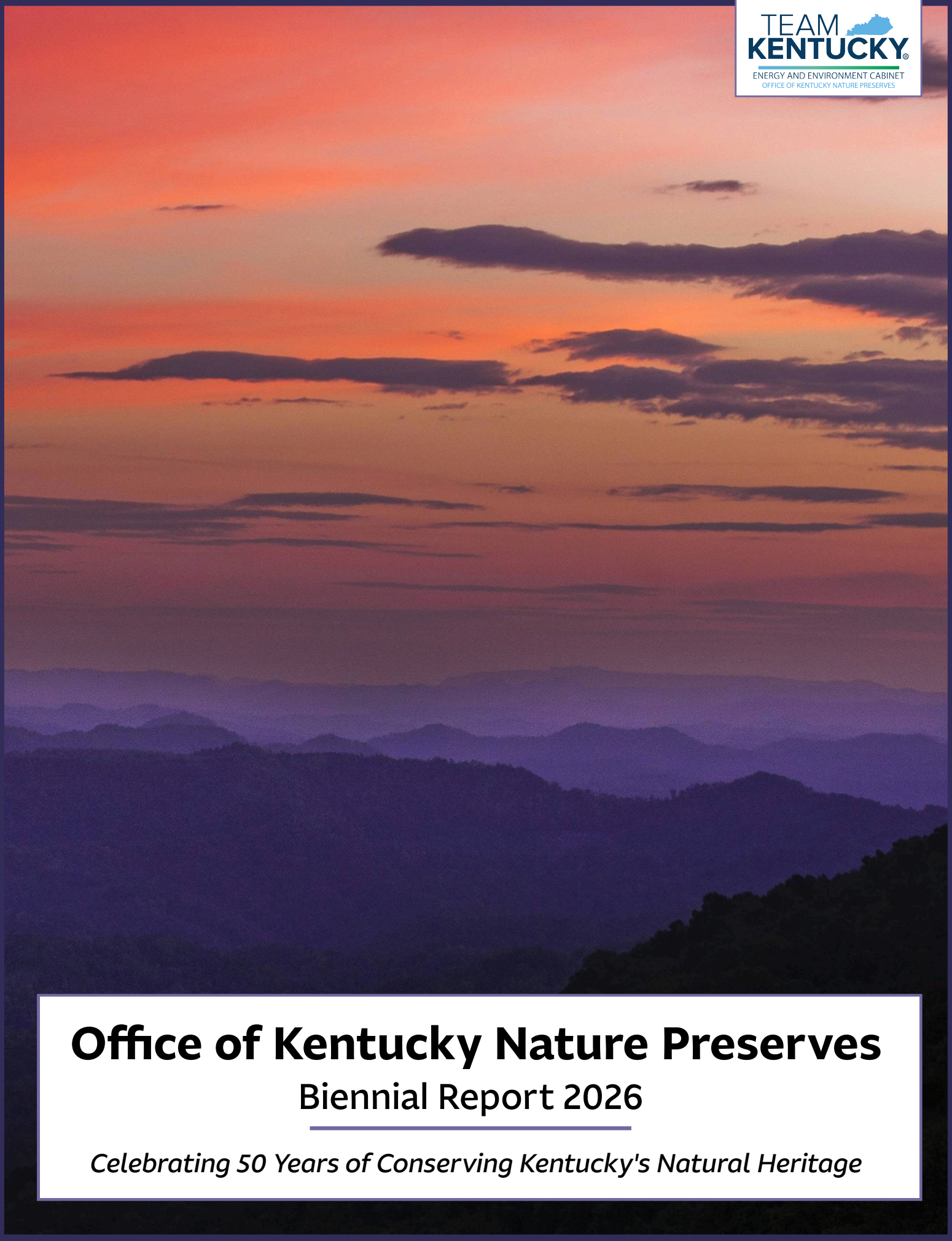


TEAM KENTUCKY®
ENERGY AND ENVIRONMENT CABINET
OFFICE OF KENTUCKY NATURE PRESERVES

Office of Kentucky Nature Preserves

Biennial Report 2026

Celebrating 50 Years of Conserving Kentucky's Natural Heritage

TABLE OF CONTENTS

Director's Message.....1
OKNP Natural Areas Map.....2
Land Management Regions.....3
Managed Areas and State Nature Preserves.....4
Registered Natural Areas.....7
Outdoor Recreation Activities.....11
Kentucky Wild Rivers Program.....12
Prescribed Fire Program 13
- Prescribed Fire Photo Monitoring Program.....14
- Rockcress Hills SNP.....15
- Short's Goldenrod SNP and Bluelicks Battlefield SNP.....15
- Eastview Barrens SNP.....16

Biological Assessment and Plant Conservation.....17
- Terrestrial Zoology – Bat Inventories.....18
- Terrestrial Zoology – Native Bee Inventory and Monitoring.....19
- Terrestrial Zoology – Pollinator Camera Traps.....20
- Aquatic Zoology – Mudbug Mania 2026.....21

Staff Pages.....22
Social Media.....26

Office of Kentucky Nature Preserves

300 Sower Blvd
Frankfort, KY 40601
(502) 573-2886

naturepreserves@ky.gov

eec.ky.gov/Nature-Preserves/

This report is submitted to the Governor and the General Assembly as directed by KRS 146 relating to the Office of Kentucky Nature Preserves.

TEAM KENTUCKY®

ENERGY AND ENVIRONMENT CABINET

OFFICE OF KENTUCKY NATURE PRESERVES

Kentucky Heritage Land Conservation Fund



Director's Message



Zack Couch
Executive Director, Office of Kentucky Nature Preserves

In 1976, the General Assembly had a view of Kentucky's potential for growth and development alongside its obligation for preserving the Commonwealth's most-treasured natural resources. That forward thinking, balancing economic prosperity with the conservation of Kentucky's unspoiled natural areas, resulted in the establishment of the Kentucky State Nature Preserves Commission. While the agency name has changed (now the Office of Kentucky Nature Preserves; OKNP), the mission remains: securing for present and future generations the benefits of an enduring resource of natural areas.

For 50 years, the Office of Kentucky Nature Preserves has successfully implemented the charge of conserving Kentucky's natural beauty and native species. As of 2026, OKNP has acquired over 32,000 acres distributed across 71 State Nature Preserves (SNP). This includes areas like Blanton Forest (Kentucky's largest old growth forest) and Metropolis Lake (one of Kentucky's few natural lakes). Moreover, miles of trails are maintained each year to allow visitors an opportunity to visit the 'living museums' that are worthy of protection.

The work isn't over. OKNP biologists continue to discover new areas in need of conservation. To date, we've identified over 70 Registered Natural Areas, privately owned sites of ecological significance.

It is difficult to quantify the results of the past 50 years. But the results are easily attributed. The staff, past and present, have been the driver behind the conservation efforts the agency has implemented.

As you read through the following pages, I hope you're inspired to take the time to visit our State Nature Preserves and enjoy the creation that's been preserved for us all.

