

## KSNPC Latest News:

- ◆ The 2014 Least Wanted Plant poster is now available. Learn what to do if you have this pest plant in your yard and how to plant responsibly. Joyce Bender has the info on Page 3.
- ◆ KSNPC wishes to thank these Elizabethtown Community and Technical College student volunteers for their help on recent work projects: Celina Charles, Michael Viers, Anjalise Jorgens, Krista Brady for their work at Apple Valley Glades SNP on March 22 and to Sherri Cook and Austin Hollis for their help at Vernon-Douglas SNP on April 22.
- ◆ Introducing the Natural Area Registry Spotlight, which focuses on the Registered Natural Areas Program. Brent Frazier explains on Page 4.
- ◆ Did you know more than 2,500 butterfly and moth species have been found in Kentucky; however, moths make up approximately 94 percent of that total!
- ◆ Although we strive to keep our newsletter upbeat, not all news is good news. Our director discusses a serious subject on Page 10.

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Yellow Trout Lily, Brigadoon SNP ~ Photo courtesy of Harold Kelley





# Kentucky Bio: Natural Diversity in the Commonwealth

By Mary Duncan, Kentucky Educational Television

Kentucky Educational Television (KET) has partnered with the Kentucky State Nature Preserves Commission (KSNPC), the University Press of Kentucky, the Kentucky Department of Fish and Wildlife Resources (KDFWR), and the Wickcliffe Mounds State Historic Site to develop an e-book for the 21<sup>st</sup> century classroom. *Kentucky Bio: Natural Diversity in the Commonwealth* was made possible through a grant from The Ryan Fund of the Green River Area Community Foundation and The Pentair Foundation.

Developed as a supplement to existing Kentucky-based curricula for grades 4-6, the multimedia e-book consists of five chapters. From “*What Is Biodiversity?*” to “*Why Is Biodiversity Important to You?*” Students learn about the unique natural and geographic diversity of our state and the ways in which they can help preserve the environment for future generations. The e-book also provides engaging learning experiences related to biology, geology, and environmental science concepts and vocabulary.

*Kentucky Bio* features images and interactives adapted from *Kentucky’s Natural Heritage: An Illustrated Guide to Biodiversity* published by KSNPC and the University Press of Kentucky. In just two of the many interactive elements, students will “*Design an Ecosystem*” and “*Follow Kentucky Through Geologic Time*.” The e-book also features video from the award-winning KET series *Kentucky Life* and KET educational resource collections such as *Think Garden* and *Water Solutions*.

According to Esther Tattershall, the *Kentucky Bio* producer, “At KET we think teachers do amazing work in the classroom every day. We want to support them in any way we can. In providing teachers with quality instructional resources like *Kentucky Bio*, we hope to partner with educators across the Commonwealth.” To check out this free, standards-based online resource, visit PBS LearningMedia via KET EncycloMedia or Kentucky iTunes U.

[Kentucky Bio: Natural Diversity in the Commonwealth](#) on PBS LearningMedia

[Kentucky Bio: Natural Diversity in the Commonwealth](#) on iTunes U



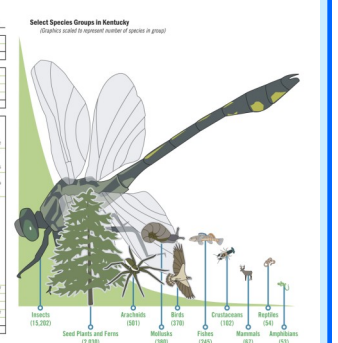
The Nature Preserves Commission has partnered with Kentucky Educational Television and the University Press of Kentucky to develop online resources on biodiversity for grades 4-8 and, in some instances, grades 4-12. These web interactives provides examples about biodiversity from Kentucky’s natural landscape; species and communities that children can relate to and reinforce from their own experience. These are based on images and information from *Kentucky’s Natural Heritage: An Illustrated Guide to Biodiversity*, which was written and

illustrated by commission staff and published by the University Press. Entitled *Kentucky’s Natural History: An Interactive Guide to Biodiversity*, this digital collection also includes video segments from *Kentucky Life*, KET’s popular weekly magazine program. The collection is available at PBS LearningMedia, a free online educational service offered through KET EncycloMedia.

