

Naturally Kentucky

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KSNPC Latest News: KSNPC has been monitoring Running Buffalo Clover (RBC), a federally listed endangered species, at Ashland Estate in Lexington since its discovery in 1989. In 2006 four recovery zones were established and efforts have been underway to reduce the impact of invasive species on the clover. This past January KSNPC partnered with staff at Ashland, U.S. Fish and Wildlife and Dave Leonard Consulting Arborist to remove four large tree-of-heavens, an exotic invasive tree species, near the largest patch of RBC and replaced them with three native ironwoods. An educational sign about invasive species and the tree-of-heaven removal was also created. Once the invasive species have all been removed from the RBC patches, the hope is to establish varying levels of disturbance regimes, such as mowing and trampling, in order to see what kinds of management techniques are most beneficial to these populations.

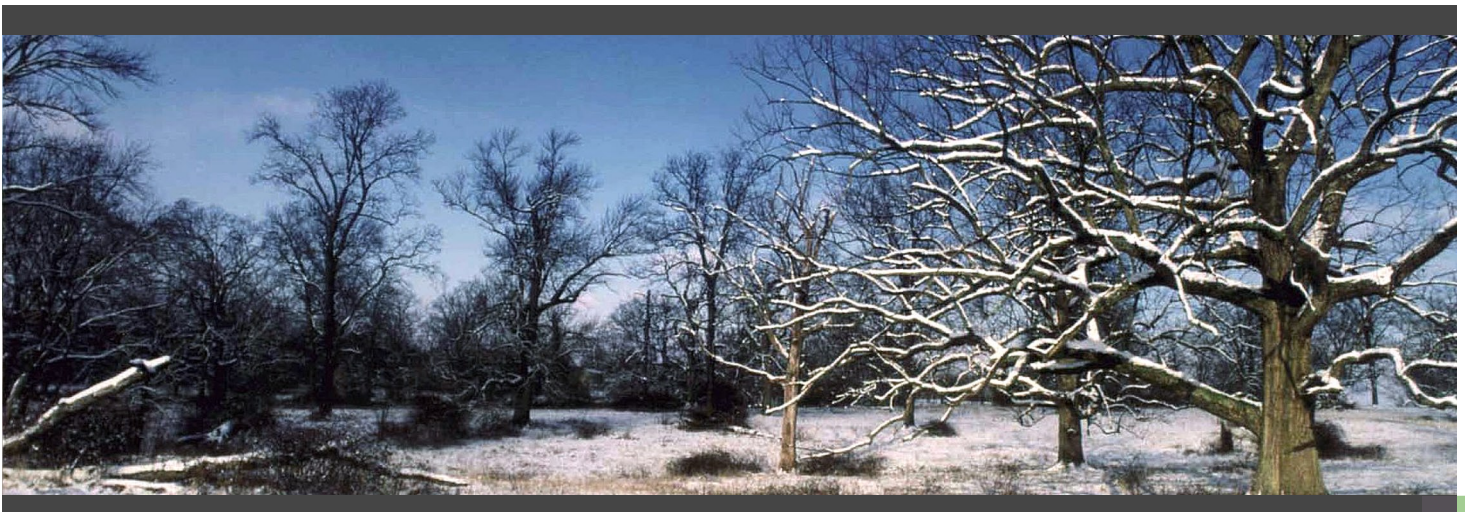
☞ A small but significant tract was dedicated at the December Commission meeting. The 23-acre Nicholson addition is our first on the north face of Pine Mountain at Blanton Forest State Nature Preserve.

☞ KSNPC is currently reviewing the final version of the Kentucky Aquatic Nuisance Species Management Plan. When implemented, this plan will provide guidelines for resource managers dealing with invasive aquatic species in the state and steps for prevention of infestation. It will also call for a coordinator position to be created for Kentucky.

☞ KSNPC is helping sponsor and organize the plenary speaker session and workshop for the meeting of The Freshwater Mollusk Conservation Society (FMCS) in Chattanooga, Tenn., in July 2008. It will be a joint meeting with the Society for Conservation Biology, a major international scientific society, which will attract more than 1,400 people.

