# The Lady-Slipper

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## New England Aster: 2010 Wildflower of the Year

By Mary Carol Cooper, Salato Center Native Plant Program Coordinator

Inside this issue:



The *Wildflower of the Year* is chosen based on the number of nominations it receives and this year more wildflower enthusiasts statewide voted than ever before! They chose New England Aster *(Symphyotrichum novae-angliae*) as the Salato Native Plant Program *Wildflower of the Year* for 2010. *Aster* comes from the Greek word for "star." It describes the star-like form of the flower. Other familiar words using "aster" are astronomy, astrology and astronaut. According to Greek legend, the aster was created out of stardust when Virgo (the maiden Astraea, goddess of innocence and purity) looking down from heaven, wept. Asters were scared to all the gods and goddesses and beautiful wreaths made from the blossoms were placed on temple altars on very important festive occasions. Known in France as "eye of Christ" and in Germany as starworts, asters were often burned to keep away evil spirits. A hodgepodge of asters was thought to cure the bite of a mad dog. Shakers used the plant to clear their complexions and ancient Greeks used it as an antidote for snakebites and to drive away snakes. Virgil believed that boiling aster leaves in wine and placing them close to a hive of bees would improve the honey. Native Americans found many uses for asters, from treating skin rashes and earaches to stomach pains and intestinal fevers. Nerve medicines and cures for insanity were made from some asters and others were eaten as food. Some were smoked in pipes as a charm to attract game, especially deer. Today there are no medical uses for asters.

**New England Aster, photo by Thomas G. Barnes**

The genus *Aster* has recently undergone a name change due to close study using DNA testing and other techniques. There are about 150 flowering plants in North America traditionally placed in the aster genus. About 50 of them are considered common and widespread. Now there is only one species left with the name *Aster*. The other species have been given several tongue-twisting generic names. For the botanist, renaming of the asters brought accuracy and order. For the layperson, it removed some wonderfully colorful names and replaced them with unspellable and unpronounceable names! *Aster novae-angliae* was translated as "star of New England" and now as *Symphyotrichum novae-angliae*, it is literally "fused hairs of New England." The word *Symphyotrichum* was created in 1832 to describe the hairs on the seeds of a European plant.

New England Aster is an erect perennial that grows to a height of 2' to 6' tall with a stout root crown or thick, short rhizome and clustered stems, usually with spreading hairs. The leaves are alternate, sessile, entire, lanceolate, 1" to 4" long with pointed lobes at the base that conspicuously clasp the stem. The ray flowers range from violet, rose, or magenta and are very showy. The disk flowers are yellow. This aster is one of our largest and showiest asters. There can be from 40 to 80 ray flowers on a head! These asters bloom from August to October and are a critical late-season nectar plant for butterflies, especially the Monarch, that stock up for their long migration to Mexico. New England Asters are found in mesic to wet open woods and fields across Kentucky. They prefer average to moist soil and full sun. Not only are the New England Asters critical for Monarch butterflies, it is the host plant for the Pearl Crescent and one of the host plants for the Saddleback Caterpillar Moth. Several game birds, including the wild turkey, a few songbirds, including the tree sparrow, and small mammals, such as the chipmunk and white-footed mouse, feed on the leaves and seeds. Work plantings of New England Aster into your fall landscape. Use them singly or in small groups in the rear of a sunny border. They look

*(Continued on page 3)*

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# The President's Message

By Alan Nations

Thanks to all those who attended Wildflower weekend. It was a great success. Our officers and board members did a superb job putting it together. We had over 100 folks register, a few less than last year. The threat of rain may have kept some from attending, but no hikes were rained out and most were well attended. The bloom timing was especially good, with many reports of unusual sightings. Our guest speakers were the highlight of the evening as always. A great weekend was enjoyed by all.

At this time of year many people are devoting their attention to their lawns and gardens, buying and replacing plants and trees and putting in vegetable gardens. This year please consider planting native Kentucky plants. Two components of our mission are to preserve and protect Kentucky native plants and ecological systems. You can help support our mission at your home or in your community, by using and encouraging the use of native plants. Micro systems can be created even in small areas using the right selection of plants and organic material to create habitat for many beneficial insects, butterflies, birds and small mammals. Natural areas also make interesting features, enhancing the environment around your home. Native plants do not need fertilizer or pesticides, and once established, they don't need to be watered. When planting, be sure to choose a location with conditions that are suitable to the species.

***"Native plants do not need fertilizer or pesticides, and once established, they don't need to be watered."***

If you have questions, write to us at our web site. We will direct your question to someone who can help. Our website's "KNPS Information" page contains information about native plants, as well as links ("Native Plant Resources") to local nurseries that specialize in Kentucky native plants. They provide plants and information that are vital to our mission, and they deserve our support.

I will leave you with my favorite slogan "Grow Native Kentucky"!