TEAM KENTUCKY®
ENERGY AND ENVIRONMENT CABINET
OFFICE OF KENTUCKY NATURE PRESERVES

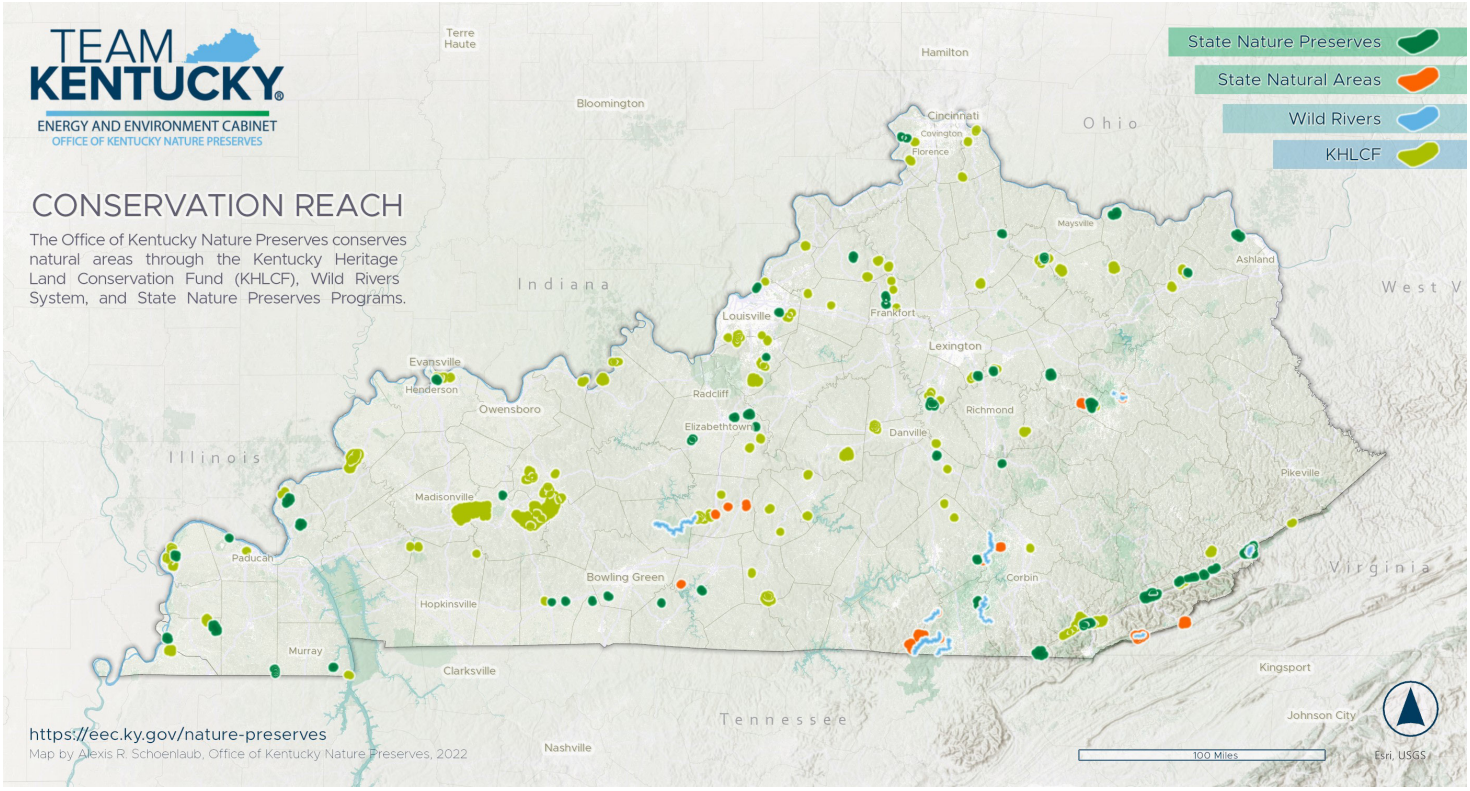
With Gratitude,

Zack Couch

Executive Director

Office of Kentucky Nature Preserves

OKNP Natural Areas Map



OKNP manages four distinct programs to conserve Kentucky's natural areas. While these programs all share common goals—rare species habitat, environmental education opportunities, and conserving natural areas through a combination of land acquisition, conservation easements, and public-private partnerships– they have some differences.

- **The Kentucky Heritage Land Conservation Fund**
  Assists with funding conservation at the local and state level.
- **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**
  Focuses on riparian forest conservation and paddling opportunities on pristine rivers and streams.

As of July 1, 2026, Office of Kentucky Nature Preserves programs include:

- **32,419.82 acres owned or dedicated by OKNP as State Nature Preserves or State Natural Areas**
- **96,104 acres purchased via the Kentucky Heritage Land Conservation Fund**
- **9,215.37 acres owned by private landowners and other agencies on 77 Registered Natural Areas**
- **26,958.58 acres on 9 rivers that are state-designated Wild Rivers Corridors monitored by OKNP**

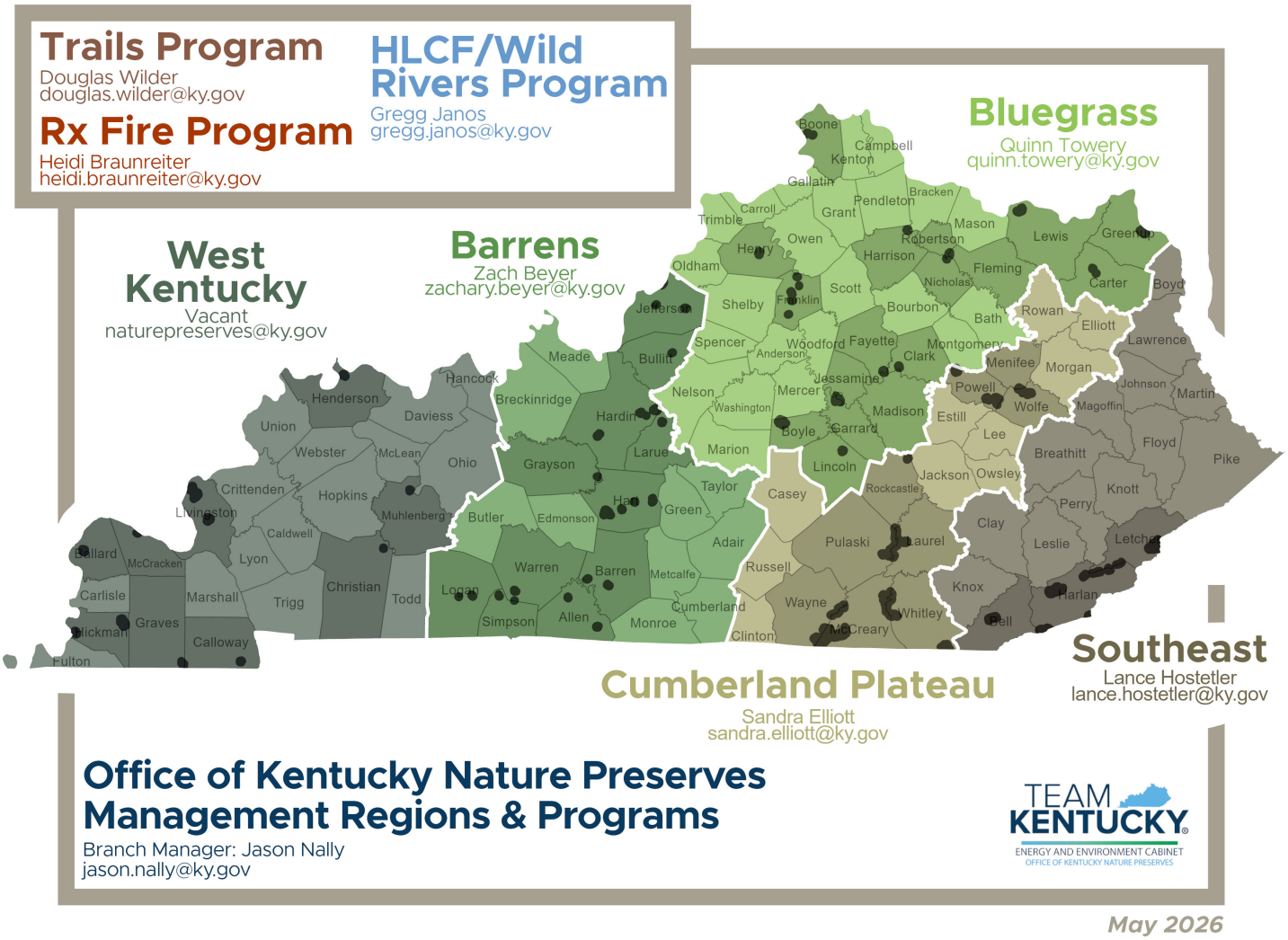
Land Management Regions

OKNP land managers maintain and restore over 85 of the highest quality natural areas in Kentucky

OKNP land mangers work to protect, maintain, and restore some of the state's most high-quality natural areas that are dedicated in the State Nature Preserves system, protected within the Kentucky Wild Rivers Program, or were purchased with the Kentucky Heritage Lands Conservation Fund (KHLCF).

State Nature Preserves, Wild Rivers and KHLCF lands 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.

OKNP lands with less sensitive habitats are open to the public for hiking, wildlife viewing, and passive recreation on a system of hiking trails. Over 35 miles of trail are available across almost a dozen high quality natural areas in the Commonwealth.



Managed Areas & State Nature Preserves

Natural Areas and State Nature Preserves managed by OKNP

OKNP Property Name	Acres (Approx.)	County	State Senate District	State House District
Apple Valley Glades State Nature Preserve	60	Bullitt	38	49
Archer-Benge State Nature Preserve	2230	Whitley	25	82
Axe Lake Swamp State Nature Preserve	458	Ballard	2	1
Bad Branch State Nature Preserve	2830	Letcher	29	94
Beargrass Creek State Nature Preserve	41	Jefferson	19	41
Blackacre State Nature Preserve	181	Jefferson	36	36
Blanton Forest State Nature Preserve	3504	Harlan	29	94
Blood River Seeps State Nature Preserve	192	Calloway	1	5
Blue Licks State Park State Nature Preserve	54	Nicholas, Robertson	27	70, 72
Bouteloua Barrens State Nature Preserve	260	Lincoln	21	80
Brigadoon State Nature Preserve	187	Barren	9	23
Chaney Lake State Nature Preserve	169	Warren	32	17
Crooked Creek State Nature Preserve	729	Lewis	18	96
Cumberland Falls State Resort Park	1974	McCreary, Whitley	25	52, 82
Cypress Creek State Nature Preserve	97	Muhlenberg	3	15
Dr. William H. Martin State Natural Area	459	Pulaski	15	85
Drennon Creek State Nature Preserve	329	Henry	7	47
E. Lucy Braun State Park State Nature Preserve	609	Harlan	29	94

Managed Areas & State Nature Preserves

Natural Areas and State Nature Preserves managed by OKNP (cont.)