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THE KNLT STORY

By Hugh Archer, KNLT Director and Don Dott, KSNPC Director

Kentucky is blessed with a great deal of forestland, covering 47 percent of the state. However, most forests are broken into small tracts by roads, public utility easements, housing and agricultural land use. The average size of a privately owned woodlot is now less than 40 acres, which is not large enough to provide the interior forest habitat necessary for many species to survive. Forests or woodlots of this size are incapable of providing “eco-services” such as water filtration and air quality benefits that have been taken for granted for so long. Larger forest blocks assembled into north-south migratory corridors become more valuable to the sustainability of native plant communities and their resident wildlife, to the provision of eco-services and the security of our health.

The Kentucky Natural Lands Trust (KNLT) is unique in being the only statewide land trust focused on forested landscapes. KNLT uses all the tools of nonprofit conservation—acquisitions, easements, tax deductions, government agency rollovers, long-term forest land management advice, carbon sequestration agreements, demonstration sites, policy assistance and others.

KNLT is also the only statewide land trust dedicated to conserving natural areas by partnering with state agencies. It has specific partnerships with the Transportation Cabinet, the Kentucky State Nature Preserves Commission (KSNPC), the Department of Parks and the U.S. Fish and Wildlife Service. KNLT has also been able to take advantage of resource removal industry gifts, mitigation funds and supplemental environmental projects agreements. Much of KNLT’s effectiveness derives from its diverse partnerships with both government agencies and the private sector.

KNLT’s first successful partnership was begun to preserve Blanton Forest, the state’s largest old-growth forest. KNLT

was established in the early 90s because the state had gaps in both acquisition dollars and stewardship resources to act on the discovery of what would become Kentucky’s largest state nature preserve. KNLT joined with the KSNPC to raise and secure more than \$3 million to purchase the old-growth and buffer land that became Blanton Forest State Nature Preserve (SNP). Centered along the 120-mile Pine Mountain corridor, the preserve protects more than 3,000 acres, with hiking trails open to the public year round. KNLT continues to work with KSNPC to acquire property to add to Blanton Forest, as well as the Bad Branch State Nature Preserve and other high-quality natural areas along the mountain.

In its first nine years, KNLT’s focus on Blanton Forest evolved into partnerships with the Pine Mountain Settlement School, Camp Blanton, the Louisville Zoo, Harlan County tourism programs, the Kentucky Woodland Owner’s Association, the Division of Forestry and other organizations active on Pine Mountain and in its communities. The success of this project has been, and continues to be, dependent on a growing number of partners.



Fraser’s sedge, state-listed Endangered ~ Heather Housman

Building on its success at Blanton Forest, KNLT undertook a strategic planning process to consider three new potential focus areas—the entire landscape of Pine Mountain, the Obion Creek complex in the Jackson Purchase area and the central Kentucky barrens.

The Pine Mountain corridor is an ambitious plan to connect existing protected areas on Pine Mountain (including Blanton Forest) and maintain the ecological and migratory corridor that, so far, has remained relatively undisturbed.

Because major, but disconnected, public lands owned by six state and federal agencies already protect significant tracts of



this north-south migratory corridor, Pine Mountain presented one of the best opportunities for an achievable landscape level protection project in Kentucky.

Christened the “Pine Mountain Legacy Project,” it encompasses an estimated 151,000 acres and one of the most significant large forest blocks remaining in Kentucky.

Pine Mountain is a Cumberland Mountain ridge, uplifted along a fault that passes through Whitley, Bell, Harlan, Letcher and Pike counties, running for more than 120 miles, southwest to northeast. Pine Mountain harbors 94 documented rare plants and animals and remains a major migratory route for elk, black bear, raptors and other wildlife, and harbors the most diverse forest community in the country.

The mountain presents one of the best remaining areas in the southeastern United States to connect established public lands into a nationally significant forested landscape for migratory needs and headwater protection for three major rivers—the Upper Cumberland, the Big Sandy and the Kentucky River.

