

# Naturally Kentucky

Fall 2008      Number 60



**KSNPC Latest News:** *Rare Wildflowers of Kentucky* authored by Thomas Barnes and KSNPC's Deborah White and Marc Evans, is now available. This new book provides a great introduction to Kentucky's signature rare plants with 220 beautiful full-color photographs. It also addresses the plight of the state's flora. The book discusses the causes of rarity and draws attention to the beauty of Kentucky's forests, prairies, wetlands and other natural communities while focusing on the state's endangered flora.

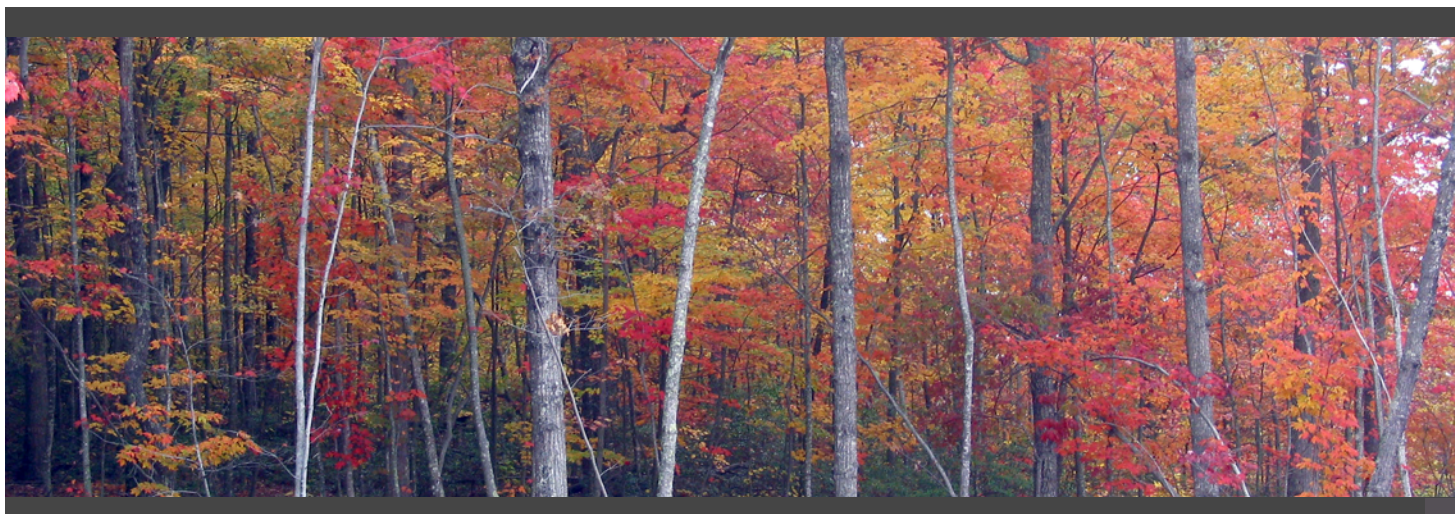
☞ Through a partnership between the U.S. Fish and Wildlife Service (USFWS), the Kentucky Department of Parks (KDOP) and KSNPC, an additional 80 acres at Short's Goldenrod State Nature Preserve was dedicated during the September 10 commission meeting.

☞ KSNPC welcomes three new commissioners: Mr. Adrian Arnold from Mt. Sterling, representing the Kentucky Farm Bureau Federation; Mr. Carl Breeding and Mr. Peter Brown, both of Lexington, representing members at large.

☞ A new internationally distributed book, *Wildlands Philanthropy*, highlights 40 extraordinary natural areas from around the globe. Three of the areas highlighted are right here in Kentucky - Blanton Forest State Nature Preserve, Floracliff Nature Sanctuary and Bernheim Forest. The stories of the people who are responsible for saving these unique natural areas showcase examples of philanthropy, a very important aspect of conservation that is often overlooked. More information available online at [www.wildlandsphilanthropy.org](http://www.wildlandsphilanthropy.org).