OKNP Property Name	Acres (Approx.)	County	State Senate District	State House District
Eastview Barrens State Nature Preserve	119	Hardin	10	18
Embry Lay Glade State Nature Preserve	19	Hardin	10	25
Flat Rock Glade State Nature Preserve	99	Simpson	32	22
Frances Johnson Palk State Nature Preserve	250	Pulaski	15	85
Goodrum Cave State Nature Preserve	51	Allen	16	22
Green River State Natural Area (Boiling Springs)	121	Hart	9	24
Green River State Natural Area (Davis Bend)	166	Hart	9	24
Green River State Natural Area (Rush Island Bottoms)	139	Hart	9	24
Hi Lewis Pine Barrens State Nature Preserve	426	Harlan, Letcher	29	94
Jesse Stuart State Nature Preserve	710	Greenup	18	98
Jim Scudder State Nature Preserve	231	Hardin	10	25
Little South Fork State Natural Area (Burnett Branch SNA)	1068	McCreary, Wayne	15, 25	52
Little South Fork State Natural Area (Steele Hollow SNA)	2231	McCreary, Wayne	15, 25	52
Little South Fork State Natural Area (Tucker SNA)	23	McCreary	25	52
Lone Oak Barrens State Nature Preserve	34	Grayson	5	18
Martin's Fork State Natural Area	1601	Harlan	29	87
Metropolis Lake State Nature Preserve	123	McCracken	2	1
Mutters Cave State Natural Area	108	Barren	9	23
Obion Creek State Nature Preserve	1599	Hickman	1	1

Managed Areas & State Nature Preserves

Natural Areas and State Nature Preserves managed by OKNP (cont.)

OKNP Property Name	Acres (Approx.)	County	State Senate District	State House District
Perryville Battlefield State Historic Site	1184	Boyle	12	54
Pilot Knob State Nature Preserve	742	Powell	30	91
Quiet Trails State Nature Preserve	177	Harrison	27	70
Raymond Athey Barrens State Nature Preserve	156	Logan	32	16
Red River State Natural Area	754	Powell,	30	89, 91
River Cliffs State Nature Preserve	210	Franklin	20	57
Rock Creek State Natural Area	90	McCreary	25	52
Rockcress Hills State Nature Preserve	84	Franklin	20	57
Shorts Goldenrod State Nature Preserve	228	Fleming,	27	72
Sinking Creek State Natural Area	301	Laurel	21	71, 85
Six Mile Island State Nature Preserve	86	Jefferson	26	48
Stone Mountain Wildlife Management Area and State Natural Area	1017	Harlan	29	87
Terrapin Creek State Nature Preserve	269	Graves	1	2
Thompson Creek Glades State Nature Preserve	169	Larue	14	24
Three Ponds State Nature Preserve	528	Hickman	1	1
Tom Dorman State Nature Preserve	911	Garrard,	22	55, 80
Vernon-Douglas State Nature Preserve	729	Hardin	10	25
Woodburn Glade State Nature Preserve	20	Warren	32	17

Registered Natural Areas

Registered Natural Areas

Property name	Acres (approx.)	County	Significance
Abbey of Gethsemani RNA	326	Nelson	Native Grassland Remnant
Abnee Goldenrod RNA	2	Nicholas	Rare Species (Short's Goldenrod, federally endangered)
Ashland RNA	18	Fayette	Rare Species (Running Buffalo Clover, previously federally listed)
Axe Lake RNA	760	Ballard	Wetland Community; Nesting site for Great Egret
Back Slough/Laketon RNA	45	Carlisle	Wetland Community
Bad Branch (Crawford) RNA	244	Letcher	Rare Species (Rose Pogonia, state critically imperiled.; Painted Trillium, state imperiled.; Tree Flute Lichen, state vulnerable.; Michaux's Saxifrage, state imperiled.; Brook Saxifrage, state imperiled.)
Bad Branch (Gatton) RNA	117	Letcher	Rare Species (Kidney-leaf Twayblade, state vulnerable.; Rock Harlequin, state vulnerable.; Showy Gentian, state vulnerable.; Burred Horsehair Lichen, state critically imperiled.; Yellow Wild Indigo, state imperiled.)
Bayou Creek Ridge RNA	169	Mccracken	Old-growth Forest; Wetland Community; contains largest Cottonwood tree in KY
Bear Creek Rookery RNA	77	Marshall	Heron Rookery
Big Clifty Prairie RNA	3	Grayson	Native Grassland Remnant
Big Woods RNA	293	Hart	Old-growth Forest
Blowing Cave RNA	10	Pulaski	Rare Species (Mountain Maple, state imperiled.; Northern White Cedar, state vulnerable.; Little Brown Bat, federally at risk.; Tricolored Bat, proposed federally endangered.; Northern Long-Eared Bat, federally endangered.; Rafinesque's Big-eared Bat, global and state vulnerable.)
Blue Knob RNA	29	Taylor	Glade/Barren Communities
Blue Licks Highways RNA	59	Fleming, Nicholas	Rare Species (Short's Goldenrod, federally endangered)
Boone Creek RNA	259	Clark, Fayette	Rare Species (Running Buffalo Clover, previously federally endangered.; Globe Bladderpod, federally endangered.; Water Stitchwort, state imperiled.)
Bradley Lewis Weddle RNA	73	Casey	Rare Species (Ozark Least Trillium, state critically imperiled)
Camp Burnamwood RNA	472	Estill	Upland Native Forest
Camp Pleasant Woods RNA	69	Franklin	Rare Species (Braun's Rockcress, federally endangered)
Cannon Spring Woods RNA	282	Lyon	Recovering Forest
Central Kentucky Wildlife Refuge RNA	390	Boyle	Southern Knobs Forest

Registered Natural Areas

Registered Natural Areas (cont.)

Property name	Acres (approx.)	County	Significance
Corley Farm RNA	102	Livingston	Rare Species (Price's Potato Bean, federally threatened)
Cornett Woods RNA	297	Muhlenberg	Wetland Community
Crady Creek Hill Prairies (Clayton) RNA	16	Larue	Native Grassland Remnant
Crady Creek Hill Prairies (Ewing) RNA	32	Larue	Native Grassland Remnant
Dinsmore Foundation RNA	2	Boone	Rare Species (Running Buffalo Clover, previously federally listed)
Far Side Farm RNA	30	Franklin	Rare Species (Braun's Rockcress, federally endangered)
Floyd Woods RNA	24	Mclean	Old-growth Forest
Goodman/Kissinger Sandstone Glade RNA	7	Crittenden	Glade Community
Greenhill Woods RNAs	1	Warren	Rare Species (Ozark Least Trillium, state critically imperiled)
Grove Powerline RNA	21	Whitley	Pine Barren Remnant
Harberson Station Cave RNA	3	Boyle	Rare Species (Hidden Cave Beetle, globally and state critically imperiled.; Old Well Cave Beetle, globally and state critically imperiled.)
Hayden Glade	5	Hardin	Glade Community
Jeans Glade RNA	6	Madison	Rare Species (Yellow Gentian, state imperiled)
Jefferson County Sportsmen Club RNA	13	Bullitt	Rare Species (Kentucky Gladecress, federally threatened)
Jefferson Memorial Forest RNA	2472	Jefferson, Bullitt	Maturing Quality Forest
Katie White Barrens (Luckett) RNA	14	Logan	Glade/Barrens Communities, Rare Species (Upland Privet, state vulnerable.; White Prairie-clover, state imperiled.)
Katie White Barrens (Webb) RNA	13	Logan	Glade/Barren Communities
Kingsolver Goldenrod RNA	2	Nicholas	Rare Species (Short's Goldenrod, federally endangered)
Knights Barrens RNA	356	Hardin	Glade/Barren Communities
Lake Barkley Rookery RNA	13	Trigg	Heron Rookery; nesting site for Great Egret
Lake Cumberland - Cox Bend RNA	9	Pulaski	Rare Species (Southern Maiden-hair Fern, state imperiled)
Lake Cumberland - Fishing Creek RNA	11	Pulaski	Rare Species (Spreading False Foxglove, globally and state vulnerable)
Lake Cumberland - Haynes Bend RNA	9	Pulaski	Rare Species Wild Honeysuckle, state critically imperiled.; Northern White Cedar, state vulnerable.)
Lake Cumberland - Martin Bend RNA	23	Pulaski	Rare Species (Spreading False Foxglove, globally and state vulnerable.; September Elm, state vulnerable.; Rough Dropseed, state vulnerable.; Ozark ragwort, state imperiled.; Nettle-leaf Noseburn, state critically imperiled)

Registered Natural Areas

Registered Natural Areas (cont.)

