



# The Lady-Slipper

Fall/Winter 2013

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## **Fall Color is like Pizza: A Kentucky planting guide for autumn (and windstorms, too)**

By Dr. Neil Pederson

Fall is peaking. But, it goes too quickly, eh? The foliage has been pretty good this year (though not quite like 1995 in the Adirondack Mountains). More and more each day I find myself walking slowly and driving slowly trying to drink it all in. There are scenes and moments when I can feel the color. These moments are so special. Heck, I am a sucker for autumn for autumn foliage, to be honest. Like pizza, the change in leaf color, even when not spectacular, is pretty darn good.



All photos by Neil Pederson

Fall color in the southwestern Adirondacks. September 1995

I drew up a brief guide of potential yard trees for a friend. My considerations for a list of yard trees revolve around: **1)** climate change, **2)** the likely continual arrival of non-native diseases and pests (thus trees that, hopefully, will be disease and pest resistant; but is that predictable?), **3)** aesthetics, including fall color, bark texture, stature, and, to a lesser degree, leaf arrangement (the author acknowledges there is no accounting for taste), **4)** the potential for increasing local biodiversity, and **5)** general hardiness. There are more suggestions here than room in your typical yard. Choice is an overwhelming American right.

Then Hurricane Sandy hit and woke us up. So, in addition to the considerations above, there are trees that one should not plant if you live in an area prone to intense windstorms (derechos, tornadoes, tropical storms/hurricanes). There is a good bit of evidence indicating that some species that are more prone to falling over and more evidence is being collected. As I walked and drove around my neighborhood and other local neighborhoods following Sandy, the species of trees that fell most often was pretty predictable.

### **Suggested Small Trees For Kentucky Yards**

I enjoy planting trees, especially the odd, but cool, native trees. I wept inwardly some years ago when I realized our cultural trend was towards the weepy varieties. There are so many cool small trees that can be planted here in eastern North America, that, frankly, it is unnecessary to develop varieties for our yards. Have you ever seen the

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**TIME TO RENEW YOUR KNPS MEMBERSHIP FOR 2014!  
SEE BACK PAGE FOR DETAILS!**



KNPS President's Message by Alan Nations

Greetings, I hope you are all well, and enjoying the fall weather and colors. The holiday season is just around the corner and 2014 is not that far away. For KNPS, 2014 is an election year. The executive board will, in accordance with our By-Laws, appoint a Nominating Committee of 3 to 5 members to serve for the election year. The Nominating Committee will prepare a slate of at least one or more members for each position to be filled. The slate of nominees shall be presented to the membership at the spring meeting. Nominations may also be made from the floor at the meeting. A hand vote will be held, the nominee who receives the majority of votes cast will be elected. You may reference ARTICLE VIII Committees of our By-Laws located on the website for more information.

I encourage anyone interested in serving as an officer to contact the Executive Board, contact info is available at [www.KNPS.org](http://www.KNPS.org). Our present officers have worked very hard and accomplished so much during the last four years. Strong leadership is essential to our mission and the future of the Society.

Happy Holidays,

Alan

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The Lady-Slipper is intended to be published by the Kentucky Native Plant Society [IRC 501(c)(3)] in March, June, Sept., and Dec. Deadlines are the 10th of the prior months, but Editorial Committee members welcome article submissions at any time. Send dues and membership status inquiries to:

Kentucky Native Plant Society Membership, 801 Schenkel Lane, Frankfort, KY 40601

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### KNPS Native Plant Stewardship Certification Program

The Society's Native Plant Stewardship Certification Program continues to grow. On Saturday October 26 three members of Class VI received their certificates of completion at the Creasy Mahan Nature Preserve in Oldham County. Congratulations to Class VI Stewards Gary Michael, Emily Boone and Mariah Levine. The certificates acknowledge that the students have completed the six required one day class sessions. The program was established to provide the participants with more knowledge of Kentucky's native plants, threats to our native plants, managing these threats, and restoring our native plants. Classes are held at locations where instructors have the opportunity to take students to the field to gain a deeper understanding of the subject matter.

