


Naturally Kentucky


Summer 2008


Number 59



KSNPC Latest News: Mark your calendar for the third annual Short's Goldenrod Festival on Sept. 20th! Events featured are a 5K run and one-mile walk, guided nature walks, canoe trips, the ever popular pie-eating contest, a cornhole tournament, plus a market filled with local farmers and artists. Children can create sun prints and dream catchers, make tobacco sticks into hiking staffs, and see live animal presentations. Free workshops will also be offered during the day to highlight work being done in Kentucky to protect our environment.

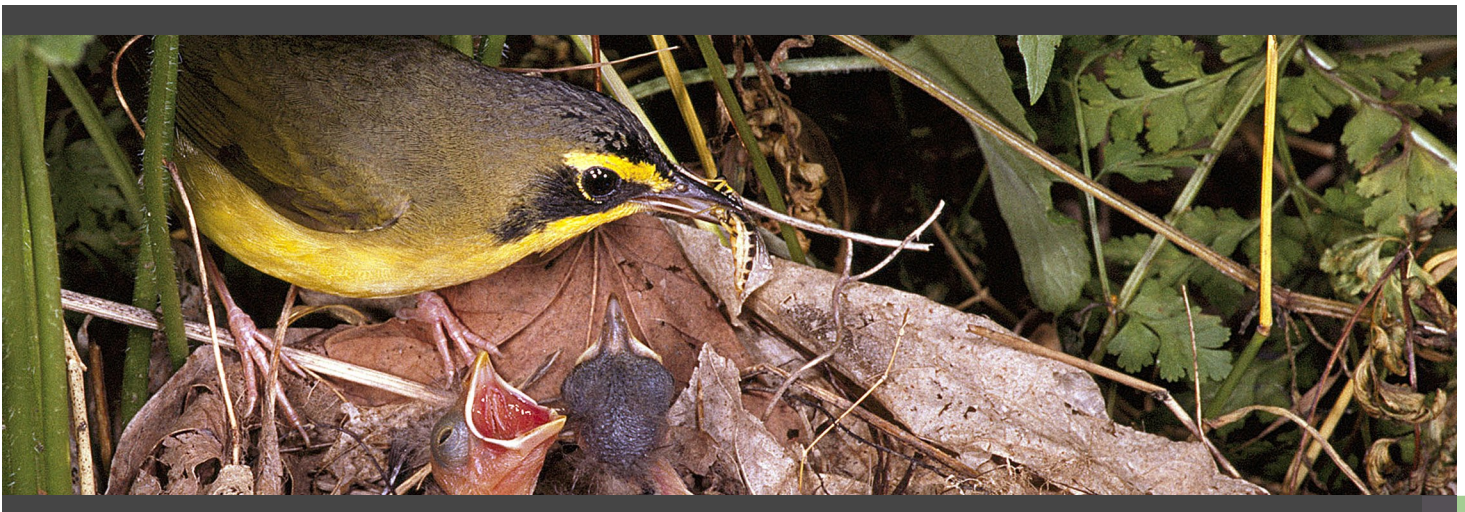
 The black bear returns to Kentucky! After more than a century, the black bear is enjoying a comeback in the Bluegrass State. Read more on Page 2.

 General Assembly reauthorizes the Land Conservation and Stewardship Task Force for two years. House Concurrent Resolution 93, co-sponsored by Reps. Robin Webb, Charlie Hoffman and David Osborne is tasked with finding a funding mechanism to enhance the scale of land conservation statewide.

 Musket balls were found among the goldenrod at Blue Licks Battlefield State Resort Park. An archeological survey recently conducted at the park turned up musket balls from the Revolutionary War era. Read the full story on Page 4.