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# CHRONICLES OF A GLACIAL RELICT

By Tara Littlefield, Botanist

The Big South Fork is home to several glacial relicts including the northern white cedar. ~ Tara Littlefield, KSNPC

Have you ever wondered what Kentucky looked like during the peak of the last era of glaciation, some 18,000 years ago? During this period, known as the Wisconsin Glaciation, large sheets of ice covered most of the Midwest and northeast United States with lobes extending down into central Iowa and Illinois. The Ohio River, which was created by melt water from the retreating glaciers, was not even formed yet! Prior to the retreat of the glaciers, scientists think that the principal east-west drainage in the Midwest was the ancient Teays River. At this time, the vegetation in Kentucky looked like that of the boreal forests, which now exist in Canada. Research conducted on pollen layers in sediment from ancient ponds in Kentucky indicate that our forests were dominated by Jack pine and spruce. During the last glaciation many species that could not survive in these cold climates retreated south or found refuge in protected coves, gorges, canyons and cliffs. Plants from colder climates in the north migrated south into Kentucky and existed along the southern border of the glacial sheet and the edge of the Appalachian Mountains. These cold climate species occupied a wider range in the landscape at that time. As the glaciers retreated, some of the northern species were able to hold on and survive in certain limited microclimates in Kentucky. Many of these glacial relicts are imperiled and are monitored by KSNPC. These species include the Canadian yew (*Taxus canadensis*), ground juniper (*Juniperus communis*) and white cedar (*Thuja occidentalis*). These disjunct northern species occur in places such as the Red River Gorge, Rockcastle River and Big South Fork. Seeing them in Kentucky is a reminder of how much climate has shaped our environment.

*Plants from colder climates in the north migrated south into Kentucky and existed along the southern border of the glacial sheet and the edge of the Appalachian Mountains.*

Other rare plants are associated with certain watersheds, such as the Kentucky River or Cumberland River. What if there was a plant that was associated with a long forgotten great river, such as the Teays River? Dr. Lucy Braun, the great forest ecologist, first proposed the

idea that the rare Canby's mountain-lover (*Paxistima canbyi*), was associated with this ancient river system. The mountain-lover occurs in Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, Virginia and West Virginia. The current range of the mountain-lover falls within the Teays River watershed and does not occur anywhere that had been previously glaciated. Thus, this shrub is thought to be a glacial relict of the Pleistocene Epoch and possibly a pre-glacial relict. The mountain-lover, also called rat stripper, is a small evergreen shrub that is widely scattered, though extremely infrequent in at least five different physiographic regions that all lie west of the entire length of the Daniel Boone National Forest. It is called the mountain-lover because it grows on rocky limestone ledges or cliffs. It is called rat stripper because rats have been seen severing the small twigs of this low growing shrub, perhaps to use in nests. It is in the bittersweet (Celastraceae) family and is related to several common species including wintercreeper (*Euonymus sp.*) and bittersweet (*Celastrus sp.*).

The mountain-lover is strongly clonal in nature and it is believed that an entire population at a site may be one single plant! Fruit development and seed production are reportedly quite rare in the wild, most likely due to its clonal nature. Alarmingly, there may be fewer than 60 genetically distinct plants throughout its entire range (NatureServe 2008). It is globally rare due to its genetics and restricted range, and is ranked G2 by NatureServe (the highest rarity rank is G1). In North Carolina, Virginia and West Virginia this species has some horticultural value and is sold by a few nurseries as an evergreen groundcover. In Kentucky, the mountain-lover is associated with trees such as Chinquapin oak (*Quercus muehlenbergii*), blue ash (*Fraxinus quadrangulata*), eastern red cedar (*Juniperus virginiana*) and eastern hop-hornbeam (*Ostrya virginiana*). Herbaceous associates include shrubby St. Johns wort (*Hypericum prolificum*), smooth rockcress (*Arabis laevigata*), bee-