# WANTED:

## YOUR CONTRIBUTION!

The KNPS *Ladyslipper* is fortunate to have articles written by many of Kentucky's leading botanists, but we want all of our members to have a voice. Send us any thoughts you may have on the articles in this issue, or anything else KNPS related, by e-mailing info@knps.org with the subject "Letter to the Ladyslipper". Have an idea for an article or know about a native plant event in your area? We'd like to hear about them as well!

*(Wildflower of the Year, continued from page 1)*

beautiful with our native sunflowers, goldenrods, mistflower and rose mallow. They are also perfect for rain gardens as they thrive on moist to dry soil. They are easy to naturalize in roadside ditches, road banks, and open grassy areas. A sunny site where soil remains moist throughout the season is also ideal. Asters have always been recognized as decorations. The flowers of most species last several days after being picked and put into vases, so what better than New England Asters in beautiful fall arrangements along with other fall bloomers.

**Packets of free seeds are available at the Salato Wildlife Education Center!**

**Cardinal flower, photo by Thomas G. Barnes**

**Previous "Wildflowers of the Year"** :

**1997** Butterfly Milkweed (*Asclepias tuberosa*)
**1998** Cardinal Flower (*Lobelia cardinalis*)
**1999** Purple Coneflower (*Echinacea purpurea)*
**2000** Wild Columbine (*Aquilegia canadensis*)
**2001** Wild Bergamot (*Monarda fistulosa*)
**2002** Great Blue Lobelia (*Lobelia siphilitica*)
**2003** Spiked Blazing Star (*Liatris spicata)*
**2004** Joe-Pye Weed (*Eupatorium maculatum*)
**2005** Showy Goldenrod (*Solidago speciosa*)
**2006** Orange Coneflower (*Rudbeckia fulgida*)
**2007** Black-eyed Susan *(Rudbeckia hirta)*
**2008** Cup Plant *(Silphium perfoliatum)*
**2009** False Blue Indigo *(Baptisia australis)*

**Showy goldenrod, photo by Thomas G. Barnes**

# Wetland Plant Species Presence in Ecological Gradients: the Physiographic Regions of KY

By Will Overbeck, Eastern Kentucky University

Kentucky native aquatic and wetland vegetation forms distinct communities varying with the changing physiographic regions across the state (Figure 1). The Mississippi Embayment is a low elevation area near the Mississippi River in western Kentucky characterized by bald cypress swamps, wet-mesic floodplain forests, and many aquatic and open wetland communities. The Interior Low Plateaus is a wide ranging region characterized by limestone geology and containing mostly artificial lakes and ponds, wet-mesic flatwoods and floodplain forests, and many miles of riparian wetland habitat. The Appalachian Plateau is the eastern section of Kentucky characterized by acidic wetlands, flatwoods, and riparian forest.. Some plants find their habitat requirements met in every physiographic region like duckweed (*Lemna minor*). Other plants are restricted to local habitats such as sphagnum moss (*Sphagnum* spp.), which occurs only in acidic wetlands.

**Mississippi embayment, photo by Neil Pederson**

Mississippi Embayment (ME) vegetation is a northern terminus of the coastal plain plant community extending from the Gulf of Mexico up the Mississippi River as far as Southern Illinois. Plant communities are dominated by hydrophytes generally tolerating seasonal or permanent flooding. Emergent plants of shorelines include *Zizaniopsis miliacea* (southern wild rice), *Echinodorus cordifolius* (creeping burhead), *Sagittaria montevidensis* (Mississippi arrowhead), *S .graminea* (grass leaved sagittaria), *Pontederia cordata* (pickerel weed), and the wide ranging species *Leersia oryzoides* (rice cut grass), *Sagittaria latifolia* (broad leaved arrowhead), and *Equisetum hyemale* (horse tail). On the banks of shores grow commonly widespread deciduous trees and shrubs such as *Amorpha fruticosa* (false indigo), *Asimina triloba* (pawpaw), *Diospyros virginiana* (persimmon), *Morus rubra* (red mulberry), *Acer saccharinum* (silver maple), *A. negundo* (box-elder maple), *Rhus glabra* (smooth sumac), *and Cornus drummundii* (rough leaved dogwood). Other more restricted ME wet-mesic forest trees are *Quercus texana* (Nuttall's oak), *Q. pagoda* (cherrybark oak), *Q. lyrata* (overcup oak), *Quercus michauxii* (swamp chestnut oak), *Taxodium distichum* (bald cypress), *Carya illinoinensis* (pecan hickory), *Gleditsia aquatica* (water locust), and *Celtis laevigata* (sugarberry). Understory trees are *Forestiera acuminata* (water privet), *Planera aquatica* (plane tree), and *Ilex decidua* (swamp holly). Many lianas are present including *Toxicodendron radicans* (poison ivy), *Parthenocissus quinquefolia* (Virginia creeper), *Berchemia scandens* (supple jack), *Ampelopsis arborea* (raccoon berry), *and A. cordata* (raccoon-grape). Herbaceous layer plants are *Leersia lenticularis* (catchfly grass), *Lobelia cardinalis* (cardinal flower), *Polygonum spp.* (smartweeds), *Diodia virginiana* (buttonweed), *Mikania scandens* (climbing hempweed), *Boehmeria cylindrica* (false nettle), *Hibiscus laevis* (smooth rose-mallow), *Impatiens capensis* (jewel weed), and the woody grass *Arundinaria gigantea* (giant cane). This region also contains a high proportion of open wetland and aquatic species: *Cabomba caroliniana* (fanwort), *Limnobium spongia* (frog's bit), *Hydrocotyle ranunculoides* (water penny), *Azolla caroliniana* (mosquito fern), *Nelumbo lutea* (water lotus), *Nuphar advena* (yellow pond-lily), *Potamogeton* spp., and many others.