Kentucky's Natural Heritage on PBS LearningMedia  
<http://ket.pbslearningmedia.org/collection/kentuckys-natural-heritage-an-interactive-guide-to-biodiversity/>

Number of Species by Select Groups

Group Name	Kentucky	North America	World
<b>Plant Kingdom</b>	12,000	22,000	300,000
• Ferns	1,000	1,500	10,000
• Gymnosperms	100	1,000	10,000
• Angiosperms	10,900	19,500	290,000
<b>Animal Kingdom</b>	30,000	80,000	1,500,000
• Mollusks	2,000	2,000	10,000
• Fishes	1,000	10,000	20,000
• Amphibians	100	1,000	5,000
• Reptiles	100	1,000	5,000
• Birds	100	1,000	10,000
• Mammals	100	1,000	5,000
• Insects	10,000	100,000	1,000,000
• Other arthropods	1,000	10,000	100,000
• Other vertebrates	1,000	10,000	100,000
<b>Other</b>	100	1,000	10,000
• Fungi	100	1,000	10,000
• Protists	100	1,000	10,000
• Plants	100	1,000	10,000
• Animals	100	1,000	10,000
• Other	100	1,000	10,000
<b>Total</b>	42,100	100,000	1,500,000





# Kentucky's Least Wanted Plants

By Joyce Bender, Nature Preserves and Natural Areas Branch Manager

The Kentucky Exotic Pest Plant Council (KY-EPPC) released its 2014 Least Wanted Plant poster in January. Every year since 2000, a non-native invasive plant has been named “Least Wanted” to raise awareness of the threat it poses to native biodiversity. An educational poster is developed by Bernheim Arboretum and Research Forest and KY-EPPC each year. The poster also provides three native alternatives for planting by conscientious gardeners, landscape architects and nursery growers. Copies of the poster are available for download at: <http://www.se-eppc.org/ky/leastwant.htm> or by contacting the commission.

This year’s poster features porcelain-berry (*Ampelopsis brevipedunculata*), a woody vine in the grape family. At a glance, the plant’s palmately-lobed leaves and tendrils appear similar to a grape vine. The brightly colored pink, turquoise and purple fruits are the most recognizable part of this plant. The tendency to overwhelm adjacent vegetation in a rapidly spreading leafy mat is one clue that the plant is an invasive species rather than a native grape or native *Ampelopsis* species. It inhibits the growth of young trees and shrubs, shades ground cover and impairs habitat for wildlife.



Photo courtesy of Leslie J. Mehroff

This species is originally from Asia and was brought to the United States as a landscape plant in the 1870s. It has spread throughout the eastern half of the country. Porcelain-berry is known from several counties in central Kentucky and it is thought to have been overlooked. There may be gaps in the distribution data, so if you can provide locations, please go to the Southeast Early Detection Network (SEEDN) website at <http://www.eddmaps.org/southeast/report/index.cfm> and follow the instructions.

Your help in tracking the extent of this invasive vine and other invasive plants provides a clearer understanding of their range and impact in Kentucky. The information you share will also be used to revise the KY-EPPC’s list of invasive plants that are most harmful to Kentucky’s native biodiversity.