KNLT is working to protect the most ecologically important areas on Pine Mountain by partnering with conservation landowners on the mountain—the KSNPC, the Department of Fish and Wildlife Resources, the Division of Forestry, the Department of Parks, the Pine Mountain Trail Conference, the U.S. Forest Service, the U.S. Fish and Wildlife Service and others. KNLT helped establish and supports the Pine Mountain Trail Conference and the work of the Kentucky Department of Parks to establish a hiking trail, a “linear state park” running along the crest of Pine Mountain, and veering south to Cumberland Gap National Park. KNLT joins the Pine Mountain Settlement School in staffing the “Footsteps of Lucy Braun” program, which introduces new people to the mountain and partners in other environmental education programs in the region.

KNLT also works closely with private landowners to gain their participation and to promote the importance of land conservation, stewardship and sustainable forestry practices. It is partnering with MACED (the Mountain Association for

Community Economic Development) to enroll landowners across Pine Mountain so that their participation will help restore the quality of their forestland, while providing an annual source of income through the sale of carbon credits.

KNLT’s most recent successes include the purchase of the 740-acre Arrington tract to be used as a demonstration site for the latest in conservation forestry practices and carbon sequestration. It also acquired 786 acres known as the Parsons tract, which is now a major addition to Pine Mountain Trail State Park, with more than 600 of its acres protected as a state nature preserve. KNLT is negotiating options for additions to Blanton Forest, Bad Branch and a new area at Laurel Creek. These tracts include intact mountain bogs, bat caves and endangered species habitat.



Eastern hellbender, state-listed Special Concern ~ John MacGregor

Another feature of KNLT’s mission is to assist the formation of new land trusts. The largest forested tracts remaining in the Bluegrass region lie north of Frankfort along the lower Kentucky River and its tributaries. KNLT has been working with a group of individuals in central Kentucky to establish the Woods and Waters Land Trust that will work to preserve the forested

riparian lands found in the lower Kentucky River watershed in Franklin, Henry and Owen counties. This new land trust has already secured commitments from several individuals who wish to donate conservation easements. It has also been successful in gaining formal support from local government leaders in its project area.

KNLT will continue to support and help with these efforts that will begin showing tangible results following its designation as a charitable, nonprofit land trust. For more information on the Pine Mountain Legacy Project, KNLT or its work to protect Kentucky’s forested landscapes visit www.knlt.org or contact KNLT at 877-367-5658, e-mail info@knlt.org.

Kentucky Natural Lands Trust



FIGHTING BUSH HONEYSUCKLE

the Ben Franklin Way

By Andrew Berry, Landowner Incentive Program Biologist

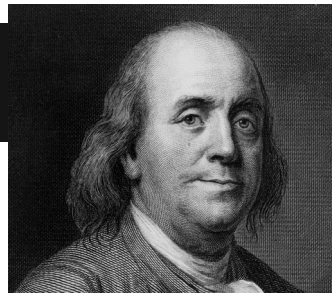
Ben Franklin's quotes have long been a source of inspiration for developing work ethics and virtues. His quotes are relevant to many facets of our lives. One particular proverb resounds especially true to those involved in the fight against bush honeysuckle (*Lonicera maackii* (Rupr.) Maxim). Originally applied to fire prevention (Franklin organized the first volunteer fire department in 1736), the quote from Poor Richards Almanac reads, "An ounce of prevention is worth a pound of the cure." This quote is appropriate when you consider that the bush honeysuckle problem in Kentucky is spreading like wildfire. Within 10 years a few errant seedlings can become tens of thousands of shrubs. Preventing the establishment of honeysuckle can save you time, money and give you a good chance of winning the battle in your woodlands.

