waste of taxpayers' money. "They've pulled a fast one on us," he said. "And they've destroyed what was becoming a wonderful tourist attraction. Horses will not be able to use this now. It's going to make ATV riding even more dangerous and it's destroyed it for hiking."

Williams dismissed speeding as a major concern, saying the trail is too curvy for cars to go faster than 20 mph.

But Josephine Richardson, chairwoman of the Letcher County tourism commission said "from a tourism point of view, it's a disaster." State transportation officials,



photo: Amy McIntosh

KY state Threatened Butternut in bloom topped by dusting of snow along Little Shepherd Trail

however, claim that paving the road will provide better access to Kingdom Come State Park near Cumberland. The area is inhabited by more than 90 species of rare plant and animals including black bears, the common raven, the spotted salamander and the masked shrew. But Letcher Judge-Executive Carroll Smith wondered how long such species will stay around a state highway. "All of a sudden, it won't be a wild area," he said.

Write a Letter to Your Lawmaker

from National Wildlife Federation

It takes only a few minutes to write a letter, but those few minutes can make a big difference. When members of the House of Representatives or U.S. Senate receive enough letters on a particular issue, it does influence their vote. Unless they hear from you, many legislators may not be aware of how strongly their constituents feel about a particular issue. Your words can sway them and help them to understand why an issue is important to the folks back home. Here are some suggestions on what will give your letter the greatest impact:

- **Use your own words and your own stationary:** A handwritten or neatly typed letter is best, so long as it is legible. Form letters, photocopies, and preprinted postcards are of very limited value.
- **Be concise:** A one-page letter is more likely to be read than one that is longer.
- **Personalize your message:** People tend to remember a good story, and one told from the heart is better than a ream of facts. Let your lawmaker know why the issue matters in your life.
- **Mention your involvement in local organizations and groups,** if it's pertinent. It is less important to mention affiliation with national conservation organizations like the National Wildlife Federation.
- **Identify your subject clearly:** If possible, refer to legislation either by its bill number or by its popular name, such as the Clean Water Act.
- **Discuss only one issue in your letter:** For example, avoid mentioning takings and superfund reauthorization in the same correspondence. This ensures that your letter will be seen by the right staff member.
- **Ask the lawmaker to do something specific:** For example, ask him or her to vote for a particular amendment, request hearings or co-sponsor a bill.
- **Ask for a reply** to your requests and questions.
- **Be sure to include a return address** on your letter.
- **If you have time, avoid sending your letter by fax or email:** Most Congressional offices pay more attention to letters that arrive by mail.

Botanical Timeline for Kentucky

(continued from a previous issue)

by Ron Jones

12,000 years ago—humans arrived in the Kentucky region as the last glacier began its retreat.

12,000 to 9,000 years ago—transitional forest between boreal and deciduous communities; Native Americans during this period were big-game hunters (perhaps driving some large mammals to extinction) and gatherers of nuts, roots, and fruits; probably used many native plants for food and medicines.

9,000 to 3,000 years ago—the Hypsithermal Interval, a time of significant warming, when the annual temperatures were 2°C warmer than today, extended until about 5,000 years ago; mixed deciduous communities of oak, sugar maple, basswood, walnut, beech, and including the evergreen eastern hemlock developed in the region; early



Adena culture digging tool

www.ohiomemory.org

plant cultivation by Native Americans (Archaic Period) began about 7,000 years ago, and by 3,000 years ago they were living in settlements and growing sunflowers (*Helianthus* spp.), goosefoot (*Chenopodium* spp.), and knotweed (*Polygonum* spp.); current forest types of oak-hickory in central/western Kentucky, and mixed mesophytic in eastern Kentucky, had probably developed by 4,000 years ago.

3,000 to 1,000 years ago—Native Americans of Woodland Periods, including Adena and Hopewell Cultures, this period characterized by mound building, pottery making, the bow-and-arrow, and more highly developed agriculture, including the cultivation of corn and tobacco; burning of forests during this time by Native Americans may account for some of the extensive barrens regions of Kentucky.