Classes are now being offered in the Lexington and Louisville areas. Go to our website to get more information. If you are interested please get on the waiting list soon, classes fill up fast! The next class will begin in the spring of 2014.



Photos by Carl Suk

### 2013 KNPS Research Grant Awardees

Both a doctoral student and a masters student were awarded KNPS research grants in 2013. A short introduction to the two winners and their research is provided below. KNPS offers congratulations to both students.

Todd Rounsaville is a doctoral student at the University of Kentucky. He is working under the direction of Dr. Mary Arthur in the Department of Forestry. Todd received a grant to help support the project, **Trends in plant-soil pairwise feedback between *Elymus villosus*, a native c3 grass, and *Euonymus fortunei*, an exotic invasive liana.** He hopes to determine if either or both species have soil modifying effects (chemical or biological, from fungal or other soil microbes, etc.) that affect the other species. He hopes to be able to provide land managers with information to help prevent infestations of wintercreeper (*Euonymus fortunei*) and increase the success of reestablishing native species on areas once infested by wintercreeper. Hairy wildrye (*Elymus villosus*), a common species in Kentucky may be an ideal species to help combat wintercreeper.

Alexi Dart-Padover is a masters student at Eastern Kentucky University. He is working under the direction of Drs. Jennifer Koslow and David Brown in the Department of Biology. Alexi received a grant to help support the project, **A Comparison of Management Strategies for the Federally Endangered Running Buffalo Clover (*Trifolium stoloniferum*) in the Blue Grass Army Depot, KY.** He looks to determine the effects of three disturbance methods on the growth, survival and reproduction of running buffalo clover. Grazing (cattle), mowing and herbicide treatments will be tested individually and in various combinations to find the system most advantageous to the clover. The results of this study could inform best management practices for the populations at the Blue Grass Army Depot and in other locations where the clover grows.

**KNPS / TNPS Joint Fall Meeting**  
by Bill Edwards; photos by Patricia Okula Berla

A joint meeting between the Kentucky and Tennessee Native Plant Societies was held on September 20-22 at Lake Barkley State Park. In addition to the opportunity to meet new, like-minded wildflower enthusiasts from neighboring states, the sixty-some Society participants enjoyed featured programs from noted botanical authors as well as guided field trips on carefully pre-selected trails within the Land Between the Lakes area (LBL).

Weather conditions En route to LBL on Friday afternoon, many traveling participants endured the proverbial “gully-washer” rainstorms that threatened to dampen spirits and discourage outdoor activities. Although the heavy rains were sporadic throughout Friday night, Saturday morning broke bright and sunny. The pine-scented country air was fresh, clean, and crisp. Both Saturday and Sunday were outstanding weather-wise, contributing immensely to our enjoyment of our free-time and the scheduled outdoor activities.



Featured Programs After the TNPS general membership meeting on Friday evening, Dr. Edward Chester entertained the audience with personal anecdotes as he led a lively discussion centered on LBL and the Big Barrens of Kentucky and Tennessee. Society participants learned not only the historical perspective of the human-influenced barrens, but also important differences and significant similarities between barrens and prairies.

In lieu of fieldtrips on Saturday afternoon, author Rita Venable conducted two short programs focused on butterfly gardening and the field identification of Butterflies in Tennessee. Her new guidebook is scheduled to be published soon, perhaps this October.

Subsequent to the KNPS general membership meeting Saturday evening, Dr. Ron Jones presented a slide show focused on the current status and future prospects of woody plants in Kentucky and Tennessee. His presentation disclosed that the world's population explosion over the next several decades would seriously threaten the world as we know it. Questions will persist over how to feed an additional six billion people and where the materials will come from to provide supplemental housing for the expanded populace.

Field Trips On Saturday morning, Society participants hiked a circum-navigation of Hematite Lake on an extensive search for unusual and/or rare botanical specimens. Dr. Edward Chester, Julian Campbell, and Tara Littlefield served quite knowledgeably as field trip guides. Among the unusual species observed, one of the more notable was Price's Potato-Bean, (*Apios priceana*). For those participants who were alert and willing, the ripening papaws, (*Asimina triloba*), provided a refreshing trailside snack.