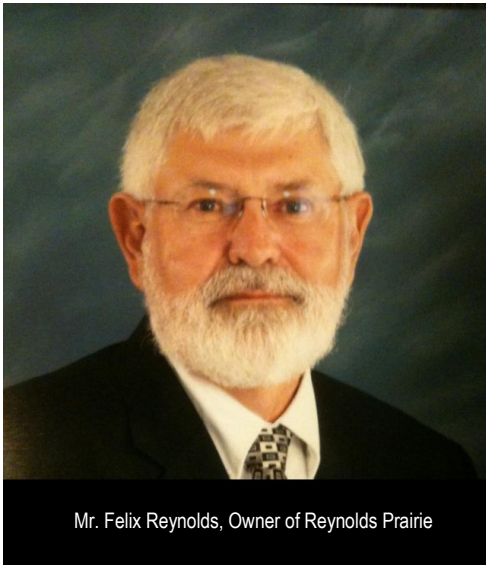
Photo courtesy of Steve Manning





# Natural Area Registry Spotlight

By Brent Frazier, Land Acquisition Specialist



Mr. Felix Reynolds, Owner of Reynolds Prairie

The commission would like to introduce you to a new feature of our newsletter, The Natural Area Registry Spotlight. These articles will highlight one of KSNPC's registered natural areas. The program is a voluntary, non-regulatory program designed to provide recognition, support, and encouragement for sound stewardship and awareness of the ecological significance of a landowner's property. To be eligible for registration, a property must contain habitat for rare plants or animals or contain an outstanding example of a natural community, such as an old growth forest, wetland, glade or prairie.

Reynolds Prairie in Garrard County contains 38 acres and is an important natural area in the Bluegrass region. This remarkable native grassland, owned by Felix Reynolds, is one of a few remaining in the region. Despite land use changes, a diverse assemblage of prairie grasses, such as little bluestem, and other grassland species persist in this area.



Grape honeysuckle, *Lonicera prolifera* ~  
Photo courtesy of Thomas G. Barnes

Several rare plants are found among this native flora, indicating these grasslands remain ecologically important. Reynolds Prairie was brought to the attention of the commission by botanist Will Overbeck. Will has started managing the property to improve the prairie habitat by removing cedars, and there are plans to burn it as well. Both the Kentucky Department of Fish and Wildlife Resources and the United States Fish and Wildlife Service are helping. With this additional management, the diversity and value of Reynolds Prairie is expected to improve, providing habitat for animals and plants that are declining statewide.





## Happy Trails, Dan

By Joyce Bender, Branch Manager



Dan Cox, our Eastern Region Preserve Manager, has left us to act upon his desire to do some world travelling. In addition to the envy many here felt as they watched Dan break loose to pursue his dreams, there is also a sincere appreciation of the good work he accomplished in his two and a half years with the commission. Dan managed 26 preserves in his region, effectively working with partner agencies, commission staff and volunteers. In addition, he took on extra duties of our terrestrial zoologist position which has been vacant for over five years. He provided the expertise necessary to complete faunal surveys for Kentucky Heritage Land Conservation Fund contracts that were critical to the commission's bottom line.

Dan's "can do" attitude served us well. Taking on the work of basically two positions, he held steady under a lot of pressure. His quiet efficiency and sense of humor made working with him enjoyable, no matter the task. Dan was thoughtful in his responses to the various issues that cropped up on the preserves during his tenure and he was a good ambassador for the commission. He made a good fit here and will be truly missed, but we are counting on some postcards from far flung wild places!



Dan in his element

## Help Save the Monarchs

By Ellis Laudermilk, Invertebrate Biologist

According to Monarch Watch, the number of monarch (*Danaus plexippus*) butterflies at their overwintering sites in Mexico this past winter (2013-14) was the lowest ever recorded. In fact, the total area occupied by monarchs was less than 2.0 acres, down from a high of nearly 52 acres in 1996-97. Dr. Orley (Chip) Taylor, founder and director of Monarch Watch and professor at the University of Kansas, estimated that only about 30 million monarchs made it to Mexico this past fall. In good years the number of overwintering monarchs is in the hundreds of millions. The journey back north to reproduce has begun, and it is a perilous time for the current migrants and for the continued existence of the species.

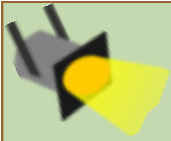
The decline of the monarch is due in large part to the loss of milkweeds (*Asclepias* spp.), the host plant for the caterpillars or larval stage. Monarch caterpillars feed on milkweeds so their long-term survival is dependent on healthy milkweed plants throughout their spring and summer breeding range of North America. As they fly north, adult female monarchs must find plenty of milkweed plants on which to lay their eggs. Milkweeds have declined from the increased use of herbicide tolerant crops, an increase in lands converted to crops, and from general development. Mowing milkweed plants in the summer is also detrimental to caterpillars feeding on the plants. Other factors, such as the extensive use of systemic pesticides taken up by and persisting in the tissues of plants, are likely playing a role in the decline. Remember, when persistent pesticides are used on plants they may kill pollinators that visit the flowers well after the application of the pesticide, including the adult monarchs seeking the nectar they need to survive and reproduce. In fact, other pollinators, especially bees, are also in a serious state of decline.