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BLACK BEAR RESEARCH in Southeastern Kentucky

By Rebekah Jensen, Ben Augustine and Dr. Dave Maehr
Photo by Steve Maslowski, USFWS

In an age of increasing habitat degradation, pollution and global warming, wildlife success stories do not abound. Yet here in Kentucky, the black bear has returned after an absence of more than 100 years. The University of Kentucky (UK) Department of Forestry, along with our colleagues at the Kentucky Department of Fish and Wildlife Resources (KDFWR), are studying the population dynamics, ecological requirements and behavior of the black bear. The goal is to improve management decisions and conservation practices related to this repatriated species.

Since the Kentucky black bear project began in 2002, more than 90 bears have been fitted with VHF radio collars; of this group, over 30 have worn collars equipped with GPS technology. This equipment allows us to eavesdrop on bears and in so doing, learn where they live, where they den for the winter, how they travel and how the population grows. Meanwhile, analysis of DNA from hair samples has generated information about the size and distribution of the population. Five graduate students and two faculty members have participated in the research.

For a state that was recently without bears, this is *big news!* The black bear disappeared from Kentucky in the mid-1800s, a victim of habitat loss and over hunting. As forests regenerated and lands designated for protection and wildlife conservation practices expanded, the black bear made its way back from the surrounding states of West Virginia, Tennessee and Virginia. Sightings of the black bear resumed in the 1970s and increased

through the 1990s. In 2001, the first confirmed litter was reported. In 2008, results of graduate research conducted by Vince Frary of Indiana University of Pennsylvania yielded a statewide population estimate of about 100 bears, mostly living in counties along Kentucky's eastern border.

The Kentucky black bear project involves teamwork between not only UK and KDFWR, but the many agencies and organizations that support our work by allowing us to trap on the lands they manage. We trap primarily in the Hensley-Pine Mountain Wildlife Management Area, Kentenia State Forest and Cumberland Gap National Historical Park. Last summer, we were granted permission to begin trapping on land held by the Kentucky Natural Lands Trust (KNLT), Blanton Forest

The black bear disappeared from Kentucky in the mid-1800s, a victim of habitat loss and over hunting.

State Nature Preserve owned by the Kentucky State Nature Preserves Commission (KSNPC) and Pine Mountain Trail State Park Nature Preserve, managed by KSNPC and

the Kentucky Department of Parks. One bear was captured on the KNLT tract; two were captured in Blanton Forest, including the western-most reproductive female yet observed on Pine Mountain.

Bears are captured using leg-hold snares, culvert traps or tranquilizer darts. Leg-hold snares are used along our trap lines on Pine and Cumberland Mountains, while culvert traps and tranquilizer darts are used primarily for bears that are getting into trouble in developed areas. Regardless of capture method, bears are dosed with an immobilizing agent that affords us about one hour to collect measurements and observations



and apply ear tags, transponder chips and radio collars.

Location data from radio collars forms the backbone of the ecological investigations of the Kentucky black bear project. We locate our study animals weekly through aerial telemetry by homing in on collar VHF signals from an airplane. In addition to their weekly telemetry location, animals wearing GPS collars are located via satellite fixes taken at intervals ranging from 30 minutes to four hours. We analyze the locality data to examine the structure and distribution of bear territories (called home ranges), to examine space use and movements within home ranges, to study dispersal and to understand how bears are affected by human-made features on the landscape, such as roads.

What information has the Kentucky black bear project yielded so far? Home range analyses have revealed that Kentucky black bears are generally tolerant of one another. Not only do bears allow their home ranges to overlap, but given a rich food source, several bears can be found in the same place at the same time. Typically, young females establish home ranges within or intersecting those of their mothers, while young males disperse to new areas. The average male home range encompasses nearly 100,000 acres, 10 times the area of the average female home range. The Kentucky black bear spends most of its time in the woods and relies on the area's hardwood and mixed conifer forests for food, cover and winter den sites.

