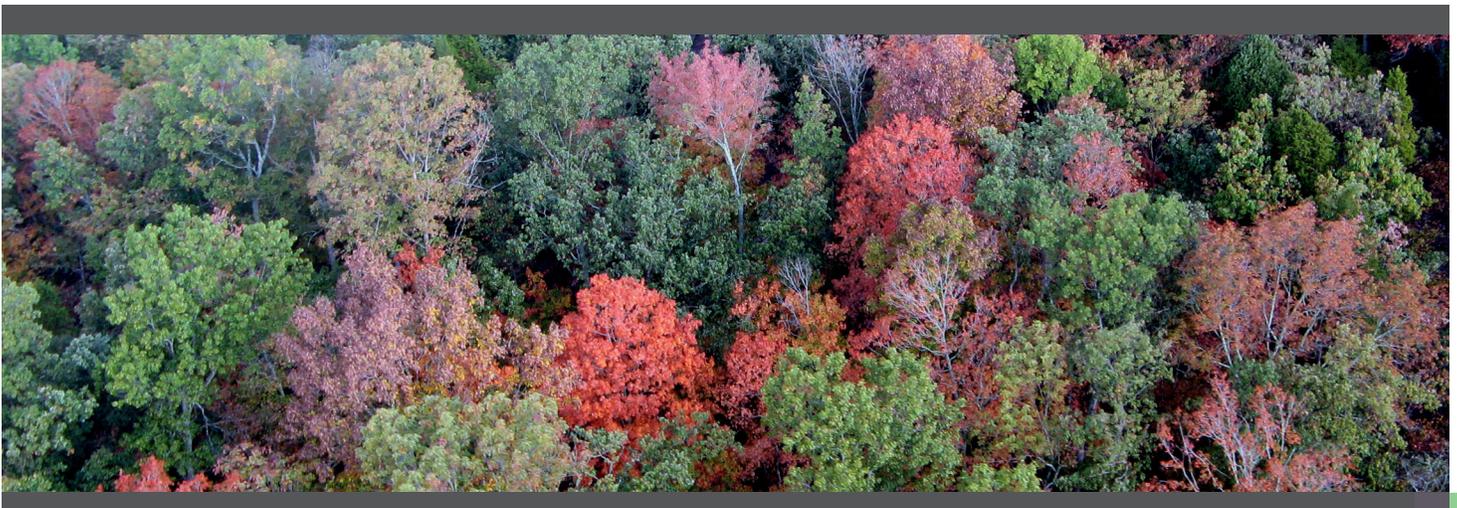


KSNPC Latest News: A new nature preserve has been created! Apple Valley Glade State Nature Preserve was dedicated in June 2012 (read more on Page 12).

- ☞ It's tough being a bat these days. Eastern Regional Preserves Manager Dan Cox explains why on Page 2.
- ☞ Nature Preserves and Natural Areas Branch Manager Joyce Bender named 2011 Kentucky Naturalist of the Year by the Kentucky Society of Natural History (complete story on Page 5).
- ☞ The demise the dreaded Asian bittersweet at two nature preserves. Southeastern Regional Preserves Manager Kyle Napier reports. (complete story on Page 8).
- ☞ Not good to play with fire you say? Joyce Bender explains what a difference this tool makes. (complete story on Page 9).
- ☞ Unnamed moss, *Tortula norvegica*, now has a common name (details on Page 9).

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Hoary bat ~ John MacGregor

These Days, It's Rough Being a Bat

By Dan Cox, Eastern Regional Preserves Manager

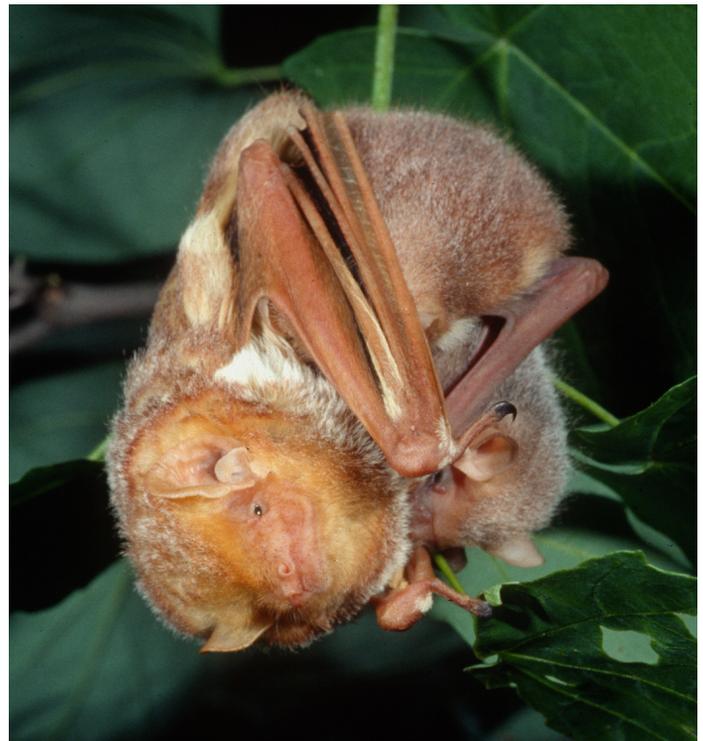
With over 1,000 species worldwide, bats are the second-most numerous group of mammals in the world. Kentucky has 14 regularly occurring species; seven of which are listed by the U.S. Fish and Wildlife Service and/or the Kentucky State Nature Preserves Commission as endangered, threatened, or special concern. Throughout North America, bats are the primary predators of night-flying insects and they play a key ecological role that often goes overlooked.

