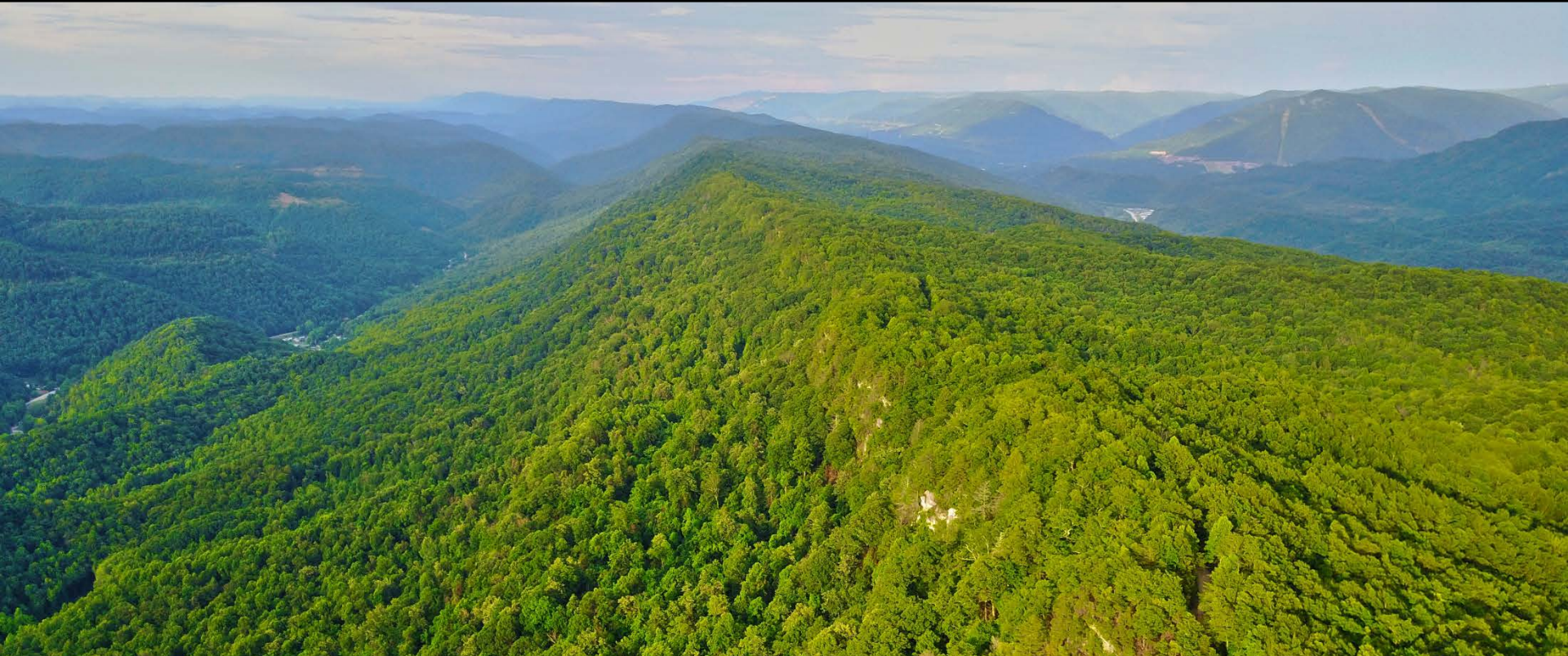


# From biodiversity to resilience-Kentucky's 25 year Pine Mountain Wildlife Corridor Project



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[Tara.littlefield@ky.gov](mailto:Tara.littlefield@ky.gov)