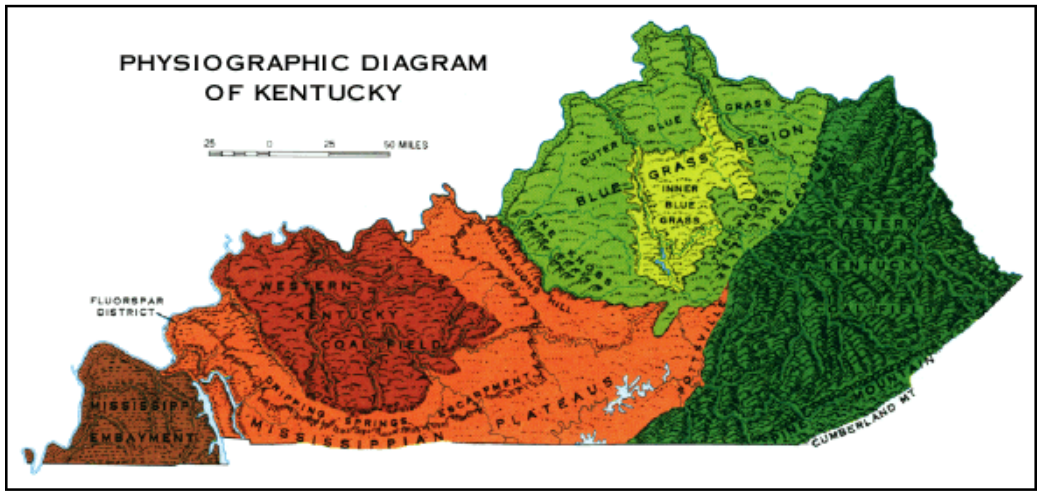
In the Interior Low Plateaus (IP), wetlands often are seasonal due to karst topography which drains the vernal streams into limestone. Soils in this area are basic to neutral in pH and many calcium associated plant species occupy the drainages of both the Mississippian limestone and Ordivician limestone regions of Kentucky. In wet-mesic forests along riparian corridors *Fraxinus pennsylvanica* (green ash), *Ulmus americanus* (white elm), *Acer saccharum* (sugar maple), *A. rubrum* (red maple), *Nyssa sylvatica* (blackgum), *Quercus imbricaria* (shingle oak), *Q. palustris* (pin oak), *Quercus macrocarpa* (bur oak), and *Quercus bicolor* (swamp oak) are all adapted to fertile silt-loam creek terraces, flatwoods, and swampy depressions. In some cases blackgum, redmaple and wetland oaks form dominant stands. Also present in wet-mesic creek uplands are *Fraxinus americana* (white ash) and *Juglans nigra* (black walnut). Sycamore (*Platanus occidentalis)* and silver maples are important trees stabilizing banks of eroding creeks, especially in localities where agriculture has accelerated runoff pollution. Understory and brushy ecotones contain

**Interior Low Plateau, KSNPC file photo**

small trees and woody shrubs such as *Carpinus caroliniana* (musclewood), *Viburnum prunifolium* (black haw), and *Ostrya virginiana* (ironwood). Herbs include *Lobelia siphilitica* (blue lobelia), *Agrimonia parviflora* (swamp agrimony), *Eupatorium perfoliatum* (boneset), *Symphyotrichum nove-angliae* (New England aster), *Asclepias incarnata* (swamp milkweed), and *Euthamia graminifolia* (grass leaved goldenrod). Often, *Scirpus atrovirens* (dark green bulrush) or *Juncus tenuis* (path rush) accompany the many grasses (*Dichanthelium* spp. and *Elymus* spp., *etc.)* and sedges (*Carex spp)*. In permanently flooded open wetlands (ponds, marshes) emergent and aquatic plants adapted to eutrophic (nutrient rich) conditions exist. Common plants of aquatic open water are *Najas guadalupensis* (southern water-nymph), *Potamogeton nodosus* (longleaf pondweed), *P. foliosus* (leafy pondweed), and non-natives such as *Najas minor* (eutrophic water-nymph) and *Myriophyllum* spp (water-milfoils). Emergent marsh species include *Alisma subcordatum* (water plantain), *Typha latifolia* (broad leaved cattail), and many species of sedges and rushes.