Bats in eastern North America can be divided into two general groups: bats that hibernate in caves or mines during winter and roost in trees during summer (i.e. "cave bats") and bats that mainly use trees for roosting year-round (i.e. "tree bats"). Although the two groups differ in their life histories, all bats struggle to survive. Raising young, avoiding predation, finding food, shelter, and water only scratches the surface of obstacles they face. As if these challenges weren't enough, two new threats - wind energy facilities and white-nose syndrome - are having negative, if not devastating, effects on bat communities.

Wind energy facilities are essentially nonexistent in Kentucky, but their numbers have drastically increased

throughout the Midwest, Northeast, and Canada. For humans, this is great news as we can step further away from our dependence on fossil fuels, but for bats it is a different and, unfortunately, sad story. Wind turbines are killing tree bats at a staggering rate. By 2020, an estimated 33,000 to 111,000 bats will be killed annually in the Northeast alone. Hoary (*Lasiurus cinereus*), eastern red (*Lasiurus borealis*), and silver-haired (*Lasionycteris noctivagans*) bats are suffering the greatest losses, with hoary bats composing about half of all documented fatalities. The majority of bats are killed at night when wind energy production is low but turbine blades are still moving. Studies have shown that preventing turbine blades from turning during relatively low wind speeds in late-summer and autumn can reduce fatalities by as much as 40 to 90 percent. Currently, it's unclear how many facilities use this technique to minimize mortality.

At the same time, cave bats are being killed by white-nose syndrome (WNS); a disease caused by the fungus *Geomyces destructans*. The disease, named for the white fungus that often appears on the muzzles of infected bats, is responsible for the deaths of more than 5.5 million bats throughout eastern North America! Six species of cave bats, all of which occur in Kentucky, are known to be affected by WNS. The cause of death is not well understood, but infected bats become uncharacteristically active during winter months when they should



Eastern red bat with young ~ photo by John MacGregor



be hibernating. When hibernating bats become active, they use up fat reserves and body water needed to survive the winter. In some hibernacula (caves or mines used for hibernation), 90 to 100 percent of bats have died, with little brown bats (*Myotis lucifugus*) losing the greatest numbers. There is no known cure for WNS; however, some species of conservation concern have shown resistance to the disease, including federally endangered gray bats (*Myotis grisescens*) and Virginia and Ozark big-eared bats (*Corynorhinus townsendii virginianus* and *Corynorhinus townsendii ingens*, respectively).

WNS was first identified in New York in 2007 and has since spread to four Canadian provinces and 19 states, including Kentucky. Its spread into Kentucky is significant because thousands of bats hibernate in the state's vast network of caves. To date, the disease has been found in three counties; first documented in Trigg County in the winter of 2010 – 2011 and later found in Breckinridge and Wayne counties in the winter of 2011 – 2012. Although the disease will likely continue to move across Kentucky, efforts have been made to slow its spread. Some caves have been closed, others, such as Mammoth Cave National Park and Carter Caves State Resort Park, are using decontamination systems for guided tours. Protocols for decontaminating equipment are also being used by researchers and cavers. General information about WNS, disinfection protocols, and information for cavers and cave owners can be found on the [Kentucky Department of Fish and Wildlife Resources website](#).

Bats are integral for ecosystems to function properly. So let's take a step back and look at the big picture. Both tree and cave bats have low reproductive rates and generally give birth to a single offspring once a year, which means they have difficulty recovering when their populations decrease. Considering this and the precipitous population declines of recent years, bat communities are in trouble. Researchers estimate that

for food. Maintain mature and dead-standing trees with peeling bark to serve as maternity roosts in our woodlands. Also, consider building a "bat box," which can provide shelter for bats in the area. The most important thing we can do is be aware of the benefits and threats to bat communities and take time to teach those around us. Hopefully, with a better understanding of bat ecology, increased awareness of



Rafinesque's big-eared bat ~ photo by John MacGregor

loss of bats throughout North America could lead to agricultural losses of more than \$3.7 billion per year due to increased numbers of insect pests on the landscape. For now, it's difficult to know how long it will take bat populations to recover, or if they can recover at all.

There are actions that we, as individuals, can take to help our winged friends. Whenever possible, use native vegetation around homes and yards. Native plants will benefit insects that bats depend on

the challenges they face, and a little luck, our bat populations will soon be on the mend. 🦇



METROPOLIS LAKE ACCESS IMPROVED

By Libby Watt, (former) Western Regional Preserves Manager

Metropolis Lake State Nature Preserve (SNP) in McCracken County reopened last winter with a newly resurfaced access road and parking lot. The last improvement to the infrastructure was in June 1998. Since then the Ohio River has overflowed its banks several times. Flood events slowly washed away materials, making parking and boat launching unpleasant. The surface on the access road has broken down over the years, leaving ruts and creating pot holes, which made it less accessible for visitors in small vehicles.