Property name	Acres (approx.)	County	Significance
Lake Cumberland - Roberts Bend RNA	17	Wayne	Rare Species (Spreading False Foxglove, globally and state vulnerable.; Northern White Cedar, state vulnerable.; Barren Strawberry, state vulnerable.; Downy Arrowwood, state imperiled)
Lake Cumberland - Rowena RNA	83	Russell	Rare Species (Ozark Least Trillium, state critically imperiled)
Lake Cumberland - Woodson Bend RNA	36	Pulaski	Rare Species (Southern Maidenhair-fern, state imperiled.; Plains Muhly, state imperiled.; September Elm, state vulnerable.)
Leeland Valley RNA	35	Franklin	Rare Species (Braun's Rockcress, federally endangered)
Log House Prairie RNA	5	Logan	Native Grassland Remnant
Metropolis Lake RNA	2	McCracken	Natural Lake; Rare Species (Mississippi Silverside, state imperiled.; Taillight Shiner, state imperiled.; Cypress Minnow, state critically imperiled.; Redspotted Sunfish, state imperiled.; Chain Pickerel, state vulnerable)
Morris Kentucky Lady Slipper RNA	14	Owsley	Maturing Forest
Mt. Folly Farm RNA	197	Clark	Rare Species (Running Buffalo Clover, previously federally listed)
North Elk Fork Woods RNA	30	Todd	Old-growth Forest
Panther Creek Swamp RNA	127	Calloway	Wetland Community, Rare Species (Swamp Wedgescale, state critically imperiled.; Possumhaw, state critically imperiled.; Roundleaf Goldenrod, state vulnerable.)
Pennyrile State Forest (Clifty Creek) RNA	75	Christian	Native Grassland Remnant, Rare Species (Gray Bat, federally endangered.; Swamp Metalmark, globally vulnerable and state critically imperiled.)
Poor Fork Wetland RNA	37	Letcher	Wetland Community; Rare Species (Eastern Red Damsel, state critically imperiled.; Zebra Clubtail, state critically imperiled.; and Blackside Dace, federally threatened.)
R.J. Corman RNA	65	Jessamine	Jessamine Creek Gorge Tributary
Raven Run RNA	478	Fayette	Kentucky River Palisades
Riders Mill Cave RNA	267	Hart	Rare Species (Gray Bat, federally endangered)
Rockcress Woods (Bryan) RNA	7	Franklin	Rare Species (Braun's Rockcress, federally endangered)
Rockcress Woods (Green) RNA	20	Franklin	Rare Species (Braun's Rockcress, federally endangered)
Rocky Run Glade RNA	16	Bullitt	Native Grassland Remnant, Glade Community, Rare Species (Crawe's Sedge, state vulnerable)
Rosson-Mayne Woods RNA	179	Adair	Mature Forest
Seventy-Six Falls RNA	1	Clinton	Rare Species (Largeleaf Grass-of-Parnassus, globally vulnerable and state critically imperiled)

Registered Natural Areas

Registered Natural Areas (cont.)			
Property name	**Acres (approx.)**	**County**	**Significance**
Shanty Hollow Cave RNA	3	Warren	Rare Species (Gray Bat, federally endangered)
Shippingport Island Rookery RNA	8	Jefferson	Heron Rookery
South Elk Fork Woods	27	Todd	Old-growth Forest
Stillhouse Branch RNA	101	Perry	Mature Forest
Strohmeiers Hill RNA	58	Franklin	Rare Species (Braun's Rockcress, federally endangered)
Sulphur Creek Cave RNA	7	Metcalfe	Rare Species (Gray Bat, federally endangered)
Sundew Meadow RNA	13	Russell	Wet Prairie Community; Rare Species (Spoonleaf Sundew, state critically imperiled)
Surrey Hills Woods RNA	35	Jefferson	Mature Forest
Tatum Cave RNA	27	Marion	Rare Species (Tatum Cave Beetle, state historic)
Terrapin Barrens RNA	29	Garrard	Native Grassland Remnant
Tierney Tygart RNA	11	Carter	Rare Species (Canadian Yew, state vulnerable.; Walter's Violet, state imperiled.; Downy Arrowwood, state imperiled.)
Tucker Creek RNA	31	Franklin	Rare Species (Braun's Rockcress, federally endangered)
Whites Cave RNA	3	Edmonson	Rare Species (A Cave Obligate Beetle, state historic.; Punctate Coil, global and state critically imperiled.; Mammoth Cave Crayfish, state vulnerable.; Surprising Cave Beetle, global and state imperiled.; An Amphipod, state critically imperiled.; A Cave Obligate Pseudoscorpion, state historic.; Mammoth Cave Shrimp, globally and state critically imperiled.)

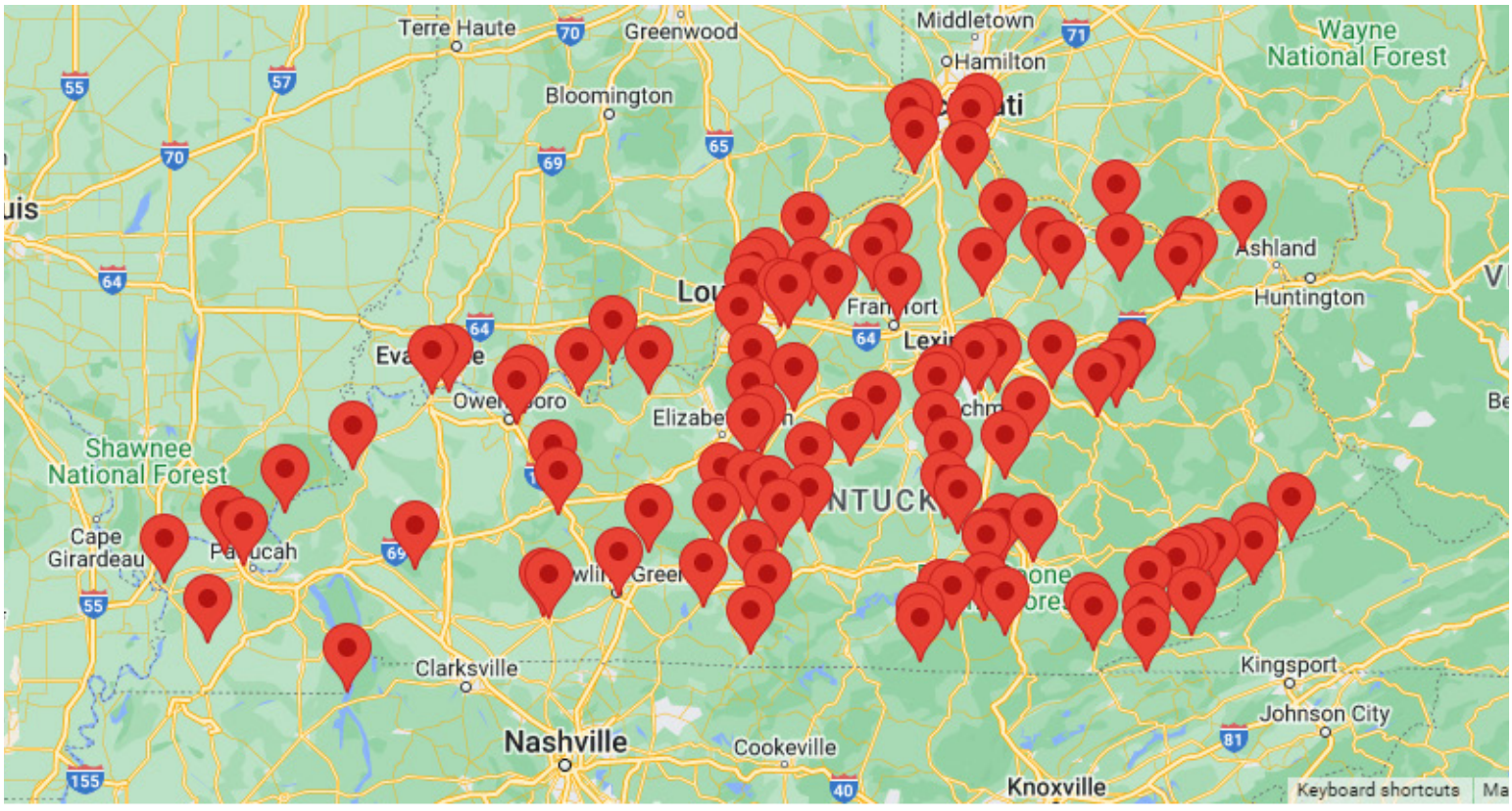
Outdoor Recreation & Hiking Opportunities

OKNP hiking trails traverse many of Kentucky's highest quality natural communities

In addition to conserving habitat for rare species, OKNP strives to provide passive outdoor recreation opportunities to the citizens of Kentucky and tourists alike. OKNP State Nature Preserves, KHLCF sites, 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.