Saturday afternoon featured random roadside botanizing as the carpool caravan drove portions of The Trace in the central areas of LBL. A brief stop at the park headquarters allowed further observations of local flora planted and labeled in educational gardens for the public. In summary, the entire weekend was most educational and enjoyable.



### A Threatened Wild Dill

By Josh Wysor, Louisville Olmsted Parks

A notable recovery accomplished by Louisville Olmsted Parks' Conservancy's eight year, nearly four million dollar Woodlands Restoration Campaign occurred near an old mill on Beargrass Creek by Big Rock between 2006 and 2011. When I photographed the threatened *Perideridia americana* on April 21, 2011 in flower, it was the first it had been documented growing in the park since seven decades prior. The population has grown from several plants possibly as early as 2006, to almost 100 plants this year. The area immediately surrounding the plant was managed for honeysuckle again this spring. When it was written about 70 years ago, it was common only in this one area.

Wild dill, also known as **eastern yampeh** was previously last described in Jefferson County by two botanists who studied Louisville's flora in the 1940s, Mabel Slack and Dr. K.M. Wiegand of Cornell University. Mabel Slack, who published her 1941 masters thesis and *Flora of Cherokee Park* (and the edge of Seneca Park) under Dr. Wiegand lists 523 plants in Cherokee Park. Interestingly the plant occurs in exactly the same location today as it did Slack's description of it.

Many other Louisville native plants written about in historic floras have migrated to other parts of the park, are now missing, or have been reintroduced both by Louisville Metro Parks and the Louisville Olmsted Parks Conservancy. Louisville has a strong botanical legacy, with an invaluable flora first published in 1819 called *Florula Louisvillensis* credited to Dr. Henry McMurtrie, though some have given credit to Constantine S. Rafinesque.

Because of its agricultural land use legacy prior to becoming Frederick Law Olmsted's famous park, Cherokee Park had lost many of its valuable conservative species even by the time Slack published her 1941 floral survey. Some of the historic native Louisville plants already missing from Cherokee Park's flora by the 1940s have been successfully reintroduced to Cherokee Park, such as hollow stemmed Joe Pye weed, New England aster, frost weed (*Verbesina virginica*) and **pickerel weed** (*Pontederia cordata*), which is threatened at the state level. Other plants have returned or increased on their own, such as

wild cane, green dragon, lizard's tail, and water willow. Iroquois Park and Scott's Gap of Jefferson Memorial Forest have also regained Louisville natives such as Indian grass (*Sorghastrum nutans*), switchgrass (*Panicum virgatum*), swamp sunflower (*Helianthus angustifolia*), Echinacea (*E. purpurea*), and partridge pea (*Cassia fasciculata*) which were found growing native in the city in 1819.

Two additional Cherokee park plants not listed by Slack and exciting for any botanist were recently found. The federally endangered **running buffalo clover** (*Trifolium stoloniferum*) which once grew near Willow Park was discovered by a UK



Wild dill, photo by Josh Wysor

graduate student. The plant had not been seen since the earlier part of the 2000s. The second is **crested coral root orchid** found by botanist Patricia Dalton Haragan in the mid 2000s which grows very nearby to the threatened eastern yampeh over a slightly deeper moister topsoil in the rocky open woods and is one of the largest populations known to occur in the eastern US.

**Eastern yampeh** or *Perideridia americana* is in the carrot family (APIACEAE syn. UMBELLIFERACEAE), and has also been called wild parsley by some. It can easily be mistaken for fennel, and an untrained eye might think it's puny Queen Anne's lace growing in part shade, or domestic dill (*Anthemum graveolens*) in its vegetative phase or in bloom. The foliage looks similar to a gigantic form of harbinger of Spring, with larger more segmented leaf tips than fennel or Queen Anne's lace.