Sometimes, however, bears leave the woods. In these instances, human/bear conflicts can occur. One key issue is nuisance activity, wherein bears lose their fear of humans and begin relying on non-natural food sources. With nuisance reports to



UK graduate students Ben Augustine and Rebekah Jensen fit an adult male bear with a GPS collar. ~ Joe Guthriet

KDFWR on the rise, the agency employs a full-time technician who investigates complaints, hazes (negative reinforcement for nuisance behavior, e.g., rubber buckshot to drive a bear off), or relocates offending bears and teaches people skills for coexisting with bears. When bears are allowed to forage in backyards, mine dump sites and from picnic tables at state parks, nuisance activity is reinforced and the bear's continued recovery threatened. This summer a new study will explore the ecology of nuisance bears with the goal of making recommendations that help people and bears get along.

We feel privileged to be the official historians of the black bear's return to Kentucky. It is hard to imagine that the black bear was more commonly encountered by Daniel Boone than was the white-tailed deer. Back then, the black bear shared the forest with the gray wolf, eastern cougar, Carolina parakeet and American chestnut. Perhaps the black bear is just the first of several species that will find their way back to the mountains of eastern Kentucky. 🐻

Dr. David S. Maehr, 52, professor of Wildlife and Conservation Biology at the University of Kentucky, Department of Forestry, died tragically in a single-engine plane accident in Lake Placid, Fla. on Friday, June 20, 2008, while monitoring radio-collared black bears in the area. The research was part of a multi-year project that focused on black bear ecology and conservation in Highlands County, Fla. His untimely death was a great loss to Dave's family, friends, students and colleagues, as well as the staff of the commission. Our heart-felt condolences and sadness are shared by the many people whose lives he touched.

More information about Dr. Maehr may be obtained through the following Web site: www.ca.uky.edu/forestry



MUSKET BALLS AMONG THE GOLDENROD

By Joyce Bender, Nature Preserves and Natural Areas Branch Manager

Zeb Weese and I participated in an archaeological survey at Blue Licks Battlefield State Resort Park in late March. The Kentucky Department of Parks arranged for Dr. Adrian Mandzy from Morehead State University and BRAVO (Battlefield Restoration and Archaeological Volunteer Organization), a volunteer group from New Jersey, to search for evidence from the 18th century battle. Most folks know the park as the site of the last battle of the Revolutionary War, when the British and their Native American allies defeated the Americans on Aug. 19, 1782. The commission primarily recognizes the park as home to the largest populations of the state and federally endangered Short's goldenrod (*Solidago shortii*). Fifty-three acres have been dedicated as a state nature preserve to protect this very rare species and its habitat.

Dr. Mandzy has excavated and published on battle sites in the U.S. and Europe, and BRAVO is a nonprofit group that works to preserve and aid in interpreting historic battlefields, mostly in New Jersey. They planned to search the grounds with metal detectors then map and catalog their finds in an effort to better understand the dynamics of the battle. Any artifacts recovered would be given to the park for display and interpretation in its museum. We worried that the preserve would be pockmarked with little craters and that the Short's goldenrod might be inadvertently dug up in the process. Our job was to protect the goldenrod from being damaged during the archaeological survey by checking sites before they dug.

On a rainy Monday morning this group of very dedicated professionals came equipped with metal detectors and trowels, ready to scour the grounds

for any sign of the battle. I think the men were a little surprised to find us watching over them, but they quickly adjusted, calling out to us whenever their equipment detected anything. After a while, I realized the park was going to be very clean as they dug up and bagged a lot of trash. Several of Dr. Mandzy's students helped with the search and one young man was thwarted from digging several times by the presence of the goldenrod's rosette of leaves. He took it with good humor even after we teased that his detector would be more helpful to our botanists since it kept finding the goldenrod.

A shout from the hillside above my group's work area on the main bison trace made me wonder what the crew up there had found. Dr. Mandzy appeared a while later with a perfectly round musket ball. One of the volunteers commented that we were looking at a lead ball that someone had dropped

possibly 226 years before. As the day progressed, more searching uncovered additional musket balls. I was with one of the volunteers when he unearthed a flattened mass of lead that he said was a ball deformed by impact with an object. I had to take his word for that as I held the misshapen chunk in my hand. Another man turned up a ball that looked like a petrified Milk Dud. He explained that the lead ball had hit something to flatten it on one side.