In the Appalachian Plateaus (AP) region many wetlands have sandy and organic soils causing acidification especially where conifers or sphagnum mosses are present. Along sandy rivers *Betula nigra* (river birch) lines the shore. Forested wetlands are often dominated by blackgum and redmaple, along with sourwood (*Oxydendrum arboreum*), sweetgum (*Liquidambar styraciflua*), white oak (*Quercus alba*), and understory shrubs include *Vaccinium corymbosum* (high-bush blueberry), *Ilex opaca* (American holly), *Ilex verticillata* (winterberry holly, and wild azaleas (*Rhododendron* spp.). Interesting aquatic plants include the slippery *Brasenia schreberi* (water shield) and the carnivorous *Utricularia gibba* (bladderwort). Emergent plant species such as *Proserpinaca palustris* (mermaidweed) and *Iris virginica* (wild blue iris) inhabit these marshy wetlands.

Each of these regions holds unique species indicative of different soils and natural histories of the plant communities. Over time plants adapted to the qualities present in habitats of the ME, IP, and AP; separated themselves into niches along ecological gradients where moisture, exposure, disturbance, and nutrient availability (etc.) shaped species composition. Species with narrowly restricted habitat requirements are only found in typical specialized conditions. Some species can grow across physiographic boundaries in Kentucky and have much more broader habitat requirements. By distinguishing these different species and their associated plant communities, many ecosystems can be descriptively understood. Often, describing the plant communities of a region can lead to greater understanding for land preservation and plant conservation, which is a main goal in ecological restoration.




**University of Kentucky, http://www.uky.edu/KentuckyAtlas/kentucky-atlasp.html**

# A Brit In Berea

## An Englishman's search for wildflowers

By Alan Grainger & Sherba Nelson, www.KentuckyFlora.com

The story began in the Spring of 2000 when I made my first trip to Kentucky as the guest of Sherba Nelson, a native Kentuckian, who had arranged for me to have a photo shoot at the Raven Run Nature Sanctuary with wildflower photographer Linda Fugate-Blumer. Further adventures took Sherba and I to Shaker Landing, Anglin Falls and deep into Blanton Forest until, at the end of two weeks, my appreciation of wildflowers, and the flora of Kentucky in particular, had increased exponentially.

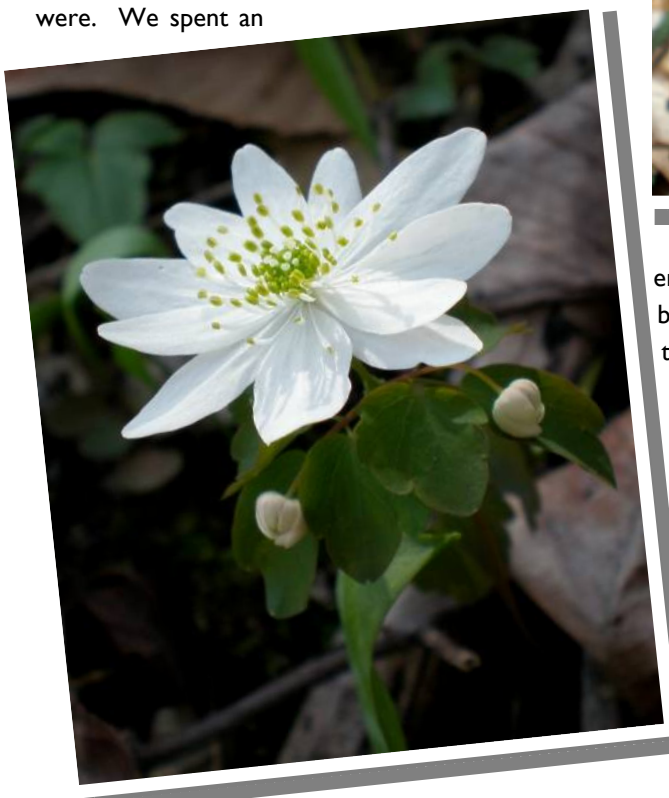
Was all this new to me? Not at all. I had been growing trilliums and erythroniums, hepaticas and bloodroots, back in England since the 1980s. It may come as a surprise to many of you that KY wildflowers fill the show benches at numerous competitive flower shows in the United Kingdom, where 12" clay pots are filled with gems such as Snow Trillium, Hepaticas and multi-petalled Bloodroots, but growing cultivated plants cannot, and does not, compare with the thrill of seeing one's first sessile trillium in the wild, and from that moment, my love of the Kentucky flora blossomed. Little did I know then, that some 8 years later, Sherba and I would become the husband and wife team behind the concept of www.KentuckyFlora.com, our contribution to those who share our passion for wildflowers.