It flowers in mid April around the time crow poison is in bloom (*Nothoscordum bivalve*) and generally has begun seed set by the time warmer temperatures have arrived mid June,

A close relative to this unusual and seldom seen **eastern yampeh** occurs in the American west, *Perideridia oregana* and *Perideridia gairdnerii*, and are commonly referred to as squaw potato suggesting its edibility.

Although, not believed to be poisonous, wild dill shouldn't be eaten, partly because it's simply too rare to disturb its life cycle, and additionally Louisville law prevents foraging of whole plants from city parks which are owned by its citizens.

In Louisville, **eastern yampeh** grows in heavy clay, near dolomitic Limestone which was dominated by Asian bush honeysuckle (*Lonicera maackii*) and Standish bush honeysuckle (*Lonicera standishii*) until 2010 when volunteers with Olmsted Parks Conservancy's zone steward Joe Manning performed the initial clearing.

In the aftermath of woody exotic species removal, on this bare heavy clay slope, *Perideridia* germinated. After rediscovering the plant Slack had written about 70 years prior, I found what is perhaps a mother population growing atop the 40 foot limestone cliffs which are densely invaded with a thicket of Standish honeysuckle. One cluster of about 7 plants grows out of the rich dark topsoil, and likely seeds washed below to form the population, which numbers over 100 plants, in 2010.

Interestingly, the area the plant grew prolifically in the 1940s still harbors many other plants that had gotten to be rare even by 1941: **purple cliff brake** (*Pteris atropurpurea*), **blunt lobed cliff fern** (*Woodsia obtusa*), and **American alum root** (*Heuchera americana*) as well as another rare annual that occurred elsewhere in the park in the 40's, **tall American bellflower** (*Campanulastrum americanum* syn. *Campanula americana*). Additionally, bottle brush rye (*Elymus hystrix*), short's aster (*Symphotrichum shortii*), Lowry's aster (*Symphotrichum lowrianum*), and three lobed black eyed Susan (*Rudbeckia triloba*) grow nearby, as do the shrubs blackhaw Viburnum (*Viburnum prunifolium*), American bladdernut (*Staphylea trifoliata*), and pawpaw (*Asimina triloba*).

Garlic mustard is relatively light in this area, preferring a nearby area which had been dominantly five leaved Akebia, before it was sprayed by Olmsted Parks Conservancy with glyphosate in fall 2010. Other nearby invasive species are Tree of Heaven (*Ailanthus altissima*), and common chickweed. The area is too dry for lesser celandine, which is abundant on some deeper topsoil rich woods in similar this site, which is lucky to have shallower topsoil due to its slope and runoff from the limestone cliffs above.

It's good to see a plant which was prevalent seventy years ago make a return to Cherokee Park, and encouraging that a piece of refugia has done so well under timely management of exotic pest plants.

### Creating a Community Micro-Forest

By Connie May, photos by Hannah Helm



One of my favorite afternoons this summer was spent with 12 very excited kids in an urban forest. They were turning over logs to look for bugs, swinging from the limbs of trees, peeking at baby birds in blackberry brambles and having a blast. The kids were playing in Fantasy Forest, planted a little over one year ago in a neighborhood near downtown Frankfort.

The kids have come to love their forest. Thanks to volunteer efforts spearheaded by Centre College freshman Jeri Howell, the kids have learned to identify some of the native species of trees, shrubs and wildflowers growing in the forest. They've learned the names of birds and butterflies and bugs, they've looked at chrysalides and cocoons, bird nests and feathers. They've learned not to be afraid of spiders and bees --almost. They feel at home roaming through the trees and shrubs and flowers.

As a designer of natural landscapes I've been planting micro-forests (see sidebar) in residential landscapes for several years. I've watched how the plantings and the birds and butterflies they attract enrich people's lives. I had dreams of one day creating a public micro-forest designed with children in mind. When I saw a grant announced in *Tree Line* I started to look for a suitable location.