Visit our website, which includes an online tool making it easier to find information on our public sites. Our trails manager makes regular visits to each site we manage and has made numerous updates to bridges, board-walks, and steps that assist visitors in traversing our trails.

Find your new favorite hiking spot now at eec.ky.gov/Nature-Preserves/Locations/



Kentucky Wild Rivers Program

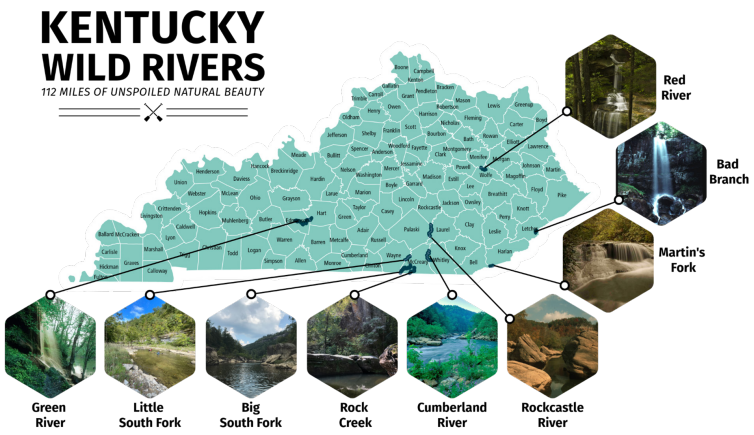
Kentucky Wild Rivers

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.

Management Plan Updates and Biological Inventories

In 2025, staff began the process of updating the management plans for the Wild Rivers starting with Bad Branch and Martins Fork. Data from recent surveys is being compiled to be included in the management plans. Aquatic surveys for crayfish and fish are ongoing as well as bat mist-net and acoustic surveys. Thus far, netting has occurred at Bad Branch and one at Martins Fork. Surveys have yielded big brown bats (*Eptesicus fuscus*), eastern red bats (*Lasiurus borealis*), a silver-haired bat (*Lasionycteris noctivagans*), and a gray bat (*Myotis grisecens*) at Bat Branch and a red bat at Martins Fork. More surveys are planned. Acoustic data has not yet been processed.

Aquatic surveys have also occurred in Kentucky Wild River Corridors, including Martin's Fork and Little South Fork of the Cumberland River. Surveys have yielded significant finds such as the Spiny Scale Crayfish (*Cambarus jezerinaci)*, Appalachian Brook Crayfish (*Cambarus bartonii cavatus*), and Longclaw Crayfish (*Cambarus buntingi*) at Martin's Fork and Palezone Shiner (*Miniellus albizonatus*)(SGCN, LE), Telescope Shiner (*Notropis telescopus*), Cumberland Crayfish (*Cambarus cumberlandensis*) and Depression Crayfish (*Cambarus rusticiformis*) at the Big South Fork.





Big Brown Bat (*Eptesicus fuscus*)



Gray bat (*Myotis grisecens*)



Palezone Shiner (*Miniellus albizonatus*)



Cumberland Crayfish (*Cambarus cumberlandensis*)

Prescribed Fire Program

Historical Role of Fire on Kentucky's Landscape

Historically, fire played a crucial role in the distribution of natural communities, plants, animals, and insects across the Kentucky landscape. Due to decades of fire suppression and fragmentation of the landscape, Kentucky's rare natural communities, along with the organisms that inhabit them, are at risk of disappearing. Prescribed fire provides the necessary disturbance in these grasslands and other open habitats to keep woody plants from taking over, controlling invasive species, and stimulating the growth of native plants.

Over the past fiscal year, OKNP burned 716 acres on nine properties. Burn objectives included maintaining open habitat for rare species conservation within glades, prairies, and/or barrens complexes.

OKNP Prescribed Fires Fiscal Year 2026

Site	County	Partners Involved	Burn(s) Timeframe	No. of Burn Units	Total Acreage
Abbey of Gethsemeti (OKNP Registered Natural Area; privately owned)	Nelson	Partners involved included Kentucky Department of Fish and Wildlife Resources, OKNP, Parklands of Floyd's Fork, and U.S. Fish and Wildlife Service	Spring 2026	3	152
Crooked Creek State Nature Preserve	Lewis	OKNP	Spring 2026	2	35
Eastview Barrens State Nature Preserve	Hardin	OKNP	Spring 2026	2	16
Little South Fork State Natural Area	Wayne, McCreary	Kentucky Division of Forestry led burns	Fall 2025 & Spring 2026	5	188
Lone Oak Barrens State Nature Preserve	Grayson	OKNP led burn, assistance from Natural Resources Conservation Science/Pheasants Forever and Kentucky Department of Fish and Wildlife Resources staff	Spring 2026	1	10
Lower Howard's Creek Nature and Heritage Preserve (privately owned HLCF site)	Clark	OKNP led burn, assisted by staff from Kentucky Department of Fish and Wildlife Resources, Lower Howards Creek, and volunteers	Fall 2025	3	13
Perryville Battlefield State Historic Site	Boyle, McCreary	OKNP led burns, assisted by staff from Kentucky Department of Fish and Wildlife Resources, Kentucky State Parks, Parklands of Floyds Fork, Shakertown of Pleasant Prairie, and volunteers	Summer 2025, Fall 2025, & Spring 2026	6	178
Raymond Athey Barrens State Nature Preserve	Logan	OKNP led burn, assistance from Natural Resources Conservation Science/Pheasants Forever and Kentucky Department of Fish and Wildlife Resources staff	Spring 2026	2	34
Short's Goldenrod State Nature Preserve	Fleming	OKNP and volunteers	Spring 2026	1	90
			Total	**24**	**716**

Prescribed Fire Program

Prescribed Fire Photo Monitoring Program

To track the success of its growing prescribed fire program, OKNP launched a standardized photo monitoring project in 2024 to replace personal anecdotes with visual evidence. The initiative utilizes an Insta360 camera to capture spherical 360-degree, and panoramic imagery specifically targeting high quality natural communities and rare plant/insect habitats. Images are collected during pre-burn and post-burn growing seasons. The program provides visual baselines to assess immediate fire effects on vegetation, track long-term cumulative changes, inform future management decisions, and create visuals for public outreach and education.

As of June 2026, 109 photo points were established across the commonwealth of Kentucky on 17 sites, representing 11 high quality natural communities. Pairing these photographs with our rare species population trends and vegetation monitoring results ensures we are focusing in on the needs of the rare species and natural communities that we are tasked with managing and protecting.



Front Unit Photo Point 1 Eastview Barrens SNP, Sandstone prairie

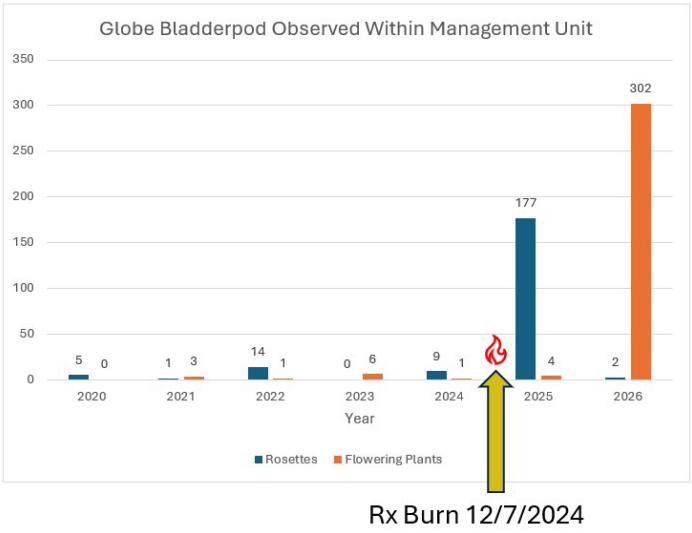
Prescribed Fire Program

Rockcress Hills State Nature Preserve



Post-burn at Rockcress Hills State Nature Preserve

In December 2024, a prescribed burn was executed across a nine acre management unit at Rockcress Hills State Nature Preserve in Franklin County to improve habitat conditions for the federally endangered biennial plant Globe Bladderpod (*Physaria globosa*). Prior manual understory thinning had yielded negligible population changes for the species, which had declined to single digits on the site. Post-burn monitoring in 2025 and 2026 documented positive population growth, with over 300 flowering individuals expanding across the management unit. Additionally, data from within the burn unit indicated an increase in species richness from 96 to 122, as well as an increase in herbaceous cover from 60% to 80%, supporting the use of prescribed fire to manage this site.