"A small leak can sink a great ship"

The bush honeysuckle problem in Kentucky began in our urban centers where it was planted as an ornamental. Large cities such as Louisville, Covington and Lexington were the first to see the spread of this species into fencerows, neglected woodlots and disturbed areas. Much of the landscape near these towns is now infested beyond practical control. Almost unbelievably, this plant is still available for purchase in some nurseries. The migration of bush honeysuckle into rural areas has been largely successful with the help of birds that disperse seeds. In woodlands of Kentucky that lie far from human habitation, this species is just beginning to rear its ugly head. Bush honeysuckle is incredibly invasive, meaning that it can go from nonexistent to being the dominant species in about a decade. Wildflowers begin to disappear as they are shaded out by the early emergence of honeysuckle foliage. Seedlings of native trees and shrubs become stunted, spindly



A black locust thicket adjacent to I-75 in Fayette County is heavily infested with bush honeysuckle. Situations like this require considerable time, money and energy to restore the native species diversity. ~ Andrew Berry, KSNPC



Ben Franklin is often overlooked as one of the greatest American scientists in history. ~ Engraving from Library of Congress (public domain)

and many perish from competition and the production of allelopathic chemicals (poisonous compounds that inhibit other species growth) in the soil. Once honeysuckle becomes well established you won't be able to walk through, let alone see through, your woods. You will find it difficult to hike, look at wildflowers, view wildlife or hunt. The 'leak' of the bush honeysuckle further into the wilds of Kentucky may eventually sink the 'great ship' we have come to recognize as biodiversity.

"You may delay, but time will not"

Now is the time to act. Landowners and natural area stewards should be watchful for the spread of bush honeysuckle into areas where this species has not yet occurred. This is particularly true for the Eden Shale belt, also known as the Hills of the Bluegrass. This rugged region separates the Inner and Outer Bluegrass regions and is dominated by pasture, cedar and oak-hickory forest. Cedar forests, which provide cover for wildlife during the winter, are showing honeysuckle seedling establishment at the base of trees where seeds are deposited by birds. Another region experiencing new invasions is the Kentucky River Palisades. Some portions of the Palisades, such as in Fayette County, have been completely infested for several decades while more remote portions of the river corridor are just beginning to see its presence. The rugged landscape in these areas allows bush honeysuckle to grow undetected until it is too late.



Seedlings of bush honeysuckle are often found in fencerows, woodland edges and in cedar thickets. This one is located under a cedar blowdown. Because it is a species dispersed by birds, you can expect to find seedlings wherever they gather in the winter.

~ Andrew Berry, KSNPC

Close examination will allow you to determine if your woodlands are infested with bush honeysuckle

seedlings. Check along fencerows, edges of woodlands and at the base of cedar trees. Also check any areas that have experienced recent disturbance such as tree blowdowns, bulldozer or heavy ATV activity. The best time of year to look for bush honeysuckle is during November and early December when they are one of the few shrubs with leaves remaining.





A bush honeysuckle invasion on a tributary of the Kentucky River in Jessamine County is nearly beyond control. This infestation is easily distinguished during November after most other shrubs and trees have lost their leaves. This occurrence is less than 10 years old. ~ Tara Littlefield, KSNPC

During late February and early March they are also easily distinguished because they are one of the first shrubs to begin leafing out. During these times we are able to assess the extent of the honeysuckle much easier than summer when it blends in with other vegetation. Most seedlings can be easily pulled out of the ground with roots intact before they reach the age of reproduction. Larger shrubs can be cut with a hand saw and the stump treated with an herbicide (50 percent Roundup) solution using an herbicide wand or a foam brush. The key is to fight the invasion early and prevent it from increasing to a level where heavy equipment such as chainsaws becomes necessary and success becomes minimal.

“A great empire, like a great cake, is most easily diminished at the edges”

The goal is to create refuges for native plants while preventing much of the other habitats in Kentucky from becoming dominated by bush honeysuckle. The best way to accomplish this is to work from the edges of the infestation into the ‘bad’ areas with heavy infestations. Try to keep areas free from new invasions before trying to reverse a well-established bush honeysuckle stand to its original composition. Identify places with exceptional wildflower displays or high biodiversity and make these sites top priority for protection.