The journey was not an easy one. Consider if you will, a per-

son born and raised in a city the size of Louisville. In a country (almost) devoid of anything that crawls, and with a nervous disposition towards anything reptilian. Then consider Sherba showing no fear at all, inviting me to join her in Copperhead country. This was truly the time for an in depth risk assessment. Rue anemones versus rattlesnakes, cottonmouths versus Cypripediums. In the end there was no contest. Our passion for the outdoors and anticipating the thrill of finding painted trilliums took us further afield as we strove to broaden our knowledge of the flora, until in April of 2006, we moved back from England to make our home in Berea where we could satisfy our need of living in near proximity to the natural beauty of the Kentucky woodlands.

In previous years, Sherba and I had led wildflower walks in the Dolomite Mountains of Northern Italy. Our clients were non-botanical, non-academic folks who wanted to walk in the mountains and have someone tell them about the flowers they were passing on their rambles. It became obvious to us that there was a keen interest in knowing what the flowers were, without the need to know how many anthers the plant had, or whether it was glabrous or hirsute.

This became more apparent to us whilst out hiking at Anglin Falls. An elderly couple were intrigued to see both Sherba and I lying prostrate in the leaf litter taking photographs of yellow trout lilies. They were regular hikers in the forest and had admired the wildflowers without knowing what they were. We spent an enjoyable twenty minutes or so introducing them to our native flora, the benefits of the KNPS, and the strict ethics of conservation. How ironic, that an Englishman was educating Kentuckians about their native plants.



So the next time you see us lying prone on the forest floor, don't call 911. We are simply looking for more flowers to photograph for the KentuckyFlora.com website It is our way of giving something back to the community, and a means of increasing our knowledge of this very special flora and the beautiful state that is Kentucky.

**All photos in this article are courtesy of Alan Grainger, www.KentuckyFlora.com**

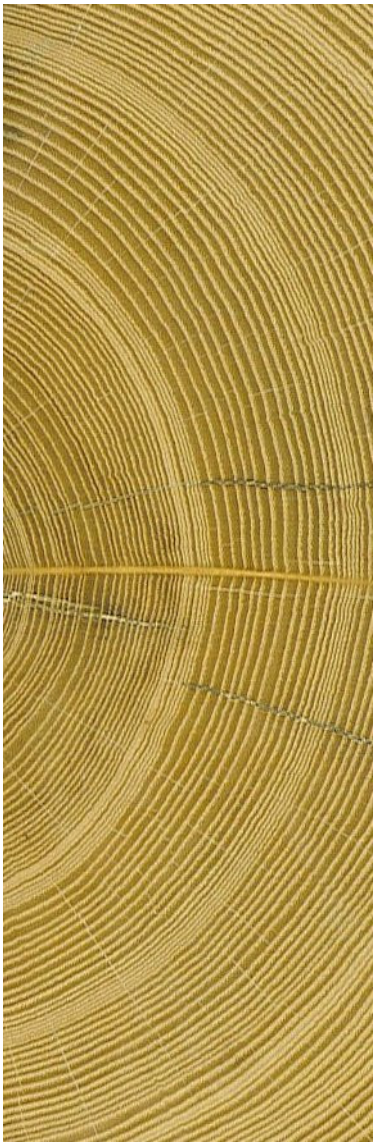
# Tall Tree Tales: Three odd and elegant denizens of the Bluegrass

By Dr. Neil Pederson & Dr. Ryan McEwan

The Bluegrass Region of Kentucky is in some ways the heart of The Commonwealth. It is home to its Capitol, largest city, flagship University and perhaps most importantly, Reed Valley Orchard (but that is a tale for another day). The Bluegrass Region is also exceedingly curious from an ecological perspective. The Bluegrass was settled very early and the landscape was quickly and massively altered by agricultural endeavors (mostly tobacco, horses, and cows) and later by sprawling subdivisions and shopping malls. The native ecosystem of the Bluegrass is the subject of some mystery, with players like giant cane, and bison, and even bluegrass itself (*Poa pratensis*) is the subject of debate about whether it is native or a European import. What was the native structure of the Bluegrass Region? That is an open question that we cannot answer here. What we can do is tell tales about some of the fabulous oddball trees of the region…