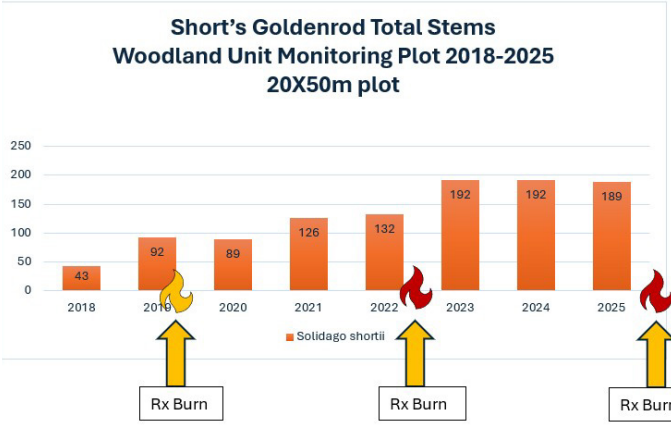
Globe Bladderpod population at Rockcress Hills SNP greatly increased after prescribed burn.

Short's Goldenrod State Nature Preserve & Bluelicks Battlefield State Nature Preserve



Short's Goldenrod (*Solidago shortii*)

At Short's Goldenrod State Nature Preserve & Bluelicks Battlefield State Nature Preserve, OKNP land managers are working to protect the federally endangered Short's Goldenrod (*Solidago shortii*). Historically, this plant's habitat was maintained open through bison trampling. With the loss of bison from the landscape, OKNP utilizes prescribed fire to keep woody encroachment at bay. Prescribed burns are implemented across six burn units ranging from four to 90 acres. March 2025 burns conducted in woodlands and post-oak barrens habitats achieved significant understory shrub reduction while promoting native forb and graminoid growth. Population trend monitoring for Short's goldenrod across four burn units confirms positive growth trends for both total vegetative stems and flowering stems, supporting a continued use of prescribed fire to manage this rare plant species.

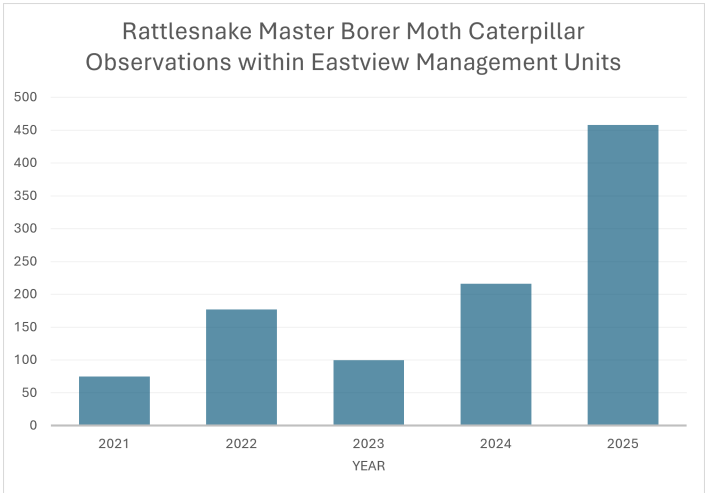


Short's Goldenrod populations are on an increasing trend after many years of land management, including several prescribed burns to restore habitat.

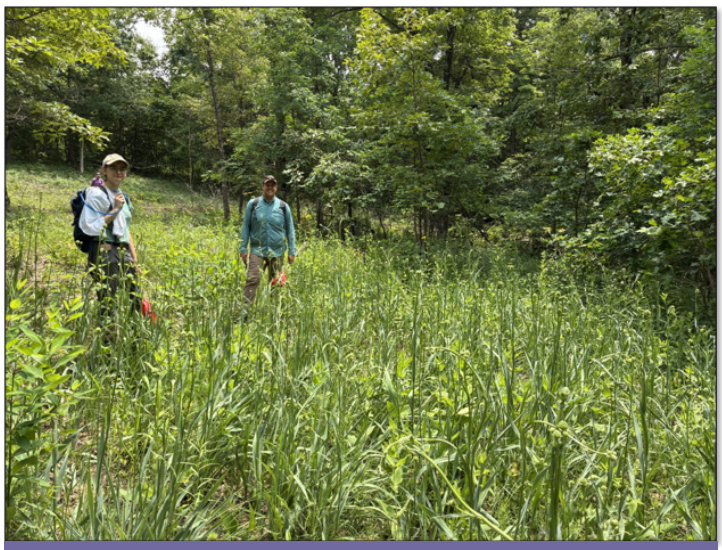
Prescribed Fire Program

Eastview Barrens State Nature Preserve

OKNP land managers transitioned from exclusively using spring burns at Eastview Barrens State Nature Preserve to a varied-seasonality fire regime to control woody encroachment while maintaining the size and vigor of rare species populations. The site protects a high-quality sandstone barrens community and one of only two known Kentucky populations of the globally rare Rattlesnake Master Borer Moth (*Papaipema eryngii)*, which relies on Rattlesnake Master (*Eryngium yuccifolium*) as its sole host plant. Following the implementation of late growing-season burns in August 2024, coupled with dormant-season mechanical forestry mulching, monitoring documented a sharp reduction in shrub density alongside a substantial increase in host plant and caterpillar density. The 2025 population surveys recorded the highest five-year density of *P. eryngii* caterpillars within the managed units.



2025 had the highest density of the rare Rattlesnake Master Borer Moth populations recorded in the last 5 years, after OKNP implemented a new prescribed fire regime.



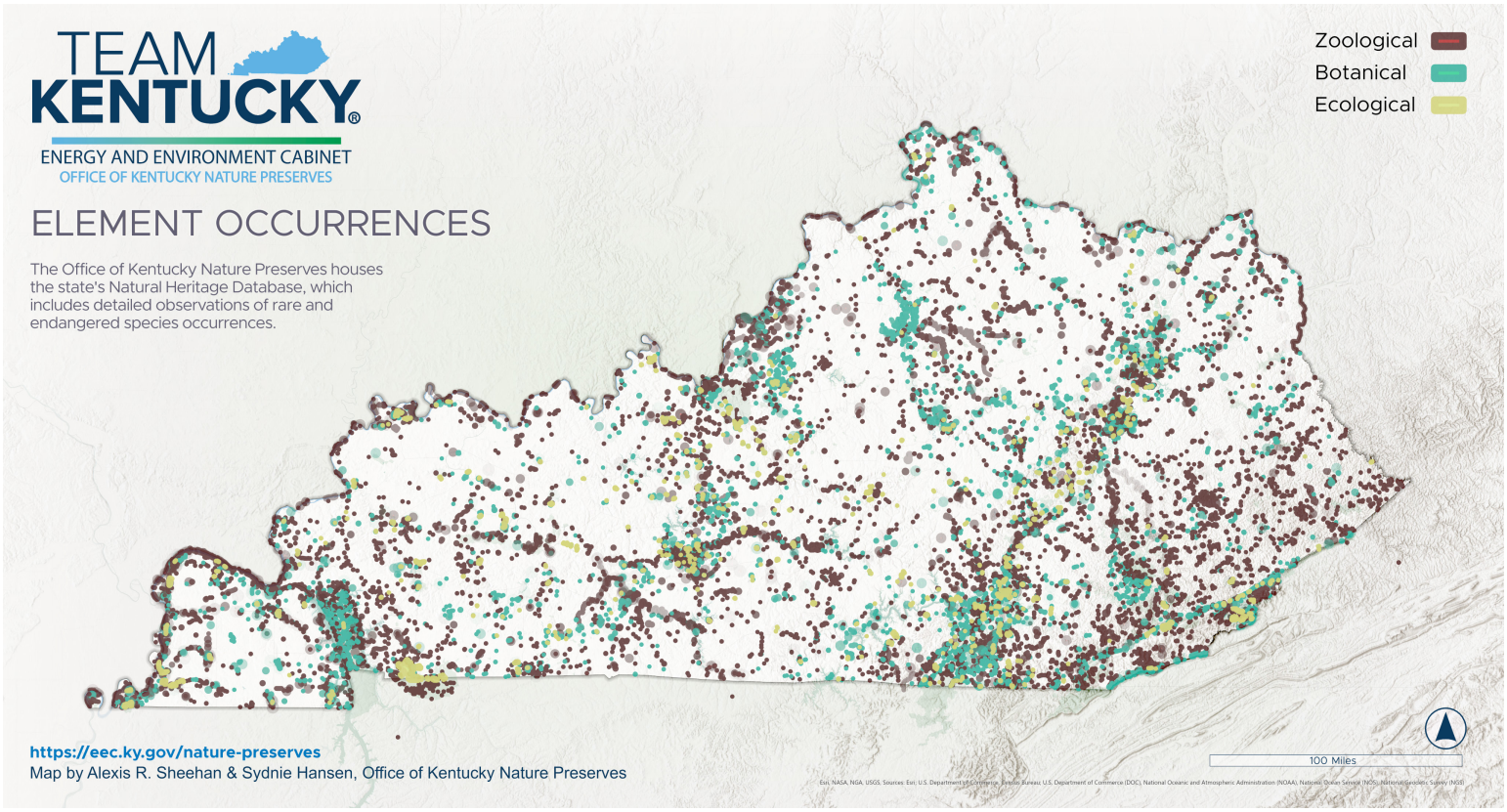
Flush of Rattlesnake Master (host plant) following August 2024 Rx Burn