In late 2011, the Kentucky State Nature Preserves Commission entered into a contract with Kentucky Transportation Cabinet, Department of Highways, District 1 to resurface the entrance road and make improvements that redirect surface drainage. The entrance road was graded and the entry from the highway was paved with asphalt. The remainder of the access was resurfaced with asphalt millings. The millings were recycled from state road resurfacing projects and recommended for their durability. Shallow ditches line the sides of the road to prevent future erosion by diverting water flow. Visitors have already commented favorably on the improved conditions.

Future planned improvements include a new entrance sign with a map of the preserve and its trail, as well as posted rules and advisories. With easier access, we hope to see an increased use by visitors and outdoor classroom use by local schools.

Metropolis Lake SNP was purchased to preserve and protect the floodplain lake and the diverse and unique aquatic life it supports including several rare fish species such as the cypress minnow (*Hybognathus hayi*), the red-spotted sunfish (*Lepomis miniatus*), and the taillight shiner (*Notropis maculatus*). It consists of 123 acres of forested uplands, bottomland forest, and a 50-acre natural floodplain lake. The lake is one of the best preserved floodplain lakes in western Kentucky and is designated an outstanding water resource. It is located 7 miles northwest of Paducah off of KY 996. Bird watching, hiking, nature study, and fishing are permitted within the preserve. There is a short interpretive trail that meanders through the upland and circles back along the lake shoreline. Through the seasons you may observe Ouachita turtles basking, Prothonotary warblers building nests, beavers and an array of colorful wildflowers blooming along the roadside or throughout the forest.

If you are boating or fishing in the lake, please be familiar with the regulations that strictly prohibit the use of gill nets, jugs, or trotlines. You may use electric motors, rods and reels only. Please remember you can always find information about the Kentucky State Nature Preserves Commission and your local state nature preserves online at naturepreserves.ky.gov. If you are interested in volunteer opportunities with KSNPC, please contact us at 502-573-2886. ☎



before



after

Metropolis Lake SNP parking area (before and after) ~ photo by Robert Dunlap



Joyce Bender, 2011 Kentucky Naturalist of the Year

By Wally Roberts, Kentucky Society of Natural History

Each year, beginning in 1974, the Kentucky Society of Natural History has presented its Kentucky Naturalist of the Year Award to an individual who has made great contributions toward helping the citizens of Kentucky become more aware and appreciative of our state's natural history and biodiversity.

Joyce Bender, our 2011 recipient, has been with the Kentucky State Nature Preserves Commission (KSNPC) since 1986 and manages the state nature preserve system. Previously, she worked for the Nature Conservancy in Minnesota and Ohio and the Department of Natural Resources in Ohio.

She is past president of the Kentucky Exotic Pest Plant Council, an organization she helped start in 2000 and led until this year. She is the current president of the Kentucky Prescribed Fire Council. In addition, Joyce has led many hikes on the state nature preserves and given many presentations on the nature

preserve system over the past 25 years. She has made many appearances on KET's "Kentucky Life" and has written numerous articles for KSNPC's "Naturally Kentucky" newsletter.

Joyce credits her older brother for helping her develop a love of nature when she was young. Botany and birding are her main interests, but she is also interested in geology. After making a presentation to the society at the spring meeting, she was surprised to learn she was the recipient of the award. "I am very honored to receive this award and humbled that I would be considered worthy, when looking back on the contributions made by many of the previous recipients. It is a beautiful award and I will always treasure it."

Congratulations to Joyce Bender, Kentucky's 2011 Naturalist of the Year, a much deserving recipient! 📷



Joyce Bender (L) and Jeff Foster, president of the Kentucky Society of Natural History (R)



In the Spotlight: *Xeric Red Cedar - Oak Forest/Woodland*

A unique but quite common community in Kentucky is the Xeric red cedar - oak forest/woodland, one of several xeric forest/woodland types. This forest/woodland ranges from dry to very dry (i.e. xeric) and often has a semi-open canopy (i.e. woodland= semi-open canopy, forest=closed canopy). Soils are usually thin and bedrock is often exposed (amount of bedrock exposed varies from site to site). This community is usually found on south and west-facing slopes often along upper slopes near ridge tops and also just above bluffs/cliffs of stream corridors. Xeric red cedar - oak forest/woodlands are also known to occur around glades (i.e. dry bedrock communities) where in the past, fire played a more significant role in shaping the openness of the community and eastern red cedar was less of a dominant in the canopy and understory. These forest/woodlands are usually developed over limestone but when soils are neutral or slightly acidic, this community can occur over sandstone, siltstone and shale. Outside of Kentucky, communities most similar to these forest/woodlands are found scattered throughout surrounding states and likely throughout the native range of eastern red cedar (from the eastern Midwest to Eastern U.S., south to southern Georgia and eastern Texas).