**The Curious Calciphile Cousin- Blue ash (*Fraxinus quadrangulata*).**

Blue ash is a frequently encountered tree for folks who (like us) prefer to travel the deep backroads of the Bluegrass Region. It is a frequent and striking feature of pasturelands in the region. Often broken topped with a rough silhouette, we have tree-ring data from some of these trees going up to 249 years (so far!) This species has angled stems (hence the species name *quadrangulata*) and the bark has been used to produce bluish dye. Henry Clay had an affinity for this species and planted it at his estate "Ashland" in Lexington. Henry was right, it is a real nice tree…but what is it *doing* here? How does this species fit in this ecosystem? We actually are baffled by this species ourselves, but here are some observations. First, we have noted this species in forests, especially on limestone slopes. In those locations it is relatively infrequent, a minor contributor to the forest. It acts ecologically a bit like its well-understood cousin white ash (*Fraxinus americana*) a minor component of diverse forests on slopes. We have noted substantial seedling and sapling regeneration of this species, along trails, etc. In the "Bluegrass Savanna" of central Kentucky we have data to suggest this species can make it as seedlings in the fescue matrix that these trees are most often found in. Can these seedlings make it to large trees? This is unknown. In fact, perhaps the most pressing need for ecological research and restoration in areas such at Griffith Woods, which has a fabulous collection of old blue ash, is trying to establish some semblance of population structure to the system, with old trees, mature trees, saplings, and seedlings. Currently the structure is two-aged: > 150 yrs old and <5 yrs old which is extremely vulnerable, to say the least.



**Blue ash beam section from Centerville, KY**

**Photo from USDA-NRCS PLANTS Database**

**Daniel's Dioecious Draught-Kentucky coffee-tree *(Gymnocladus dioicus)***

The Kentucky coffee-tree is so named because, as legend has it, early settlers, including Daniel Boone, used the "bean pods" to make a hot drink which served as a bitter substitute for coffee. We know some folks who have tried this, and sufficient to say, it ain't good. This species was once the state tree, an honor it lost to yellow-poplar a few years back after a series of legislative quarrels. Kentucky coffee-tree is a fairly common species in the Bluegrass Region where it is found in occasionally along the edges of woodlots, less frequently in forest interiors and relatively frequently along fence rows. It is well-adapted to the soils of central Kentucky, has large compound leaves that make for a "lacy" look in the summer, and interesting, wavy-flaky bark which (we think) makes it a fabulous ornamental tree; the bark is kind of reminiscent of a hippie'ish black cherry. It is a leg-

ume and looks a bit like its distant cousin *Acacia*. By the way, the wood is gorgeous! But, how does this species function ecologically? We have seen this tree only a few times in forest settings. It does well in fence rows, and we have seen it occasionally in woodlots. We have seen it in the forests of Knobs, especially on edges. In Berea Forest we have noted this species growing along overgrown, old roads. We have never seen this species growing in a forest where we saw clearly viable population structure. Perhaps this species functions similarly to its cousin black locust, which typically follows disturbance? We think it can coppice, too. Confounding our understanding greatly is the fact that its seeds are thought to be adapted to dispersal by now extinct megafauna such as the giant sloth, or perhaps wooly mammoths!

***"...preserving the biological heritage of the Inner Bluegrass Region is ultimately a race to develop our understanding..."***

**The Enigmatic Beauty Queen of the Palisades: Yellow-wood (*Cladrastis kentuckea*)**

**Yellow-wood section, photo by Neil Pederson**

Yellow-wood could be the most mysterious tree in the flora of Kentucky. This baffling species is quite attractive. Its bark is grey and smooth. The foliage is compound, lacy, and perfectly "green." This species is a member of the legume family and has wonderful, hooded white flowers. And the wood – the wood! When Neil first encountered a fallen yellow-wood at a resort hotel in the Hudson Valley of N.Y. State, the bright and deeply colored yellow wood made him immediately suspect this was another one of those odd trees from Asia. "*Eastern North America doesn't produce tree species like that*!" he thought. The color of the wood seems artificial or man-made, even (and he is kicking himself for not taking a picture of the wood then– although he has since— as there are hardly any on the internet). In all of our hikes in Kentucky we have come across this species only a handful of times. Each time it has been in the palisades, growing on rocky limestone slopes. We have never seen this species growing into the canopy of a forest in the Inner Bluegrass (although it can get relatively large – we and colleagues have seen larger individuals in southeastern KY and the Smoky Mountains). We have rarely seen evidence of population structure for this species. On the Palisades cliffs in Tom Dorman there is a strong population of seedlings and small trees. When we stumble on this tree, it usually makes our day. We have no clue what the ecological role of this species may be in Kentucky forests, and are not sure more than five people in this world do either! Is it somehow adapted to survive generation to generation as an exceedingly rare species? Is there some landscape process missing, the replacement of which would enhance the success of this species? We do note that it does seem to coppice pretty well, so chances are that the individuals existing today will survive through the ages unless their habitat is destroyed, they are severely weakened by an introduced disease or pest or the climate changes beyond the tolerances of each tree's genetics.