Immediate action to help save the monarchs is needed and it will take a collective effort by citizens of Canada, the U.S., and Mexico to recover the monarch. Dr. Taylor says, "Monarch butterfly populations are declining due to loss of habitat. To assure a future for monarchs, conservation and restoration of milkweeds needs to become a national priority." One of the best milkweeds for monarchs is the common milkweed (*Asclepias syriaca*) found across Kentucky. You can help by planting common milkweed on your property and encouraging others to do the same, including local parks in your area. Check with the nursery of your choice to obtain seeds or plants representing your local genotype as closely as possible, or order them directly from Monarch Watch (see link below). Monarch Watch will ship plants to you grown from seed collected in your region. You can also help their effort by collecting some seeds from your area this coming fall and mailing the seeds to them for next season. If you already have milkweed on your property, please allow it to grow undisturbed at least until late fall or early winter. While milkweeds are especially beneficial to monarch caterpillars, other pollinators will benefit from more milkweed plants too. **Now is the time to help save these species, so once the frosts are over get outside and start planting!!**

For more information about monarchs and their decline, propagating and planting milkweed, etc., please visit Monarch Watch at (<http://www.monarchwatch.org>). For more information about the conservation of pollinators, including monarchs, please visit the Xerces Society at (<http://www.xerces.org>).







# In the Spotlight: Calcareous Mesophytic Forest

By Brian Yahn, Vegetation Ecologist

Have you ever walked into the woods during spring and been amazed by all the wildflowers blooming on the forest floor? Although brief, this showy display brings smiles to nature lovers every year. One of the best communities to see such a display is Kentucky's Calcareous mesophytic forest. This is a rich forest community that occurs throughout the state, but most commonly in the Bluegrass Region (in the vicinity of cities like Cincinnati, Lexington, Louisville and Richmond). It is also common farther west in the Highland Rim (near cities like Bowling Green and Elizabethtown). Wonderful examples of this forest community can be seen at Brigadoon SNP in Barren County and Tom Dorman SNP along the Kentucky River in Garrard County.

The Calcareous mesophytic forest has a tall, closed canopy, which creates a shaded understory. The soil is rich and mesic (moist), of deep to moderate depth and moderately well-drained. This community is usually found within ravines, on protected lower slopes, at the base of bluffs or sinkhole basins. Calcareous mesophytic forests are usually developed over limestone and dolomite (areas referred to as karst) and occasionally calcareous shale. Outside of Kentucky, similar mesic limestone forests are found scattered throughout surrounding states. In general, these forests are a regular-occurring part of a much greater Eastern Deciduous Forest Biome (occurring from the Midwest across to the Eastern seaboard).

The canopy composition of Calcareous mesophytic forest is fairly distinctive, as certain trees prefer base-rich soils. Chinquapin oak and Ohio buckeye may be the most distinctive canopy trees in the community; other typical species include black walnut, slippery elm, and common hackberry. A host of other mesic-dwelling tree species also thrives here including basswood, beech, black cherry, red oak, sugar maple, tuliptree, white ash, and white oak, making this one of the most diverse forested canopies in Kentucky. Common

shrubs include pawpaw and spicebush (common too in other mesic forests). Even more diverse, the spring herbaceous layer is what dazzles the eye; a rich mixture of flowers and herbage, colors and shapes, from a multitude of spring ephemerals. As winter recedes, the trees' leaves begin to grow and wildflowers quickly emerge and flower, taking advantage of sunlight which is more abundant on the forest floor. American ginseng, bloodroot, blue cohosh, celandine poppy, Dutchman's breeches, dwarf larkspur, glade fern, Gyandotte beauty, round-lobe hepatica, trilliums, twinleaf, Virginia bluebells, wild blue phlox, wild hyacinth, all can be found abundantly growing in this forest. They represent a splendid botanical variety of what used to be a commonplace part of the once vast deciduous forest expanding far and wide across the American East.