Globally rare Rattlesnake Master Borer Moth (*Papaipema eryngii*)

Scan QR code to read USFWS article on restoration of Rattlesnake Master Borer Moth Habitat at Eastview Barrens SNP

Biological Assessment & Plant Conservation



OKNP manages several conservation programs to monitor, manage and recover Kentucky's many rare species and natural communities.

- **Rare Plant Program**
  Kentucky's official state program that administers rare plant monitoring and management, assigning conservation ranks, ex situ conservation, botanical and ecological inventories, and more
- **Endangered Species Act**
  OKNP is the official U.S. Fish and Wildlife Service partner for recovery of Kentucky's federally listed plants
- **Terrestrial Zoology**
  Focuses on Kentucky's native insect, pollinator, and snail conservation
- **Aquatic Zoology**
  Focuses on Kentucky's native fish, crayfish and mussel conservation
- **Lichen Monitoring Program**
  Focuses on Kentucky's native lichen conservation

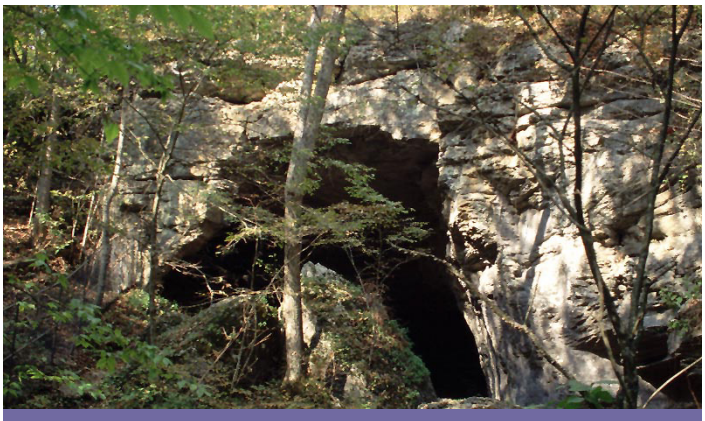
To learn about the botanical and ecological work done at OKNP, read the 2026 Quadrennial Rare Plant Report available on our website.

Biological Assessment & Plant Conservation

Terrestrial Zoology - Bat Inventories

Over the last two years OKNP staff have conducted bat acoustic surveys across 18 properties to inventory what bat species might be utilizing the area. A total of 64 detectors were deployed and recorded 192,382 bat calls across 911 detector nights (one detector for one night). Eastern red bats (*Lasiurus borealis*) were the most commonly recorded species. Listed species recorded included endangered gray bats (*Myotis grisecens*), northern long-eared bats (*Myotis septentrionalis*), Indiana bats (*Myotis sodalis*), and proposed endangered tricolored bats (*Perimyotis subflavus*).

In addition to acoustic surveys, staff also conducted mist-net surveys for bats. In 2025, four sites on three properties in Carter and Greenup counties were surveyed across nine nights. A total of five species were captured. Eastern red bats were the most captured species. The most notable capture was a juvenile male Indiana bat. This was notable because despite nearby Carter Caves State Resort Park having important winter hibernacula for Indiana bats, there were no summer records of Indiana bats in the county. Our capture of a juvenile during the summer suggests there is a maternity colony nearby.



Entrance to Bat Cave



Tricolored Bat (*Perimyotis subflavus*)



Gray bat (*Myotis grisecens*)



Northern Long-eared Bat (*Myotis septentrionalis*)



Indiana bat (*Myotis sodalis*)



Staff setting up a bat mist net for surveys

Biological Assessment & Plant Conservation

Terrestrial Zoology - Native Bee Inventory & Monitoring

Native bees have life history strategies and morphological features that make them the most important group of pollinators. Bees are some of the only pollinators that actively forage for pollen and individuals can visit hundreds of flowers per day.

There is a substantial gap in the knowledge of Kentucky's native bee species diversity, distributions, population trends, and behavioral ecology, which in turn hinders conservation efforts to monitor and manage effectively for their persistence.

In 2023, OKNP established a Native Bee Inventory and Monitoring program and began inventories of native bees across state nature preserves and partner lands. This program seeks to expand inventory efforts across the state and establish long-term monitoring protocols and plots. Approximately 4,000 species of bee are found in the United States, while the preliminary state list for Kentucky includes only 233 species.

Since July of 2024, OKNP invertebrate biologists and partners have added 22 additional state records to this list through more than 150 sampling events. Several bees in the genus *Nomada* have been identified, a particularly complex group due to overlapping in both morphological and molecular characteristics. Additionally, several species with specialized floral associations have been documented, including the aster specialist Aster Miner Bee (*Andrena asteris)*, Rhododendron specialist *Andrena cornelli*,and the goldenrod and thistle specialist *Melissodes vernoniae*. These records continue to expand our understanding of Kentucky's native bee diversity and the specialized ecological relationships between bees and their host plants.



Common eastern bumble bee (*Bombus impatiens*) and a Sweat Bee (*Lasioglossum sp.*)



Long Horned Bee (*Melissodes sp*)



Mining Bee (*Andrena sp*)

Biological Assessment & Plant Conservation

Terrestrial Zoology - Pollinator Camera Traps

As technology gets more advanced, our staff are always looking for ways it can assist conservation and the scientists researching the natural world. OKNP has developed camera traps to capture footage of insects visiting the federally threatened White Fringeless Orchid (*Platanthera integrilabia*).

The unique flower shape of the White Fringeless Orchid (WFO) means only certain insects can successfully pollinate them. Identifying these true pollinators and creating suitable habitat for them is an important angle of OKNP's broader effort to conserve and grow our WFO populations.

A standard trail and game camera might seem simpler, but most use Passive Infrared sensors to detect motion, which are poorly suited for detecting small insects at a distance. Instead, OKNP's design uses a single board computer (Raspberry Pi 3a+) and python script to observe pixel changes across video frames, recording footage when it detects movement.

Though the initial implementation presented some unique challenges, we did successfully adjust our methods and captured footage of a clearwing hummingbird moth (*Hemaris diffinis*) drinking nectar, and a Northern Cloudywing (*Thorybes pylades*) pollinating.

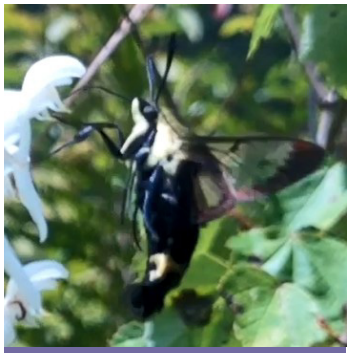
Over time we have continued to improve our design, by adding the ability to power them with small solar panels. In the future, we plan to incorporate machine learning object detection to serve as a more efficient recording trigger, and reduce false positives caused by wind and shadows.

Aside from White Fringeless Orchids, we have also deployed these cameras on other rare flowers: Kentucky ladyslipper (*Cypripedium kentuckiense*), Small white ladyslipper (*Cypripedium candidum*), and Price's potato bean (*Apios priceana*). Though first season attempts at the latter two species were largely unfruitful, we did capture footage of a bee (Family Apidae; specimens in study still being processed) falling into the cup of the Kentucky Ladyslipper, an insect that has been documented pollinating this species.

We hope to continue deploying these cameras, to learn more about what elusive pollinators may be out there propagating Kentucky's rare plant species!