I found the perfect spot on a mostly vacant city block owned by the city of Frankfort. I met with the directors of Parks and Recreation to request use of the land for a community micro-forest and was thrilled to find that they were very enthusiastic about the idea. They saw the forest as a place to educate children about nature and agreed to provide matching funds if we got the grant. Next I talked to Kris Shera, president of CommonWealth Gardens, the non-profit group that oversees the organic gardens growing on part of the block. Kris has two small children and loved the idea of having a natural area nearby where they could play and explore while he worked in the gardens. The board of CommonWealth Gardens agreed to sponsor the grant. I talked to other members of the Frankfort community and got lots of encouragement. With the support of CommonWealth Gardens' members and help from the city I wrote my first grant.

In spring of 2012 Kris called to tell me we had received the Alliance for Community Trees \$5,000.00 People's Garden grant. He told me he was so excited he could hardly hold the phone. For me, the next few days were a mix of excitement and fear! I suddenly realized the full scope of the work that would be involved. I sent out calls for help and help poured in. Four community groups agreed to sponsor one planting day each, the Kings' Center agreed to bring kids from the community center to participate in the planting and John Rodgers, vice-president of CommonWealth Gardens volunteered to till the site.

John poured sweat as he tried to till but even the tough BCS walk-behind tractor couldn't do the job. The soil was littered with debris from demolition of homes that had been there. The BCS kicked out broken clay pipes and bricks, concrete blocks and glass, and John was bounced off his feet more than once. We decided to plant into the existing sod. Some areas were dangerous due to broken glass so volunteers dug holes, removed the glass and refilled the holes with soil to allow children to safely dig.



Many happy children (and adults) planted trees for the first time with enthusiastic help from members of Frankfort High Earth Club, Capitol Area Master Gardeners, TREE Coalition, and Woods and Waters Land Trust. After all trees and shrubs were planted the sod was covered with cardboard and wood chips donated by Woodland Tree Care. After four sweltering hot days, hundreds of volunteer hours, truckloads of cardboard and mountains of mulch Fantasy Forest was becoming a reality. The community and Parks and Recreation employees continued to support the project.

Diligent watering by park employees kept the plants alive during a very hot, very dry summer. Members of Capital Area Master Gardeners donated a structure to raise caterpillars to butterflies that has been very popular with kids—young and old. Volunteers have donated bird houses, a bat house, picnic tables, a kiosk and wildflowers. The city of Frankfort provided bird feeders and seed. Volunteers worked all summer to remove invasive species and keep the beds weeded. Soon after the forest was planted volunteers started a Nature Club with kids from the Kings' center.

Volunteers continue to support the forest by weeding, mulching and planting during monthly work parties. Kids look forward to the weekly Nature Club. Fantasy Forest is now home to nearly 100 species of trees and shrubs and almost as many wildflowers. Birds, butterflies, pollinators and neighborhood children (and adults!) love their micro-forest.



Reading a book about “bugs” changed the course of my professional career and resulted in the creation of Frankfort’s first intentionally planted urban forest. I have landscaped with native plants personally and professionally for nearly 30 years. Most of my clients want to attract butterflies and I love butterflies so I have planted lots of butterfly gardens. Several years ago Lexington’s “butterfly momma” Betty Hall gave me a copy of *Bringing Nature Home* by Dr. Douglas Tallamy. I realized that although the gardens I designed were attracting lots of butterflies they weren’t really doing the job they needed to do.

Dr. Tallamy’s book points out that butterflies and moths, along with most native insects are *host specific*—in their larval form they can eat only leaves of *native* plants. I was very surprised to learn that the host plants for most of our beautiful butterflies and moths are *trees and shrubs*. A butterfly garden *needs* trees and shrubs! I started to design butterfly gardens that were more like forests: they included woody host plants for larvae as well as nectar plants for adults. Butterfly micro-forests also attract many species of birds. Adult birds eat at least some insects and virtually all baby birds (including hummingbirds!) can only eat insects, primarily caterpillars.