By targeting bush honeysuckle while they are small we use



The hand saw (top) and the herbicide wand (bottom) provide a light, inexpensive way to treat new infestations in the backcountry. Jack McGowan-Stinski of The Nature Conservancy designed the wand. For info on building your own wand go to: <http://tncweeds.ucdavis.edu/tools/wand.html> ~ Andrew Berry, KSNPC

much less energy and equipment. Use of an herbicide wand and hand saw enables treatment of honeysuckle in the backcountry where chainsaws are not feasible. The ability to travel light makes it possible to find and eradicate sources of invasion as soon as they begin. While it is possible to eradicate several hundred seedlings in one day, those same seedlings in 10 years would take a crew with chainsaws up to a week to clear. And by this time so many seeds have been dispersed that much of the regenerating vegetation will also be honeysuckle. There are several other advantages to working on areas not heavily invaded. One advantage is biodiversity often remains high. Light infestations have not yet altered the native vegetation composition and many of these areas will retain wildflowers and shrubs, as well as native tree seedlings. In contrast, native wildflowers, trees seedlings, and shrubs are quickly eliminated from infested areas. Clearing heavily infested areas will often not bring back native species composition without reseeding and rehabilitation.

“Energy and persistence conquer all things”

If the problem is too great for you to handle just try to kill the larger seed producing plants and come back for the smaller ones when you get help. And don't get overwhelmed. Remember that every piece of land you clear is one less honeysuckle patch you have to fight your way through on a hike. If the scale of the infestation is beyond your control, you may want to focus on a special area. Perhaps this is an exceptionally beautiful view, a nice patch of wildflowers or a majestic tree. Just do what you can when you can. That's all we can ask of ourselves.

One thing we can all be sure of is that bush honeysuckle is coming to a woodland near you. The impact that it has on your land will be dictated by your action or inaction. The best way to fight an aggressive invader is with an aggressive response. Being prepared and knowing what to look for are essential. Getting a hold on the situation before it becomes a monoculture will save you time, labor and money. Remember, “An ounce of prevention is worth a pound of the cure.” Ben Franklin would be proud.



IN THE SPOTLIGHT: KENTUCKY'S RARE SPECIES AND COMMUNITIES

Lampsilis abrupta *Pink mucket*

KSNPC STATUS: Endangered

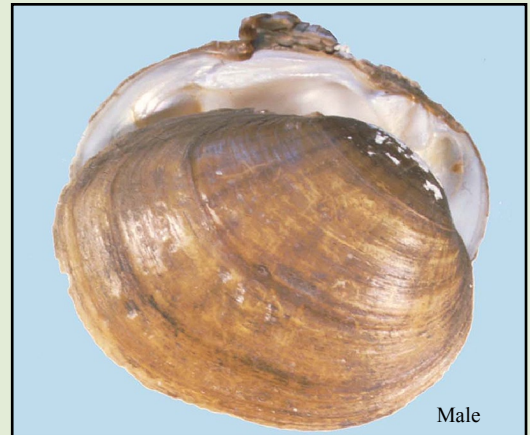
USFWS STATUS: Endangered

GENERAL DESCRIPTION: A 4-5 inch oval-shaped freshwater mussel, one of more than 100 kinds known from Kentucky.

HABITAT: Medium to large rivers in sand and gravel.

RANGE: Primarily in larger tributaries in the Ohio River system and the mainstem Ohio, as well as the Mississippi River from southern Illinois and southward.

REASON FOR PROTECTION STATUS: Habitat degradation, particularly from the construction of dams.



Male

Photo by KSNPC Staff

Corynorhinus rafinesquii *Rafinesque's big-eared bat*

KSNPC STATUS: Special Concern

USFWS STATUS: Species of Management Concern

GENERAL DESCRIPTION: A medium-sized bat with large ears; very similar to the Virginia big-eared bat, but fur whiter below and darker brown above; also small differences in canine teeth.

HABITAT: In Kentucky this bat is found in a variety of habitats based upon the region in which it occurs. In the far west colonies roost primarily in hollow bald cypress trees and forage in bottomland swamps; in central and eastern Kentucky the species is typically associated with caves and sandstone cliffines, foraging in forest and along forest edges. These bats also sometimes use abandoned buildings as roost sites.

RANGE: Locally distributed across the southeastern United States.

REASON FOR PROTECTION STATUS: Although this bat is widely distributed, it is not found in large numbers in any particular area. In Kentucky numbers have remained stable, but most preferred habitats are threatened or rare.