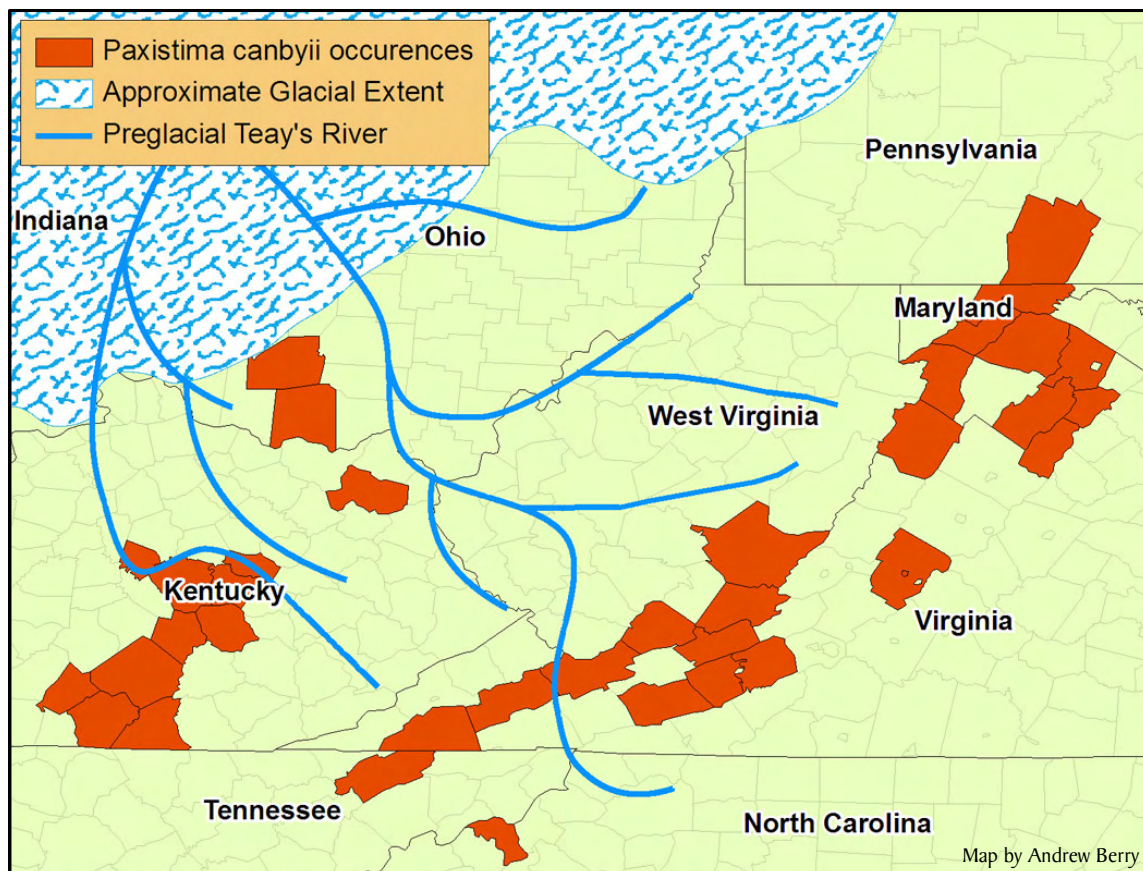


balm (*Monarda* sp.), purple cliff break fern (*Pellaea atropurpurea*) and hoary puccoon (*Lithospermum canescens*). In some places, the mountain-lover even grows with other glacial relicts such as the Canada yew and northern white cedar.

Major threats to the mountain-lover include Euonymus scale (*Unaspis euonymi*, a small non-native aphid-like bug), development, timber removal, exotic pest plants and possibly global climate change. The greatest threat in Kentucky appears to be from Euonymus scale. This scale is found primarily on the non-native wintercreeper (*Euonymus fortunei*) and spreads to other members of the bittersweet family when in close contact. As this aggressive invasive plant spreads into new habitats, native plants such as the wahoo, running strawberry bush and mountain-lover are becoming impacted by the scale. Over 80 percent of Kentucky's mountain-lover populations are infested with the scale and declining drastically. Due to the severe drought that occurred in summer 2007, some of the die back may be attributed to the extreme heat and dry conditions or this may have created a positive feedback effect that accelerated the scale infestation. As this species is hypothesized to have evolved in colder climates, warmer temperatures due to global climate change may also contribute to its decline. It is quite possible that all of these factors are negatively affecting the mountain-lover populations. There are large gaps in the distribution of this species throughout its range and in Kentucky. Due to the rugged and inconspicuous nature of its preferred habitat it is likely that other populations exist in Kentucky. Surveying for new populations will contribute to our understanding of the species and help evaluate its conservation status. The mountain-lover is an ancient species that has seen many changes in Kentucky's landscape. Let's hope this living relict will withstand the latest challenges and continue to thrive in the cliff country it has long called home. 🌿