#### Landscaping with Native Woody Plants:

*Native Trees, Shrubs, and Vines for Urban and Rural America* by Gary L. Hightshoe

*Native Trees, Shrubs, and Vines* by William Cullina

#### Gardening for butterflies and pollinators:

[www.ChrysalisNaturalLandscapes.com](http://www.ChrysalisNaturalLandscapes.com)

[www.BettyHallPhotography.com](http://www.BettyHallPhotography.com)

[www.WildOnes.org](http://www.WildOnes.org)

*Attracting Native Pollinators* by Xerces Society

(Continued from page 1)



Sassafras at the beginning of the fall foliage season. October 2013.  
Natural Bridge, KY

only dwarf iris and other small herbs were in bloom. But, in my mind's eye, that understory would have been spectacular. Can't you imagine it? (Google image search of red buckeye: <http://goo.gl/QalAH>).

**Mountain pepperbush (*Clethra acuminata*)** – This is a small tree that I commonly saw in ravines with little disturbance. What struck me the most was the stripy, multi-colored bark – see here: <http://people.duke.edu/~cwcook/trees/clac.html> - it really blew me away. Finely textured leaves, delicate white flowers, and that astounding bark.

**Sassafras (*Sassafras albidum*)** – Aww, you know this tree. This is a common tree, but why is it not planted in many yards? An Asian architecture, yellow to orange color in the fall, tasty twigs and those lovely, multi-shaped – what is not to love?

**Sourwood (*Oxydendrum arboreum*)** – Shiny & tasty green leaves early in the season. Dark-ish, rough bark. Pagoda-like arrangement of flowers and fruit. Red, red, red autumn leaves. Need more be said?

stripy, shaggy, multi-colored bark of a mature mountain pepperbush (*Clethra acuminata*)? Once you see it, you'll know it is a good yard tree for near your house. How about sassafras? With three leaf shapes: 3-fingered glove, mitten, and the other one (elliptic or oval), tasty twigs, and an architecture that is Asian-esque, you got yourself a fine yard tree. I could go on [and will in this article]...

Here are a few of the many potential trees that would make for nice yard trees in Kentucky.

### Small Trees

**Red or bottlebrush buckeye (*Aesculus* spp.)** – Perhaps one of my favorite memories on potential occurred in the Sipsey Wilderness Area in northern Alabama. While hiking to seek out some old-growth in that tract, the understory in first ca 1/3 of a mile was filled with buckeye. It was early enough in the spring season that



The cinnamon-colored bark on the small stem just right of center is the best picture I have of mountain pepperbush bark so far – apologies! Rock Creek, KY.

### **Larger Trees Not to Plant Near Your House In Windstorm Areas**

There is plenty of research on tree susceptibility to wind. Sandy helped revive some of that literature (Foster, 1988; Putz and Shartz, 1991) through a nice review in a Scientific American blog: (<http://blogs.scientificamerican.com/guest-blog/2012/11/12/why-do-trees-topple-in-a-storm/>). Basically, areas with shallow rooting (too wet or too dry) makes trees more susceptible to wind. Tall trees are more susceptible to wind and trees that have large foliage or more of a top-heavy form would be more susceptible to windfall. Strong, but resilient wood is less susceptible than brittle or weak wood.

But, what about species? How might you approach planting trees on your property? A few rules of thumb: deciduous or broadleaf trees are generally less susceptible to wind than pines and other conifers. Eastern white pine, loblolly pine, tulip-poplar, cherrybark oak, and northern red oak are among the tallest trees, which should make them susceptible (I have to say, tulip seems more elastic and might bend more in the wind).

When walking around after Sandy, it was amazing to see the patterns in neighborhood yards. Eastern white pine down or broken up crown – check. Norway maple shredded – check. You can learn a lot by taking apart trees for firewood. I dropped a few Norway maples. Detwigging them is illuminating. Pulling the branches back like you might with a wishbone leads to a popping off of the twig. Literally, they pop off. It is like Norway Maple branches are snapped on, not grown).



Sourwood autumn leaves and fruit. October 2013. Natural Bridge, KY.