KSNCP's classification of Calcareous mesophytic forest broadly describes mesic hardwood forests of base-rich soil (across Kentucky). Within this broad classification exist multiple types, some more easily defined but others not. At least one of these types of mesic forests in Kentucky has a distinctive plant composition.

This type occurs within Kentucky's Inner Bluegrass Region, an area where most forests (and other natural communities) have been heavily altered or removed by agriculture and development. According to NatureServe (the national authority on the status of rare species and communities), this community, the Inner Bluegrass Sugar Maple - Hickory Forest, is considered globally critically imperiled (=G1) (NatureServe 2014). Very few examples of this type remain due to loss of forests and fragmentation. Further research and identification is needed by KSNCP to better describe this type of community and distinguish other types that may be globally rare in the state.

As richness abounds, rare species of plants and animals are also found, a few nowhere else outside the Kentucky's Calcareous mesophytic forest. At least four KSNCP-listed plants have been documented in close association with Calcareous



Jessamine Creek ~ KSNCP  
photo by Brian Yahn





mesophytic forests (KSNPC 2014). These include Braun's rockcress, mock orange, Price's potato-bean and softleaf arrowwood. Many animals also call this forest home but very few of them are considered rare. The Kentucky warbler, a common but attractive native bird, can be found in this forest habitat.

Several forests in Kentucky have been decimated by logging, agriculture and development within the last 200 years. Logging alone can devastate forest communities on a long-term basis, changing the vegetative structure and plant composition by allowing native weeds and invasive non-native weeds to replace more disturbance-intolerant species. Forests are also impacted by grazing and logging which scars the forest, as vegetation is lost and erosion increased. Similar effects are produced by ATVs, and horseback riding. This soil disturbance presents ideal conditions for invasion by undesirable species like Japanese honeysuckle and kudzu vines and Japanese stiltgrass. In particular for Calcareous mesophytic forests within the Bluegrass, common chickweed, garlic mustard and Amur honeysuckle have expanded into most wooded habitats. Over the commission's 37 year history, 17 nature preserves in the Bluegrass have been set aside, many of which provide protection for Calcareous mesophytic forests; our mission continues!

#### References

[KSNPC] Kentucky State Nature Preserves Commission. 2009. Natural communities of Kentucky. Working draft. Frankfort, KY.

[KSNPC] Kentucky State Nature Preserves Commission. 2014. Kentucky Natural Heritage Database. Kentucky State Nature Preserves Commission, Frankfort, KY.

NatureServe. 2014. NatureServe Explorer Worldwide Web database. <http://www.natureserve.org/explorer>. Accessed in February of 2014.



Raven Run ~ KSNPC photo by Martina Hines





## Species associated with Calcareous Mesophytic Forest:

### Banded Tigersnail

### *Anguispira kochi kochi*

**KSNPC Status:** Watch list (appears to be declining).

**USFWS Status:** None.

**General Description:** Chestnut-colored shell 17-31 mm in diameter with two brownish purple color bands around the body whorl, often faint in older specimens.

**Habitat:** River bluffs, but also found on subseric ridge tops and mesic slopes of upland woods. Often found at or near the base of limestone cliffs.

**Range:** Southern Ontario south to Tennessee, west to Missouri, and east to Pennsylvania. In Kentucky this species is primarily found in the Bluegrass Region of the state. Subspecies *A. kochi occidentalis* occurs in the northwestern U.S. and southern British Columbia.



KSNPC photo by Ellis Laudermilk

### Spotted salamander

### *Ambystoma maculatum*

**KSNPC Status:** None

**USFWS Status:** None

**General Description:** The spotted salamander is a relatively large salamander ranging in length from 6 to 9.5 inches. Individuals have two rows of yellow or yellowish-orange spots extending from the head to the tip of the tail. The dorsum can be shades of black, gray, or brown with a gray belly. They have 11 to 13 costal grooves.

