

Conserving Kentucky's Natural Heritage



- *Biennial Report of the Office of Kentucky Nature Preserves*
- *Annual Report of the Kentucky Heritage Land Conservation Fund*
- *Quadrennial Kentucky Rare Plant Report*

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**This report is submitted to the Governor and the General Assembly as directed by
KRS 146 and 418 KAR relating to the Office of Kentucky Nature Preserves,
the Kentucky Heritage Land Conservation Fund, and the Rare Plant Recognition Act.**



Table of Contents

| | |
|---|----------------|
| Duties of the Office of Kentucky Nature Preserves | Page 5 |
| Executive Director's Message | Page 6 |
| Rare Plant Conservation Program | Page 8 |
| • Monitoring Threatened and Endangered Plants | Page 10 |
| • Recovering Threatened and Endangered Plants | Page 14 |
| Aquatic Animal Species Conservation | Page 18 |
| Insect and Wildlife Conservation | Page 20 |
| The KNP Biological Assessment Database | Page 22 |
| Environmental Education and Outreach | Page 24 |
| KNP Natural Areas Conservation Programs | Page 26 |
| • Habitat Management | Page 27 |
| • Hiking on Natural Areas | Page 28 |
| • Kentucky State Nature Preserves | Page 30 |
| • Kentucky Wild Rivers Program | Page 31 |
| • Kentucky Heritage Land Conservation Fund | Page 32 |
| Funding Conservation at KNP | Page 38 |
| KNP Staff | Page 40 |
| The Future of Natural Areas Conservation | Page 42 |
| Appendix I: Lists of KNP State Nature Preserves, KHLCF Natural Areas, and Registered Natural Areas | Page 44 |



Duties of the Office of Kentucky Nature Preserves



To secure for the people of present and future generations the benefits of an enduring resource of natural areas by establishing a system of nature preserves. KRS 146.440



To promote understanding and appreciation of the aesthetic, cultural, scientific and spiritual values of our unpolluted and unspoiled environment. KRS 146.410



To recognize endangered and threatened species of plants for human enjoyment, for scientific purposes, and to ensure their perpetuation as viable components of their ecosystems for the benefit of the people of Kentucky. KRS 146.600



To provide a central clearing house of information for environmental and conservation matters and maintain an inventory of natural types, flora, and fauna within the Commonwealth. KRS 146.485



To afford the citizens of the Commonwealth an opportunity to enjoy natural streams and to preserve for future generations the beauty of certain areas untrammelled by man through the Kentucky Wild Rivers Program. KRS 146.200-360



To benefit the citizens of Kentucky through the acquisition and maintenance of certain lands for use as state parks, recreation areas, state forests, nature preserves, wildlife management areas, and wetlands through administration of the Kentucky Heritage Land Conservation Fund . KRS 146.550-570

A Message from KNP Executive Director Zeb Weese

If you love Kentucky's wild places and the species that call them home, you've come to the right place. The Office of Kentucky Nature Preserves (KNP) is a brand-new agency formed in 2018, tasked to conserve Kentucky's most important natural areas and the rare species that call the Commonwealth home. We strive to balance protection of our special places with providing opportunities for folks to enjoy nature.

The KNP was created by the 2018 General Assembly, which merged four programs within the Energy and Environment Cabinet (EEC) - the Kentucky State Nature Preserves Commission (KSNPC), the Kentucky Wild Rivers System (WRS), the Kentucky Rare Plant Program, and the administration of the Kentucky Heritage Land Conservation Fund (KHLCF). I am very proud to say that this legislation passed both chambers and all committees unanimously, thanks in no small part to support from the Kentucky Resources



Council, the Kentucky Natural Lands Trust, and other conservation groups. I am also honored to serve as the first Executive Director of the KNP, after over two decades serving as a natural areas manager, environmental educator, and director with the KSNPC, KHLCF, Kentucky State Parks, and Kentucky Department for Fish and Wildlife Resources. It has been my good fortune to experience Kentucky's wildest places and see its rarest species, and I want my kids and their kids to have the same opportunities. All of the KNP's team of biologists and natural areas managers feel the same way, as you will see in these pages.

I would like to highlight a few things concerning the new KNP as it inherits the legacy of KSNPC. While of our administrative processes have changed, our mandates to conserve Kentucky's most important natural areas and rare species habitat haven't changed. We continue to maintain Kentucky's natural heritage database, as we have done for decades, and we're very excited about our new web-based conservation planning tool, the "Kentucky Biological Assessment Tool". It has made accessing location-based rare species information easier and faster. KNP is also Kentucky's official cooperator with the US Fish and Wildlife Service for federally endangered and at-risk plants under Section 6 of the Federal Endangered Species Act. We are in the process of expanding our team of botanists and habitat managers to continue our work to conserve and delist Kentucky's rarest plants.

Those of us who have "Nature's Finest" license plates on our vehicles should be happy to know that the KHLCF Board continues to fund the purchase and conservation of natural areas using proceeds from your purchase, and other sources. Over the past two years alone, the KHLCF Board has awarded funds to 30 projects covering 6,000 acres. In the last year we successfully purchased over 1,000 acres for the Steele Hollow Natural Area on the Little South Fork Wild River, and we will add another 1,000 acres to natural areas in Bullitt County before the end of 2018.

The KNP has also assumed monitoring Kentucky's nine Wild Rivers Corridors as well as the conservation easements held by the KHLCF Board to ensure they comply with their approved management plans, easements, and regulations. We have also assumed management of the Wild Rivers Natural Areas. KNP staff will oversee passive recreation and habitat restoration projects on these natural areas, as well as our nature preserves, in our expanded "Natural Areas Branch". The staff of the Wild Rivers and KHLCF programs have been incorporated into the KNP, increasing our dedicated staff. Thanks in part to a generous donation from the newly established [Keith MacAdam Trail Endowment for Kentucky Nature Preserves](#), we have also expanded our staff of natural areas technicians.

Perhaps most importantly, Kentucky's State Nature Preserves are still dedicated to the conservation and protection of our most significant natural areas and habitats, and our existing agreements and projects to conserve and monitor rare species and natural areas are still in place. The new KNP continues to purchase, own, manage, and protect nature preserves and natural areas statewide, and search for the best remaining populations of Kentucky's rare species.

In addition to rare species habitat, many of us enjoy the peace and quiet provided by our natural areas. Coming in the winter of 2018, KNP will unveil our new webpage at <http://eec.ky.gov/>, which will include online maps to make our hiking areas easier to find for quiet enjoyment. To keep up-to-date on our projects and progress, including our expanded schedule of guided hikes, just follow us at <https://www.facebook.com/KentuckyNaturePreserves/>.

I want to ensure our friends that this administrative reorganization will allow us to more effectively coordinate management activities on over natural areas spanning over 112,000 acres in over 70 counties while keeping conservation measures in place, in addition to expanding our staff as well as our responsibilities in rare species monitoring, habitat conservation, and passive outdoor recreation. It is an exciting time for conservation of the Commonwealth's natural wonders!



Office of Kentucky Nature Preserve's Rare Plant Conservation Program

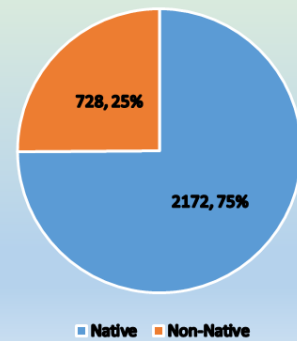
Plants form the foundation of life on Earth: they regulate our climate, purify our water and air, and when they return to the earth, they enrich the soil and mitigate erosion. Plants, in their astonishing variety, are also an essential resource for human sustenance and well-being, providing food, medicine, shelter, and clothing, while providing extraordinary beauty and spirituality to the planet. Plants form the habitats on which all life depends.

Plants, so essential to all life, are facing threats to their survival. Approximately 1/3 of all plant species on earth are rare, threatened, or endangered and this trend holds in Kentucky as well. Declines are caused from habitat destruction, lack of appropriate disturbance regime and habitat management, invasive species, and excessive herbivory. KNP's mission is to reverse these trends on our natural areas and in partnership with others dedicated to conservation.

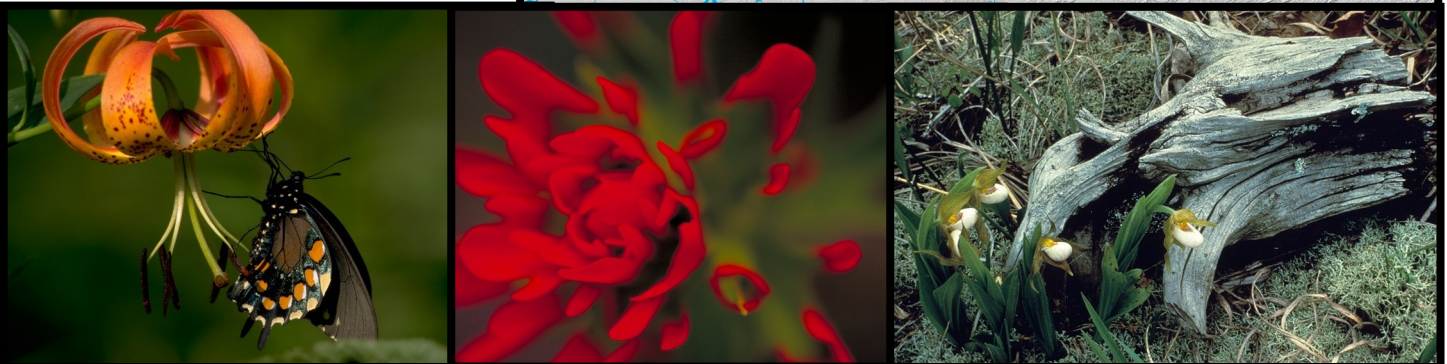
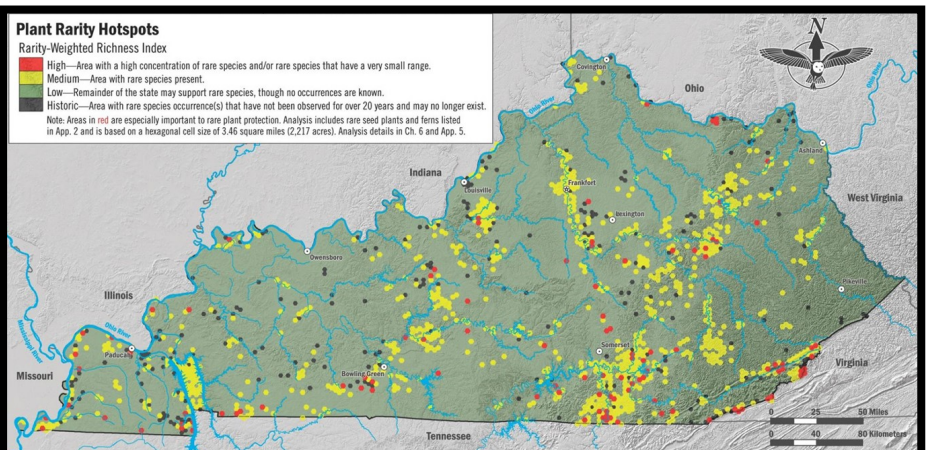
Overview of Kentucky's Plant Diversity

Kentucky has approximately 2900 native and non-native plants documented in the state; approximately 25% of plants in Kentucky are non-native or naturalized. Kentucky's topographic position on the continent makes for a diverse physiography that allows for multiple floristic influences and supports a plethora of plant life. Plant diversity is directly related to biodiversity and human health, as they provide food, homes, structure, beauty, and essential ecosystem services such as oxygen creation and soil stability.

Native vs. Non-Native Plant Species in Kentucky



Kentucky contains several rich botanical hotspots from the Cumberland Mountains in the southeastern corner, all the way west to the swamps, sloughs and bottomland hardwood forests of the Jackson Purchase. Most plants of conservation concern found in the state are "edge of range" species that may hold unique genetic makeup, but more globally rare plants also occur as here as well. Areas of endemism, plants that occur within a small geographic range, occur mainly in the dolomite glades of the bluegrass, the Cumberland Plateau, and parts of the eastern knobs region.



Rare Plant Conservation Program



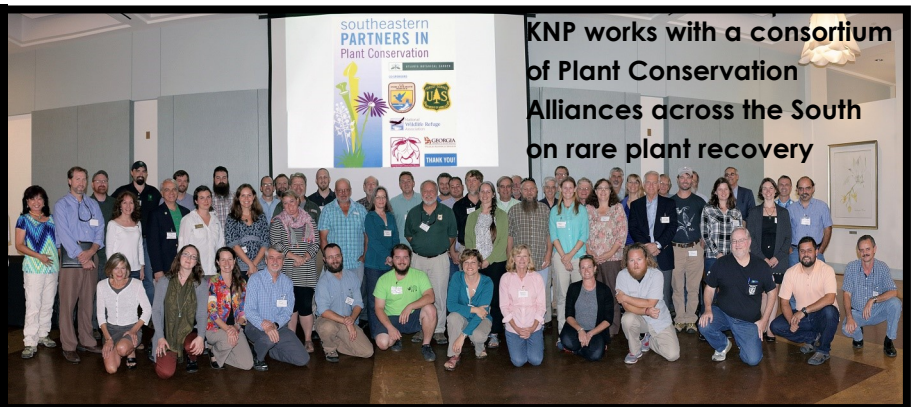
One important goal of KNP is to conserve Kentucky's rare plants in their natural habitats. We accomplish this through targeted surveys, population monitoring, species and community level management, land acquisition, education, research, seed banking, propagation and restoration. Rare plant recovery is an integral part of our plant conservation program. We also work on developing current, accurate information on the distribution, ecology and conservation status of Kentucky's plants through our Natural Heritage Database and Kentucky Biological Assessment Tool.



The Federally threatened Kentucky glade cress grows is only known from dolomite glades around Louisville



The state endangered and globally rare Royal Catchfly occurs in the Big Barrens Region of Kentucky. It grow in prairies and needs fire to maintain its habitat



KNP works with a consortium of Plant Conservation Alliances across the South on rare plant recovery

Since 1985, KNP has had a cooperative agreement with the United States Fish and Wildlife Service to serve as the official partner for monitoring and managing federally listed and at risk plants under section 6 of the Endangered Species Act. Currently, we work on over 25 federally listed and at risk plants through this agreement. We work closely with USFWS to meet recovery goals and implement conservation action that truly protects those species and prevents the need for federal listing.