**Closing Remarks**

Much remains unknown about these three unruly and charismatic megaflora. Restoration and management of these species, and this mysterious landscape, is clearly an ongoing challenge. In our view, preserving the biological heritage of the Inner Bluegrass Region is ultimately a race to develop our understanding of the ecology of this system before vulnerable and small populations of unusual species are snuffed out by the most heinous of all tree diseases- asphalt plague. Runners take your mark, get set,…

# How Native Plants Can Help Your Veggies

By Margaret Shea, Dropseed Native Plant Nursery

Are you shocked to hear that there are 4,000 bee species native to the US? I was! Pests and diseases have hurt populations of imported Honey Bees over the past several years, causing farmers to worry about pollination of their crops. Many vegetables and fruits require pollination by bees, and insufficient numbers of bees can be one reason for reduced crop yield. You can increase the abundance of native bees in your vegetable patch or farm by providing them with food and habitat.

A couple native bees you might be familiar with are Bumble Bees and Sweat Bees. Some bees that were new to me include the Mason Bees, Andrenid Bees and Leafcutter Bees. These native bees nest in the ground, wood, or hollow plant stems. Many of the native bees are solitary and do not live in a large hive like the honey bees. Since they do not have a hive to protect, native bees tend to be less aggressive and are unlikely to sting. Having some untilled soil and other vegetation around your vegetable garden will provide habitat for these bees. Growing native plants near your vegetable garden will provide additional nectar and pollen - attracting bees and allowing their populations to grow. A source of water is also important for native bees as well as honey bees.

Native plants that are especially attractive to bees include: Golden Alexanders, Hairy Beardtongue, Culver's Root, Bee Balm, Slender Mt. Mint, and Smooth Blue Aster. Using a mix of species that flower throughout the season will give bees a constant source of food, and keep them near your vegetable garden throughout the growing season.

There are other insects that are good to have around your vegetable garden – and native plants can draw these species in as well. Insects like Lady Bugs and the Minute Pirate Bug are predators, eating pest insects like aphids, whiteflies and mealybugs. Other beneficial insects are called parasitoids – these insects lay their eggs in a host insect - their young eat and kill the host. Many parasatoids are wasp species, although these wasps do not sting. Parasitoids can kill pests like caterpillars and beetles. Beneficial predators and parasitoids also feed on nectar and are attracted to species including Rattlesnake Master, Boneset, New England Aster, Cup Plant, Blue Lobelia, and Yellow Coneflower. Growing these plants near your vegetable garden can help to create a balanced system, with pest insects under control. Plus, make it much prettier!!

Michigan State University has some helpful publications on beneficial insects that you can download online at: http://nativeplants.msu.edu/publications.htm .

**Bumble bee and carpenter bee, from "Bees of Kentucky", http://www.uky.edu/Ag/CritterFiles/casefile/insects/wasps/bees/bees.htm**

## A non-native scale is infesting the native strawberry bush (*Euonymus americana*) throughout Kentucky.

## What does this mean for the bittersweet family?

By Tara Littlefield, KSNPC Botanist

A non-native armored scale insect from Asia (Japan) has been plaguing several native species of the bittersweet family throughout Kentucky. Euonymus scale (*Unaspis euonymi*) has been recently noticed on strawberry bush (*Euonymus americana*) throughout Kentucky, where the scale has formed mild to severe infestations that in some cases are resulting in mortality. The euonymus scale has been confirmed on many of the remaining mountain lover (*Paxistima canbyi*) patches that exist within Kentucky, but it is unknown how the scale is affecting other members of the bittersweet family such as American bittersweet (*Celastrus scandens*), wahoo (*Euonymus atropurpureus*), and running strawberry bush (*Euonymus obovata*). The scale is particularly damaging to evergreen species and may cause leaf dieback by midsummer and loss of branches. The scale has been observed throughout Kentucky, especially on the non-native invasive wintercreeper (*Euonymus fortunei*). It is still uncertain what this means for the native members of the bittersweet family.

**Heavy infestation of euonymus scale infesting strawberry bush (*Euonymus americana*), photo by Tara Littlefield**

## Certification Program Update

During a March board meeting at the Salato Center in Frankfort, the board voted to suspend the Native Plant Studies Certification Program. This decision was made in order to allow for revision of the program requirements. We welcome any input on the current program, and we welcome anyone who would like to serve on the certification committee to help in the planning process.

We are also in the process of starting up a new certification program, the Native Plant Stewardship Certification program. This will be launched next year with a full schedule of the three one-day courses required. We are in the course development stage for this certification, and welcome any input on that as well. This program will be more focused on management of native plants and communities, and will include a heavy volunteer component (outside of the courses).