Photo by Brainard Palmer-Ball, 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.



Agalinis auriculata Earleaf false foxglove

KSNPC STATUS: Endangered

USFWS STATUS: None

GENERAL DESCRIPTION: A rare semi-parasitic (obtains some of its nutrients by feeding on other plants) herb up to 2 feet tall, with axillary pink flowers and sessile entire leaves. It is dependant on a healthy forb community rich in composites.

HABITAT: Barrens and prairies

FLOWERING PERIOD: Early August to late August.

RANGE: Primarily in the Midwestern and Southcentral United States, with some outlying populations (or former populations).

REASON FOR PROTECTION STATUS: Widespread distribution but rare and local throughout range. Habitat is threatened by development, fire suppression, succession to woody vegetation and conversion to cropland.



Photo by Tara Littlefield, KSNPC

Bottomland Hardwood Forest

KSNPC STATUS: Endangered

GENERAL DESCRIPTION: Bottomland hardwood forests (BHF) are a type of wetland that usually occur in floodplains of rivers and large streams and are tolerant of periodic flooding. Variations in species composition occur based on frequency and duration of flooding. Typical trees may include sweetgum, silver maple, red maple, American elm, sycamore and oaks such as overcup, pin, cherrybark, swamp white and willow. BHF may be very diverse and support a unique assemblage of plants and animals.

RANGE: Bottomland hardwood forests occur throughout Kentucky along rivers and large streams. A unique coastal plain type occurs along the Mississippi and lower Ohio rivers.

REASON FOR PROTECTION STATUS: Kentucky has lost over 80 percent of its original wetlands, most of which was BHF. The remaining tracts of BHF are usually small, isolated from each other and are threatened with hydrologic alterations, logging and invasive exotics.



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

NatureServe Explorer ~ www.natureserve.org/explorer/

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



HUGH ARCHER RECEIVES 2007 BIOLOGICAL DIVERSITY PROTECTION AWARD

By Don Dott, Executive Director and Leslie Isaman, Administrative Specialist

Hugh Archer has unquestionably been a leader in the protection and conservation of Kentucky's natural resources, natural areas and rare species. For the past 25 years Hugh has been involved in almost every aspect of the conservation community and has tirelessly given of himself for the cause of environmental protection. His dedication has always gone beyond "just a job", and he has committed countless personal hours, days and years to the cause.

In past years, Hugh has held many positions in both the private and nonprofit sectors as well as state government. Hugh started his environmental protection efforts in 1977 as an attorney and planner with the former Kentucky Natural Resources and Environmental Protection Cabinet where he specialized in waste management issues.

From 1981 to 1986 Hugh became the first paid director of the Kentucky Chapter of The Nature Conservancy where he helped establish 16 nature preserves and negotiated hundreds of private protection agreements. He managed to find the time to conduct fund-raising to hire the staff needed for the organization while driving hundreds of thousands of miles crisscrossing Kentucky to visit landowners and negotiate land protection deals. One of the first projects he worked on was the acquisition of Bad Branch State Nature Preserve in Letcher County.

Hugh became a commissioner of the Kentucky State Nature Preserves Commission in 1989 and served as its chairman from 1990 to 1995.

During his tenure as commissioner, Hugh actively helped the Commission achieve its goals by helping to find funding, monitoring legislation and promoting the organization's agenda.

From 1995 through 1998, Hugh held the position of executive director of the Kentucky River Authority where he initiated numerous projects to protect the natural resources of the Kentucky River and its watershed. Hugh continues to be active in watershed protection on a statewide level and currently serves on the Kentucky Waterways Alliance Governing Council.

From 1998 to 2004, Hugh served as commissioner of the Department for Natural Resources where he had oversight of the Divisions of Forestry, Conservation and Energy, as well as KSNPC and served on at least 29 boards and commissions.