We also coordinate work with a regional group, the Southeastern Plant Conservation Alliance, to compile accurate information on rare plants, set priorities, and implement conservation actions on species that are candidates for listing (a.k.a. "at-risk") in order to prevent federal listing with the ESA. Our monitoring, management, and conservation of federally listed and at risk plants and their habitats has resulted in the recovery of several plants and their habitats, thus reducing the need for Federal Listing.

KNP is the Threatened and Endangered plant authority in Kentucky

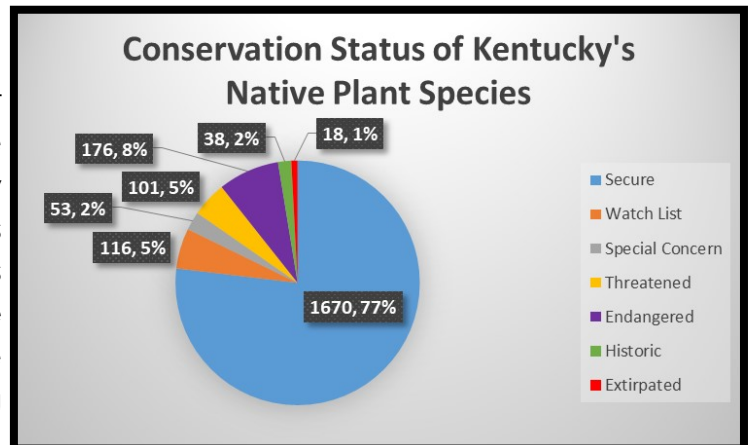
The Kentucky Energy and Environment Cabinet, through the office of KNP, is the listing authority for plants. The ability to legally list plants as threatened or endangered is derived from the Rare Plant Recognition Act of 1994.

The General Assembly finds and declares that it is the policy of the Commonwealth to recognize endangered and threatened species of plants for human enjoyment, for scientific purposes, and to ensure their perpetuation as viable components of their ecosystems for the benefit of the people of Kentucky. ~~~ Kentucky Rare Plant Recognition Act. KRS 146.600

Rare Plant List

The KNP is the clearinghouse for native plant information in Kentucky and has created the only plant conservation program in Kentucky state government. With close to 2,900 species of plants in Kentucky, assessing their status is challenging. To fulfill our mandate we revise our rare plant list every 4 years. We collaborate with partners across the state, including universities, state and federal, agencies, land

trusts and non profits to help in the assessments of rare plants. This list, along with photographs, distribution maps, herbarium specimens, and other associated information is available online via our Rare Plant Database and Biological Assessment Tool. In 2018, we revised our rare plant list, which can be accessed on our website. Currently, we track 176 state endangered plants and 101 of state threatened plants, along with detailed information on an additional 225 plants of conservation concern, including special concern, watch list, historic, and extirpated plants.



Important Plant Discoveries made by KNP botanists

Not only does KNP house and maintain the official Rare Plant List in Kentucky, we also contribute important data to it as well. We monitor all the federally and state listed plants throughout KY, many which are on our natural areas and conservation partner lands. In addition, over the past few years, as a result of KNP's survey and monitoring work, several rare plants were discovered in Kentucky that were previously not known to occur within the state.



Spreading rockcress, a globally rare plant, was discovered in 2018 on limestone outcrops in the forests of Fort Knox during an ecological community assessment conducted by KNP at the request of the Department of Defense and the US Fish and Wildlife Service. There are less than 100 populations of this plant known range-wide, making this new state record a significant find. Increasing our knowledge of plant distributions is one of the first steps of plant conservation.

Mammoth Cave National Park – not “just” a cave

Mammoth Cave National Park is one of the most interesting and diverse natural areas in our state, boasting numerous rare species and communities. While most people know this park for its cave -the longest on earth- there is much to discover aboveground as well.

KNP's multi-year biological inventory work at Mammoth Cave secured additional funding from the National Parks Service to continue our ecological assessments. Recent biological surveys resulted in the identification of several new rare plant and natural community records, including a new state record. The globally rare cream tick trefoil was discovered in a rocky barrens at Mammoth Cave National Forest in 2017. There are currently only 25 populations of this plant known globally, making this plant one of the rarest finds in Kentucky in a very long time! This information will help guide management of the site to ensure that these resources are protected and can be enjoyed by park visitors.



Kentucky Nature Preserves chosen as reference sites for high quality wetlands

Thanks to an EPA grant secured by the Kentucky Division of Water (DOW), KNP biologists were able to conduct quantitative vegetation inventories of wetlands in western Kentucky. While facing heat, mud, mosquitoes and the occasional water moccasin is not how most folks would choose to spend their summer, our biologists spent several weeks enthusiastically doing exactly that. Working as part of a team with students from Eastern Kentucky University and DOW biologists, we collected water quality and vegetation data to test Kentucky's rapid wetland assessment method on a variety of wetlands. The KNP was able to provide locations for high quality wetlands in the region that are used as reference sites for this project, including a number of our State Nature Preserves.

Federally listed and At risk plant status surveys and population monitoring

Understanding the current status and trends of the populations we conserve and oversee is very important. To that end, we have been collecting population data on several plants across the state on KNP Natural Areas, other conservation lands, and private land. Status surveys involve visiting all known populations of a particular species and assessing trends and threats. In 2016-2018, status surveys and population monitoring was conducted on over a dozen federally listed and at risk plants throughout Kentucky. Monitoring on our Natural Areas and Nature Preserves often coincides with targeted management of rare plant populations, including invasive species removal.



KNP and LBL Price's Potato Bean Monitoring



KNP monitors and manages a high quality population of Prices potato bean on KHLCF natural areas in Livingston county. We also work with Land Between the Lakes staff to monitor Price's Potato Bean populations.

We conduct annual monitoring of the Federally endangered running buffalo clover on several natural areas in the Bluegrass Region. This monitoring work often involves "acting like a buffalo", as we concurrently create much needed bison-like disturbance as we count rooted plants and remove invasive plants.

We are working with the US Fish and Wildlife Service, universities and state partners to recover this plant through management studies and surveying for new populations.

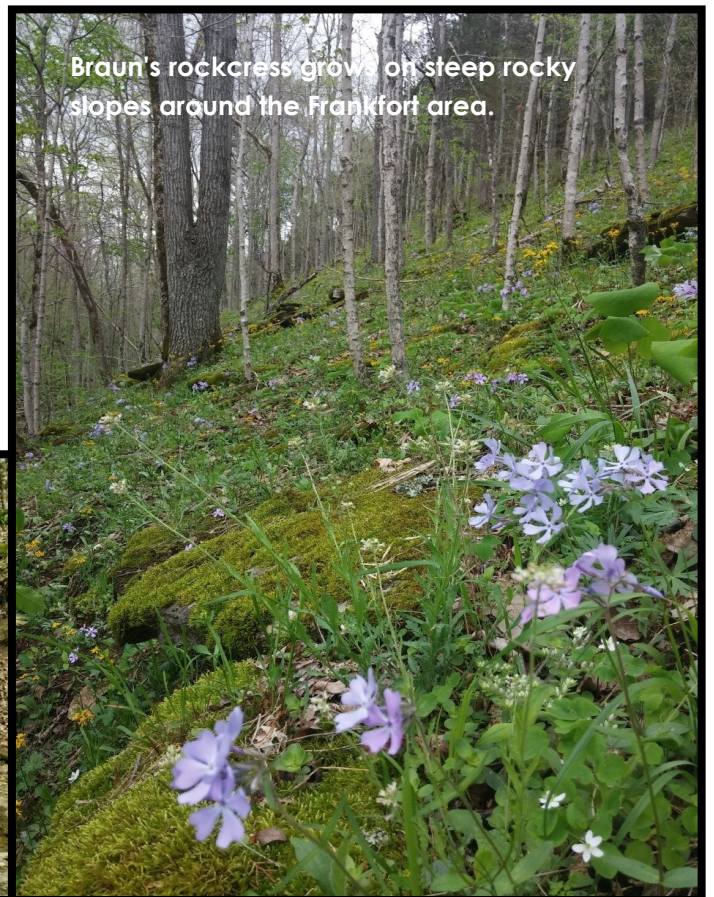


Running Buffalo Clover, federally endangered, thrives on animals trails along streams of the Bluegrass region



KNP conducts annual monitoring of the federally endangered Braun's rockcress along the Kentucky River and its tributaries. We conduct population counts and assessments as well as targeted invasive species management to protect and recover this important plant. KNP protects several populations on state nature preserves and KHLCF conservation easements in the Bluegrass.

Braun's rockcress grows on steep rocky slopes around the Frankfort area.



KNP Braun's rockcress recovery team



KNP manages and monitors over 75% of all the Short's goldenrod in the world!



KNP monitors and manages for Short's goldenrod populations in and around Blue Licks State Park annually. Collaboration is key to this plant's success! We have partnered with USFWS, Cincinnati Zoo, and Bernheim Forest on several successful Short's goldenrod introductions,

transplanted on conservation properties upstream from the Blue Licks populations along the Licking River. We have worked with Missouri Botanical Garden to seed bank this plant for added insurance and future restoration projects. Over the years, volunteers from the Kentucky Native Plant Society and others have assisted us with monitoring of short's goldenrod populations as well as managing for habitat by removing cedars and other woody trees and shrubs. And in 2017 we partnered on a large project with Division of Forestry on management of several glades and barrens that support this federally threatened plant in order to increase its habitat and population size. Not only does this management improve the short's goldenrod populations, it also benefits all the associated prairie plants such as sunflowers, asters, thorough-worts and grasses. Due to our management, we also documented new populations of the state listed Great Plains ladies tresses and cream gentian on our nature preserves as well as other conservative plants such as prairie dock.



A new population of pale gentian discovered on the Blue Licks State Nature Preserves within the state park!

Short's goldenrod glade and barrens habitat at Blue Licks State Park Nature Preserve. This trail was formally a bison trace that historically was a part of an extensive network of trails that led bison and other megafauna to the Blue Licks. The disturbance from the bison created the short's goldenrod habitat.

White fringeless orchid recovery and Wetland Restoration

Through long term vegetation monitoring, collaborative management, and hydrologic research, KNP is working on the federally threatened white fringeless orchid recovery and associated wetland restoration on our natural areas in eastern Kentucky. Since 2007 we have partnered with University of Kentucky's Department of Forestry to study the hydrology of several seeps that were in great need of restoration. Populations of white fringeless orchid increased significantly after management began in 2012. The seep community's diversity increased tremendously. Many important pollinator plants increased, as well as the return of the rare grass pink orchid that had not been seen in over 15 years. A curious new site record of a rare plant more commonly found in the south eastern coastal plain, Nutall's lobelia, also showed up after management, providing further evidence as to what these seeps and the surrounding communities looked like in the past. We hope to use this restoration model throughout the white fringeless orchids' range, in cooperation with the US Forest Service. We will continue our monitoring and management work and expand to more seeps to recover

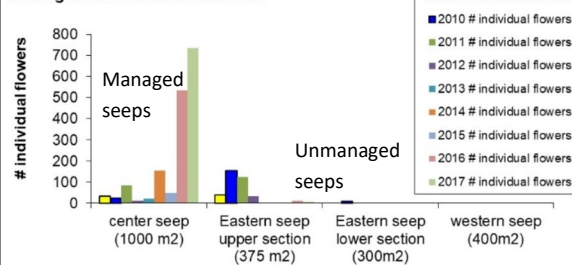
2007: Seep habitat had closed in with hardwoods which caused a loss of groundwater and surface level water. Seep habitat declined in quality, rare plants declined and disappeared



2012-2018: Management of hardwoods and construction of debris dams. Populations of rare plants have increased and seep community is restored



P. integrilabia # individual flowers



the federally threatened white fringeless orchid and its associated habitat.



Federally threatened white fringeless orchid, also called monkey faced orchid. Can you see why?



Nuttall's lobelia discovered at the site in 2018, it had waited patiently in the seedbank for conditions to improve.



Rare plant propagation, seed banking, research, and reintroductions

KNP works closely with dozens of conservation partners on ex situ conservation strategies that provide further insurance to protect declining rare plants. Collaborative activities include seed banking, genetic research, rare plant propagation, translocation, and reintroduction of rare plant populations.



KNP has been working with the US Forest Service on a project to protect, connect, and restore populations of the state endangered wood lily of the Cumberland Plateau and its habitat. This charismatic barrens plant of grassland and woodland has declined by over 90% in the past 40 years due to habitat loss, lack of fire, mowing, and excessive herbivory. The wood lily, along with numerous other plants in its community, make up critical pollinator habitat for species such as the monarch butterfly and native bees. We are working with partners to bring this plant and its habitat back from the brink of extinction by coordinating and implementing monitoring, management



and restoration efforts. Currently, we are working on propagation, with over 200 seedlings currently growing in a greenhouse. Plants will soon be transplanted to suitable habitat on KNP natural areas and the Daniel Boone National Forest.



KNP has partnered with Missouri Botanical Garden and Atlanta Botanical Garden to seed bank several federally listed and at risk plants. Seed banking is an importance conservation tool that provides an additional insurance against extinctions. In 2017, we seed banked Kentucky Glade Cress, White fringeless orchid, and globe bladderpod.

We have also been working with land managers at Cove Springs Park, a KHLFCF natural area in Frankfort, to create a new population of the federally threatened Globe bladderpod. It took several years, but population numbers are reaching sustainable levels making this population an important part of its recovery.

Through projects like these our rare plants will recover and get de-listed!



Delisting Kentucky's Endangered Plants

White-haired goldenrod was placed on the federal endangered species list in 1988. In late 2016 it was removed from the federal endangered species list thanks to the extensive survey and monitoring work done by KNP biologists and our partners at the US Forest Service over the past two decades.

Although globally this plant is only native to the Red River Gorge area of Wolfe County, our efforts discovered more populations than were



previously known and provided key

statistical data that showed trends supporting its delisting. KNP continues our white haired goldenrod work by conducting the 5-year post delisting monitoring for the US Fish and Wildlife Service from 2017 to 2022.



Kentucky Plant Conservation—Looking Forward

Through our work with surveying, monitoring and management, seed collecting and banking, and restoration, we believe that we will recover and increase populations of many more federal and state listed plants over the next few years. Our partnerships and collaborations have allowed us to increase our botanical capacity, and our work with prioritizing projects with multiple partners provides a roadmap for plant conservation in our state. Our mission is preserve Kentucky's rare plants in their natural habitats, and we intend to continue our success.