If you would like to provide input about either program or serve on the conservation committee, please send an e-mail to info@knps.org Thanks!

## Wildflower Weekend 2010 Report

By Brian Gasdorf, Natural Bridge State Park

Trilliums, lady slippers, whorled pogonia, and sweet pinesap can make a wildflower enthusiast's face glow with the the radiance of botanical bliss. Despite the less than perfect weather forecast for the weekend, there were many glowing faces during the field trips at Natural Bridge and in the Red River Gorge Geological Area. Anytime the large flowered trillium and the pink and yellow lady slippers are blooming simultaneously, you know you've come to Natural Bridge at a good time. Other showy favorites, such as purple phacelia and wild geranium, were in all their splendor as well. Over 100 participants enjoyed the weekend field trips and evening presentations.

KNPS would like to thank Dr. Ross Clark, Dr. Carol Baskin and Dr. Jerry Baskin their enlightening and informative evening presentations during the Wildflower Weekend. Dr. Ross Clark, retired professor of biological sciences at Eastern Kentucky University, gave a presentation on Kentucky's Woody Plants which included data and maps from his recently released publication, Annotated Atlas of Kentucky Woody Plants. Dr. Carol Baskin and Dr. Jerry Baskin, Professors of Biology with the University of Kentucky, gave an in depth presentation about their life's work and research on cedar glades and xeric limestone prairies of the eastern United States. To wrap up the presentations biologist John MacGregor, with the KY Department of Fish and Wildlife Resources, presented a heart felt tribute to honor the life of his friend and fellow biologist, Hal Bryan.

Be sure to mark your calendar for next years' celebration of the KNPS's 25th anniversary during Wildflower Weekend on April 29th - May 1st, 2011 at Natural Bridge State Resort Park!

**Join the KNPS Facebook group!**

Join our facebook Group

Just click below!

http://www.facebook.com/group.php?gid=69397006016

## CALLING ALL PHOTOGRAPHERS!

Did you attend the 2010 Wildflower Weekend at Natural Bridge? Then send your three best Wildflower Weekend photos to dluzader@insightbb.com for entry into our

## 2nd Annual Wildflower Weekend Photo Contest!

Winners will be announced and photos published in in the next issue of *The Lady-Slipper*!

## Announcing the KNPS Fall Meeting at Shakertown

Saturday, September 11, 2010

Plans are underway to for the Fall meeting at Shakertown to be held in conjunction with the Kentucky Society of Natural History! Preliminary plans are for several field trips on Saturday morning and Saturday afternoon in the Kentucky River palisades region followed, by an evening program. Details will be posted to www.KNPS.org as they are available, but if you would like to reserve lodging, please contact Shaker Village at 1-800-734-5611.

## KNPS Field Trip to Roundstone Native Seed Nursery

Friday, July 2, 2010 from 1 PM— 4PM

KSNPC botanist Tara Littlefield will lead this visit to Kentucky's largest commercial native plant grower, Hart County's Roundstone Native Seed. Learn how Roundstone designs native plant plots, learn seed collection techniques, and see native plants commercially harvested. To register please e-mail tara.littlefield@ky.gov or call 502-573-2886 by June 25, 2010—limit 15 people.

## KNPS Field Trip to Bouteloua Barrens State Nature Preserve

Saturday, August 7, 2010 from 10 AM—12 PM

Join KSNPC manager Zeb Weese on this trip to the Lincoln County site named for the beautiful side-oats grama grass (*Bouteloua curtipendula*) that grows there. This 260-acre preserve protects the largest known native grassland in the Bluegrass Region and one of the largest in the entire state. The barrens communities consist of a patchwork of grassy cedar barrens and open glades with exposed gravel. Other rare species known from the site include state endangered hairy false gromwell (*Onosmodium hispidissimum*) and state special concern Roundheaded bush-clover (*Lespedeza capitata*). To register please e-mail zeb.weese@ky.gov by July 30, 2010—limit 12 people.

Kentucky Native Plant Society
801 Schenkel Lane
Frankfort, KY 40601

## 2010 KNPS Membership Application or Renewal

Detach and send to: Kentucky Native Plant Society / 801 Schenkel Lane / Frankfort, KY 40601

**Note: To pay by credit card or PayPal account, please visit the website www.knps.org.**

Name(s)*_____

E-mail(s)*_____

Address*_____

City, State, Zip*_____

Telephone_____

**Membership Type: (memberships are for calendar year)**

_____Individual $15 (includes e-newsletter)

_____Family $25 (includes e-newsletter to 1-4 e-mails)

_____Lifetime $200 (includes electronic newsletter indefinitely)

_____Additional gift (optional, tax-deductible)

**Total** _____ Check No. _____

* denotes required fields, we MUST have your e-mail address in order to distribute the newsletter!
Questions? E-mail "info@knps.org" for help!

*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.*