Canby's mountain-lover (*Paxistima canbyi*)~ Tara Littlefield, KSNPC



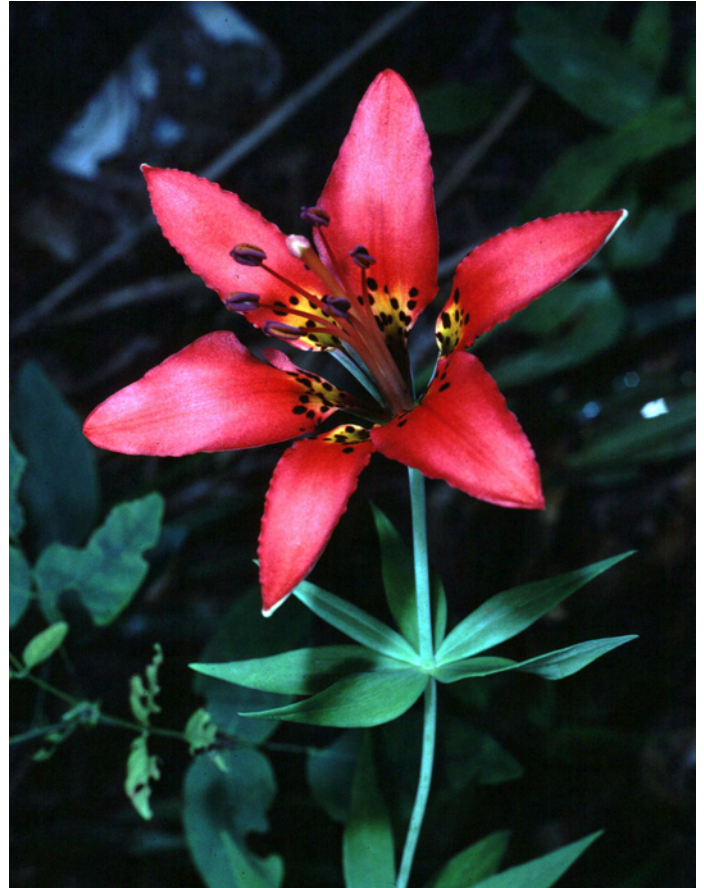
## Wood Lilies Show Decline

By Deborah White, Lead Botanist

Thanks to the persistence of a dedicated lily lover, Caroline Gay Hodges, we have 15 years of information on the roadside populations of wood lily (*Lilium philadelphicum*). Hodges and her friends (Betty Jane Barnett and Debbie Carman, along with others in the Somerset area) ride the roads of Laurel County each year checking on the status of flowering wood lilies. Based on their observations, it appears there are fewer flowering plants.

Wood lilies need high light conditions, but much of the surrounding woodland habitat has changed from open, sunny conditions to increasingly dense with more woody plants. This is primarily due to lack of natural fire. Many land managing agencies are re-introducing controlled burning to recover open grassy places, places that are often rich in plant diversity. Unless fire is restored in these areas, the wood lily will only continue to survive on the edges of forests where they have access to light. Many times these forest edges are on roadsides where the plants face other threats like mowing and spraying.

The wood lily has been known from about 12 Kentucky counties on the Cumberland Plateau, but it has not been seen in three of these counties for 20 years or more. Seventy percent of the populations are ranked as low quality (rank D) and many populations have not been seen for over 10 years. If you have seen this beautiful plant in your county – please let us know!



Wood lily (*Lilium philadelphicum*) ~ Julian Campbell

**Range:** Quebec and Saskatchewan, Canada south to Alabama and Georgia.

**Flowering Period:** Late June to early July

## Third Annual Short's Goldenrod Festival

By Alice Mandt, Environmental Technician

Our good luck streak with nice weather continued again this year. The sun was out, the sky was perfect blue and the temperature was 80 degrees. It was a great day to celebrate the Short's Goldenrod Festival. For the third year, the commission partnered with Blue Licks Battlefield State Resort Park to celebrate the successful restoration efforts for one of Kentucky's rarest plants. The day was an open invitation to get outside and enjoy the natural beauty around Blue Licks.

The morning began with a 5K race and one-mile walk. Robbie Detro of Maysville was the winner with a time of 18:40! Thank you to the sponsors of the 5K including Ale-8-One and Great Harvest Bread Co. A special thank you goes out to the members of the Harrison Memorial Hospital 5K Club from Cynthiana. This

was their second year participating in the festival, and we just love to see their smiling faces!

Among the most popular events were a pie-eating contest, guided nature walks, canoe rides on the Licking River and the children's activity tent. Thank you to the sponsors, Beverly James and Althea Wiggs from Floracliff Nature Sanctuary; and a special thanks to Althea's daughter Ruby for all her enthusiasm and support of the festival every year!

Throughout the day, several workshops were going on for anyone who wanted to learn more about what local groups are doing to address environmental issues. The presenters included Brittany Zwicker from Bluegrass Pride with a rain garden workshop, Chris





Carpenter from JMB Biological Services who had an amazing presentation on the amphibians and reptiles of Kentucky and HoneyKeepers USA provided a very entertaining honey bee education workshop.