**Habitat:** Spotted salamanders are most common in bottomland forests in or adjoining floodplains, but they occur sporadically in upland forests and mountainous regions where suitable breeding sites occur. Adults typically breed in seasonally ephemeral, fish-free habitats, but may also use permanent ponds. Adults migrate to breeding sites in late winter and early spring during wet weather and moderate temperatures.

Females deposit egg masses on submerged substrate and occasionally directly on the pond bottom. Spotted salamanders are believed to form a symbiotic relationship with green algae, where algae colonize egg masses and supply embryos with oxygen from surrounding water. Upon metamorphosis, individuals disperse into the landscape spending most of their lives in subterranean burrows or under rocks and logs.

**Range:** Populations are found in southeastern Canada and much of the eastern United States. Kentucky populations can be found statewide, being less common in the Bluegrass Region.



Photo by John R. MacGregor

### Softleaf arrowwood

### *Viburnum molle*

**KSNPC Status:** Special Concern

**Flowering Period:** Early May to late May.

**USFWS Status:** None

**Range:** This viburnum is found in the southern United States in Mississippi and Alabama and north to Ohio and Indiana. It occurs west to Oklahoma and Iowa where it is rare, as it is in Kentucky and Tennessee, the farthest east it is found.

**Habitat:** Calcareous forests and may also be found in drier forests as well. It is generally about mid-slope and sometimes associated with rocky outcropping.

**Management:** Exotic pest plants, especially shrubs, compete with softarrow for habitat. Disturbance such as ATV trails, timber removal or any activity that results in increased erosion and weed invasion will be detrimental.

**General Description:** The leaves of this shrub are opposite, ovate and cordate (heart-shaped), over 12 teeth along each leaf edge, and petioles (leaf stems) are 1.5-2.5 cm long. The lowest 2 pairs of leaf veins converge near the bottom of the leaf. The bark exfoliates (shreds) on mature wood. Fruit are elliptic rather than round.

**Reasons:** This viburnum is limited in range in Kentucky although more populations are being discovered. The habitat that it is associated with in the Bluegrass and Knobs regions is becoming degraded by pest plant invasion such as bush honeysuckle (*Lonicera maackii*), winter creeper (*Euonymus fortunei*) and burning bush (*Euonymus alatus*), plants that should be avoided in landscaping. Logging of these forests and development have also contributed to the decline of this plant.



~ KSNPC staff photo





# Land Protection Report

By Brent Frazier, Land Acquisition Specialist

The commission currently has 11 acquisition projects underway and is working hard to add new ones to the pending list. Since our last newsletter, we submitted two new projects to the Kentucky Heritage Land Conservation Fund Board for additions to Blanton Forest State Nature Preserve. The first tract is 386 acres adjacent to the existing preserve and the other tract is a small in-holding. A third tract at Blanton was submitted to the board for consideration at the February meeting. Blanton Forest SNP protects 3,124 acres of old-growth and second-growth forests. As one of the largest old-growth tracts remaining in the eastern United States, Blanton Forest is a diverse ecological treasure. Blanton Forest contains several forest communities, including mountaintop wetlands known as acid seeps and mixed-mesophytic deciduous forest. Many tree species such as sugar maple, tulip poplar, various oaks, hemlocks, beech and several magnolias make up the forest canopy.



Limestone prairie — Lone Oak Glade SNP, Grayson County  
~ KSNPC photo by Brian Yahn

We continue to work on the purchase of two tracts at Frances J. Palk SNP in Pulaski County. These tracts will add approximately 106 acres to the preserve. Currently, the 150-acre preserve contains a series of acid seep communities that are very rare in Kentucky. Small wetlands with low pH are formed by seeps found at the heads of several small streams. Although much of the preserve is dominated by upland forest, over 70 species of plants occur within the seeps, several of which are considered rare.