Kentucky's Aquatic Species

Kentucky ranks fourth nationally in aquatic biodiversity with approximately 245 native fishes, over 100 different kinds of freshwater mussels, and nearly 60 species of crayfish. The Cumberland and Green rivers, both part of the Kentucky Wild Rivers System, are two of the most biologically diverse. KNP has worked in these drainages on several projects recently to document, protect, and conserve imperiled species.

Monitoring the Green River

The Green River as it flows through central Kentucky and Mammoth Cave National Park has been ranked fourth nationally for its aquatic diversity. In 2017, KNP biologists discovered a new localized population of 16 federally endangered clubshell mussels (*Pleurobema clava*). The species was once widespread in numerous Kentucky rivers, but now exists only within this section of the Green River.

Where economically feasible, dams are sometimes removed to restore free flowing conditions and river ecosystems. After many years of disrepair, Lock and Dam #6 (LD6) on the Green River was removed in 2017. Following the removal KNP biologists collected the initial biological and physical data from approximately 25 km of the Green and Nolin rivers that were impacted from LD6 for a long-term monitoring project. Mussels, macroinvertebrates, fish, riparian vegetation,



in-stream and riparian zone habitat data were collected. Initial findings indicate that the river sections furthest from the footprint of the dam are the most biologically diverse areas and habitat improved. The substrate size further from the dam increased and was more representative of flowing



conditions. The mussel fauna was fairly diverse with 27 species, including the federally-endangered fanshell (*Cyprogenia stegaria*) and sheepsnose (*Plethobasus cyphus*). The fish fauna was diverse with 58 native species. We believe that over time the river habitat will change with the restored free-flowing conditions and the biology will respond and eventually represent a community reflective of flowing conditions.

Only time will tell; monitoring will continue for several more years.

Relocating rare mussels

Relocation and reintroduction of imperiled species into suitable habitat are growing conservation efforts, and KNP has recently been involved with a couple of these projects. In the Cumberland River above Cumberland Falls, KNP biologists have been surveying and monitoring the Cumberland Papershell (*Anodontoidea denigrata*) in hopes of preserving the few remaining populations of this small (2-3 inch long), state-endangered mussel endemic to the Upper Cumberland River Basin in Kentucky and



Tennessee. There are less than ten small populations remaining in the wild. Moore Creek in Knox County has one the best remaining populations, but the population is at risk. In an effort to preserve genetic diversity, KNP biologists worked with our partners from the US Fish and Wildlife Service and the Kentucky Department for Fish and Wildlife Resources to relocate 115 individuals in five age classes into a neighboring stream. The relocation process involved finding, tagging for future monitoring, and placing the mussels into their new home. Monitoring of the existing Moore Creek population and the newly transplanted population will occur for several years.

Restoring the Buck Darter

KNP biologists have also contributed into a reintroduction project involving the Buck Darter (*Etheostoma nebra*). Endemic to Buck Creek in Pulaski County, it is one of the most imperiled fishes in the state. The species was once widespread in the upper sections of the stream, but the only populations that remain occur within two small spring fed streams. The Buck Darter is unique in that it belongs to a group of darters called the bar-cheek darters, where the cheeks of nuptial males actually mimic eggs. It is believed that the egg mimicking is a way for the male to attract a mate for spawning and to signal to the female that he is a worthy mate. In addition, the male will provide a level of parental care and guard the cluster of eggs after the female lays them. KNP collaborated with our partners from USFWS, KDFWR, Eastern Kentucky University and the nonprofit Conservation Fisheries Inc. to release approximately 100 individuals in a separate small tributary of Buck Creek. Ongoing efforts include monitoring, propagation with the hope of future reintroductions, working with landowners and other conservation efforts are being conducted by KNP, USFWS, and our other partners to help conserve this imperiled Kentucky fish.



Conserving Kentucky's Native Pollinators and Rare Insects

Although honeybees were introduced to North America by European settlers, our native bees are also important pollinators of trees, wildflowers, and crops; the Xerces Society for Invertebrate Conservation estimates the economic value of native pollinators at \$3 billion per year. Unfortunately, these important animals are in decline. By conserving pollinator habitat on our natural areas, KNP is investing in Kentucky's agricultural and ecological future. KNP is also an active partner with the Kentucky Department of Agriculture in implementation of the Kentucky Pollinator Protection Plan .



The Monarch Butterfly is one of our most well-known pollinators. Famous for their long distance migrations and reliance on milkweed plants, this backyard icon is in decline due to habitat loss. KNP worked with the Kentucky Department for Fish and Wildlife Resources and others to draft the Kentucky Monarch Conservation Plan in 2017. Implementation of this plan will conserve monarch habitat and reduce the likelihood they become federally listed as threatened or endangered.



Kentucky's Little Known Insects

The Cobblestone Tiger Beetle is a rare species occurring on the cobble bars and beaches of a single Kentucky Wild River system. Previously known from only two cobble bars, KNP biologists recently located the beetle on three others.

Due to range-wide declines, the US Fish and Wildlife Service is assessing the status of the Cobblestone Tiger Beetle to determine whether it may warrant listing under the Endangered Species Act. KNP biological assessments will be critical in the recovery of this species.

Conserving Wildlife Diversity on Natural Areas



Natural areas are full of critters, but you have to look to find them

KNP is collaborating with biologists from Eastern Kentucky University to document rare mammals, such as spotted skunks, on KNP natural areas using the latest passive wildlife camera technology. However, the project also provides us with data on more common species, like bobcats and red foxes in Central Kentucky and black bears on Pine Mountain.

The KNP Biological Assessment Data Program

To date, KNP's natural heritage database contains an impressive 14,974 species and rare community occurrence records and 18,774 species and rare community site specific records; 4,199 species and community occurrence records were added or updated in this biennium alone. KNP tracks 862 species and ecological communities and monitors 186 more on a watch-list. KNP's database also contains 773 high quality site records, including caves, and 709 conservation lands records.

Private sector industries, the military, and conservation groups all trust KNP data to make important economic development, infrastructure investments, and land conservation decisions.

KNP is the state affiliate of *NatureServe*, an international network of natural heritage programs that gathers, organizes and distributes standardized, detailed information on biological diversity across all 50 U.S. states, Canada, Mexico, and parts of Latin America. By partnering with NatureServe, KNP can track the status of a species or natural habitat type at global, national, and state scales and assign objective and sound conservation ranks.

KNP data also provides the NatureServe Explorer website with accurate information on Kentucky species. This resource is used by educators and professionals all over the world, and can be accessed at explorer.natureserve.org.

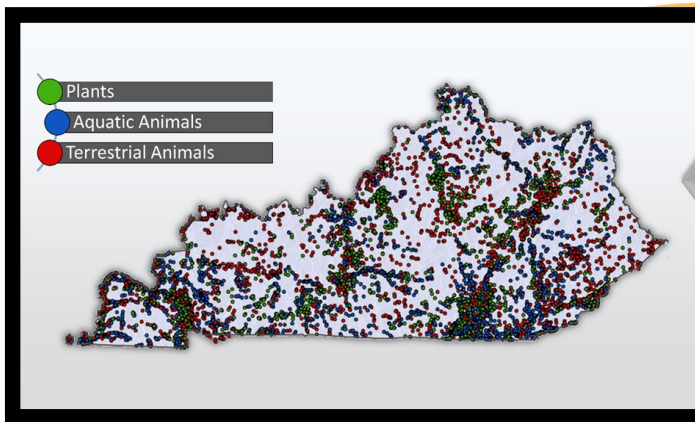


The software applications created by the KNP streamlined the process for reviewing surface coal mining permits by the Department for Natural Resources and reclamation reviews for the Division of Abandoned Mine Lands. These agencies now have real-time access to the latest imagery and spatial data available. This saves time and money while facilitating projects for the coal mining industry by accelerating project reviews.

The Natural Resource Conservation Service used KNP data nearly 4,000 times to assess Farm Bill practices on farms throughout Kentucky during the biennial application periods. KNP data help determine what Farm Bill-funded conservation practices are appropriate on farms throughout the Commonwealth.

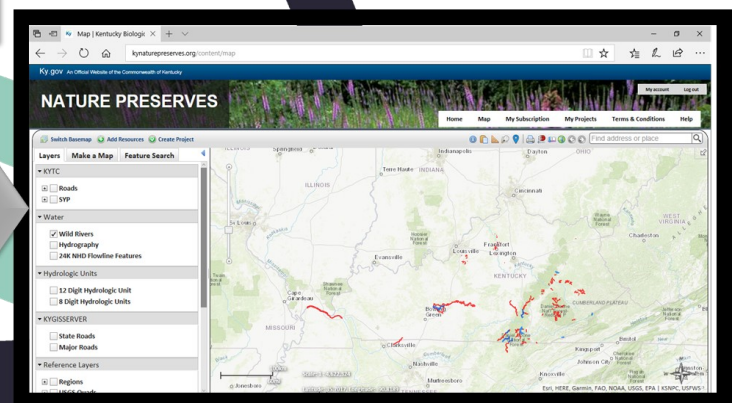
KNP's data enables land managers and developers, in both private and public sectors, to make decisions more efficiently to benefit society and the economy by avoiding impacts on sensitive areas. KNP provides information that facilitates ecologically sound development and infrastructure projects, such as pipeline corridors, roads, communication towers, and municipal utility projects. During the biennium our data managers responded to more than 234 large-scale and site-specific data requests from private consultants, utilities, conservation groups, federal, state, and local government, forest management groups, land trusts, and researchers., up from 175 the previous biennium.

The Kentucky Biological Assessment Tool, accessible at <https://kynaturepreserves.org/>, allows customers to have real-time access to KNP data, and was made available to the public in 2018 as a part of our commitment to providing timely, creative, high-quality solutions to a wide variety of environmental and developmental planning needs.



The KNP Natural Heritage Database includes 18,774 high quality source features records and 14,974 element occurrence records of the 862 species and communities we track.

The Kentucky Biological Assessment Tool (KY-BAT) is a self-service conservation planning tool that allows customers to submit projects and receive data within minutes at KYNaturePreserves.org



The Kentucky Biological Assessment Tool (KY-BAT), an environmental review tool developed by KNP in cooperation with NatureServe, went live in 2018. KY-BAT allows clients to submit projects and receive reports with information on rare species and communities, conservation lands, and other natural resources within the project area within minutes. KNP now utilizes annual subscription licenses with reduced fees for our clients who submit multiple data requests per year. Various map resources have been made available for anyone to view on KY-BAT, whether they are interested in land use or conservation planning or interested in information on our state resources. KNP is developing additional resources to make available to the public on KY-BAT.

KNP is a leader in the environmental field. KNP biologists are recognized for their field experience and commitment to complete and accurate data, and our data analysts respond to numerous large-scale and site-specific information requests to guide land use planning, development, conservation efforts, and research. KY-BAT is the most accurate database of information on rare species, natural habitats, and conservation lands available in Kentucky and is updated regularly. It is the result of 40 years of research and on-the-ground inventories by KNP biologists, plus a compilation of herbarium records, museum records, and data from other agency and organizations.

KNP is committed to providing timely, creative, high-quality solutions to a wide variety of environmental and developmental planning needs. The KNP is a leader in the biological and environmental data field. Our data systems are linked with powerful mapping tools - now accessible online 24/7 through the KY-BAT.

Education and Outreach



Helping Kentuckians and visitors alike experience the Commonwealth's wildest places is very important to KNP and many of our partners. Recent studies show that the more time kids (and adults) spend outside and *unplugged*, the healthier, calmer, and better-adjusted they tend to be. But there are also no better classrooms than KNP natural areas and nature preserves—from biology, to geology, to history, to art, to literature, KNP areas can provide unique hands-on education in settings found nowhere else.

KNP staff lead many environmental education programs in the biennium:

- Louisville Zoo Party for the Plant Earth Day Celebrations
- Aquatic Biodiversity Workshop at Floracliff Nature Sanctuary, Fayette County
- University of Kentucky Natural Resources and Environmental Sciences course, May 2017 and 2018
- Quiet Trails State Nature Preserve Aquatics field day, Harrison County
- Moth Night at Floracliff Nature Sanctuary, Fayette County
- Woods and Water Land Trust Aquatics field day, Franklin County
- Native Plant Hikes with the Kentucky Nature Plant Society:
 - William H. Martin Wild River Conservation Area, Pulaski County
 - Cove Springs Park, Franklin County
 - E. Lucy Braun State Nature Preserve, Harlan County
 - Thompson Creek Glades State Nature Preserve, Larue County
 - Cumberland Falls State Park Nature Preserve, Whitley County
 - Lower Howard's Creek Nature and Heritage Preserve, Clark County
- Tom Barnes Memorial Hike at Red River Gorge, Powell County
- KNLT Wildlands Social Club, Lexington
- KNPS Botanical Symposium, Boone County



Kentucky State Nature Preserves protect the best remaining examples of Kentucky's natural heritage and offers a wealth of opportunity for research. The preserves can be considered living museums of undisturbed natural communities and can often play a crucial role in understanding how these systems fit into the landscape and their ecological benefits. The KNP issued over 30 research permits during the last biennium to students, professors, and professionals including:

- Surveys of lichens, snails, plants, bats, birds, reptiles, amphibians, and more to improve distributional maps and gain better understanding of habitat requirements.
- Developing new passive survey methods for mammals.
- Developing new avian indices for biological assessments.
- DNA analysis of plant species to better understand their classification.
- Stream assessments using benthic macro-invertebrates.
- Effects of hemlock wooly adelgid infestations on forest structure.