Thank you again to Gunpowder Creek for their great music and for serving as our MC for the day! This was their second year participating in our festival and we enjoyed them greatly. 🐝



Canoe trip with Aquatic Zoologist Ryan Evans.



Pie-eating contest.



5K and One-Mile Walk Participants. ~ Cathy Muntz, Harrison Memorial Hospital 5K Club





# In the Spotlight: Kentucky's Rare Species & Communities

## *Toxolasma texasensis*

### *Texas Lilliput*

**KSNPC STATUS:** Endangered

**USFWS STATUS:** None

**GENERAL DESCRIPTION:** A small mussel measuring 1-2 inches in size with a dark brown to black shell.

**HABITAT:** Occurs in sloughs, wetlands, sluggish creeks, and slow sections of small streams and rivers.

**RANGE:** From the Mississippi to Tradewater rivers.

**REASON FOR PROTECTION STATUS:** Habitat alteration and pollution from mining, as well as a limited distribution in the state.



Photo by KSNPC Staff

## *Arigomphus maxwelli*

### *Bayou Clubtail*

**KSNPC STATUS:** Threatened

**USFWS STATUS:** None

**GENERAL DESCRIPTION:** An approximately 2-inch long dragonfly with a gray-green thorax containing dark brown midfrontal, shoulder and lateral stripes, the latter often incomplete. Abdominal segments 3-6 are dark brown with yellow-green rings, and segments 7-9 are entirely dark brown. Eyes are dark green.

**HABITAT:** Ponds, sluggish streams and especially bayous and cypress-lined lakes.

**FLIGHT SEASON:** In Kentucky, late June – July.

**RANGE:** Occurs from southern Illinois south to the Gulf Coast region of western Alabama and Florida to eastern Texas.

**REASON FOR PROTECTION STATUS:** It has a very limited distribution along the Mississippi River in extreme western Kentucky where its normal habitat is also rare. Very few populations are known in the state.



Photo by Ellis Lauder milk, KSNPC

#### KEY TO KSNPC STATUS CATEGORIES:

**ENDANGERED:** A taxon in danger of extirpation and/or extinction throughout all or a significant part of its range in Kentucky.

**THREATENED:** A taxon likely to become endangered within the foreseeable future throughout all or a significant part of its range in Kentucky.

**SPECIAL CONCERN:** A taxon that should be monitored because (1) it exists in a limited geographic area in Kentucky, (2) it may become threatened or endangered due to modification or destruction of habitat, (3) certain characteristics or requirements make it especially vulnerable to specific pressures, (4) experienced researchers have identified other factors that may jeopardize it, or (5) it is thought to be rare or declining in Kentucky but insufficient information exists for assignment to the threatened or endangered status categories.

**HISTORIC:** A taxon documented from Kentucky but not observed reliably since 1980 but is not considered extinct or extirpated.



## *Conradina verticillata*

### *Cumberland Rosemary*

**KSNPC STATUS:** Endangered

**USFWS STATUS:** Threatened

**GENERAL DESCRIPTION:** A low aromatic, perennial evergreen shrub, forming clumps or mats of sprawling branches that root at the nodes; it smells, tastes and looks like common rosemary (*Rosmarinus*).

**HABITAT:** Cobble bars in large streams in full sun and along sandy riverbanks. Common associates include big blue stem, small head blazing star, stiff aster and sensitive brier.

**FLOWERING PERIOD:** Early May to late June.

**RANGE:** Kentucky and Tennessee on the Cumberland Plateau, but only associated with three river systems.

**REASON FOR PROTECTION STATUS:** There are only 48 colonies left and they continue to decline due to dam construction, water pollution and unintentional trampling by recreational visitors. This is one of the most imperiled plants in Kentucky and the United States!



Photo from KSNPC Files

## *Xerohydric Flatwoods*

**KSNPC STATUS:** Endangered

**GENERAL DESCRIPTION:** Xerohydric Flatwoods, sometimes called Post Oak Flatwoods, is an unusual type of forest that occurs in flat, poorly drained areas that have a fragipan in the soil (a layer of clay that restricts drainage of water). This creates wet, saturated conditions (hydric) in the winter and spring and extremely dry conditions (xeric) in the summer and fall. Small depressions in the ground hold moisture and support wetland plants while slightly elevated adjacent areas are dry and support xerophytic species. The dominant tree is post oak, which sometimes occurs in almost pure stands. Other oaks that can occur include willow oak, overcup oak and southern red oak. The herbaceous layer is usually grassy and sedgey.