We had to return one more day to finish with the crew. I took them to an area where another remnant of the old bison trace can still be seen. The area is entrenched and leads down slope toward the Licking River, possibly one of the routes that Daniel Boone and his men took while advancing or retreating. The group found more musket balls and speculated that from their positions, they may have been

"...we were looking at a lead ball that someone had dropped possibly 226 years before."



Musket ball with linen patch imprint. ~ BRAVO



fired at the fleeing Americans. As I sat on a log waiting to be called again, I let my imagination take me back to that day. Looking at the downward slope of the old trace, I could envision men running for their lives with musket balls whizzing past them.



BRAVO members surveying at Blue Licks. ~ BRAVO

More study on the locations and condition of the musket balls remains to be done. Trajectory analysis will hopefully provide a better understanding of how the battle played out across the landscape. One thing that can be reported now according to Dan Sivilich, president of BRAVO, is that none of the 10 balls recovered were fired from a smooth-bore musket. All had a rifled pattern, which means that the Native Americans or the Americans were the ones who had shot them. Regular British troops used smooth-bore firearms. One of the musket balls even bears the impression of the weave of the linen patch that was used to fire the ball

from the rifle. The patch fills the grooves in the barrel, enabling the expanding gases behind the ball to propel it further. At the week's end, Dr. Mandzy and BRAVO both expressed satisfaction with their finds. There's no telling what other artifacts have been removed from the site over the years by unscrupulous individuals who have looted the park and robbed us all of information that could shed more light on this famous battle.

Watching the BRAVO team diligently wielding their metal detectors hour after hour, being mindful of our rare goldenrod, I came to appreciate their

role in helping us learn more about how the battle unfolded at Blue Licks. These volunteers spent many hours walking transects, kneeling over small spots, digging and probing only to find a pop top or maybe the next fascinating piece of our cultural heritage. Thank you Jim Barnett, PJ Faircloth, Glen Gunther, Dick Harris, Bill Hermstedt, Carlo Iovino, Carl Poulson and Dan Sivilich for the work you did and for taking good care of our natural heritage too. 🇺🇸



Battle of Blue Licks re-enactment. ~ Paul Tierney, Kentucky State Parks



In the Spotlight: Kentucky's Rare Species & Communities

Quadrula cylindrica cylindrica Rabbitsfoot

KSNPC STATUS: Threatened

USFWS STATUS: None

GENERAL DESCRIPTION: A very elongate mussel, 4-5 inches long, having a beautiful yellow shell with green rays.

HABITAT: This species is found in small streams up to large rivers near sand and gravel bars along the edge of the current.

RANGE: Found across the state from the Kentucky River to the Ohio River.

REASON FOR PROTECTION STATUS: This mussel, along with many other species in Kentucky, have suffered from habitat loss and degraded water quality resulting from agriculture, livestock, development and mining activities.



Photo by KSNPC Staff

Pandion haliaetus Osprey

KSNPC STATUS: Threatened

USFWS STATUS: None

GENERAL DESCRIPTION: A large raptor with dark brown upperparts and white underparts; a wide, dark brown stripe extends through the eye and onto the neck.

HABITAT: In Kentucky this raptor is relatively widespread during migration, as birds that nest farther north pass through moving between the nesting grounds and wintering grounds. In contrast, the species is very locally distributed as a nesting bird, occurring along the major rivers and on large reservoirs, primarily in the western quarter of the state.

RANGE: Nests in coastal areas and across southern Canada and the northern United States; winters primarily in the tropics.

REASON FOR PROTECTION STATUS: The population of osprey decreased markedly during the "DDT era" of the mid-20th century. However, banning of the harmful pesticide in the early 1970s and reintroduction efforts have resulted in the establishment of a growing population across North America, including Kentucky. Over the past two decades, the species has been on the increase and it may soon be "upgraded" to Special Concern status by KSNPC.