Training the trainers

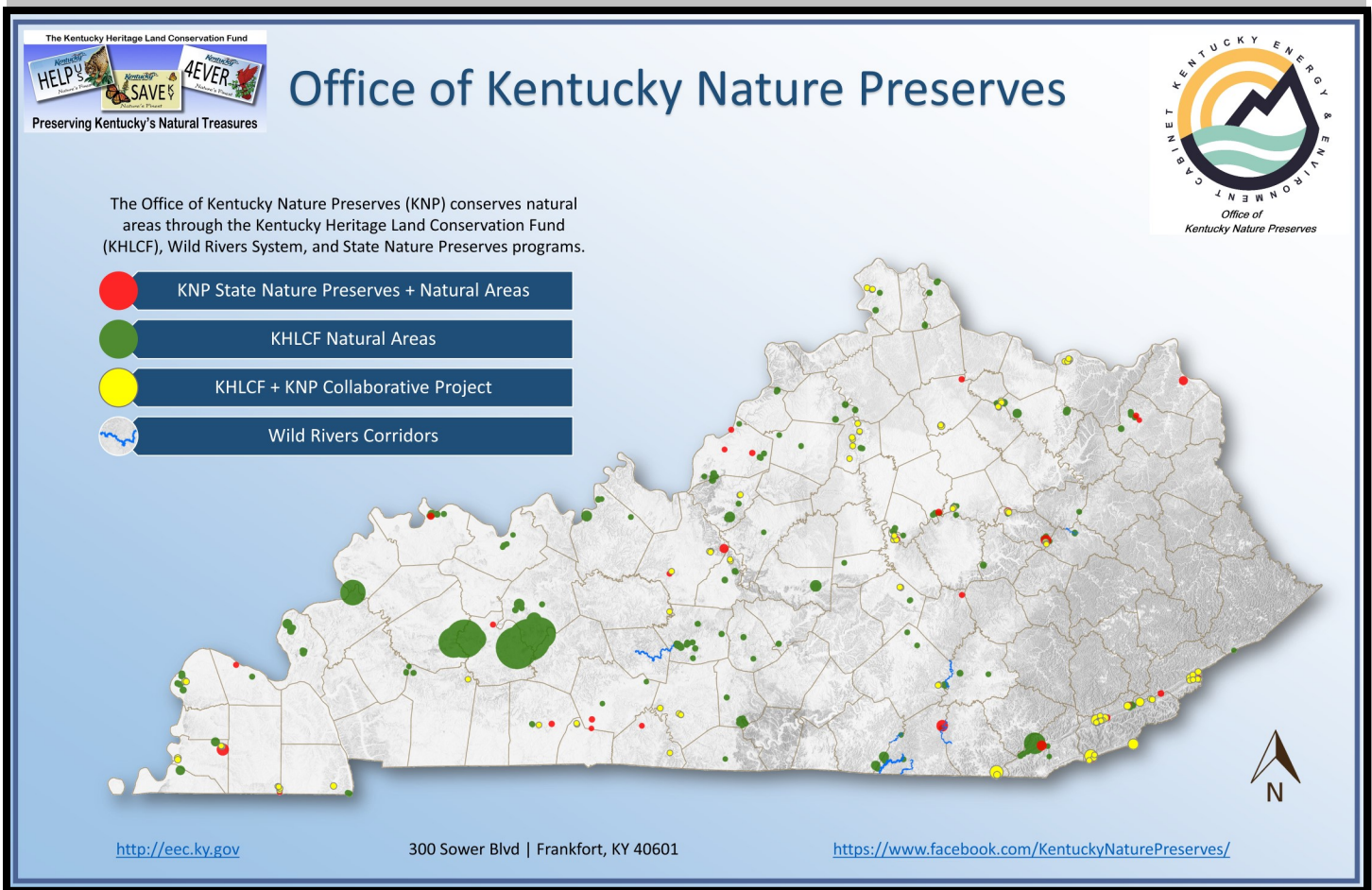
- Since 2016, KNP has conducted workshops on identification and management of native grassland remnants, seeps, bogs, and river scours for natural resources professionals from eight federal and state agencies and private organizations. These programs are highly regarded by conservation professionals as valuable training for those managing for our natural habitats.
- KNP botanists also taught plant identification to Kentucky's State Park naturalists at their annual meeting.
- KNP also presented at the 2018 NatureServe Southeast Regional Biodiversity Forum on our efforts to conserve Pine Mountain, in partnership with the Kentucky Natural Lands Trust.
- KNP zoologists presented on rare bats and fire management at the Joint North American Bat Working Group Meeting.
- Our new KY-BAT database was the topic of presentations by KNP Data Analysts at the Kentucky GIS Conference and the annual Southeast Association of Fish and Wildlife Agencies.

If you just can't make it outside, you can get a glimpse of KNP's natural areas on our [YouTube page](#), with videos from Western Kentucky University's PBS affiliate, including:

- *Kentucky Naturally*, a 30-minute program featuring KHLCF sites throughout the state from Pine Mountain to the Mississippi River.
- *Kentucky Wild Rivers: Secrets of Discovery*, a 30-minute program featuring all nine Wild River corridors
- Extras from both programs, featuring Audubon Wetlands, Martin's Fork, Blanton Forest, and many other sites.
- Links to KNP biodiversity segments from KET's Kentucky Life.



KNP Natural Areas, Nature Preserves, and Wild Rivers



KNP manages four distinct programs to conserve Kentucky's natural areas. While they each have some things in common—rare species habitat, environmental education opportunities, and conserving the natural areas through a combination of land acquisition, conservation easements, and public-private partnerships— they have some differences.

- **The State Nature Preserve System**

Prioritizes rare species habitat conservation and quiet enjoyment of natural areas.

- **The Natural Areas Registry**

Recognizes private landowners and others who own land with outstanding ecological attributes.

- **The Wild Rivers Program**

Focus on riparian forest conservation and paddling opportunities on pristine rivers and streams.

- **The Kentucky Heritage Land Conservation Fund**

Assists with funding conservation at the local and state level.

As of July 1, 2018, Office of Kentucky Nature Preserves programs include:

- 19,217 acres owned by KNP in 41 State Nature Preserves
- 6,245 acres owned by KNP in 6 State Natural Areas
- 7,324 acres dedicated by KNP in 22 State Nature Preserves owned by partnering agencies
- 11,894 acres in conservation easements at 52 KHLCF natural areas owned by local concerns
- 59,556 acres of deed restrictions 26 KHLCF natural areas owned by other state agencies
- 8,260 acres owned by private landowners and other agencies in 59 Registered Natural Areas
- 26,382 acres owned by private landowners and other agencies in 9 Wild Rivers Corridors

While the grand total of 112,000 acres in these programs is an impressive number, it is only 0.44% of Kentucky's 25 million acres! Appendix I has lists of KNP natural areas by county and status.

Habitat Management Partnerships and Collaborations

We often rely on our partnerships and collaborations with other state, federal, and non-profit partners to increase our ability reach our goals. Since 2016, KNP has used these partnerships to help implement prescribed fire, remove invasive species to improve habitat for native animals and plants, and educate the public on conservation issues in Kentucky.

In 2017 the Kentucky Division of Forestry's Forest Health Crew spent a good bit of time working on our natural areas. They removed invasive honeysuckle and garlic mustard, and assisted with prescribed burns on six nature preserves in Central Kentucky. also treated over 13,000 hemlock trees on 175 acres at five KNP areas on Pine Mountain and the Cumberland Plateau.

Also since 2017 a partnership with KNP, USFWS, KDFWR, KDF, the KHLCF, and other conservation organizations has increased prescribed fire on the landscape throughout central and western Kentucky. This joint task force was funded by a State Wildlife Grant and matched by resources from the partnering agencies. To date this collaboration has burned over 2,600 acres on 84 units and complete stewardship work on twelve areas, creating prairie openings and controlling invasive species. These units included State Nature Preserves, Wild Rivers, and KHLCF Natural Areas. Thanks to this partnership, we had the most productive burn season ever on KNP sites.



Searching for the Most Unique Natural Areas in the Commonwealth

As part of our ongoing efforts to delist Kentucky's federal endangered species, KNP biologists survey for previously unrecorded high quality natural habitats. We also survey nature preserves and natural areas to find new populations of species and habitats. As a result of these surveys, KNP biologists documented 358 new rare plant and animal populations, including a plant thought to be extirpated from the state. KNP also discovered 37 high quality natural communities and documented 18 plants and insects not previously known to be from Kentucky.

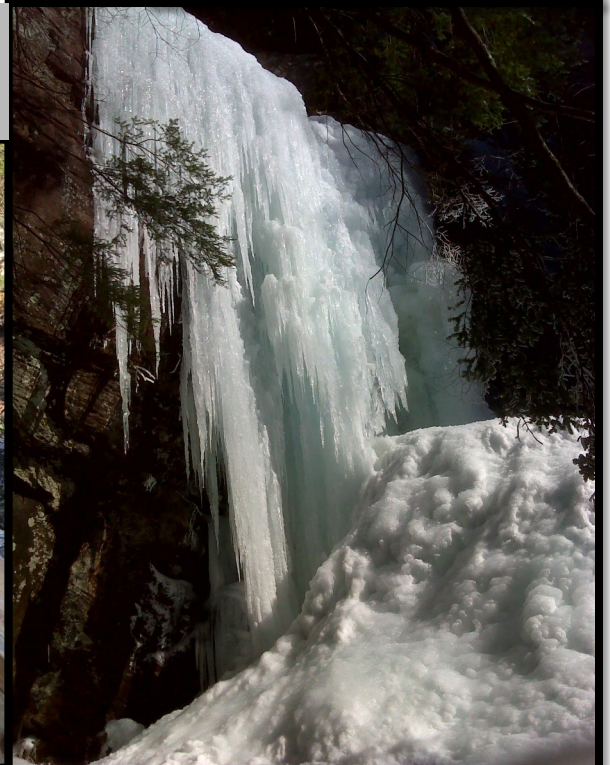
Hiking on KNP Natural Areas

In addition to conserving habitat for rare species, KNP strives to provide passive outdoor recreation opportunities to the citizens of Kentucky and tourists alike. KNP nature preserves and natural areas provide an opportunity for individuals, families, and groups to see, hear, explore, and connect with nature in its purest state possible and to experience what Kentucky may have looked like centuries ago. For the hiker, nature photographer, bird watcher, and those seeking solitude in pockets of wild Kentucky, State Nature Preserves, Wild Rivers, and Heritage Lands truly are some of the most cherished places in the state.

The [Keith MacAdam Trail Endowment for Kentucky Nature Preserves](#) was established in 2018 to assist with improvements on the KNP trail system. Through the financial support the endowment offers, and an increased focus on organizing volunteers, we have been able to make short and long term plans to maintain and improve the existing trail systems as well as developing new trails in the future.



Starting in late 2018 you'll be able to find directions to all of our hiking areas on our new website at EEC.KY.GOV!

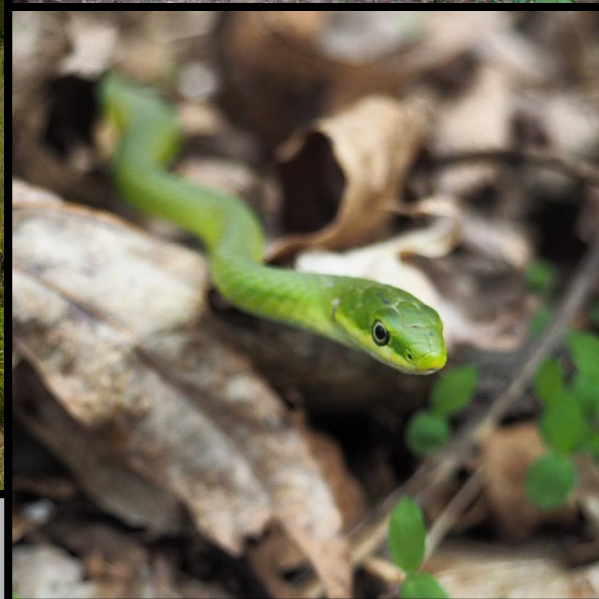


Bad Branch State Nature Preserve

This 2,785 acre preserve in Letcher County protects both the scenic beauty of the Bad Branch Wild River and one of the largest concentrations of rare and uncommon species in the state. Bad Branch Falls is a 60 foot waterfall tumbling over sandstone cliffs on the south face of Pine Mountain and attracts visitors from around the country who come to hike the five miles of trails. Trail improvements over the last year include installation of a new set of steps leading up to the falls to reduce the erosion on this steep trail, thanks to volunteers and an AmeriCorps crew and materials provided through the McAdam Endowment. The 2017 KNP Volunteer of the Year Award went to Letcher County's Myrel Short for his work on the Bad Branch Trails.

Quiet Trails State Nature Preserve

Quiet Trails SNP in Harrison County, donated to the Commonwealth by the Wigglesworth Family in 1991, offers 5 miles of trails leading to the Licking River. These forest trails are very steep and do require regular maintenance. Inevitably, trees and limbs fall across trails throughout the year, and heavy rains cause erosion. In 2018 a particularly large tree fell across the Deep Hollow Trail and KNP was able to quickly and safely respond and reopen it. KNP has hundreds of miles of trails statewide and they all require routine maintenance to keep them open and safe for hikers, and to protect the habitat they meander through from erosion.



New Trail at Crooked Creek Barrens State Nature Preserve

The 728-acre Crooked Creek Barrens State Nature Preserve in Lewis County contains a large complex of high quality calcareous shale barrens and glades, which are extremely rare in Kentucky. While KNP has managed the habitat here for many years through prescribed fire and invasive species control, it was not open to the public for hiking. After establishing a parking area, a new 1.75 mile trail was opened on the preserve in 2017 in partnership with the Lewis County Fiscal Court. Trail design, construction, installation, marking, and a few rounds of mowing have all been completed, along with new trail maps and an informational kiosk.

Going forward, we have plans for other new trails at several natural areas; for updates please regularly check the KNP website at eec.ky.gov and the KNP Facebook page at <https://www.facebook.com/KentuckyNaturePreserves/>.

Kentucky State Nature Preserves

The Kentucky Nature Preserves Act of 1976 established the State Nature Preserve system. State Nature Preserves contain the best remaining examples of rare species populations or natural communities known in the state, are particularly suited for environmental education, or preserve the Commonwealth's most spectacular nature scenery. Conserving these high quality areas often reduces the risk that species will become federally endangered, helps the recovery of already listed species, or moves species closer towards their delisting. These high quality areas are legally "dedicated" as "State Nature Preserves".

- Of 343 plant species listed as state endangered, threatened or special concern, 143 are conserved in perpetuity on state nature preserves.
- Of 334 animal species listed as endangered, threatened or special concern, 96 have been conserved on state nature preserves.
- Of Kentucky's 62 natural community types, 23 high-quality examples have been conserved on state nature preserves.

State Nature Preserves with less sensitive habitats are open to the public for hiking, wildlife viewing, and passive recreation on a system of hiking trails.



Habitat management in the KNP system requires specialized expertise in ecosystem restoration techniques such as prescribed burning and invasive plant control. Activities range from research on the viability of a rare species population, to creating educational materials for the public, to building and maintaining hiking trails.