KSNPC's classification of Xeric red cedar - oak forest/woodland broadly describes dry cedar-oak woodlands across Kentucky. But a few of these woodlands in Kentucky have distinctive compositions of plants and support several rare species. One example occurs above Jessamine Creek in Jessamine County, within Kentucky's Bluegrass Region. According to NatureServe (the national authority on the status of rare species and natural communities), this community is considered globally imperiled (=G2). Another dry limestone woodland in the Knobs Region is also considered globally imperiled (=G2) (NatureServe 2010).

When describing this community, the canopy is fairly distinctive as the trees are somewhat limited to certain habitats. Red cedars, chinquapin oaks and blue ash are abundant in this community, preferring dry, rocky places and limestone bedrock. Blackjack and post oaks do well in these dry, rocky soils but can also tolerate higher acidic conditions, like over sandstone (they can be present but usually not dominant). The trees of the canopy are often gnarled and stunted, especially in

the driest and rockiest habitats. Common shrub and midstory trees include Carolina buckthorn, Carolina rose, dwarf hackberry, eastern redbud, fragrant sumac and rusty blackhaw. The herb layer can range from sparse to dense (usually of moderate cover), dominated by drought-tolerant plants. The most common and characteristic grass is poverty oat-grass but other grasses like little bluestem, muhly grasses, panic grasses, rosette grasses and wild ryes may be present. Common and characteristic wildflowers (i.e. forbs) include aromatic aster, Canadian summer bluet, downy pagoda-plant, hoary puccoon, meadow zizia and nodding onion. Other characteristic but restricted plants (i.e. only common in a fraction of examples) include bastard toadflax, beebalm, purple cliffbrake, moss phlox, pitcher's stitchwort and prostrate blue violet.

In Kentucky, Xeric red cedar - oak forest/woodlands provide habitat for unique species of plants and animals, a few found nowhere else outside of this community. At least 11 KSNPC-listed plants have been documented on or in close association with these forest/woodlands (KSNPC 2012). These associated rare species (not highlighted below or listed above) include the Canby's mountain-lover, cleft phlox, cutleaf meadow-parsnip, globe bladderpod, mock orange, plains muhly, purple oat, September elm, snowberry, starry-cleft phlox and Svenson's wildrye. Other unique critters often found associated with xeric limestone woodlands include cave salamanders, prairie warblers and numerous

species of butterflies and moths.

Although more stable (disturbance tolerant) than other natural communities, due to bedrock exposure and dominance by drought-hardy vegetation, xeric forest/woodlands are still vulnerable to human disturbance. In many areas, these forest/woodlands, although rocky, can still be logged or logged on the margins which can devastate the community, changing the vegetative structure and plant composition and allowing woody seedlings, native weeds and invasive non-native weeds to replace more conservative species. Xeric forest/woodlands are also susceptible to grazing which (along with logging) allows erosion of thin soils, scaring the woodland/forest for years into the future. Consequently, the erosion and shifting soils also present ideal conditions for undesirable species invasion like exotic vines such as Japanese honeysuckle.

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

[KSNPC] Kentucky State Nature Preserves Commission. 2012. Kentucky Natural Heritage Database. Kentucky State Nature Preserves Commission, Frankfort, Ky.

NatureServe. 2012. NatureServe Explorer: An online encyclopedia of life. NatureServe, Arlington, Va. Available www.natureserve.org/explorer.



A Xeric red cedar-oak forest/woodland found among the steep bluffs of the Green River, just east of Mammoth Cave National Park (spring). ~KSNPC photo by Marc Evans



Juniper Hairstreak *Callophrys gryneus*

KSNPC Status: None

USFWS Status: None

General Description: A distinct hairstreak butterfly with underside of wings primarily green and with tawny lines outlined in white. Upperside of wings dark brown with olive-colored sheen in males and blackish brown in females. Small tails on back of hindwings. Wingspan 1–1.25 inch.

Habitat: Rocky bluffs, glades, and old fields with eastern redcedar (*Juniperus virginiana*). Adults often found nectaring on flowers in fields near the larval foodplant.

Larval Foodplant: In Kentucky larvae feed on eastern redcedar.

Flight Season: Two broods in Kentucky, peaking in April and July.

Range: Much of the United States with a few occurrences in Mexico.



Photo by Ellis Lauder milk, KSNPC

Wild dill *Perideridia americana*

KSNPC Status: Threatened

USFWS Status: None

General Description: A delicate plant with leaves divided into very slender segments. Plants are erect to 2-3 ft. The flowers are clusters of white flat-topped heads, somewhat similar to the weed, Queen Anne's lace. Found in xeric (meaning very dry) woodlands.

Habitat: Xeric woodland around glade and rock outcropping communities.

Flowering Period: Usually early summer.

Range: Wild dill is more common in Missouri and Illinois at the north part of the range and rare in the states to south and east. In Kentucky, it is found from the Ohio River counties in the west, along the southern state border, and the Bluegrass Region.

Reason for Protection Status: Habitats have been degraded due to hydrologic changes and habitat destruction.