Photo by Tom Fusco

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.



Sida hermaphrodita Virginia mallow

KSNPC STATUS: Special Concern

USFWS STATUS: None

GENERAL DESCRIPTION: Large perennial herb that grows 3 feet to 10 feet tall.

HABITAT: Loose sandy or rocky soil in open areas resulting from flooding along riverbanks, floodplains.

FLOWERING PERIOD: Early July to late August.

RANGE: Native range is thought to center on three disjunct areas: Potomac and Susquehanna watersheds in PA, MD, D.C. and VA; extreme southern OH, western WV and adjacent northeastern KY; and (formerly) the northeastern corner of TN.

REASON FOR PROTECTION STATUS: Rare and local throughout its range but locally very abundant, primarily in non-natural habitat, with large populations in portions of Ohio, Kentucky and West Virginia. In the Ohio drainage, it flourishes in artificially disturbed areas such as roadsides and railroad banks, but flood control and development along river corridors have eliminated most of its natural habitat in the remainder of its range. The large, artificially maintained populations have no formal protection, are dependent on late-season mowing and will likely disappear if the management regime is altered. Elsewhere, the total number of occurrences is low and declining, making the species' long-term outlook precarious in spite of its local "weedy" character. Competition from invasive exotic species is also a threat in some riparian habitats.



Photo by James Kiser

Cretaceous Hills Forested Acid Seep

KSNPC STATUS: Endangered

GENERAL DESCRIPTION: This seep is a type of wetland that occurs at the base of steep to moderate slopes where water percolates out through Cretaceous-aged (~145 to 65 million years ago) sands and gravels. Soils are deep and often mucky. Common or characteristic trees include red maple, black gum, swamp tupelo and swamp chestnut oak. Characteristic small trees and shrubs include ironwood, high-bush blueberry, possumhaw and hoary azalea. The ground cover consists of unique species such as netted chain fern, cinnamon fern, royal fern and sphagnum moss.

RANGE: Habitat conditions for Cretaceous Hills Forested Acid Seeps are restricted mainly to the hills along Kentucky Lake of Calloway and Marshall counties.

REASON FOR PROTECTION STATUS: This type of community is restricted to only a few areas of the Cretaceous Hills of western Kentucky. Lake impoundments, logging, hydrologic alterations and grazing have further degraded existing habitat. Endangered plants such as possumhaw and hoary azalea (common in states further south) are known to occur only within this community.



Photo by Brian Yahn, 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

NatureServe Explorer ~ www.natureserve.org/explorer/

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



Blackacre Hosts KCC Meeting in September

By Joyce Bender, Nature Preserves and Natural Areas Branch Manager


The Kentucky Conservation Committee (KCC) will host its annual meeting on Saturday, Sept. 20, 2008, from 10 a.m. to 3:30 p.m. at Blackacre State Nature Preserve in Jefferson County. After the meeting's conclusion, attendees may participate in one of two optional tours - a hike on the nature preserve or a tour of the Floyd's Fork watershed project.

The Kentucky Conservation Committee was established in 1975 with the mission to work for sustainable use of renewable natural resources, prudent use of nonrenewable resources, conservation and preservation of critical and unique areas and a healthful environment for all Kentuckians. Their strategy is to work with a coalition of environmental organizations and individuals to influence public environmental policy and legislation.

The theme of the meeting will be "Conserve Kentucky." The Conserve Kentucky initiative began two years ago with a task force, authorized

by the General Assembly, charged with studying the commonwealth's strategy for the protection of natural areas, farmlands, habitats and forests. The task force produced recommendations for a comprehensive land stewardship and conservation program.

The KCC annual meeting will provide participants with an update of the task force's progress and involve them in discussions of legislation to propose for the 2009 session. Four panels comprised of legislators, state agency representatives, environmental organizations, educators and research scientists will participate. The meeting will close with a discussion of KCC's environmental legislative priorities for the upcoming session.