Kentucky Wild Rivers Program

To preserve the unique scenic, fish and wildlife, botanical, geological, cultural and recreational values of its most pristine rivers, the Kentucky Wild Rivers Act of 1972 established nine wild rivers corridors, including specific sections of exceptional quality and aesthetic character:

- | | |
|---|--|
| • The Cumberland River | • The Red River |
| • The Green River | • The Rockcastle River |
| • The Big South Fork of the Cumberland River | • The Little South Fork of the Cumberland River |
| • Rock Creek | • Bad Branch |
| • Martin's Fork | |

Each Wild River is actually a linear corridor encompassing all visible land on each side of the river up to a distance of 2,000 feet.

While much of the land surrounding the wild river corridors is privately owned, public land includes:

- Mammoth Cave National Park
- The Red River National Geological Area
- The Big South Fork National Recreation Area
- The Daniel Boone National Forest
- KNP Natural Areas

Not only do these free-flowing waters provide important habitat for native species, wilderness recreation and paddling sets Kentucky's Wild Rivers apart. These scenic settings are havens for people seeking solitude and tranquility in nature. Their waters provide healthy sport fisheries, cool pools for swimming, serene floats, and in some cases white-water rapids for more adventurous paddlers.



Kentucky Heritage Land Conservation Fund

The Kentucky Heritage Land Conservation Fund (KHLCF) is the primary source of state funding for the purchase and management of natural areas. Each property funded by the KHLCF is protected in perpetuity by a conservation easement or deed restriction. The fund was established by the Kentucky Heritage Land Conservation Act in 1990. This legislation established four priorities for land conservation.

The Four Priorities for Heritage Land Funding

- **Natural areas that possess unique features such as habitat for rare and endangered species;**
- **Areas important to migratory birds;**
- **Areas that perform important natural functions subject to alteration or loss;**
- **Areas to be preserved in their natural state for public use, outdoor recreation and education.**

The fund is managed by the nine member Kentucky Heritage Land Conservation Fund Board appointed by the governor. Revenue for the fund comes from the state portion of the unmined minerals tax, environmental fines, sale of Kentucky nature license plates and interest. The KHLCF is administratively managed by KNP.

KHLCF funds are distributed quarterly as follows by statute:

- **10% Department of Fish and Wildlife Resources**
- **10% Department of Parks**
- **10% Division of Forestry**
- **10% Office of Kentucky Nature Preserves**
- **10% Kentucky Wild Rivers Program**
- **50% Competitive Funding for Local Governments, Colleges, Nonprofit Land Trusts, and Agencies**

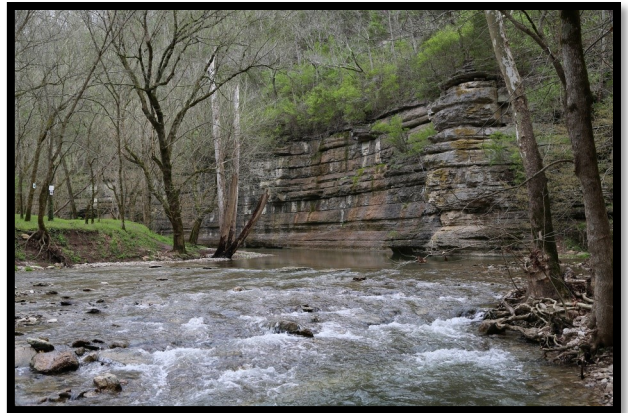


Kentucky Heritage Land Conservation Fund—Conservation Easements

When KHLCF funding conserves a natural area at a county park, land trust site, or university research station, a permanent conservation easement is placed on that property. This ensures that the site will always be managed for conservation and nature-based recreation. KNP staff inspects each of these conservation easements annually, and our partners submit reports on their activities. Here are just a few highlights from some of our 52 conservation easement partners:



- Oldham County Fiscal Court was awarded the 2017 Kentucky Heritage Land Conservation Fund Stewardship Award in recognition for their outstanding trail management work at the Morgan Conservation Park.
- Kenton County Conservation District's Morning View Heritage Land held six field days for 250 participants. They began prepping sites for a hardwood tree planting for 5,000 plugs to help reforest pastures. Three miles of hiking trails for public use are on the site, maintained by staff with help from Boy Scouts and other volunteers.
- Volunteers at Clark County Fiscal Court's Lower Howard's Creek have now cleared approximately 170 acres of invasive bush honeysuckle, lead by ecologist Bill Crankshaw (now 93 years young); thirty volunteers contributed 2,413 hours of labor during the past 12 months. Over the last year there have been 42 guided hikes on the area with 350 participants, plus two Kentucky Native Plant Society habitat management classes. Second year design studio from UK's College of Landscape Architecture spent a semester doing site analysis work at LHC; Robert Campbell Middle School social studies class used LHC to study pioneer history; and Clark County Emergency Medical Technicians and firefighters conduct rescue training.
- Lost River Cave in Bowling Green had approximately 50,000 visitors last year, including 2,500 students from 55 schools for environmental education programs. Approximately 6,000 children benefited from the Nature Explore Classroom for the Junior Naturalist Program, Earth Day Invasive Pull, Spring Break Nature Discovery Camp, Annual Butterfly Celebration, Karst STEM Camp, Fall Break Nature Discovery Camp, and the Annual C.I.T.O Invasive Pull.



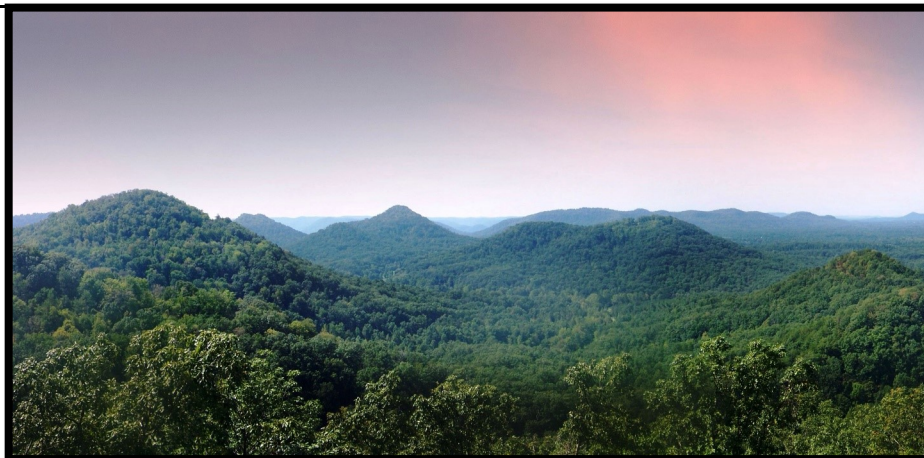
- Western Kentucky University's Green River Preserve hosted numerous research projects and classes in disciplines including ecology, biology, geology, folk studies and archeology. Current research includes the conservation ecology and dispersal of *Phacelia purshii*, habitat preferences of bees, tree preferences of ants, and influences of buried river channels on tree growth and transpiration. The GRP co-hosted a meeting of the Kentucky Organization of Field Stations and a meeting of DiscoverLife.

Kentucky Heritage Land Conservation Fund—Historic Accomplishments

Since 1995, the Kentucky Heritage Land Conservation Fund Board has played an integral part to protect and conserve 90,551.13 acres of Kentucky's natural areas and habitats. To date, the fund has provided financial support, in whole or in part, to acquire 157 tracts in 67 counties. There have been 78,457.37 acres conserved by state agencies and/or multiple-agency partnerships, 10,108.057 acres conserved by local governments and conservation districts, 155 by nonprofit land trust organizations and 1,985.70 acres conserved by universities.

| Summary of the Kentucky Heritage Land Conservation Fund Efforts as of 1995 - June 2018 | | | |
|--|-----------------------|-------------------|-------------------------|
| Applicant | Number of Projects | Acreage Conserved | Funding |
| Fish and Wildlife Resources | 8 | 40,701.18 | \$ 7,915,255.59 |
| Division of Forestry | 5 | 3,166.56 | \$ 4,650,787.85 |
| Kentucky Nature Preserves | 44 | 10,313.73 | \$ 8,977,297.42 |
| Department of Parks | 14 | 3,248.55 | \$ 5,305,890.76 |
| Wild Rivers Program | 14 | 6,246.26 | \$ 8,043,476.94 |
| Multiple Agency Partners | 6 | 14,781.09 | \$ 11,673,455.86 |
| County Governments | 32 | 6,932.68 | \$ 12,796,469.59 |
| City Governments | 10 | 542.55 | \$ 1,709,119.25 |
| Metro Governments | 7 | 993.24 | \$ 3,268,294.45 |
| Colleges/Universities | 7 | 1,985.70 | \$ 4,735,308.15 |
| Conservation Districts | 8 | 1,484.44 | \$ 4,589,972.66 |
| Non-Profit | 2 | 155.147 | \$ 405,059.00 |
| Totals: | 157 | 90,551.13 | \$ 74,070,387.52 |

Note: Includes both acquisition and management costs.



Kentucky Heritage Land Conservation Fund-New Projects

Three properties were successfully acquired in FY2018, out of the thirty approved active projects.

| FY 2018 KHLCF ACQUISITIONS | | | |
|--|-----------------------------|----------|-----------------|
| PROJECT | AGENCY | COUNTY | ACRES |
| Steele Hollow Natural Area —King Tract | Wild Rivers | McCreary | 327.31 |
| Steele Hollow Natural Area —Garrison Tract | Wild Rivers | McCreary | 706.11 |
| Park Lake Mountain—Browning Tract | Fleming County Fiscal Court | Fleming | 40 |
| Total: | | | 1,073.42 |

Ten project applications were reviewed by the KHLCF Board in FY 2018, and all received some level of funding. Funding awards totaling \$2,103,500 were approved for 1,156 acres for projects in Lincoln, Garrard, Hancock, Henry, Kenton, Harlan, Whitley and Hart counties. Funds came from current year receipts plus refunds from previously approved projects that could not be acquired. All funding awarded was for land purchase, associated pre-acquisition costs (appraisals, title, and survey work), or approved management activities.

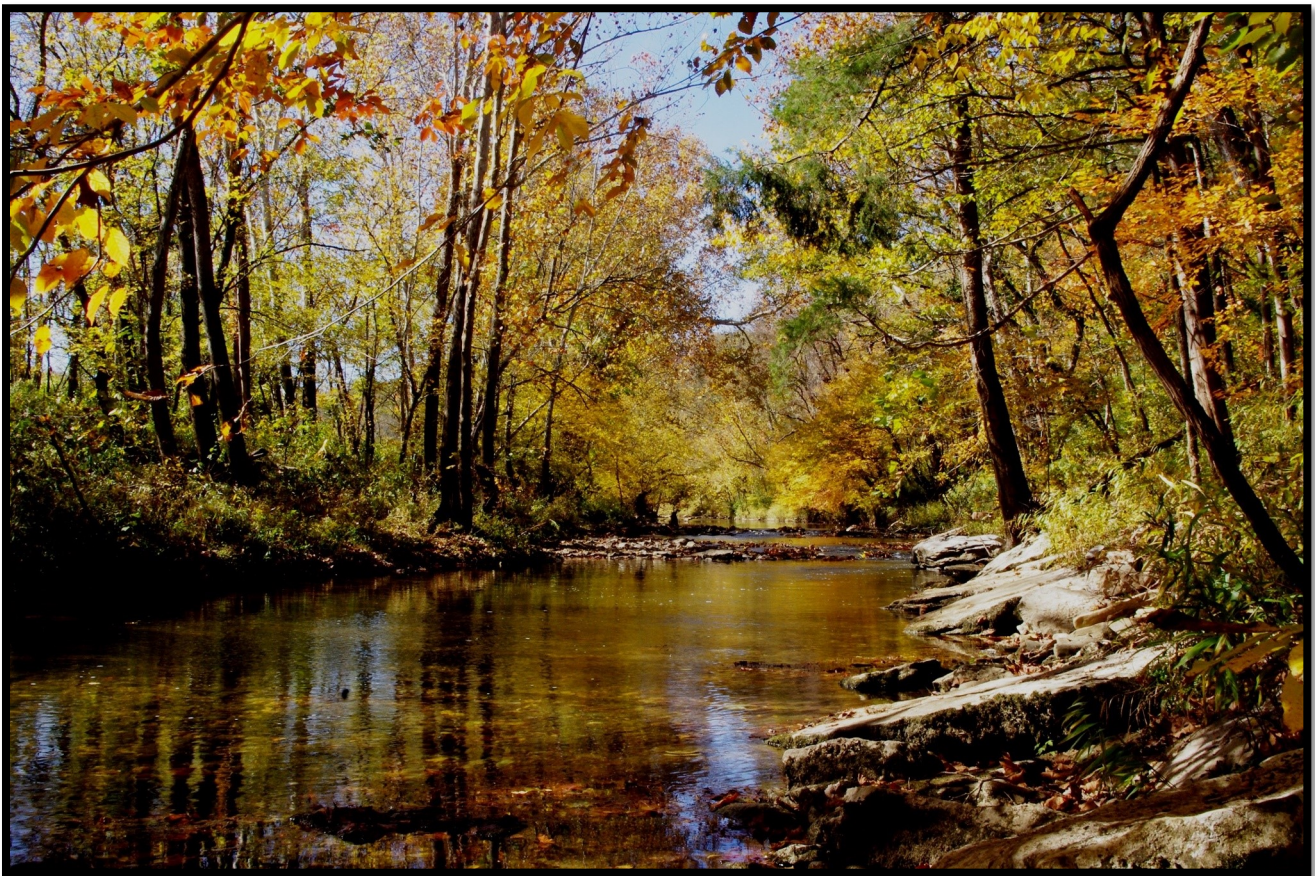
| GRANTS AWARDED | COUNTIES | AWARD |
|---|--------------------|---------------------|
| Competitive (local governments, colleges, land trusts, etc.) | | \$1,117,500 |
| Kenton County Conservation District | Kenton | \$5,000 |
| Kentucky State University | Kenry | \$374,500 |
| Lincoln and Garrard Fiscal Courts | Lincoln/Garrard | \$300,000 |
| Hancock County Fiscal Court | Hancock | \$438,000 |
| State Agency Grants | | \$986,000 |
| Office of Kentucky Nature Preserves | Harlan | \$43,000 |
| Office of Kentucky Nature Preserves | Whitley | \$33,000 |
| Office of Kentucky Nature Preserves | Whitley | \$415,000 |
| Department of Parks | Bell, Pike, Harlan | \$150,000 |
| Department of Parks | Henderson | \$25,000 |
| Wild Rivers Program | Hart | \$320,000 |
| GRAND TOTAL | | \$ 2,103,500 |



Little South Fork Conservation Efforts a Success

Over the last year, KNP conserved over 1,000 acres of forest with rare species habitat for the Wild Rivers Program in the Little South Fork Watershed. These additions to the Steele Hollow Watershed Conservation Area in Wayne and McCreary counties were funded with assistance from KHLCF, the Imperiled Bat Conservation Fund and the US Fish and Wildlife Service's Kentucky field office.