KSNPC Photo by Kurt Emmanuele, TNPS

Fence Lizard *Sceloporus undulatus*

KSNPC Status: None

USFWS Status: None

General Description: A small to medium-sized gray or brown lizard showing strong arboreal tendencies. Fence lizards are the only spiny lizard in Kentucky, having keeled and pointed dorsal scales. Mature individuals range from 4 to 7 ¼ inches. Females often have black horizontal patterning on their back, while dorsal lines are indistinct or absent on males. Males have bright blue patches on their chin and sides of belly. When disturbed, fence lizards will climb the nearest tree and remain motionless on the opposite side of the trunk. If approached, they will continue up the tree until out of reach.

Habitat: Fence lizards occupy dry, sunny woodlands throughout Kentucky and can often be seen scrambling around logs, stumps, fence posts, old rock piles, old building, or similar places.

Range: Distributed from New York to central Florida, extending west to eastern Kansas and Texas. A western subspecies extends south to Mexico, west to Utah, and north to southern South Dakota.



Photo by John MacGregor



Invasive Species Highlight: *Asian Bittersweet*

Asian Bittersweet

Celastrus orbiculatus

By Kyle Napier, Southeastern Regional Preserves Manager

A native of eastern Asia, Asian bittersweet (*Celastrus orbiculatus*) was introduced to the United States in 1736. Since that time it has invaded forests in the eastern half of the U.S. With its bright yellow and orange fruits, it is a very showy ornamental but it is highly invasive. This deciduous, twining woody vine may sometimes grow to 6 inches in diameter and reach to 60 feet or more in tree crowns. I sometimes like to refer to this bittersweet as the deadly strangler.

Asian bittersweet is shade tolerant but the densest infestations are found along forest edges and in openings. However, this vine can become a real problem inside the forest itself. It colonizes by both seedlings and prolific vine growth and spreads by animal dispersed seeds as well as human collecting. The showy berried vines have been collected for years as home decorations in winter. After the colors fade and the fruits start to fall off, the vines are discarded and this promotes spread.

Larger vines have the ability to out compete and actually strangle large canopy trees. Smaller vines can form dense thickets that will not allow native species to become established or thrive. Asian bittersweet has been a huge problem at two southeast nature preserves, Pine Mountain State Park Nature Preserve and James E. Bickford State Nature Preserve. Prior to our eradication projects, both preserves were heavily infested. Each had at least 80 percent of their acres infested to some degree and at least 50 percent were highly infested. Most canopy trees were being over taken and the herbaceous and midstory layers were being replaced at an alarming rate.

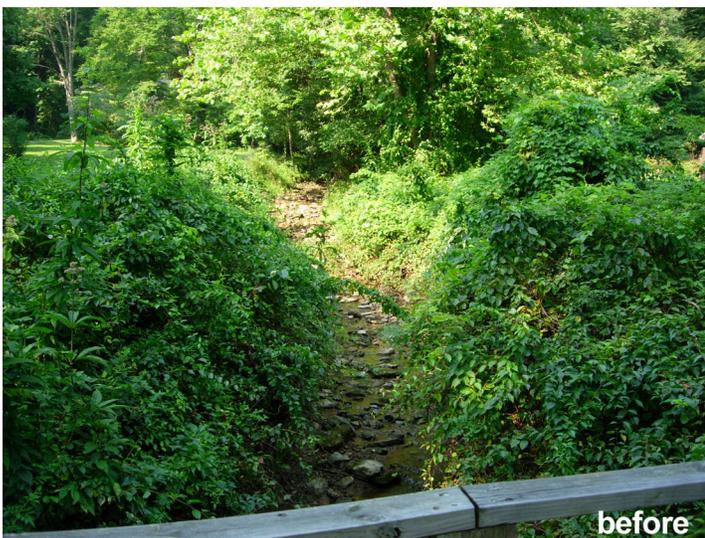
An eradication project was undertaken at Pine Mountain SPNP during the summer of 1999 and at the Bickford SNP during the summer of 2004. The first couple of years were spent eradicating the larger vines. This was done by cutting the vines close to the ground and applying herbicide to the cut surfaces. Many vines were found to be 4 to 6 inches in diameter and a chainsaw was the most efficient means of cutting. The smaller vines were sprayed with a foliar application of herbicide. The results have been amazing. Today, you can drive through Pine Mountain SPNP and the trees along the roadside are free of viney tangles, looking much healthier and the forest is rich in native diversity again. A walk along the trails at James E. Bickford SNP shows they are now clear of this nasty exotic.

Distribution: Visit www.eddmaps.org/distribution/usstate.cfm?sub=3012 to see a county level distribution map.

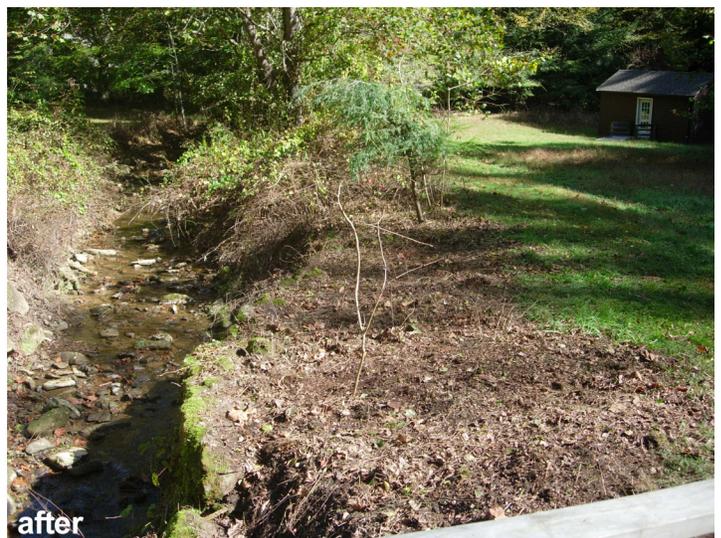
Additional Information: Visit www.nps.gov/plants/alien/fact/ceor1.htm to learn more.