Detailed information on the conference and registration is available at www.kyconservation.org. Conference organizers hope you will join KCC and help shape future environmental policy in Kentucky and ensure that we Conserve Kentucky! 

LAND PROTECTION Report


By Brent Frazier, Land Protection Specialist

I would like to introduce myself as the commission's new land protection specialist. I began this position last December. Previously, I worked with the Department of Agriculture's Purchase of Agricultural Conservation Easement (PACE) Program. The experiences from this previous position have helped me acclimate quickly to the responsibilities of this job. It didn't take long to realize what a dedicated group of people we have at the commission, and it is a privilege to work with them.

The first acquisition I assisted with was nearly complete when I began. The commission purchased land for an addition to the Short's Goldenrod State Nature Preserve in Fleming County. The land will be managed by both the Kentucky State Nature Preserves Commission (KSNPC) and the Kentucky Department of Parks (Parks). Collaborative conservation efforts between the commission and other agencies, such as the U.S. Fish and Wildlife Service (USFWS) and Parks are critical to providing meaningful and lasting protection for rare species and natural communities that occur in Kentucky. The Kentucky Field Office of the USFWS played a key role in this project by assisting us in locating the tract and identifying a grant funding source, the USFWS Recovery Land Acquisition grants, to fund the lion's share of the project.

Approximately 80 acres will be dedicated as a state nature preserve to protect one of the state's rarest plants, the state and federally endangered Short's goldenrod. The remainder of the 571-acre tract will be an addition to Blue Licks Battlefield

State Resort Park for passive recreation, which could include public trails. The current state park has 580 acres in Robertson and Nicholas counties, and the new property adds another 491 acres. The tract was purchased using a Recovery Land Acquisition grant for \$550,000 from the USFWS and matching monies from the Heritage Land Conservation Fund (HLCF) and Southern Conservation Corp., a nonprofit land trust that partnered on the project. Consistent with the grant requirements, the park addition will be managed in a manner conducive to the expansion of the Short's goldenrod population, while also protecting a portion of the Licking River watershed which benefits several rare mussel species. With the help of volunteers and KSNPC staff, efforts have already begun to clear some of the cedar trees that have invaded this site. The commission will dedicate this significant addition at its quarterly meeting on Sept. 10, 2008.

The 12th addition to the Coldiron Tract at Blanton Forest State Nature Preserve was dedicated at the December 2007 commission meeting. The length of this tract stretches almost from the bottom of Pine Mountain to the top. It is on the north face, which is floristically richer than the south side. While on a recent visit, KSNPC's lead botanist Deborah White reported that spring wildflower diversity is high at this location, especially for such a small tract. Various trilliums, Solomon's seal, yellow mandarin, bloodroot, foamflower and other plants cover the slope. A rare plant, nodding or spotted mandarin, is also found in the area. 



Director's Notes

By Don Dott, Executive Director

I would like to thank the General Assembly for their support of the commission when the state budget was enacted. The commission was fortunate to maintain a "straight-line" of the prior biennial budget. In particular, I'd like to thank Sens. Charlie Borders and Ernie Harris, Reps. Robin Webb, Harry Moberly and John Arnold. The amount of budget cuts KSNPC avoided was small in comparison to the entire state budget, but nonetheless crucial for us to continue our work. The difficult fiscal forecast may yet bring cuts to our funding, but you can help prevent reductions in our work. Please keep us in mind next spring and donate part of your tax return to the Nature and Wildlife Fund, which is a check-off box on the Kentucky state income tax form.