"These tracts lie within the watershed for the Little South Fork of the Cumberland River, which contains habitat for several imperiled species," said Lee Andrews, State Field Office Supervisor for the U.S. Fish and Wildlife Service in Kentucky. "The palezone shiner, for example, is one of those species and is only known to occur in the Little South Fork and in the Paint Rock River in Alabama. It is important to the survival of the palezone shiner to have conservation lands in the watershed to ensure that good water quality is maintained. Other species that will likely benefit from these acquisitions are the fluted kidneyshell, Indiana bat, and northern long-eared bat."



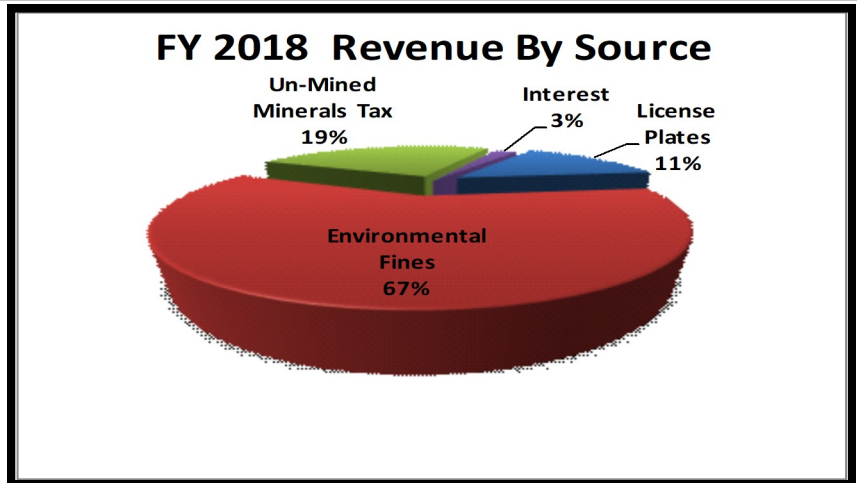
While one of the highest priorities of the Wild Rivers Program is conservation of rare species habitat, the Little South Fork is a beautiful place to paddle and fish with its populations of smallmouth bass, rock bass, and spotted bass. The KNP recognizes that it is important to have wild places like this where people can unplug and enjoy the quiet.

Paddlers and anglers can access the Little South Fork Wild River at the Steele Hollow Road Bridge in Wayne County for a fairly easy 7-mile trip down Baldy-East Coopersville Road Bridge, just off KY 92 east from its junction with KY 1756. For more information on paddling access, just see the Blue Water Trail Guide at <https://fw.ky.gov/Education/Pages/Little-South-Fork-of-Cumberland-River.aspx>.

Kentucky Heritage Land Conservation Fund—Revenue

Funding for the KHLCF is generated from the sale of nature license plates, the state portion of unmined mineral tax on coal, environmental fines, interest income, and donations. For FY 2018, receipts were \$3,365,097.

By statute, the Kentucky Environmental Education Council receives the first \$150,000 collected from environmental fines and the Office of Energy Policy receives the first \$400,000 of unmined minerals taxes.



In FY 2018 the enacted state budget swept \$2,500,000 from the KHLCF into the state General Fund, as it did in FY2017. Awards made in FY 2018 were made from a combination of revenue carried forward from previous years and funds returned from withdrawn projects.

| FY | License Plates | Fines | Un-Mined Tax | Interest | Other | TOTALS |
|------|----------------|--------------|--------------|-------------|----------|--------------|
| 2009 | \$ 688,103 | \$ 887,490 | \$ 2,059,201 | \$ 734,165 | | \$ 4,368,959 |
| 2010 | \$ 678,117 | \$ 1,363,884 | \$ 2,102,783 | \$ 193,245 | \$ 1,100 | \$ 4,339,129 |
| 2011 | \$ 638,470 | \$ 1,918,713 | \$ 2,399,253 | \$ 74,111 | | \$ 5,030,547 |
| 2012 | \$ 571,970 | \$ 2,199,708 | \$ 2,870,186 | \$ 74,111 | | \$ 5,715,974 |
| 2013 | \$ 431,100 | \$ 2,332,183 | \$ 2,820,758 | \$ (14,433) | | \$ 5,569,608 |
| 2014 | \$ 412,370 | \$ 1,709,373 | \$ 2,676,912 | \$ 71,526 | \$ 71 | \$ 4,870,251 |
| 2015 | \$ 402,118 | \$ 2,773,396 | \$ 2,287,058 | \$ 85,541 | \$ 945 | \$ 5,549,058 |
| 2016 | \$ 288,182 | \$ 2,070,527 | \$ 1,637,571 | \$ 126,302 | | \$ 4,122,581 |
| 2017 | \$ 379,370 | \$ 1,586,457 | \$ 676,305 | \$ 59,298 | \$ 25 | \$ 2,701,454 |
| 2018 | \$ 365,590 | \$ 2,262,555 | \$ 636,307 | \$ 100,261 | \$ 385 | \$ 3,365,097 |



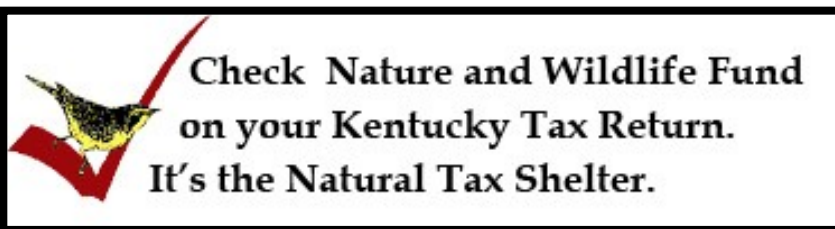
Funding Conservation

As a state agency, KNP does receive General Fund dollars. However, these cover about half of our operating expenses, such as staffing and equipment. No General Fund dollars go towards land purchases. We depend on a wide variety of sources to pay for habitat management and land conservation, some of which depend on the voluntary support of Kentuckians like you.



Each time you register a “Nature’s Finest” license plate for your vehicle at your local County Clerk’s office or [renew online](#), \$10 goes to the Kentucky Heritage Land Conservation Fund for habitat management and land conservation.

You can also make a tax-deductible donation directly to the [Keith MacAdam Trail Endowment for Kentucky Nature Preserves](#) on the Blue Grass Community Foundation website and help keep your favorite hiking spot in good shape.



When tax refund time comes, look for the Nature and Wildlife Fund box on your Form 740 and donate some of your refund to KNP Natural Areas Management and the KDFWR Wildlife Diversity programs!

Annual Nature and Wildlife Fund Revenue



KNP secures outside grants and contract work to generate agency receipts to balance the KNP's budget, increase capacity, and complete quality work efficiently. This table lists some of the major projects undertaken by the KNP for Fiscal years 2017 and 2018.

| Project Name |
|--|
| Clark County Fiscal Court- Biological Inventory of Lower Howards Creek |
| Daniel Boone National Forest—Rare Plant Inventory |
| Department of Parks —Biological inventories |
| US Fish and Wildlife - rare insect inventory |
| US Fish and Wildlife - Kentucky glade/cess management |
| Kentucky Aquatic Resource Fund—Green River assessment |
| US Fish and Wildlife - Relict darter assessment |
| Southern Conservation Corporation - Rose Barrens inventory |
| Imperiled Bat Conservation Fund—Little South Fork inventories |
| Ft. Knox Military Base -Ecological community inventory |
| US Fish and Wildlife - Aquatics assessments |
| US Fish and Wildlife —Blackside dace assessments |
| State Wildlife Grant - Papaipema management and inventory |
| KY Dept of Fish and Wildlife—Rare plant inventory |
| Ky Division of Forestry - Biological inventory |
| KY Division of Water - Kinniconick Creek Study |
| Louisville Metro Parks -Bat inventory |
| NatureServe - database information |
| KY Department for Natural Resources-database information |
| USDA-NRCS- database information |
| Imperiled Bat Conservation Fund —database information |

KNP Staff

The Office of Kentucky Nature Preserves is committed to the conservation of the natural areas and species that help make Kentucky special, but we couldn't do it without an exceptional staff.

Generating high quality and reliable biological data and managing Kentucky's most unique natural areas requires thorough knowledge of both species and habitat requirements. In addition, our biologists and managers have to be well-networked with other experts to compile and screen outside data sources and determine relevance, as well as to evaluate the best management practices for a variety of habitat improvement projects. Our staff are leading experts in their respective fields with years of experience, training, and education.



Mike Compton
Aquatic Zoologist
* fish, crayfish, and fresh-water mussels.



Shelby Fulton
Terrestrial Zoologist
* invertebrates and other wildlife, focus on bats.



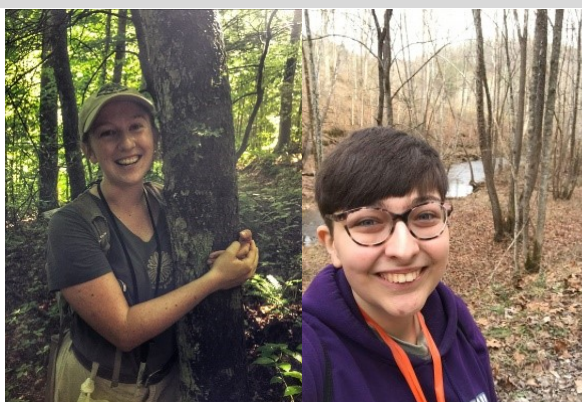
Tara Littlefield and Devin Rodgers
Botanists
* rare and native plant inventory and recovery.



Martina Hines, Branch Manager and Brian Yahn
Ecologists
* natural habitats including forests, wetlands, and native grasslands.



Ian Horn and Evelyn Pickett
Data Specialists
* natural heritage database and data services to industries, agencies, and conservation groups through the Kentucky Biological Assessment Tool.



Kendall McDonald, Natalia Maas, Logan Phelps, Michaela Rogers
Natural Heritage Technicians



We would also like to recognize Frank Fitzpatrick, Dr. Albert Meier, Horace Brown, Shirley Trunnell, Billie Hardin, and Alex Barnett who served on the KHLCF Board or the KSNPC Commission during this period.



Josh Lillpop
Natural Areas
Branch Manager



Kyle Napier
Pine Mountain Manager



Brent Frazier
Land Specialist



Shaun Ziegler
Natural Areas Manager

* rare species habitat management, wildlife habitat restoration, hiking trails, KHLCF conservation easements, Wild Rivers Corridors, prescribed fire program, invasive species management



Zeb Weese
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* agency administration, natural areas land acquisition, KHLCF program administration, grants and contracts



Ryan Fortenberry, Tyler Potter, Maddy Heredia
Natural Areas Technicians

The Future of Conservation

KRS 146.485(13) directs the KNP to report to the Governor and General Assembly on matters which may significantly affect the natural ecology or the human environment, and to recommend actions to prevent significant adverse effects which would harm our quality of life.

By far the most significant action by state government in decades related to natural areas conservation was Senate Bill 129 in the 2018 General Assembly. This bill created the Office of Kentucky Nature Preserve through merging the duties and responsibilities of the Kentucky State Nature Preserves Commission; the Kentucky Wild Rivers Program formerly in the Kentucky Division of Water; the Kentucky Rare Plant Program and administration of the Kentucky Heritage Land Conservation Fund formerly in the Kentucky Department for Natural Resources. This greatly increased the efficiency of Energy and Environment's natural areas programs and allows for more cohesive land management on the landscape.

Although the new KNP aggressively pursues federal and nonprofit grants to conduct its work, funding for habitat management is always an issue. In 2017 the establishment of the Keith MacAdam Endowment for Kentucky Nature Preserves helped KNP address some of the backlog of work on hiking trails, there is much work to be done to make our natural areas safe and attractive for visitors. This also does not address the work needed on the natural areas of our Kentucky State Parks, State Forests, and sister agencies. Management means everything from trail maintenance to planting rare species habitat, from prescribed fire to reduce the potential for uncontrolled wild fires to creating wildlife foraging sites.

To that end, our strongest recommendation is to:

Support the efforts to manage natural lands through the Kentucky Heritage Land Conservation Fund.

Natural areas are key to protecting habitat, providing eco-services such as cleaner drinking water and crop pollination, and passive outdoor recreation opportunities that improve the quality of life of our citizenry and creates tourism. Supporting the Kentucky Heritage Land Conservation Fund program is an effective **and popular** way to assist conservation. The KHLFCF funds land **management** on existing natural areas as well as acquisition – not only KNP nature preserves and natural areas, but State Parks, Wildlife Management Areas and many others sites. Many agencies depend on grant funding from the KHLFCF to complete trail improvement projects and habitat management initiatives.

Since the KHLFCF does not receive federal funding, KHLFCF funds are used by many agencies as “non-federal match” for grant applications; each dollar of KHLFCF funds can be used to leverage several dollars in outside funding.

Supporting the KHLFCF “Nature's Finest” license plate program simply means providing an opportunity for citizens to voluntarily donate funds to the conservation effort.

The Future of Conservation

In many ways the future of natural areas conservation does look bright in Kentucky, in no small part because of the dedication of people throughout the Commonwealth who work to ensure that some parts of Kentucky remain wild. From botanists and zoologists working to recover some of America's rarest species, to volunteers and land managers controlling invasive plants and repairing hiking trails, to paddlers and anglers cleaning up their favorite stretches of Wild Rivers, to public-private partnerships between KNP and the Kentucky Natural Lands Trust— Kentucky's great outdoors are important to different people for different reasons. But one thing they all share is an appreciation for nature, and a belief that we are all better off if we have some wild places to experience.



Supporting both the KNP and the KHLCF in turn supports efforts by a wide range of local communities and organizations dedicated to handing down some of Kentucky's natural heritage to their children, their grandchildren, and future generations .