Norway spruce? Topped. Northern red oak? Gosh, yes, check. It almost falls when you sneeze on it. I dropped a small maple on the edge of a friend's yard, but angled the drop incorrectly. It fell against a much bigger northern red oak. The next day I walked up to the house and looked over at the wedged tree when the oak gently, but inevitably, fell over. Surprisingly or not, I went into academia to be

*(Continued on page 12)*



Aftermath of Hurricane Sandy. Spruces have fallen [foreground, background] while the white oak are still standing. October 2012. Ossining, NY.

(Continued from page 11)



Pignut hickory in peak color. Palisades, NY. Nov 2013.

When you consider planting trees in your yard, investigate and consider how deeply a species roots naturally. Think about the species architecture. Is it a top-heavy species? Ponder the size of its leaves and how deciduous species are in general conditions. All trees fall. Minimizing this in your property while purposely developing years of spectacular autumn color will provide greatly anticipated events each year and memories that last for years.

### **A Few Favorite Tree Less Apt To Fall**

**Baldcypress (*Taxodium distichum*)** – A long, long, long-lived tree with deep, deep roots. As explained above, it just is not likely to fall...perhaps ever ;). It's fall color is not too bad - yellow to orangish-red to bronze colors.

come a forest ecologist rather than a forest manager just a few months later).

A superb study on windfall and tree species occurred in an old-growth forest in South Carolina after Hurricane Hugo. Putz and Sharitz (1991) surveyed the bottomland hardwood forest and sloughs of the Congaree National Park soon after Hugo. Their insight is extremely instructive. Only one –one! - baldcypress was observed to have uprooted in the eight days of field work and it seems that the one tree was not in any of the surveyed plots. In stark contrast, only 46 of the 100 loblolly pine surveyed in plots survived Hugo. The tap-rooted and broad root system of the baldcypress, anchored by their knees, gave them increased resistance to Hugo's winds. Further, the small, feathery, and deciduous needles of the baldcypress catches less wind (and ice, snow, etc.) than the heavily-needled loblolly pine or wind-gathering leaves of cherrybark pine or sweetgum. While water tupelo (*Nyssa aquatica*) took much crown damage from the wind, it was less apt to falling. It was observed to have been severely defoliated. Sometimes letting go of possessions saves you.



Sugar maple. October 2012. Nyack, NY.



The red leaves of a glorious white oak. Blauvelt State Park, NY. Nov 2013.

**Pignut hickory (*Carya glabra*)** – A medium-sized tree that lives more than 300 years that in a fairly rare genus, this species grows a taproot that will anchor it into the ground. And, it has pretty great color. Some years this species can really shine .

**Sugar maple (*Acer sacharum*)** – The official tree of Canada (or at least their flag). This is a tree that has a low-ish center of gravity and less apt to fall. And, it has great color. The biggest shortcoming is that it is a bit of a Yankee tree, in that it has a more of a northerly distribution. It could be more sensitive to climate change. You could also go for Florida maple (*Acer barbatum*).

**Chinkapin oak (*Quercus muehlenbergii*)** – A long-lived, medium-sized tree that just feels sturdy. Similar to sugar maple, it seems to have a low-ish center of gravity and less apt to fall. And, it has great color. The biggest shortcoming is that it's autumn color is not up to maple standards, but yellow to bronze colors is much like pizza: not too bad.

**White oak (*Quercus alba*)** – A long-lived, tree that grow to large sizes (I just cannot resist adding this one to the list). However, if you plant it in a dense setting with other trees, you can likely slow it's roll and minimize canopy size. This might make it more resistant to wind than it naturally might be. Because, not only is it's bark wonderfully outrageous, some individuals can compete with red maple for color.