We are pursuing two tracts at Bad Branch SNP. One has title issues to correct. The other has severed mineral rights, but we are working with the Kentucky Natural Lands Trust on a solution. This 2,639-acre preserve protects the scenic beauty of the gorge and one of the largest concentrations of rare and uncommon species known in the state. The preserve also protects Kentucky's only known nesting pair of common ravens (*Corvus corax*).

We are close to creating a new preserve! The owner of the tract that will establish the Lone Oak Glade SNP has accepted our purchase offer. This tract, located in Grayson County, contains a unique limestone slope glade community which also has rare barrens/prairie community remnants marginal to the glade. There are only a few remaining slope glades of high quality in private ownership and KSNPC ecologists consider any of these a high priority for protection. Populations of a globally rare and sensitive invertebrate species have been documented on the property. Protection and enhancement of the glade/barren habitat is critical for the continued survival of the invertebrate species at this site.

We recently closed on a new site to help recover Braun's rockcress. The Baxley conservation easement will be known as the Swallowfield Arabis site. Located north of Frankfort in Franklin County, the land consists of wooded slopes along the Kentucky River. It contains high quality occurrences of one of the Commonwealth's rarest plants – Braun's rockcress (*Arabis perstellata*).



Limestone slope glade — Lone Oak Glade SNP, Grayson County  
Aerial photo by KSNPC staff

We have extended a purchase offer to the owner of the Brown Tract at Bouteloua Barrens SNP. The Lincoln County tract protects habitat for the preserve's namesake, *Bouteloua curtipendula*, side-oats grama grass, a species of special concern. The tract also contains a stand of big bluestem (*Andropogon gerardii*) and other native barrens species. The remainder of the tract will provide additional buffer land to protect it from external threats such as off road vehicle use.

Lastly, at Hi Lewis SNP, we are waiting for the settlement of an estate before we can proceed with the acquisition of the Carmical tract. This acquisition has been a challenge as it is outside the normal acquisition process due to substantial title issues. Named for the stream that drains the area, Hi Lewis, the Pine Mountain preserve supports an extremely rare Pine Barrens community.





# The Director's Notes

By Don Dott, Executive Director

Sunrise over Pine Mountain  
~ KSNPC staff photo

By the time you read this column the General Assembly should have passed a budget and we will know how the commission has fared. But as this is being written, the outlook is not rosy. The Governor's recommended budget has commendably made education *the* priority for restoring funding, but it comes at the expense of deep cuts to other agencies, including the KSNPC. My purpose is to enlist your help. If you value natural areas and the biodiversity they harbor, state government resources alone are not enough to accomplish what we must; especially as we witness rapidly developing climate change and a worldwide escalating loss of species in the appropriately dubbed *Anthropocene* epoch - or the epoch of man.

One of the commission's biggest limitations is the lack of a terrestrial zoologist for five years, greatly reducing our ability to track and monitor Kentucky's most widely recognized groups - birds, mammals, reptiles and amphibians. But the deepest cut which has befallen the commission is the loss of Stewardship staff. When Stewardship staff leaves, we have lacked general funds to replace them. What we once considered to be a minimal Stewardship Branch of six full time people and two seasonal interims is now down to only two full time people! In no way are two staff enough to care for 27,120 acres in 61 state nature preserves throughout Kentucky.

From wetlands within sight of the Mississippi River to Pine Mountain on the Virginia border, we protect Kentucky's rare plants, animals and natural communities in *your* state nature preserves. Yet, incredibly our nearest Stewardship staff for Three Ponds SNP - the Mississippi wetlands - is located over four hours away in Frankfort. Since we lost a Stewardship person based in Bowling Green, it is a full day's drive just to get there and back.

And that is the visible part of the iceberg - we have lost GIS and IT staff, ecology staff, and a biologist consultant who worked with private landowners to protect rare species. We are down to 15 total staff from a high of 23 in 2008, nearly a reduction of a third. We stand to lose two more positions if the Governor's budget is adopted by the General Assembly without change. Our general funds have declined 41 percent since 2008. And staff salaries have fared little better, adjusting for inflation they have been reduced 26 percent in the past decade.