**RANGE:** In Kentucky this community is primarily known from small parts of the East Gulf Coastal Plain and the Shawnee Hills but other small examples occur scattered in the state.

**REASON FOR PROTECTION STATUS:** Very little acreage remains for this community and even less that is of good quality.



Photo by Marc Evans, KSNPC

### KEY TO USFWS STATUS CATEGORIES ~ (US) ENDANGERED SPECIES ACT OF 1973:

**ENDANGERED:** "... any species ... in danger of extinction throughout all or a significant portion of its range ..." (USFWS 1992).

**THREATENED:** "... any species ... likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" (USFWS 1992).

**CANDIDATE:** Taxa for which the USFWS has "... sufficient information on biological vulnerability and threats to support proposals to list them as endangered or threatened" (USFWS 1999).

**SPECIES OF MANAGEMENT CONCERN:** Species the USFWS believes are in need of conservation management.

### ADDITIONAL RESOURCES:

KSNPC Species and Community Information ~ [www.naturepreserves.ky.gov/inforesources/SpeciesCommunityInfo.htm](http://www.naturepreserves.ky.gov/inforesources/SpeciesCommunityInfo.htm)

NatureServe Explorer ~ [www.natureserve.org/explorer/](http://www.natureserve.org/explorer/)

USFWS Endangered Species Program ~ <http://endangered.fws.gov>





# Got Garlic Mustard? A New Approach to Control

By Deborah White, Lead Botanist, and Byron Brooks, Environmental Technologist

Garlic mustard (*Alliaria petiolata*), an exotic pest plant, has had a meteoric rise in Kentucky forests, especially in the Bluegrass area. It is overwhelming natural areas and leaving landowners with a sense of helplessness. One approach to controlling this nasty pest is to spray herbicide on the leaves in the winter when other native plants are dormant. The appeal of this technique is that it requires a low dose of herbicide. Here are some guidelines:

- Using a sprayer, mix a 2 percent solution of a glyphosate herbicide concentrate (such as Roundup Pro® with 41 percent active ingredient) in water. This is roughly 8 fluid ounces of herbicide concentrate in 3 gallons of water.
- When applying, be careful to avoid herbicide contact with native plants through run-off or drift. Glyphosate herbicides are not selective and will damage nontarget plants.
- Always follow the herbicide label instructions for application.
- Consider targeting areas that have special significance (perhaps a stand of wildflowers or a place you love to walk that has special value to you).
- You may feel less overwhelmed by the need to control and eradicate this plant if you first focus on lightly infested areas rather than beginning with areas of heavy infestation.
- You have to repeat this for some years but with persistence you should be rewarded with continued wildflower displays.

Garlic mustard is not going away. Removing it from your landscape will have to be incorporated into your annual home maintenance like cleaning gutters and trimming trees. We will all be battling garlic mustard, and we hope these tools better arm you for the fight. ☞



Garlic mustard (*Alliaria petiolata*) ~ Steven Katovich, USDA Forest Service

## LAND PROTECTION Report

By Brent Frazier, Land Protection Specialist

KSNPC currently has four acquisitions in various stages of progress. There are two tracts at Crooked Creek SNP in Lewis County that total approximately 330 acres, which would nearly double the size of that preserve. The Division of Real Property is in early negotiations with the landowners. There is also a tract at Terrapin Creek SNP in Graves and Calloway counties in current negotiations. The final tract is located at Raymond Athey Barrens SNP in Logan County and is well along in the acquisition process. Lastly, we are in early discussions with a landowner adjoining Jim Scudder SNP, which would result in a significant addition to the nature preserves system.

The commission is seeking to partner with the U.S. Army, Fort Knox Military Base and the Lincoln Trail Area Development District office in Elizabethtown. The district is working with Fort Knox to protect areas around the base through the Department of Defense's Army Compatible Use Buffer (ACUB) Program.

Cedar Creek Glades is one area, which is partly on Fort Knox and partly on adjoining private lands that we would like to see protected under this program. This may be difficult to accomplish as it appears there is a large number of landowners in this area who would need to be involved. The benefit of the ACUB program is that it can provide funding to purchase conservation easements from landowners willing to participate. This opens new opportunities for conservation of natural areas around Fort Knox.