#### Citations:

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Available here: <http://www.nrcresearchpress.com/doi/abs/10.1139/x91-244#.UnVjzCgkfg>

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## Kentucky Conservation Committee

**The Kentucky Native Plant Society is an official Affiliate of the Kentucky Conservation Committee!**

The KCC is the state's only organization dedicated solely to providing a non-partisan voice for Kentucky's environmental community in Frankfort. KCC works to make sound environmental stewardship a priority for elected officials and voters. For more information on KCC's activities, just go to:

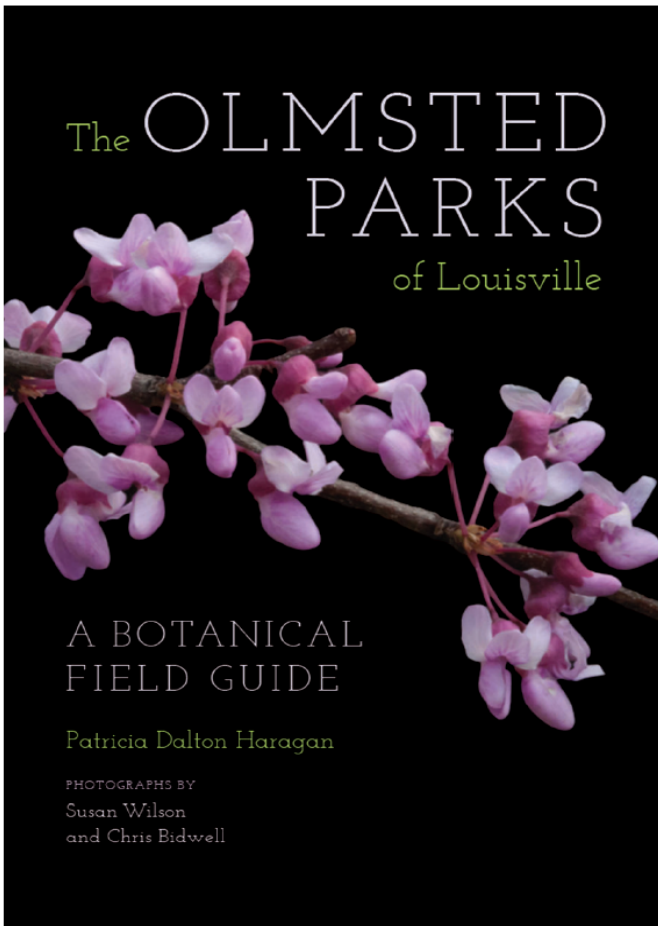
[www.kyconservation.org](http://www.kyconservation.org)

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## NEW IN 2014



*The Olmsted Parks of Louisville* is the first authoritative manual on the 380 species of trees, herbaceous plants, shrubs, and vines populating the nearly 1,900 acres that comprise Cherokee, Seneca, Iroquois, Shawnee, and Chickasaw Parks. Designed for easy reference, this handy field guide includes detailed photos and maps as well as ecological and historical information about each park. Author Patricia Dalton Haragan also includes sections detailing the many species of invasive plants in the parks and discusses the native flora that they displaced.

This guide provides readers with a key to Olmsted's vision, revealing how various plant species were arranged to emphasize the beauty and grandeur of nature. It will serve as an essential resource for students, nature enthusiasts, and the more than ten thousand visitors who use the parks.

"Haragan provides a comprehensive treatment of the Olmsted Parks in Louisville. A much needed resource for visitors and for anyone interested in plant life, the book is a significant contribution to the literature on the flora of Kentucky, and is unlike any other recent Kentucky book."

-Ronald L. Jones, author of *Plant Life of Kentucky*

"*The Olmsted Parks of Louisville* will take its place as an important contribution to the botany of the region, spotlighting the flora of a biologically and historically rich set of municipal parks, researched and presented by one of the very best botanists in the state.

-Rob Paratley, curator of the University of Kentucky Herbarium

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Kentucky Native Plant Society  
801 Schenkel Lane  
Frankfort, KY 40601

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*The Kentucky Native Plant Society was founded in 1986 for everyone interested in the native plants, trees, and wildflowers of Kentucky. Plants are essential to both the well-being of our Commonwealth's natural ecosystems and our enjoyment of its unique environment. With members in Kentucky and neighboring states, the Kentucky Native Plant Society is a leader in promoting education about, appreciation for, and conservation of the native flora of our Commonwealth.*