In 1994 Hugh helped form the Kentucky Natural Lands Trust (KNLT), a private nonprofit land trust, and became its first chairman. KNLT has raised over \$3 million to purchase and protect Blanton Forest in Harlan County. KNLT also has developed the Pine Mountain Legacy project. Its goal is to protect an area of over 151,000 acres, covering a distance of about 110 miles spanning five Kentucky counties and part of Virginia. The mountain is home to at least 93 rare species and is a critical migratory corridor. In the short time that Hugh has been the executive director of KNLT, he has overseen the acquisition and permanent protection of over 2,000 acres and has initiated a sustainable forestry project on over 700 acres.



Hugh Archer on Pine Mountain ~ Marc Evans, KSNPC

VOLUNTEER STEWARD FOR 2007 IS MARY CAROL COOPER

By Joyce Bender, Stewardship Branch Manager

Mary Carol Cooper has been a volunteer for the Kentucky State Nature Preserves Commission since 1993. Her first volunteer workday was at Brigadoon State Nature Preserve in Barren County. She coordinated a group of Sierra Club members who came out to help us build a trail through the original tract. The trail was completed that same day, and we knew that we wanted to work with these folks again. Little did we know that we had gained a dedicated ally in our efforts to manage and protect the state nature preserve system.

We soon realized what a gem we had found as Mary Carol continued to help round up her friends and Sierra Club members for workdays. She also planned workdays for us with members of the Kentucky Native Plant Society. Through the years and the many volunteer outings, her

cheerfulness and willing attitude has made the work go well and brought the volunteers in numbers. As with all of our outstanding volunteers, we've tested her endurance. She served as a fine, yet shivering, example when we met her and several other hardy souls to clear cedar trees at Blue Licks State Park Nature Preserve on a 3-degree January day.

Mary Carol's commitment to the environment is reflected in her professional life as well as her personal life. She serves Kentucky's citizens as the Kentucky Department of Fish and Wildlife Resources native plant program coordinator. In this capacity she reaches out to Salato Center visitors and backyard garden enthusiasts to help them understand the value of using native plants to create wildlife havens on their own properties. She has introduced the concept of biodiversity



protection to a wide and appreciative audience. She is an officer with the Kentucky Exotic Pest Plant Council and in this capacity has helped with public outreach projects including Weed Awareness Week, invasive plant training sessions for the public and government agency personnel, as well as hosting the 2003 Southeast Exotic Pest Plant Council's annual symposium.

Mary Carol Cooper cares about our wonderful Earth. She nurtures it and the people who work to protect it. Her contributions are great, and the 2007 Volunteer Steward Award is our humble attempt to give her the recognition she deserves. With this award, we celebrate her dedication to biodiversity conservation and look forward hopefully to many more years of working together with her.



Mary Carol Cooper on a Sierra Club hike ~ Darren Payne

HEMLOCK WOOLLY ADELGID SURVEYED WITH VOLUNTEERS

By Alice Mandt, Environmental Technologist

On Nov. 10, 2007, 15 people from Lexington, Whitesburg and North Carolina volunteered to begin survey work for the hemlock woolly adelgid (*Adelges tsugae*) or HWA at Bad Branch State Nature Preserve. Bad Branch is a high-quality preserve protecting a large number of rare species, several specifically dependent upon streams and their hemlock-shaded banks. The Kentucky State Nature Preserves Commission (KSNPC) and Kentucky Natural Lands Trust (KNLT) manage over 3,000 acres of hemlock-mixed forests within their properties. Volunteers play a crucial role in conducting the survey work needed to locate HWA infestations in such a vast area.

The HWA is an invasive, aphid-like insect that kills eastern hemlock (*Tsuga canadensis*) trees by feeding on their new growth. Unlike other forest pests, HWA can wipe out an entire hemlock population in only a few years because it feeds on trees regardless of age. Hemlocks are especially susceptible because they lack the ability to resprout after defoliation and their seed bank is typically only good for a year.

HWA has been devastating forests in the northeastern United States since 1951, and is now moving southwest. Unfortunately, HWA was detected in Kentucky during the spring of 2006. Since then, state and private agencies have been working together to monitor and control its presence.

The survey work at Bad Branch began with a short orientation by Merrill Flannery, forest steward for KNLT. Merrill started by giving general information about HWA including its origin, how it arrived

and spread in the United States, the threat it poses in Kentucky and a short summary of control methods being used in other states. She also distributed pictures to help volunteers identify the woolly masses and tell them apart from other things such as spider egg cases.