Chris Evans, Illinois Wildlife Action Plan, Bugwood.org



before



after

Pine Mountain Settlement School (before and after) ~ photo by Kyle Napier, KSNPC



NAME That Species Contest

By Deborah White, Lead Botanist and Natural Heritage Branch Manager

Some wonderful names were submitted for our *Name That Species Contest* (which we started in our previous newsletter). You may remember that the moss, *Tortula norvegica*, has twisted teeth on the

cap (the fruiting part of the moss), has distinctive folded leaves with a long red point at the end and these leaves twist and recurve when they dry.

Here are some of the great names that were suggested: twisted star bristle, twisted star, green iris moss, iris moss, pineapple moss, dragon's breath, vampire moss, toothy moss, dentist moss. Thanks to Susan Malette, Ron Scott, Leslie Wayman, Neil Pederson, Leslie Isaman and Mira Abernathy for coming up with some common names for this moss.



twisted star ~ photo by Allen Risk

This *Tortula* will no longer be simply listed as “a moss” on our rare plant species list. The winning common name is “twisted star” submitted by Leslie Isaman.

Look for our next *name that species contest* in the winter issue! 

Prescribed Fire, a Critical Management Tool for Kentucky

By Joyce Bender, Nature Preserves and Natural Areas Branch Manager

The Kentucky State Nature Preserves Commission (KSNPC) uses various techniques to restore natural communities and manage its 60 state nature preserves. A number of rare plants and several natural communities require some sort of disturbance regime, e.g. fire, grazing, flooding to sustain them. Some methods to mimic natural disturbance require tools such as chainsaws, mowers and herbicide sprayers. By far the most exciting management practice is prescribed fire. Every year the commission conducts prescribed fires on state nature preserves that contain fire-dependent natural communities such as limestone slope glades and oak barrens.

These natural communities often provide habitat for rare species. The periodic reintroduction of fire into a disturbance-dependent community can help control the spread of shade-casting woody and exotic plant species and stimulate many glade and barrens species. Recent studies on several of our preserves have shown that populations of insects dependant on remnant grassland habitat have responded well to a prescribed fire regimen with three-year intervals between burns. Increases in numbers indicate that populations of rare plants have benefited as well. Without



fire management, species such as the federally endangered Short's goldenrod (*Solidago shortii*), state endangered earleaf false foxglove (*Agalinis auriculata*) and state threatened slender blazing star (*Liatris cylindracea*) would be even rarer.

Safety is of paramount importance on prescribed burns. Each burn is conducted by trained personnel from the commission's Nature Preserves and Natural Areas Branch according to a prescription developed by the preserve manager and approved by the branch manager. The prescription includes the ecological objectives for



the burn and provides a set of parameters for factors such as air temperature, wind speed and direction, fuel moisture, relative humidity and smoke management. If on-site conditions do not meet these parameters, the burn is rescheduled.

Staffing and weather conditions dictate the number of burns that can be accomplished during burn seasons. Prescribed burns are typically conducted in spring and fall when fuels (leaf/grass litter and brush) will readily combust and carry a fire through an area. The wet, windy weather we had this spring was not conducive for burning. The high temperatures in mid-March really hastened spring “green up” and we had to abruptly end our attempts, as vegetation became too moist for us to meet ecological objectives. Droughty summers can preclude fall burning as conditions may be too dry and hazardous to safely contain a burn within the unit. Weather concerns can cause a backlog of units waiting to be burned.

More people are becoming aware of the beneficial uses of prescribed fire and as a result, more sites, many on private lands, are being considered for inclusion in a burn program. However, there are currently not enough trained personnel to safely conduct all of these prescribed burns, nor do current laws allow expansion of the categories of approved practitioners during the optimal months for burning. Combine the restrictions of weather with shortages of trained personnel and we start to lose ground with our management goals.

A relatively new organization, the Kentucky Prescribed Fire Council (KPFC) has formed with the mission to promote the use of ecologically-based prescribed fire in Kentucky. The KPFC

membership includes land managers, researchers, educators, landowners and others interested in the beneficial use of prescribed fire. Members recognize the need to conduct more prescribed fires and have joined together with other states as part of the Coalition of Prescribed Fire Councils to work together to address the following:

1. Protect and advance the ability to use prescribed fire as a management tool.
2. Coordinate the exchange of information in all prescribed fire related issues.
3. Promote the safe use of prescribed fire as practitioners and educators through appropriate training.
4. Promote public awareness to further the understanding of prescribed fire benefits.
5. Advance cooperation among all parties in Kentucky directly or indirectly involved with the use of prescribed fire.
6. Support collection and dissemination of technical information obtained through research and monitoring.
7. Share and build resources toward increasing prescribed fire capacity.