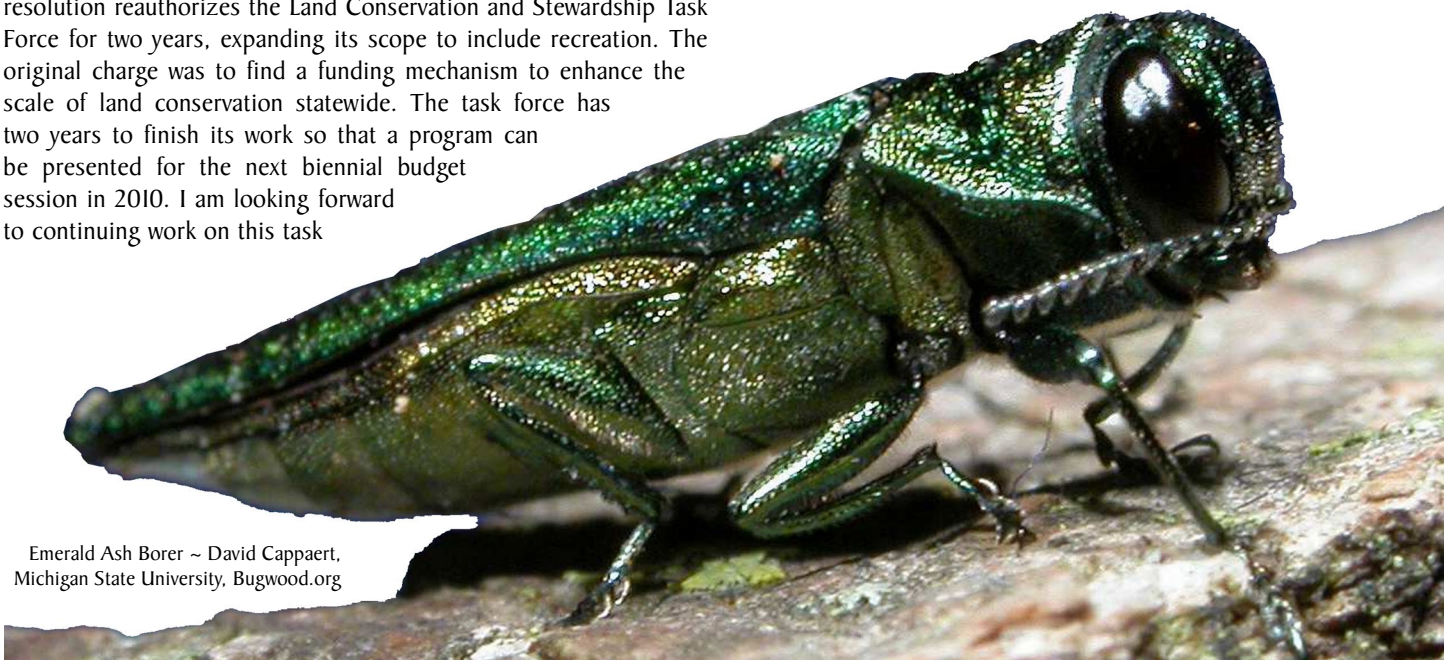
Congress provided key support for land conservation in the recently enacted Farm Bill. It renewed an increased tax deduction for the donation of a qualifying conservation easement. The deduction a landowner may take increased from 30 percent of their adjusted gross income to 50 percent. Farmers and ranchers are eligible for a larger deduction of 100 percent of their adjusted gross income. Further, any excess deduction "credit" can be carried forward and used over 16 rather than only six years. This can be particularly helpful for encouraging land conservation by landowners who have very valuable land holdings but not large taxable incomes. This increased deduction will also benefit the work of land trusts that rarely have enough money to purchase target lands. The new Farm Bill made this enhanced deduction available for only two more years, but expectations are that it will be made permanent by a future Congress.

From the commission's perspective, what I considered to be the most important bill during the legislative session passed! House Concurrent Resolution 93, co-sponsored by Reps. Robin Webb, Charlie Hoffman and David Osborne was signed into law by Governor Beshear. The resolution reauthorizes the Land Conservation and Stewardship Task Force for two years, expanding its scope to include recreation. The original charge was to find a funding mechanism to enhance the scale of land conservation statewide. The task force has two years to finish its work so that a program can be presented for the next biennial budget session in 2010. I am looking forward to continuing work on this task

force. In the face of escalating development and land conversion, it is the best opportunity since creation of the Heritage Land Conservation Fund in 1994 to increase the conservation of Kentucky's best natural lands.