*We can use your help* if the wild things and natural environments of Kentucky are something you care about. Please let your state senator and representatives know that Kentucky is in dire need of greater revenues to fund the commission (and other agencies). Whether it comes through tax reform, increased gaming or other mechanisms - is not our decision, but we do know we cannot achieve our mission at current levels. We are letting state lands, state nature preserves, sit idle and decline as invasive weeds retake cleared areas, grasslands convert to shrub or forest without prescribed burns and exotic pests or diseases decimate hemlocks, ash trees and bat populations.

Without greater funding we will not be able to continue achieving accomplishments like:

- ◆ Keeping miles of hiking trails clear and open at state nature preserves like Blanton Forest (Harlan County), Bad Branch (Letcher County), Tom Dorman (Garrard County), Metropolis Lake (McCracken County), Quiet Trails (Harrison County), Brigadoon (Barren County), Jim Scudder (Hardin County) and many others.
- ◆ Find new species (yes, there are species still to be found) like Kentucky clover, (*Trifolium kentuckiense*). Discovered growing in Woodford and Franklin counties, its "new species" status was confirmed in 2013.
- ◆ Work for the recovery and delisting of federally listed species like White-haired goldenrod, which is currently proposed for delisting, and Eggert's sunflower which was delisted in 2005.
- ◆ Publish books like *Kentucky's Natural Heritage, An Illustrated Guide to Biodiversity*, released in 2010, and being adapted into interactive, online teaching units, and utilized for a new downloadable e-book through our great partnership with Kentucky Educational Television (KET).
- ◆ And yet to come, we have begun coordinating a project with the U.S. Fish and Wildlife Service, Land Between the Lakes (USFS), Fort Campbell, Murray State University and the Louisville Zoo, with a goal of reintroducing a very large black and orange beetle, the American burying beetle which is federally listed as endangered.

**Yes, we need your help!** And you can choose to help in many ways. We need more volunteer preserve monitors to keep an eye on these special places when we can't be there. We can use skilled amateur (and professional) biologists to report species finds or help enter data records. We would be invigorated by a donation from your income tax refund via the *Nature and Wildlife Fund* check-off option on the Kentucky individual income tax form. If you are not getting a refund, direct donations to the commission are federally tax deductible, (and fyi we do not receive enough state General Funds to meet all of our operating costs, including equipment and vehicle purchases). If you prefer to donate to a non-profit/501c-3 organization, the Friends of Kentucky Nature Preserves is another option to help fund habitat restoration on *your* state nature preserves and protect Kentucky's rarest plants and animals. If you care about these things, *we really do need your help!* And *thanks* for *anything* you can do!





## Upcoming Hikes and Events

April 28—KSNPC Photo Contest Begins

June 7—An Introduction to Kentucky's Dragonflies and Damselflies with Ellis Laudermilk at Floracliff SNP (Fayette County)

June 12—KSNPC will participate in the Energy and Environment Cabinet's Earth Day observance—rescheduled from April due to inclement weather. Old Capitol lawn, Frankfort. Lots of displays, open to the public

\*\*More events are planned so please check our [online calendar](#) for an up-to-date list.

Join the Friends of Kentucky Nature Preserves Today!

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**Kentucky State Nature Preserves Commission  
Quarterly Public Meeting**

**June 12, 2014  
TBA, Frankfort, KY**

**Kentucky State Nature Preserves Commission  
801 Schenkel Lane, Frankfort, KY 40601-1403  
502-573-2886**

**naturepreserves@ky.gov  
<http://naturepreserves.ky.gov>**

**Check us out on Facebook: [www.facebook.com/ksnpc](http://www.facebook.com/ksnpc)**

It is the mission of the Kentucky State Nature Preserves Commission to protect Kentucky's natural heritage by: (1) identifying, acquiring, and managing natural areas that represent the best known occurrences of rare native species, natural communities, and significant natural features in a statewide nature preserve system; (2) working with others to protect biological diversity; and (3) educating Kentuckians as to the value and purpose of nature preserves and biodiversity.

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