Two Natural Area Registry Agreements have also been completed. The first recognizes Tatum Cave in Marion County home to the Tatum Cave beetle, which is a globally rare species and endemic to Kentucky. The other is Harbersson's Station Cave in Perryville. It is home to the hidden cave beetle and old well cave beetle. These two species are also endemic to Kentucky and listed as threatened by the commission. ☞





## Director's Notes

By Don Dott, Executive Director

Thousands of acres of Kentucky forestland are going to the auction block in November. The pending auction by Kimball International of large expanses of forest land vividly illustrates the need for the appointment of the remaining members to the Land Conservation and Stewardship task force. House Concurrent Resolution 93, co-sponsored by Reps. Robin Webb, Charlie Hoffman and David Osborne reauthorized the task force for two years. It is charged with finding a funding mechanism to enhance the purchase of conservation and recreation land statewide. Governor Beshear recently appointed four members to the task force, but the remaining legislative appointments are still pending.

The Kimball International lands include 2,600 acres in Meade County, a site known as Lapland Barrens. It is the largest post oak barrens glade complex in the state and a very significant natural area. The commission would like to acquire this site, but we lack sufficient funds for such a large purchase. An even larger tract of 11,800 acres in Union and Crittenden counties, a largely forested area bordering the Ohio River, is also going to auction. Billed as one of the largest private land holdings in the entire state, it will be a great conservation loss as it could be divided up into as many as 70 tracts. Such large, single owner forest blocks are quite rare indeed and much deserving of preservation.

But no state conservation agency has the funds to acquire such a large parcel. The task force needs to be appointed so it can begin its work of finding funding that will avoid the loss of such significant opportunities in the future. The Union/Crittenden tract could provide a tremendous opportunity for conservation and the adventure tourism initiative as it already contains a well maintained logging road system that could serve as multi-purpose trails. The ongoing conversion of approximately 115 acres of forest *per day* in this state cries out for an energized conservation program – before we lose the remaining few high-quality natural areas.

A hearty welcome is extended to three new nature preserves commissioners! Carl Breeding, former general counsel for the Natural Resources and Environmental Protection Cabinet, joined us at the Sept. 10 quarterly meeting. Commissioner Breeding replaces Nancy Grayson in the at large position. Adrian Arnold, a retired farmer and a former state representative who served for over 30 years in the General Assembly, replaced Pat Henderson as the representative from the Kentucky Farm Bureau. Commissioner Joy Hawkes, a retired teacher from Louisville, reluctantly resigned recently and was replaced by Peter Brown, a self-employed attorney from Lexington who was appointed to fill the remainder of the at large positions and will attend

his first meeting in December.

The highlight of the recent September commission meeting was the addition of 571 acres at Blue Licks Battlefield State Resort Park and Nature Preserve. The purchase of this significant tract was made possible through a Recovery Land Acquisition grant from the U.S. Fish and Wildlife Service. Eighty acres were dedicated as a state nature preserve to protect a population of Short's goldenrod, a federally listed endangered plant. The balance of the tract has become an addition to Blue Licks State Park and will serve to protect the watershed of the Licking River to the benefit of state and federally listed freshwater mussels found in its waters. The Kentucky Department of Parks will be able to develop hiking trails and possibly primitive camping that will not conflict with the habitat protection purposes for which the federal grant was awarded.



Short's goldenrod (*Solidago shortii*) ~ Sara Hines, KNSPC

The commission, working in partnership with the Kentucky Natural Lands Trust and the Southeast Regional Office of the Land Trust Alliance (or LTA Southeast), helped coordinate a statewide meeting of land trusts and other conservation organizations in August. Conservation experts at the well-attended meeting in Shelbyville provided training on the legalities of conservation easements (which protect land on private properties while allowing them

to remain in private hands). LTA Southeast provided the speakers and afterwards a session was held to move forward on the creation of a networking group for Kentucky's land trusts. This group will likely be known as the Kentucky Land Trusts Coalition (KLTC). Beyond providing training to staff and board members of existing land trusts, a major purpose of KLTC would be to encourage and assist the start-up of more land trusts in Kentucky. We have a dearth of such groups, which leaves many private lands without a conservation option and misses opportunities to take advantage of significant federal tax deductions. It was encouraging to find one group of four folks from Shelby County who are planning to do just that – establish a new county-based land trust to protect agricultural lands. To my knowledge there are no land trusts found west of the I-65 corridor, but I hope someone may prove me wrong. Woods and Waters is the newest land trust in Kentucky, which was recently formed to protect forested watersheds of the Kentucky River in Franklin, Henry and Owen counties. We need more interested individuals who are willing to start up a land trust. There is a tremendous amount of help and guidance available from existing Kentucky land trusts, the Land Trust Alliance and other national groups for anyone willing to take the plunge. It is a very rewarding way to use your time and abilities



# Upcoming Hikes and Events

Please note that most events require preregistration. View our complete events calendar at [www.naturepreserves.ky.gov/events/](http://www.naturepreserves.ky.gov/events/).