The KPFC held its fourth annual conference September 17-18th and a one day prescribed fire training workshop September 19th at the Wendell H. Ford National Guard Training Center near Greenville. The Council will meet there again next September. If you would be interested in learning more about prescribed fire or joining the KPFC, please contact Joyce.Bender@ky.gov. 

Farewell and Good Luck

By Joyce Bender, Nature Preserves and Natural Areas Branch Manager

Byron Brooks made his last map, fixed his last chainsaw and sprayed his last weed for the commission this April. He returned to his native Tennessee to run his father's business. Byron began work at the commission in January 2003 as a stewardship assistant. He assisted with the administration of the Nature Preserves and Natural Areas Branch. He divided his time between office and field assignments. His writing skills were put to good use compiling sections of preserve management plans, developing interpretive materials for preserve visitors and serving

on the commission's editorial board where his contributions were deeply appreciated. He was especially valuable as our branch's GIS practitioner. He made all of the maps that correspond to our management plans, burn plans and preserve brochures.

Byron helped carry out management on our nature preserves. He had particular zeal when clearing cedars and controlling invasive species and many rare plant populations are healthier for his efforts. He served on our burn crew and was responsible





Byron W. Brooks

for building fire breaks and doing most of the running around getting equipment deployed on the day of a burn. He was our “go-to” guy for fixing things and he saved the commission a lot of money by repairing and even fabricating parts to keep our field equipment running.

Byron’s personality and sense of humor brought a lot of life to the office. We miss him for his cheer and his commitment to protecting Kentucky’s natural areas. Even though he is now in the thick of real estate management, I know in his off hours he will have his hands on a chainsaw or a backpack sprayer, helping on a Tennessee natural area.

Libby Watt assumed the duties of the western regional preserves manager in August 2011. She began in earnest, clearing a backlog of tasks that had built up in the five months since Lane Linnenkohl’s departure in March. Early on, she reached out to faculty members of the Biology Department at Western Kentucky University (where the office is located) and engaged students in volunteer projects on local preserves. By January she had completed the final training requirements to be a burn boss and finished her apprentice burning this spring. I was feeling like

we were picking up momentum when she regretfully informed me that she was making the choice of a different career path that better suited her family’s needs. Although her time with us was brief, she accomplished a number of projects and was even featured in a Kentucky Life segment on KET. If you missed her while she was here, look for her on an upcoming program where she and John MacGregor from the Kentucky Department of Fish and Wildlife Resources (KDFWR) take a closer look at one of our newer preserves, Blood River Seeps State Nature Preserve.

With departures come new beginnings and we plan to convert Byron’s old technician position to a regional manager position, which will serve the Jackson Purchase. Western Kentucky contains most of our wetland preserves and they require more attention than we have been able to give them with a manager driving from Bowling Green. We hope to be hiring this fall and I look forward to having four regional managers to better serve the preserve system and the public. 🌿



Libby Watt



More Staff Departures

By Don Dott, Executive Director

We are saddened to report that we will be losing Judy Cunningham to retirement, but nonetheless we are very happy for Judy to be reaching this momentous event on Sept. 30. Judy is the commission's internal policy analyst II (fiscal officer) and as such, she is key to the functioning of this office, especially in these days of declining budgets. Judy has been instrumental in helping us tighten our belts, in the least painful ways, and stretching our dollars till

they scream. An example of her frugality is her determined attempt to siphon a tank of gas from a dilapidated jeep that was being sent to surplus auction. It was a heroic effort, though thwarted by the anti-siphoning design of the tank - now that's dedication! Judy's quiet, even keeled personality has also helped this office weather some difficult periods when staff stress levels rose. She has mastered our budgets and deftly handled the processing

of grants from many diverse sources, which is no easy feat, considering this is all managed through the eMARS system, a system that originated on its namesake planet. Best wishes to Judy for a wonderful retirement, it is certainly well deserved, but she will be greatly missed. ☹️

LAND PROTECTION Report

By Brent Frazier, Land Protection Specialist

I am pleased to report that Apple Valley Glade State Nature Preserve (SNP) was established with the acquisition of the Poteet tract, which was dedicated at the June 2012 commission meeting. This new SNP provides protection for the Kentucky gladecress (*Leavenworthia exigua* var. *laciniata*), which is only known to exist in Jefferson and Bullitt counties (and nowhere else in the world!). The Poteet tract includes a high quality dolomite glade that is also globally rare! This is a major victory especially considering the area is under extreme development pressure.