Volunteers split into three groups to survey the lower Bad Branch gorge including the waterfall, portions of the upper trail and an area of stately old hemlocks known as the Cathedral. Twenty-three samples were sent to Lynne Rieske-Kinney, a professor in the University of Kentucky Department of Entomology, for confirmation. The results were that 2 of the 23 samples tested positive for HWA. One positive location was found along the main trail about 30 feet from the split going to the waterfall. The other positive location was on the opposite side of the gorge from the main trail, approximately 1,000 feet up stream from the Cathedral.



Hemlock woolly adelgid ~ Byron Brooks, KSNPC

GPS points were taken at both sites and added to a map used by UK to monitor the movement of HWA in Kentucky. Visit www.uky.edu/~sfei2/hwa.htm to view the map. Plans for HWA control for selected trees at Bad Branch include treatment of infestations with a soil injection of Imidacloprid pesticide beginning in 2008. Predatory beetles that specifically attack only HWA have been released at Blanton Forest and will remain a possibility for other preserves.

The next volunteer event will be in February 2008. Please join us. Volunteers may request more information by e-mailing alice.mandt@ky.gov or calling 502-573-2886.



DIRECTOR'S NOTES

By Don Dott, Executive Director

The Commission didn't have to search long to find highly deserving recipients for the 2007 Volunteer Steward and Biological Diversity Protection Awards. Mary Carol Cooper, recipient of the Volunteer Steward award, is an employee of our partner agency, the Kentucky Department of Fish and Wildlife Resources. In her "spare" time, she organizes volunteer outings to do manual labor on the preserves. I can't say enough nice words about Mary Carol. Please read the article about her outstanding volunteer work for the Commission.

Hugh Archer, like Mary Carol, has devoted his life's work to protecting the best of Kentucky's natural areas. To use a catch phrase, he has come full circle from his days in the early 80's as director of the Kentucky Chapter of The Nature Conservancy to his current work as executive director of Kentucky Natural Lands Trust, a state-based nonprofit organization. Hugh is having a great impact in his current role having overseen the acquisition of over 2,000 acres and initiation of a sustainable forestry project in his first several years as director. See the full article for more.

Rep. Robin Webb, D – Grayson, has expressed her intent to file a bill to reauthorize the Land Conservation and Stewardship Task Force. If enacted this will enable the task force to continue its work in 2008 and develop a truly comprehensive and well-funded conservation program for Kentucky. This will benefit

not only nature preserves, but state forests, fish and wildlife management areas, state parks, wild rivers, agricultural lands and areas of local significance for conservation. Please watch for such legislation and contact your state senator and representative to express your support. An easy way to track legislation is via the Web site of the Legislative Research Commission at www.lrc.state.ky.us/legislation.htm. The goal for the task force is to devise a plan to put before the 2009 General Assembly, and move Kentucky up from last place among its neighbors in the amount of state conservation lands.

A new online conservation tool is *LandScope America*. It is a joint project of the well-known National Geographic Society and NatureServe, a parent organization of the natural heritage programs of the individual states. Initial funding from the West Hill Foundation for Nature will help realize the shared vision of delivering conservation information into the hands of every citizen – to energize their support for an increased scale of conservation across the country. LandScope America will make available user-friendly maps, photos and a great deal more information about critical natural areas, rare species needs, land use priorities and conservation issues at multiple scales. Users will be able to explore these topics on national and regional levels, and even drill down to a local scale with a click of their mouse. This resource will help guide and encourage citizen-driven conservation efforts. LandScope America is in its initial stages and will be "test-driven" in 10 pilot states with a scheduled launch in late 2008. Nationwide coverage is planned by 2009. However, you can visit a preview Web site today to get an introduction at www.landscape.org.

KENTUCKY STATE NATURE PRESERVES COMMISSION

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KSNPC Quarterly Public Meeting

March 12, 2008

Location and time to be announced

Kentucky State Nature Preserves Commission • 801 Schenkel Lane, Frankfort, KY 40601-1403
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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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