Appendix I: Office of Kentucky Nature Preserves Natural Areas and Nature Preserves

| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|----|-----------------------------|----------------------------------|----------|---|----------------|---------------|
| 1 | Allen | Carpenter Cave CE | 14.30 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP dedicated |
| 2 | Allen | Goodrum Cave SNP | 51.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 3 | Ballard | Ballard WMA | 256.00 | Kentucky Department of Fish and Wildlife Resources | KHLCF Deed | |
| 4 | Ballard | Boatwright WMA | 1,177.00 | Kentucky Department of Fish and Wildlife Resources | KHLCF Deed | |
| 5 | Ballard | Axe Lake Swamp SNP | 458.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 6 | Barren | Brigadoon SNP | 184.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 7 | Barren | Mutter's Cave CE | 108.28 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 8 | Bell | Kentucky Ridge SF/ WMA | 3,782.38 | Kentucky Division of Forestry and Kentucky Department for Fish and Wildlife Resources | KHLCF Deed | |
| 9 | Bell | Pine Mountain SPNP | 868.00 | Kentucky State Parks | | KNP dedicated |
| 10 | Bell, Pike, Harlan, Letcher | Pine Mountain State Scenic Trail | 555.48 | Kentucky State Parks | KHLCF Deed | |
| 11 | Boone | Boone Cliffs SNP | 75.42 | Boone County Fiscal Court | KHLCF Easement | KNP dedicated |
| 12 | Boone | Dinsmore Woods SNP | 107.00 | Boone County Fiscal Court | KHLCF Easement | KNP dedicated |
| 13 | Boone | Gunpowder Creek | 125.98 | Boone County Fiscal Court | KHLCF Easement | |
| 14 | Boone | Big Bone Lick SP | 228.52 | Kentucky State Parks | KHLCF Deed | |

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| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|----|--------------|-----------------------------------|----------|--|----------------|---------------|
| 15 | Boyle | Perryville Battlefield State Park | 75.81 | Kentucky State Parks | KHLCF Deed | |
| 16 | Breckinridge | Wildlife Education Park | 25.19 | Breckinridge County Fiscal Court | KHLCF Easement | |
| 17 | Breckinridge | Yellowbank WMA | 1,332.31 | Kentucky Department of Fish and Wildlife Resources | KHLCF Deed | |
| 18 | Bullitt | Cave Hollow | 95.15 | Bernheim Arboretum and Research Forest | KHLCF Easement | |
| 19 | Bullitt | Knobs State Forest | 1,539.59 | Kentucky Division of Forestry | KHLCF Deed | |
| 20 | Bullitt | Apple Valley Glades SNP | 69.23 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 21 | Calloway | Fort Heiman | 167.00 | Calloway County Fiscal Court | KHLCF Easement | |
| 22 | Calloway | Blood River SNP | 192.56 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 23 | Campbell | Hawthorne Crossing | 134.69 | Campbell County Conservation District | KHLCF Easement | |
| 24 | Campbell | St. Anne's Wetlands | 165.00 | Campbell County Conservation District | KHLCF Easement | |
| 25 | Carter | Olive Hill Reservoir | 214.64 | City of Olive Hill | KHLCF Easement | |
| 26 | Carter | Tygart State Forest | 255.03 | Kentucky Division of Forestry | KHLCF Deed | |
| 27 | Carter | Carter Caves State Park | 107.54 | Kentucky State Parks | KHLCF Deed | |
| 28 | Carter | Bat Cave SNP | 128.00 | Kentucky State Parks | | KNP dedicated |

Appendix I: Office of Kentucky Nature Preserves Natural Areas and Nature Preserves

| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|----|---------------------|---|--------|--|----------------|---------------|
| 29 | Carter | Cascade Caverns SNP | 18.00 | Kentucky State Parks | | KNP dedicated |
| 30 | Christian | Bob Overton Cave | 54.82 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP dedicated |
| 31 | Christian, Caldwell | Pennyrile State Forest | 200.57 | Kentucky Division of Forestry | KHLCF Deed | |
| 32 | Clark | Lower Howard's Creek Nature and Heritage Preserve | 423.59 | Clark County Fiscal Court | KHLCF Easement | KNP dedicated |
| 33 | Clark | Civil War Earthenworks Fort | 25.38 | Clark County Fiscal Court | KHLCF Easement | |
| 34 | Daviess | Greenbelt Trail | 25.00 | City of Owensboro | KHLCF Easement | |
| 35 | Daviess | Yellow Creek Park | 1.43 | Daviess County Fiscal Court | KHLCF Easement | |
| 36 | Estill | Lily Mountain Nature Preserve | 561.15 | Estill County Conservation District | KHLCF Easement | |
| 37 | Fayette | Floracliff SNP | 347.00 | Floracliff Nature Sanctuary | KHLCF Easement | KNP dedicated |
| 38 | Fayette | Raven Run Nature Sanctuary | 353.38 | Lexington-Fayette Urban County Government | KHLCF Easement | |
| 39 | Fleming | Park Lake Mountain Nature Preserve | 861.13 | Fleming County Fiscal Court | KHLCF Easement | |
| 40 | Fleming | Clay Wildlife WMA | 811.03 | Kentucky Department of Fish and Wildlife Resources | KHLCF Deed | |
| 41 | Fleming | Short's Goldenrod SNP | 209.89 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |

Appendix I: Office of Kentucky Nature Preserves Natural Areas and Nature Preserves

| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|----|----------|-------------------------|--------|-------------------------------------|----------------|---------------|
| 42 | Franklin | Cove Springs Park | 96.99 | City of Frankfort | KHLCF Easement | |
| 43 | Franklin | Julian Savanna SNP | 42.43 | Office of Kentucky Nature Preserves | KHLCF Easement | KNP dedicated |
| 44 | Franklin | River Cliffs SNP | 210.19 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 45 | Franklin | Rockcress Hills SNP | 66.66 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 46 | Franklin | Swallowfield CE | 64.35 | Office of Kentucky Nature Preserves | KHLCF Easement | KNP dedicated |
| 47 | Franklin | Feindel CE | 15.00 | Private landowner | KHLCF Easement | KNP dedicated |
| 48 | Garrard | Tom Dorman SNP | 802.95 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 49 | Graves | Terrapin Creek SNP | 268.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 50 | Grayson | Lone Oak Glade SNP | 33.53 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 51 | Green | Glenview Natural Area | 168.07 | Green County Fiscal Court | KHLCF Easement | |
| 52 | Green | Wyatt Jeffries Woods | 57.15 | Green County Fiscal Court | KHLCF Easement | |
| 53 | Greenup | Jesse Stuart SNP | 714.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 54 | Hardin | Springhouse Barrens SNP | 55.78 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP dedicated |
| 55 | Hardin | Eastview Barrens SNP | 119.14 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |

Appendix I: Office of Kentucky Nature Preserves Natural Areas and Nature Preserves

| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|----|----------|------------------------------|----------|---|----------------|---------------|
| 56 | Hardin | Jim Scudder SNP | 231.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 57 | Hardin | Vernon-Douglas SNP | 730.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 58 | Harlan | Kentenia State Forest | 762.03 | Kentucky Division of Forestry | KHLCF Deed | |
| 59 | Harlan | E. Lucy Braun SNP | 609.00 | Kentucky State Parks | | KNP dedicated |
| 60 | Harlan | James E. Bickford SNP | 347.84 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP dedicated |
| 61 | Harlan | Blanton Forest SNP | 3,124.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 62 | Harlan | Hi Lewis SNP | 427.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 63 | Harlan | Martin's Fork SNA | 1,624.41 | Office of Kentucky Nature Preserves | | KNP owned |
| 64 | Harlan | Stone Mountain SNA | 1,025.49 | Office of Kentucky Nature Preserves and Kentucky Department for Fish and Wildlife Resources | KHLCF Deed | KNP owned |
| 65 | Harrison | Griffith Woods WMA | 391.37 | Kentucky Department of Fish and Wildlife Resources | KHLCF Deed | |
| 66 | Harrison | Quiet Trails SNP | 165.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 67 | Hart | Hidden River Cave | 9.76 | City of Horse Cave | KHLCF Easement | |
| 68 | Hart | Frenchman's Knob | 64.00 | Hart County Fiscal Court | KHLCF Easement | |
| 69 | Hart | Davis Bend Conservation Area | 165.00 | Office of Kentucky Nature Preserves | | KNP owned |

Appendix I: Office of Kentucky Nature Preserves Natural Areas and Nature Preserves

| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|----|-----------------|---|----------|--|----------------|---------------|
| 70 | Hart | Rush Island Bottoms Conservation Area | 160.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 71 | Hart | Green River Biological Reserve | 1,524.67 | Western Kentucky University | KHLCF Easement | |
| 72 | Henderson | Green River State Forest | 409.34 | Kentucky Division of Forestry | KHLCF Deed | |
| 73 | Henderson | Audubon Wetlands | 664.27 | Kentucky State Parks | KHLCF Deed | |
| 74 | Henderson | John James Audubon SPNP | 339.00 | Kentucky State Parks | | KNP dedicated |
| 75 | Henry | KSU Environmental Education and Research Center | 305.99 | Kentucky State University | KHLCF Easement | |
| 76 | Henry, Owen | Kentucky River WMA | 533.28 | Kentucky Department of Fish and Wildlife Resources | KHLCF Deed | |
| 77 | Hickman | Obion Creek and Murphy's Pond SNP | 1,601.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 78 | Hickman | Three Ponds SNP | 528.25 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 79 | Hickman, Fulton | Obion Creek and Laterneau Woods WMA | 1,640.19 | Kentucky Department of Fish and Wildlife Resources | KHLCF Deed | |
| 80 | Jefferson | Putney Pond and Woodlands | 24.31 | City of Prospect | KHLCF Easement | |
| 81 | Jefferson | Jefferson Memorial Forest | 686.15 | Louisville Metro Government | KHLCF Easement | |
| 82 | Jefferson | Peterson Forest | 98.13 | Louisville Metro Government | KHLCF Easement | |
| 83 | Jefferson | Pope Lick Park | 214.65 | Louisville Metro Government | KHLCF Easement | |

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| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|----|-----------|---|--------|-------------------------------------|----------------|------------|
| 84 | Jefferson | Beargrass Creek SNP | 41.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 85 | Jefferson | Blackacre SNP | 175.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 86 | Jefferson | Six Mile Island SNP | 81.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 87 | Jessamine | Camp Nelson | 58.53 | Jessamine County Fiscal Court | KHLCF Easement | |
| 88 | Jessamine | Jessamine Creek Gorge | 268.77 | Jessamine County Fiscal Court | KHLCF Easement | |
| 89 | Jessamine | Tom Dorman SNP | 143.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 90 | Kenton | Morningview Heritage Land | 222.66 | Kenton County Conservation District | KHLCF Easement | |
| 91 | Larue | LaRue County Environmental Education Center | 191.00 | Larue County Fiscal Court | KHLCF Easement | |
| 92 | Larue | Lincoln Boyhood Home | 224.97 | Larue County Fiscal Court | KHLCF Easement | |
| 93 | Larue | Thompson Creek Glades SNP | 169.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 94 | Larue | Thompson Creek Glade SNP | 105.26 | Office of Kentucky Nature Preserves | KHLCF Deed | |
| 95 | Laurel | Whitley Branch Preservation | 75.57 | City of London | KHLCF Easement | |
| 96 | Laurel | Sinking Creek Conservation Area | 300.97 | Office of Kentucky Nature Preserves | | KNP owned |
| 97 | Letcher | Lilley Cornett Woods | n/a | Eastern Kentucky University | KHLCF Easement | |

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| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|-----|------------|---|----------|--|----------------|---------------|
| 98 | Letcher | Kingdom Come SPNP | 225.00 | Kentucky State Parks | | KNP dedicated |
| 99 | Letcher | Bad Branch SNP | 2,785.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 100 | Lewis | Crooked Creek SNP | 693.47 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 101 | Lincoln | William Whitley House | 80.24 | Kentucky State Parks | KHLCF Deed | |
| 102 | Lincoln | Bouteloua Barrens SNP | 261.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 103 | Livingston | Livingston County Natural Areas | 2,429.92 | Livingston County Fiscal Court | KHLCF Easement | KNP dedicated |
| 104 | Logan | Baker Natural Area | 66.15 | Logan County Conservation District | KHLCF Easement | |
| 105 | Logan | Logan County Glade SNP | 42.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 106 | Logan | Raymond Athey Barrens SNP | 156.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 107 | Marion | Marion County WMA | 1,293.20 | Marion County Fiscal Court, Kentucky Division of Forestry, Kentucky Department for Fish and Wildlife Resources | KHLCF Easement | |
| 108 | McCracken | Perkins Creek | 80.27 | City of Paducah | KHLCF Easement | |
| 109 | McCracken | Metropolis Lake SNP | 123.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 110 | McCreary | Cumberland Falls SNP | 1,294.00 | Kentucky State Parks | | KNP dedicated |
| 111 | McCreary | Cumberland Falls Wild River Conservation Area | 119.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP dedicated |

Appendix I: Office of Kentucky Nature Preserves Natural Areas and Nature Preserves

| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|-----|---------------------------|---------------------------|-----------|---|----------------|---------------|
| 112 | Menifee | Broke Leg Falls | 14.82 | Menifee County Fiscal Court | KHLCF Easement | |
| 113 | Metcalfe | Dry Fork Gorge | 79.97 | Metcalfe County Fiscal Court | KHLCF Easement | |
| 114 | Metcalfe, Cumberland | Marrowbone State Forest | 1,955.47 | Kentucky Division of Forestry and Kentucky Department for Fish and Wildlife Resources | KHLCF Deed | |
| 115 | Monroe | Old Mulkey Meeting House | 19.02 | Kentucky State Parks | KHLCF Deed | |
| 116 | Muhlenberg | Cypress Creek SNP | 98.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 117 | Muhlenberg, Hopkins, Ohio | Peabody WMA | 34,560.00 | Kentucky Department of Fish and Wildlife Resources | KHLCF Deed | |
| 118 | Nelson | Town Creek Greenway | 16.01 | City of Bardstown | KHLCF Easement | |
| 119 | Ohio | Highview Hill | 256.71 | Ohio County Fiscal Court | KHLCF Easement | |
| 120 | Ohio | Ohio County Nature Park | 191.25 | Ohio County Fiscal Court | KHLCF Easement | |
| 121 | Oldham | Morgan Conservation Park | 227.59 | Oldham County Fiscal Court | KHLCF Easement | |
| 122 | Powell | Natural Bridge SPNP | 1,188.00 | Kentucky State Parks | | KNP dedicated |
| 123 | Powell | Natural Bridge State Park | 471.00 | Kentucky State Parks | KHLCF Deed | |
| 124 | Powell | Pilot Knob SNP | 742.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 125 | Powell | Pilot Knob SNP | 515.93 | Powell County Fiscal Court | KHLCF Easement | |