The acquisition of the Van Sant tract at Frances Johnson Palk SNP in Pulaski County is still progressing. As previously reported, the owners have corrected the trust issues that halted the acquisition in 2007. The trust we are working with

only owns 96 percent of the mineral rights. We are in the process of obtaining permission to purchase the property since the outstanding percentage is owned by several individuals. Normally, the commission only purchases property that includes all the property rights, but this amount is so insignificant that we plan to proceed. We are also working with another owner to purchase an adjacent 18-acre tract that includes road frontage. The tract, known as the Mt. Victory LLC tract, will give us fee ownership of the access easement we have been using to enter the existing preserve. The access easement is listed in the deed but is not surveyed, so owning the tract will prevent any unforeseen problems in the future. This preserve contains a series of acid seep communities that are very rare in Kentucky. These small wetlands are formed at the heads of several streams,

where water drainage is poor (sometimes due to a perched water table) and water seeps very slowly through the community, at or near the surface. Although much of the preserve is dominated by upland forest, over 70 species of plants occur within the seeps, several of which are rare.

The large acquisition at Laurel Fork in Whitley County has been purchased by the Kentucky Natural Lands Trust (KNLT). A neighboring tract was also purchased to provide adequate access. These tracts contain significant natural areas that are home to federally listed mussels and globally rare species such as the rock harlequin (*Corydalis sempervirens*), Cumberland arrow darter (*Etheostoma sagitta sagitta*), and blunt mountainmint (*Pycnanthemum muticum*). They are also a part of one of the largest forest blocks in the state. ☹️



By Don Dott, Executive Director



Conserve Kentucky! If you recall, that was the title of my spring 2012 article, but this isn't going to be a summer rerun. The gist of that article was about multiple partners seeking new funding sources to purchase more land for conservation and public access. Everything from state parks to fishing and hunting lands, to urban green space to nature preserves. If new funding sources are found, who would be in charge of spending them prudently?

That responsibility would fall to a state commission that already exists, one that you may have never heard of, which works very hard to protect as much natural land and habitat as possible. It's the Kentucky Heritage Land Conservation Fund (KHLCF).

Since its creation by the General Assembly in 1994, the KHLCF board has funded in whole or in part the purchase of over 76,000 acres. That's a great start, but it's really just a drop in the bucket when you consider that Kentucky has over 25,000,000 acres. The lands purchased by the KHLCF board are now state parks, state forests, wild river corridors, wildlife management areas (primary hunting and fishing lands) and of course nature preserves. The KHLCF also provides grants to local governments and universities to purchase and protect natural lands near them.

The Kentucky Heritage Land Conservation Fund is our primary funding source for land acquisition at the commission. We have used it to purchase and protect Kentucky's largest old-growth forest - Blanton Forest, our rarest endemic plants, like Short's goldenrod (*Solidago shortii*), and unusual natural communities like acid seeps that provide habitat for native plants like the yellow-fringed orchid, cinnamon ferns and sphagnum mosses. This year the KHLCF approved a grant to help purchase over 600 acres at Audubon State Park. This area has wetland communities with cypress trees, a bald eagle nest, a heron rookery, and more. Other grants this year will be used to purchase land in the Red River Gorge, a tract on the Little South Fork, the Laurel Fork corridor on Pine Mountain and several thousand acres of forested land and wetlands at the confluence of the Tradewater and Ohio rivers.

Though many Kentuckians have never heard of the Kentucky Heritage Land Conservation Fund, they see some of its handiwork every day; and of all the unexpected places, it's on the back of a car bearing a *Nature's Finest* license plate. A lot of people purchase the plates because they like their look, not knowing the real reason

behind the additional charge is to purchase outstanding natural lands like those mentioned before, it's not just another pretty plate. It's also an easy way for you to make a small donation to help save some of Kentucky's best natural lands. A recent survey found 83 percent of Kentuckians are willing to dedicate a part of the state's tax receipts to land and water conservation.

The *Nature's Finest* plates are one of only three funding sources the KHLCF relies upon, yet together those sources generate an average of \$4-5 million a year. That may sound like a lot, but it's really just a drop in the bucket when the need to buy and protect land all across the Commonwealth is so great.

This year, the KHLCF is bring back two originals and a best seller – the viceroy butterfly on a goldenrod stem, a cardinal taking flight from a Kentucky coffeetree branch and a bobcat prowling across some native rhododendron. Good marketing is the key, considering the goal is to sell as many plates as possible. When the *Nature's Finest* plates first became available, they were one of only a few specialty plates and sales generated over \$1 million in 2004 and 2005. However, the proliferation of more specialty plates (at last count there were over 80) has produced stiff competition and income has declined. When next you need to renew the license plate(s) on your vehicle(s) – go green and help us buy more green! *Natures' Finest*. It's a great plate with a great benefit for a small price.

For more information and on the lands that have been purchased, visit the KHLCF website at: www.heritageland.ky.gov . 



Upcoming *Hikes* and *Events*

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

- Oct. 6 Exploring Arch Country Guided Hikes at Natural Bridge SPNP (Powell County)
- Oct. 13 Mary Wharton's 100th birthday and Kentucky Native Plant Society Fall meeting at Floracliff SNP (Fayette County)
- Oct. 13 Highlands Hike to Blanton Forest SNP (Harlan County)
- Oct. 14 Fall Hike at Blackacre SNP (Jefferson County)
- ~~~~~
- Nov. 3-4 Floracliff Field Studies: Conifers at Floracliff SNP (Fayette County)

**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

Dec. 13, 2012
TBA, Frankfort, KY

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

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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.

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