The cicada emergence that hit its zenith in mid-June was quite impressive. Some folks are amazed by them, yet others find them annoying or even irritating. Either way, it's a natural event that we have no control over, so I find it best to look for the positive in such things. There were actually three species of 17-year periodic cicadas that emerged together - *Magicicada septendecim*, *Magicicada cassini* and *Magicicada septendecula*. Two sound very different from one another. The bigger ones (*M. septendecim*) sing a lower pitched "phaaaaa-roh." The smaller species (*M. cassini*) make the higher pitched whirring/whining sound, similar to the regular yearly cicadas. Visit http://insects.ummz.lsa.umich.edu/fauna/Michigan_Cicadas/Periodical/Index.html#Magicicadaseptendecim to listen to the different calls.

If you live in the northern, or Bluegrass, region of the state you may have seen big purple boxes hanging in trees. These are detection traps for the emerald ash borer, which have been surprisingly, but unintentionally, effective at catching cicadas. The ash borer has not been found here yet, but it has reached the Cincinnati, Ohio area. It has the potential to decimate the state's ash trees. The traps have been placed by the State Entomologist's Office and the UK extension entomologist. For more information contact John Obrycki, 859-257-7450 or Lee Townsend, 859-257-7455 or visit the Web site at www.emeraldashborer.info. Invasive exotic plants, pests and diseases are considered the second-leading threat to our native biodiversity after land conversion. Lately, it seems they are vying for the No. 1 position. ☞



Emerald Ash Borer ~ David Cappaert,
Michigan State University, Bugwood.org



Upcoming Hikes and Events

Please note that most events require preregistration. View our complete events calendar at www.naturepreserves.ky.gov/events/.

Aug. 9, 2008. Exploring Arch Country Guided Hikes at Natural Bridge SPNP (Powell County).

Aug. 9, 2008. Volunteer with the Landscape Restoration Team at Blackacre SNP (Jefferson County).

Aug. 10, 2008. Drought-Tolerant Natives at Blackacre SNP (Jefferson County).

Aug. 13-17, 2008. In the Footsteps of Lucy Braun at the Pine Mountain Settlement School (Harlan County).

August 23, 2008. Observation Hike at Floracliff SNP (Fayette County).

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Sept. 5, 2008. Volunteer Day at Floracliff SNP (Fayette County).

Sept. 6, 2008. Invasive Species Volunteer Workshop at Natural Bridge SPNP (Powell County).

Sept. 10, 2008. KSNPC Commission Meeting (Robertson County).

Sept. 13, 2008. Native Alternatives to Invasive Plants at Floracliff SNP (Fayette County).

Sept. 13-14, 2008. Licking River Overnight Canoe Trip at Blue Licks SPNP (Nicholas County).

Sept. 20, 2008. Short's Goldenrod Festival at Blue Licks Battlefield State Resort Park (Robertson County).

Sept. 27, 2008. Aromatic Plants at Floracliff SNP (Fayette County).

Sept. 27, 2008. Participate in National Public Lands Day at Blue Licks SNP (Nicholas County).

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Oct. 4, 2008. Invasive Species Volunteer Workshop at Natural Bridge SPNP (Powell County).

Oct. 11, 2008. Exploring Arch Country Guided Hikes at Natural Bridge SPNP (Powell County).

KENTUCKY STATE NATURE PRESERVES COMMISSION

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Kentucky State Nature Preserves Commission Quarterly Public Meeting

Sept. 10, 2008

Blue Licks Battlefield State Resort Park

Highway 68, Mt. Olivet, Ky.

10 a.m. EDT

Kentucky State Nature Preserves Commission • 801 Schenkel Lane, Frankfort, KY 40601-1403
502-573-2886 • naturepreserves@ky.gov • 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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