Nov. 15, 2008. Owl Prowl at Beargrass Creek SNP (Jefferson County).

Nov. 21, 2008. Tsuga Art and Music (Lexington, Ky.). All proceeds benefit Save Kentucky's Hemlocks.

Nov. 22, 2008. Long Hike at Lower Howard's Creek SNP and Heritage Park (Clark County).

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Dec. 6, 2008. Ridgetop Hike at Lower Howard's Creek SNP and Heritage Park (Clark County).

Dec. 6, 2008. Exploring Arch Country Guided Hikes at Natural Bridge SPNP (Powell County).

Dec. 6, 2008. Winter Tree I.D. Hike at Floracliff SNP (Fayette County).

Dec. 10, 2008. KSNPC Commission Meeting (Franklin County).

Dec. 12-13, 2008. Invasive Species Conference (Lexington, Ky.). The conference will focus on the threat to the state from invasive plants, pathogens and insects.

Dec. 12-13, 2008. Winter Bird Weekend at Natural Bridge SPNP (Powell County).

## Tsuga Art & Music

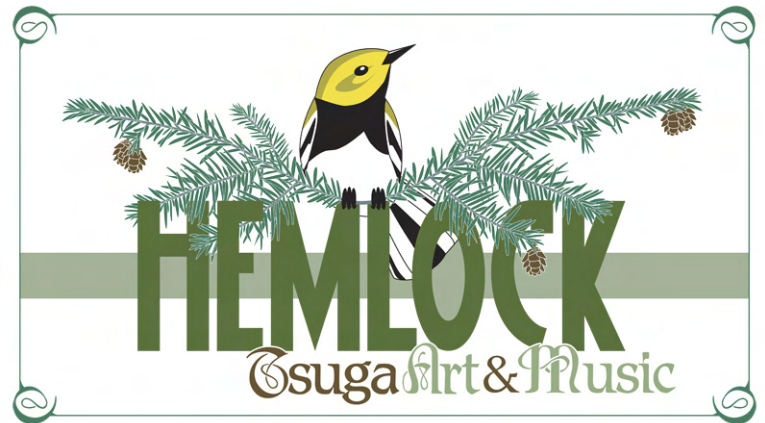
This event is aimed at raising awareness about the current threat to eastern hemlock trees from a tiny invasive insect from Asia. All proceeds will benefit Save Kentucky's Hemlocks, a partnership of citizens, nonprofits and government agencies working together to save eastern hemlocks. The evening will start off with a group art show with approximately 25 artists participating; later that evening a line up of three of Kentucky's finest bands will take the stage (Bonnie 'Prince Billy (Will Oldham) and the Pickets Line, The Swells and Englishman).

Friday, Nov. 21, 2008

Old Tarr Distillery - 903 Manchester St., Lexington, Ky.

Free Group Art Show at 5-9 p.m.

Music at 8 p.m. (requires a ticket) - All Ages Show



More information online at [www.kyhemlocks.org/tsuga\\_event.html](http://www.kyhemlocks.org/tsuga_event.html)

### KENTUCKY STATE NATURE PRESERVES COMMISSION

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### Kentucky State Nature Preserves Commission Quarterly Public Meeting

Dec. 10, 2008

KSNPC Frankfort Office

10 a.m. EST

Kentucky State Nature Preserves Commission • 801 Schenkel Lane, Frankfort, KY 40601-1403  
502-573-2886 • [naturepreserves@ky.gov](mailto:naturepreserves@ky.gov) • [www.naturepreserves.ky.gov](http://www.naturepreserves.ky.gov)

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 preserves system; (2) working with others to protect biological diversity; and (3) educating Kentuckians as to the value and purpose of nature preserves and biodiversity.

The Energy and Environment Cabinet does not discriminate on the basis of race, color, national origin, sex, age, religion or disability and provides, upon request, reasonable accommodations including auxiliary aids and services necessary to afford an individual with a disability an equal opportunity to participate in all services, programs and activities. To request materials in an alternative format, contact the Kentucky State Nature Preserves Commission at 801 Schenkel Lane, Frankfort, KY 40601-1403 or call 502-573-2886. Hearing-impaired and speech-impaired persons may contact the agency by using the Kentucky Relay Service, a toll-free telecommunication device for the deaf (TDD). For voice to TDD, call 800-648-6057. For TDD to voice, call 800-648-6065.

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