Appendix I: Office of Kentucky Nature Preserves Natural Areas and Nature Preserves

| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|-----|------------------------------|------------------------------------|--------|-------------------------------------|----------------|---------------|
| 126 | Pulaski | Francis Johnson Palk SNP | 233.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 127 | Pulaski | William H Martin Conservation Area | 458.96 | Office of Kentucky Nature Preserves | | KNP owned |
| 128 | Pulaski | Mount Victory Seeps | 238.66 | Office of Kentucky Nature Preserves | KHLCF Deed | |
| 129 | Pulaski | Buck Creek Preserve | 35.26 | Pulaski County Fiscal Court | KHLCF Easement | |
| 130 | Pulaski | Hazeldell Meadow | 39.35 | Pulaski County Fiscal Court | KHLCF Easement | |
| 131 | Robertson | Blue Licks SPNP | 53.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 132 | Robertson, Nicholas, Fleming | Blue Licks State Park | 905.45 | Kentucky State Parks | KHLCF Deed | |
| 133 | Rockcastle | John B. Stephenson SNP | 123.00 | Berea College | | KNP dedicated |
| 134 | Shelby | Clear Creek Park Greenway | 27.02 | Shelby County Fiscal Court | KHLCF Easement | |
| 135 | Shelby | Shelby Trails Park Addition | 75.00 | Shelby County Fiscal Court | KHLCF Easement | |
| 136 | Simpson | Flat Rock Glade SNP | 99.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 137 | Taylor | Clay Hill Memorial Forest | 103.00 | Campbellsville University | KHLCF Easement | |
| 138 | Taylor | Tebbs Bend | 138.92 | Taylor County Fiscal Court | KHLCF Easement | |

| | County | Project | Acres | Managing Agency | KHLCF Status | KNP Status |
|--------------------|-------------------|-------------------------------------|----------|---|----------------|------------|
| 139 | Union, Crittenden | Big Rivers WMA and SF | 6,724.00 | Kentucky Division of Forestry and Kentucky Department for Fish and Wildlife Resources | KHLCF Deed | |
| 140 | Warren | Chaney Lake SNP | 169.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 141 | Warren | Woodburn Glade SNP | 20.00 | Office of Kentucky Nature Preserves | | KNP owned |
| 142 | Warren | Lost River Cave | 2.25 | Warren County Fiscal Court | KHLCF Easement | |
| 143 | Warren | Cave Springs | 2.01 | Western Kentucky University | KHLCF Easement | |
| 144 | Wayne, McCreary | Little South Fork Conservation Area | 3,145.42 | Office of Kentucky Nature Preserves | | KNP owned |
| 145 | Whitley | Archer-Benge SNP | 1,863.00 | Office of Kentucky Nature Preserves | KHLCF Deed | KNP owned |
| 146 | Wolfe | Red River Conservation Area | 301.26 | Office of Kentucky Nature Preserves | | KNP owned |
| Total Acres | | | | 104,236.87 | | |

KHLCF Status: conservation easements are held by the KHLCF Board on property funded by the KHLCF but not owned by state government; on state government properties funded by the KHLCF, deed restriction are in place to ensure those properties abide by their approved management plans. KNP staff inspects both easements and deed restricted areas, but only manages those areas owned by KNP.

KNP Status: areas that are formally dedicated by KNP have the highest legal conservation protection in Kentucky; KNP has dedicated most of the property it owns and also dedicated natural areas owned by other entities. KNP staff inspects all dedicated areas, but only manages those areas owned by KNP.

SNP: State Nature Preserves

SPNP: State Park Nature Preserve (dedicated portion of a state park)

SF: State Forest

WMA: Wildlife Management Area

CE: Conservation Easement

Natural Areas Registry

The Kentucky Natural Areas Registry enrolls high quality natural areas owned by private individuals or other organizations to encourage them to provide stewardship of significant natural sites. The voluntary registry recognizes landowners who partner with KSNPC to conserve ecologically significant property. Since 93 percent of Kentucky is in private ownership, private sector involvement in conservation is crucial. The registry is educational for many landowners, who may not be aware of special qualities of their land. As such, the use of registries can help prevent the inadvertent destruction of important sites.

A total of 61 landowners are enrolled in the registry program, encompassing 8,662.47 acres. They provide voluntary conservation for 46 state-listed species and 21 of our natural community types. One private landowner entered their site into the Natural Areas Registry program in the biennium.

| | County | Project | ACRES | Ownership | Significance |
|----|-----------|----------------------------------|--------|--------------------|-----------------------|
| 1 | Adair | Rosson-Mayne Woods | 178.62 | Private | Mature Woods |
| 2 | Ballard | Axe Lake | 760.41 | Private | Wetland Community |
| 3 | Boone | Dinsmore Foundation | 2.18 | Private | Rare Species |
| 4 | Boyle | Central Kentucky Wildlife Refuge | 389.72 | Private | Southern Knobs Forest |
| 5 | Boyle | Harberson's Station Cave | 2.88 | City of Perryville | Rare Species |
| 6 | Bullitt | Rocky Run Glade | 15.71 | Private | Rare Species |
| 7 | Bullitt | Jefferson County Sportsmen Club | 12.61 | Private | Rare Species |
| 8 | Calloway | Panther Creek Swamp | 126.57 | TVA | Wetland, Rare Species |
| 9 | Carlisle | Back Slough/Laketon | 45.09 | Private | Wetland Community |
| 10 | Casey | Bradley Lewis Weddle | 73.11 | Private | Rare Species |
| 11 | Carter | Tierney Tygart | 10.57 | Private | Rare Species |
| 12 | Christian | Pennyrile SF- Clifty Creek | 74.93 | KDF | Rare Species |
| 13 | Clinton | Seventy-six Falls | 0.74 | USACE | Rare Species |

Natural Areas Registry

| | County | Project | ACRES | Ownership | Significance |
|----|------------|---------------------------------|--------|-----------|--------------------------|
| 14 | Crittenden | Goodman/Clouser Sandstone Glade | 7.23 | Private | Glades |
| 15 | Edmonson | White's Cave | 2.5 | NPS | Rare Species |
| 16 | Estill | Camp Burnamwood | 472.13 | Church | Upland Native Forest |
| 17 | Fayette | Raven Run | 477.83 | LFUCG | Kentucky River Palisades |
| 18 | Fayette | Boone Creek | 259.10 | Private | Rare Species |
| 19 | Fayette | Ashland | 18.31 | Private | Rare Species |
| 20 | Franklin | Camp Pleasant Woods | 68.55 | Private | Rare Species |
| 21 | Franklin | Strohmeiers Hill | 58.4 | Private | Rare Species |
| 22 | Franklin | Tucker Creek | 30.61 | Private | Rare Species |
| 23 | Franklin | Far Side Farm | 29.76 | Private | Rare Species |
| 24 | Franklin | Leeland Valley | 35.21 | Private | Rare Species |
| 25 | Franklin | Rockcress Woods (Greene/Adams) | 19.57 | Private | Rare Species |
| 26 | Franklin | Rockcress Woods (Bryan) | 6.56 | Private | Rare Species |
| 27 | Garrard | Terrapin Barrens | 39 | SCC | Native Grassland |
| 28 | Grayson | Big Clifty Prairie | 2.89 | KYTC | Prairie Remnant |
| 29 | Hardin | Knights Barrens | 355.71 | Private | Barrens Community |
| 30 | Hardin | Dowell | 25.30 | Private | Rare Species |
| 31 | Hardin | Hardin Cedar Glade | 12.11 | Private | Rare Species |
| 32 | Hardin | Hayden Glade | 4.7 | Private | Glade Community |
| 33 | Hart | Big Woods | 293.10 | NPS | Old-growth Woods |

Natural Areas Registry

| | County | Project | ACRES | Ownership | Significance |
|----|------------|-------------------------------------|---------|------------------------|---------------------------------|
| 34 | Hart | Riders Mill Cave | 266.76 | Private | Rare Species |
| 35 | Jefferson | Jefferson Memorial Forest | 2471.87 | Louisville Metro Parks | Maturing Quality Forest |
| 36 | Jefferson | Surrey Hills Woods | 34.56 | Private | Mature Forest |
| 37 | Jefferson | Shippingport Island Rookery | 8.02 | USACE | Heron Rookery |
| 38 | Jessamine | R. J. Corman Natural Area | 64.64 | Private | Jessamine Creek Gorge Tributary |
| 39 | Larue | Crady Creek Hill Prairies (Ewing) | 31.97 | Private | Grassland Remnant |
| 40 | Larue | Crady Creek Hill Prairies (Clayton) | 15.7 | Private | Grassland Remnant |
| 41 | Letcher | Bad Branch (Crawford) | 244.15 | Private | Rare Species |
| 42 | Letcher | Bad Branch (Gatton) | 116.93 | Private | Rare Species |
| 43 | Letcher | Poor Fork Wetland | 36.80 | USFS | Rare Species |
| 44 | Livingston | Corley Farm | 101.59 | Private | Rare Species |
| 45 | Logan | Log House Prairie | 4.73 | Private | Prairie Remnant |
| 46 | Logan | Katie White Barrens (Luckett) | 13.99 | Private | Glades/Barrens Communities |
| 47 | Logan | Katie White Barrens (Webb) | 13.23 | Private | Glades/Barrens Communities |
| 48 | Lyon | Cannon Springs Woods | 281.95 | USACE | Recovering Woods |
| 49 | Madison | Jean's Glade | 6.07 | Private | Rare Species |
| 50 | Marion | Tatum Cave | 26.55 | Private | Rare Species |
| 51 | Marshall | Bear Creek Rookery | 17.28 | TVA | Heron Rookery |
| 52 | McCracken | Bayou Creek Ridge | 169.29 | TVA/KDFWR | Old-growth Woods |

Natural Areas Registry

| | County | Project | ACRES | Ownership | Significance |
|----|---------------------------------|---------------------------------------|--------|-----------|--------------------------|
| 53 | McCracken | Metropolis Lake | 1.68 | TVA | Natural Lake |
| 54 | McLean | Floyd Woods | 23.53 | Private | Old-growth Woods |
| 55 | Metcalfe | Sulphur Creek Cave | 6.59 | Private | Rare Species |
| 56 | Muhlenburg | Cornett Woods | 296.78 | Private | Wetland Commu- nities |
| 57 | Nicholas | Kingsolver Goldenrod | 2.32 | Private | Rare Species |
| 58 | Nicholas, Robertson, Fleming | Blue Licks Highway | 42.13 | KTC | Rare Species |
| 59 | Nicholas | Abnee Goldenrod | 1.69 | Private | Rare Species |
| 60 | Owsley | Morris Kentucky La- dyslipper | 13.88 | Private | Rare Species |
| 61 | Perry | Stillhouse Branch | 100.77 | USACE | Mature Forest |
| 62 | Pulaski | Blowing Cave | 10.14 | Private | Rare Species |
| 63 | Russell, Pulaski, Wayne | Lake Cumberland (7 discrete sites) | 189.54 | USACE | Rare Species |
| 64 | Russell | Sundew Meadow | 12.66 | Private | Rare Species |
| 65 | Taylor | Blue Knob | 29.33 | Private | Glades, Barrens |
| 66 | Trigg | Lake Barkley Rookery | 13.25 | USACE | Heron Rookery |
| 67 | Todd | North Elk Fork Woods | 29.63 | Private | Old-growth Woods |
| 68 | Todd | South Elk Fork Woods | 26.77 | Private | Old-growth Woods |
| 69 | Warren | Shanty Hollow Cave | 2.69 | Private | Rare Species |
| 70 | Warren | Greenhill Woods | 0.44 | Private | Rare Species |
| 71 | Whitley | Grove Powerline | 20.95 | Utility | Pine Barren Remnant |

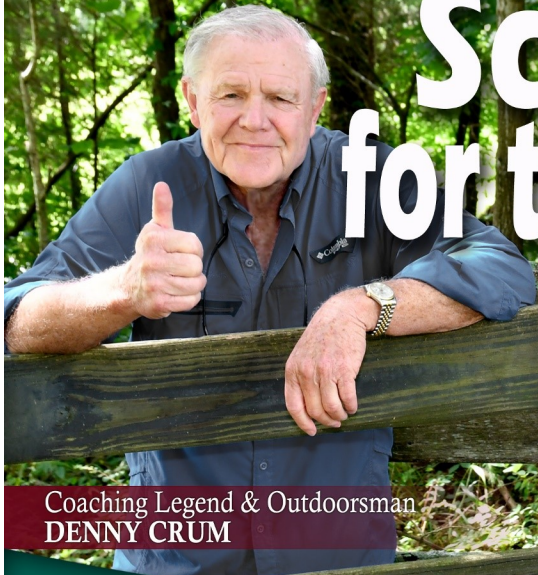
Total Acres**8,662.56**

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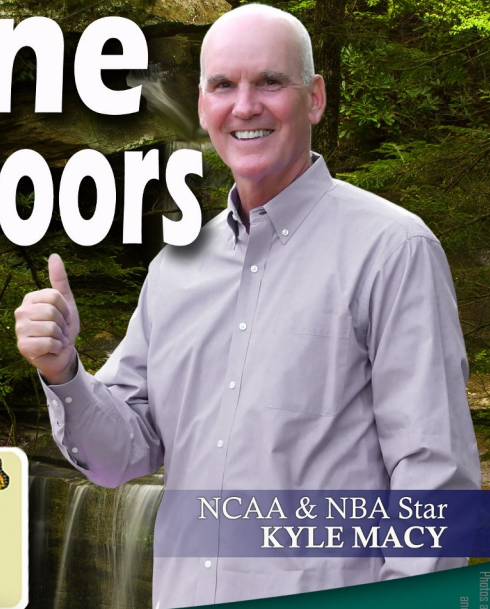
- Cheryl Beckley: pages 4, 25, 35
- Thomas G. Barnes: page 5, 7, 32
- Floracliff Nature Sanctuary Staff: cover, pages 6, 24, 25, 29, 43

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