1,000 to 300 years ago—Fort Ancient Culture in Kentucky; this period characterized by larger villages and towns, and more extensive agriculture, often clearing larger tracts of land, especially in bottoms, and growing fewer crops in larger quantities; at end of this period Native American populations began to decline in Kentucky, primarily because of diseases contracted from their early encounters with European explorers; native settlements nearly all abandoned before European settlers arrived in

the state, their vacant towns and fields undergoing succession back to forest; three centuries ago, in spite of the various disturbances by Native Americans, the Kentucky landscape was still 90—95% forested, and the majority of these communities were old-growth forests, having stood relatively undisturbed for over 4,000 years.

1769—Daniel Boone wrote of traveling through a “great forest, on which stood myriads of trees.”

1792—Kentucky admitted to the union, and current boundaries were set in 1818 with the acquisition of the Jackson Purchase from the Chickasaws.

1797—*A topographic description of the northwest territory of North America*, (Letter III, in particular), by Gilbert Imlay. This book contained one of the first listings for plant life of Kentucky—included were many of the common trees.

Early 1800s—many new food crops introduced into Kentucky by this time period—including from the Americas—corn, potatoes, beans, tomatoes, pumpkins, squash, sweet potatoes, and peanuts; and from Africa—okra, watermelon, black-eyed peas, and yams; and from Europe and the Middle East—wheat, peas, and carrots; and from Asia—rice, spices, citrus products, and tea. Tobacco (*Nicotiana tabacum*) was an important crop by the time, with thousands of pounds being produced annually, as was hemp (*Cannabis sativa*), with about 40,000 pounds being produced annually by Kentuckians. A form of hemp developed in the state, called “Kentucky hemp,” eventually became the leading variety grown in the United States during the 19th century.

1803—*Flora Boreali Americana* was published in Paris, France; this book by Andre Michaux, the first great plant explorer of eastern U.S., was based on the author’s travels and collections in America, and including many accounts of plants encountered in Kentucky between 1793 and 1796, and describing many new genera and species from the region.

1817—1819—*The North American Sylva*, by Francois Andre Michaux, the son of Andre Michaux; this 3-volume set of books dealt with the woody plants of the continent, and included many references to the author’s travels in Kentucky during 1803; in other writings he



Ohio Buckeye plate from *The North American Sylva* by F.A. Michaux

provided some of the earliest, most detailed, descriptions of the culture and plant life of the region.

1819—*Botany of Kentucky*, by Constantine S. Rafinesque, provided the first descriptions of the vegetation regions of the state.

1824—*Florula Kentuckiensis...*, by Rafinesque, was the first general account of plant life in the region; Rafinesque remained in Kentucky from 1818 to 1825, collecting over 10,000 plant specimens, but most were lost, heavily damaged, or discarded; his published lists of articles and books is in excess of 900; he also proposed 2,700 new genera and 6,900 species of vascular plants, more than any other American botanist.

1820’s to 1850s—an active period of collecting and publishing by C.W. Short, R. Peter, and H.A. Griswold. *A catalogue of the native phaenogamous plants and ferns of Kentucky*, by these authors, was published in 1833— this catalogue and its supplements (which appeared until 1840) listed over 1,300 species and varieties; Short personally collected over 28,000 specimens from 1833 to 1838. Griswold established the first herbarium in Louisville but it was destroyed by fire in 1837. Short and Peter established the first university herbarium in Kentucky, at Transylvania University. Short and Peter also described *Sagina fontinalis* and *Ludwigia polycarpa* as new to science.

1850s—half of Kentucky forests had been cleared by cutting and burning.

1870—Kentucky ranked 15th in timber production in the U.S.

1876—about this time R. Peter, still a professor at Transylvania University, donated his private herbarium to Kentucky University, later to become the University of Kentucky, establishing the first herbarium at the institution.

1870s—1880s—a series of “county reports” were published, authored by A.R. Crandall, L.H. DeFriesse, J. Hussey, and W.M. Linney. These reports detailed the timber resources in the counties, with some detail on the general flora and old growth forests.

1878— *Ferns of Kentucky*, by John Williamson, was the first statewide account of ferns published in the U.S.

1898—1904—several important works by Sarah F. (Sadie) Price were published, including a Warren County flora, and statewide accounts of woody plants and ferns. **(to be continued in upcoming issue)**

Native Plant Certification Courses for Fall 2006 Semester

Two elective courses will be taught:

Field Techniques in Native Plant Research

This course is designed as an introduction to some of the basic aspects of botanical field research. Topics will include the collection and preservation of herbarium specimens, methods of community and population sampling, rare plant monitoring, and the use of topographic, geologic and soil maps. This course is also designed to encourage students to begin thinking and asking themselves questions about our native flora. This course will meet in the classroom but the majority of the course will be outside.