Example of mobile documentation from cameras



Hummingbird moth on WFO



Rasberry Pi camera pointed at White Fringeless Orchid

Biological Assessment & Plant Conservation

Aquatic Zoology - Mudbug Mania 2026

In May 2026, OKNP joined partners from across the southeast for the 4th annual Mudbug Mania — a week of intensive crayfish surveys and education. The event this year was based out of Eastern Kentucky University's Maywoods Environmental & Educational Laboratory.

Nearly 50 biologists, researchers, students, and volunteers from agencies, universities, and NGOs worked together to survey streams and wetlands in the region surrounding Maywoods, and across the Cumberland, Green, and Kentucky river drainages — gathering critical data on Kentucky's crayfish diversity. New participants got hands-on training during our Crayfish 101 Workshop, while seasoned crews tackled everything from headwater seeps and wetlands to mainstem reaches. Highlights of the week included presentations on regional Faxonius diversity from Dr. David Hayes (EKU), and special visits from Dr. Guenter Schuster, and from Joel Sartore of the National Geographic Photo Ark, who photographed nearly twenty different species of crayfish obtained during the week.

A huge thank you to our partner organizations — Kentucky Department Fish and Wildlife Resources, Kentucky Division of Water, Eastern Kentucky University, West Liberty University, United States Fish and Wildlife Services, Natural Resources Conservation Service, United States Forest Service, Copperhead Consulting, Edge Engineering and Science, Resource Environmental Solutions and more— and to EKU for hosting us. Together, over the last four years, more than 500 crayfish surveys have been conducted across Kentucky, advancing conservation of these often-overlooked but ecologically essential species. We look forward to Mudbug Mania 2027!!!

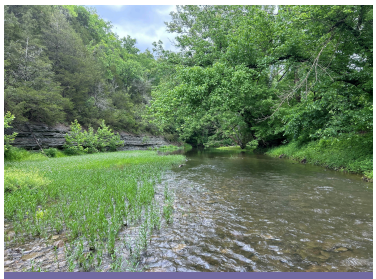




Group photo with Dr. Guenter Schuster



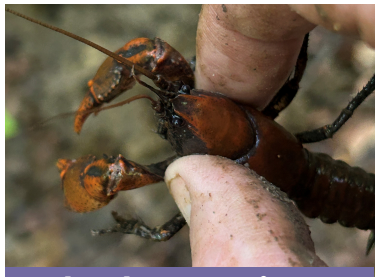
Participants digging for crayfish



Muddy Creek in Madison County, KY



Triangleclaw Crayfish (*Cambarus sphenoides*)



Upland Burrowing Crayfish (*Cambarus dubius*)

Office of Kentucky Nature Preserves Staff

Director's Office



Zack Couch
Executive Director



Stephanie Ellis
Purchasing Specialist



Judy Cunningham
Budget Specialist



Alexis Sheehan
Database Administrator



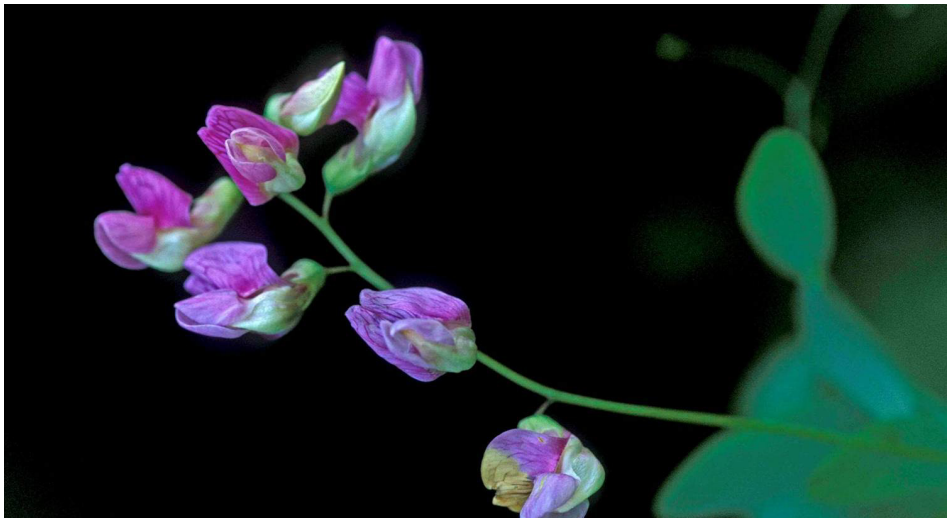
Ted Brancheau
NRCS Data Steward



Sydnie Hanson
GIS Analyst



Zeb Weese
Consultant



Office of Kentucky Nature Preserves Staff

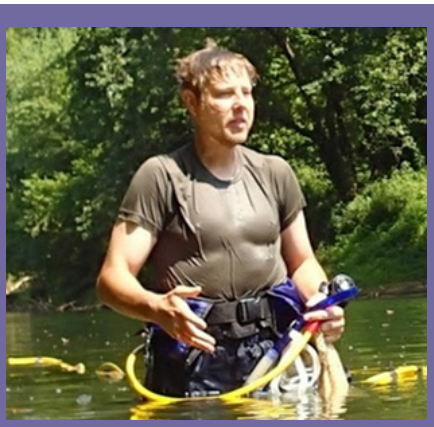
Biological Assessment & Plant Conservation



Tara Littlefield
Branch Manager, Botanist, Ecologist



Martina Hines
Botanist, Ecologist



Mike Compton
Aquatic Biologist



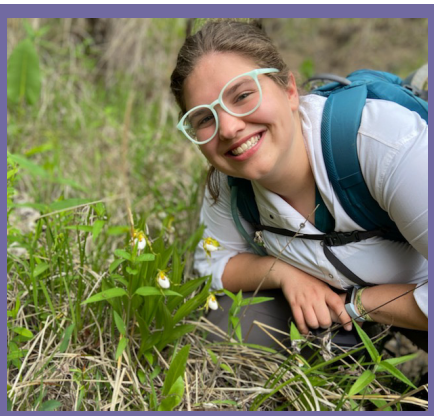
Devin Rodgers
Botanist, Ecologist



Kendall McDonald
Botanist, Lichenologist, Outreach Coordinator



Tony Romano
Botanist, Conservation Coordinator



Rachel Cook
Botanist



Vanessa Voelker
Botanist



Sarah Kosieniak
Botany Technician, Pollinator Camera Trap Coordinator

Office of Kentucky Nature Preserves Staff

Biological Assessment & Plant Conservation



Caroline Kane
Native Bee Biologist



Robert Chambliss
Terrestrial Entomologist



Eric Ng
Aquatic Biologist



Kathryn Ng
Aquatic Biologist

Not Pictured
Jonathan Eisenhour, Aquatic Biology Technician
Katie Glauber, Botany Technician
Kevli Sheeth, Botany Intern
Molly Uphoff, Intern



Office of Kentucky Nature Preserves Staff

Natural Areas and Recovery



Jason Nally
Branch Manager



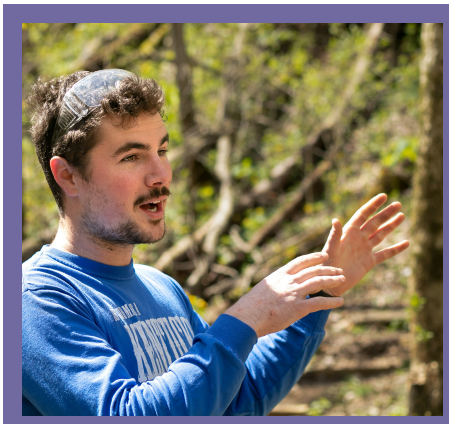
Heidi Braunreiter
Prescribed Fire Program Coordinator



Douglas Wilder
Trails Manager



Zach Beyer
Barrens Preserves Manager



Quinn Towery
Bluegrass Preserves Manager



Gregg Janos
KHLCF, Wild Rivers Coordinator



Sandra Elliott
Cumberland Plateau Preserves Manager



Lance Hostetler
Southeast Preserves Manager

Not Pictured

Dylan Abner, Previous Bluegrass Preserve Manager

Ryan Fortenberry, Previous Cumberland Plateau Preserve Manager

Kyle Napier, Previous Southeast Preserve Manger

Boyd Hopkins, NA Technician

Megan Retz, NA Technician

Carey Burford, Temp

Elizabeth Huges, NA Technician

Cassidy Keeling, NA Technician

Kenneth Mills, NA Tech

Garrett Gallion, NA Tech

FOLLOW US ON SOCIAL MEDIA



Stay connected with the latest in Kentucky's natural heritage

Facebook: Office of Kentucky Nature Preserves

Instagram: @kentucky_nature_preserves

Youtube: Office of Kentucky Nature Preserves

iNaturalist: @officeofkynaturepreserves