Date and time: Saturday September 23 from 9:00 am to 4:00 pm with a one-hour lunch break.

Sedges of Kentucky

This course is designed as an introduction to the plant family Cyperaceae (the sedges). Sedges are grass-like plants that many people overlook. This course will emphasize the different types of sedges, their characteristics, terminology, and habitats. This course will be completely in the classroom and will include lecture, handouts, preserved specimens, and photographic representations.

The Kentucky Heritage Land Conservation Fund Board protects lands with monies from the sale of Kentucky nature automobile license plates. There are several new proposed designs, and the Board is seeking your input.

View proposed plates and vote for your favorites at:

<http://eppcapps.ky.gov/natureplate/>

Date and time: Saturday, November 18 from 9:00 am to 4:00 pm with a one-hour lunch break.

\$59.00 per course

Register on line at nkuconnections.nku.edu or call NKU Connect center @ (859) 572-5600.

Questions regarding the program can be answered by calling the number above.

Who am I?



I am a small tree with opposite leaves, green and angled twigs, and my fruits are pink and lobed, with red seeds.

Winter 2005 / Spring 2006 Who Am I? answer:

Microstegium vimineum (Trin.) A. Camus
Family: Poaceae

Common names: Nepalese eulalia, Nepalese browntop or Japanese stilt grass

The following KNPS members correctly identified the last species:

Mary Alice Bidwell and Portia Brown

Send your answer including family name, genus and species name, the correct author citation, and the geographic range of the species to ron.jones@eku.edu!

INVASIVE PLANT REMOVAL FIELD DAY



Volunteers
Wanted!

Come "Lend A Hand, Care for the Land" by removing invasive plant species in the Red River Gorge.



Saturday, Sept. 23, 2006

Natural Bridge State Resort Park

9:00 a.m. to 5:00 p.m.

Featured Guest: Woodsy Owl.
Contact Zeb Weese at 606-663-2214
for more information.



Calendar of Native Plant Events

Natural Bridge Event:

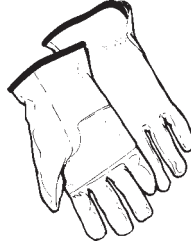
Invasive Plant Work Day

Saturday, September 23, 2006

9:00 am--meet at lodge at Natural Bridge State Resort Park

After some training on how to combat their spread, the remainder of the day will be spent controlling several particularly aggressive invaders, Chinese silver grass, periwinkle and Deutzia. Tools and snacks will be provided by the KY EPPC, the Daniel Boone National Forest and the Department of Parks. Volunteers should bring work gloves, water and lunch.

For more information: contact the Park Naturalist, Zeb Weese, at 1-606-663-2214 or jason.weese@ky.gov



KNPS Fall 2006 Meeting

Saturday, November 11, 2006

Shaker Village at Pleasant Hill

Guest Speaker: **Pat Haragan**

Topic: The Flora of Cherokee Park and the Park's restoration project

10:00 Meeting and Speaker; 12:00 Lunch followed by hike led by Don Pelly, Shakertown naturalist. See page 1 for details.

Voting for KNPS board members and officers will take place at the fall meeting. Please join us to select a new slate!

Kentucky Native Plant Society MEMBERSHIP FORM

Name(s) _____

Address _____

City, State, Zip _____

KY County _____

Tel.: (home) _____

(work) _____

E-mail _____

- Add me to the e-mail list for time-critical native plant news
- Include my contact info in any future KNPS Member Directory



Membership Categories:

- Annual \$10
- Lifetime - \$150
- This is a renewal
- This is a new membership

Membership \$ _____

Gift (optional) \$ _____

Gifts are tax deductible [IRC 501 (c)(3)]

Total \$ _____

(Payable to Kentucky Native Plant Society)

Return form & dues to:

KNPS Membership, P.O. Box 1152, Berea, KY 40403

SEE PAGE 2 FOR CONTACT INFORMATION.

*(Return address below is for
POST OFFICE USE ONLY.)*

Kentucky Native Plant Society
c/o Department of Biological Sciences
Moore 235
Eastern Kentucky University
521 Lancaster Ave.
Richmond, KY 40475-3102

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