# KENTUCKY STATE NATURE PRESERVES COMMISSION

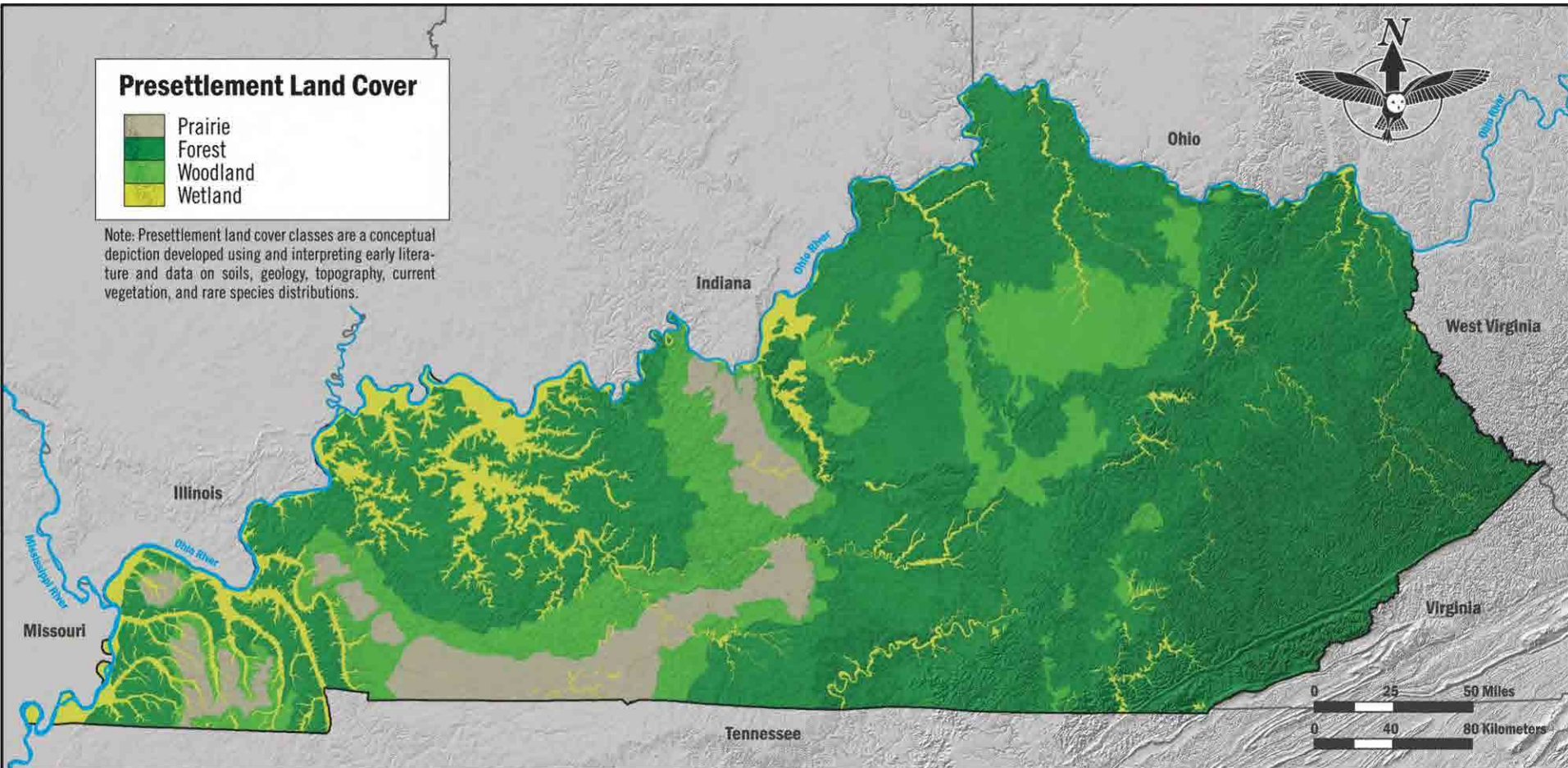
## PROTECTING KENTUCKY'S NATURAL HERITAGE



**KSNPC protects Kentucky's natural heritage by:**









- (1) Identifying, acquiring and managing natural areas that represent the best known occurrences of rare native species, natural communities and significant natural features in a statewide nature preserve system;**
- (2) Working with others to protect biological diversity; and**
- (3) Educating Kentuckians as to the value and purpose of nature preserves and biodiversity conservation.**

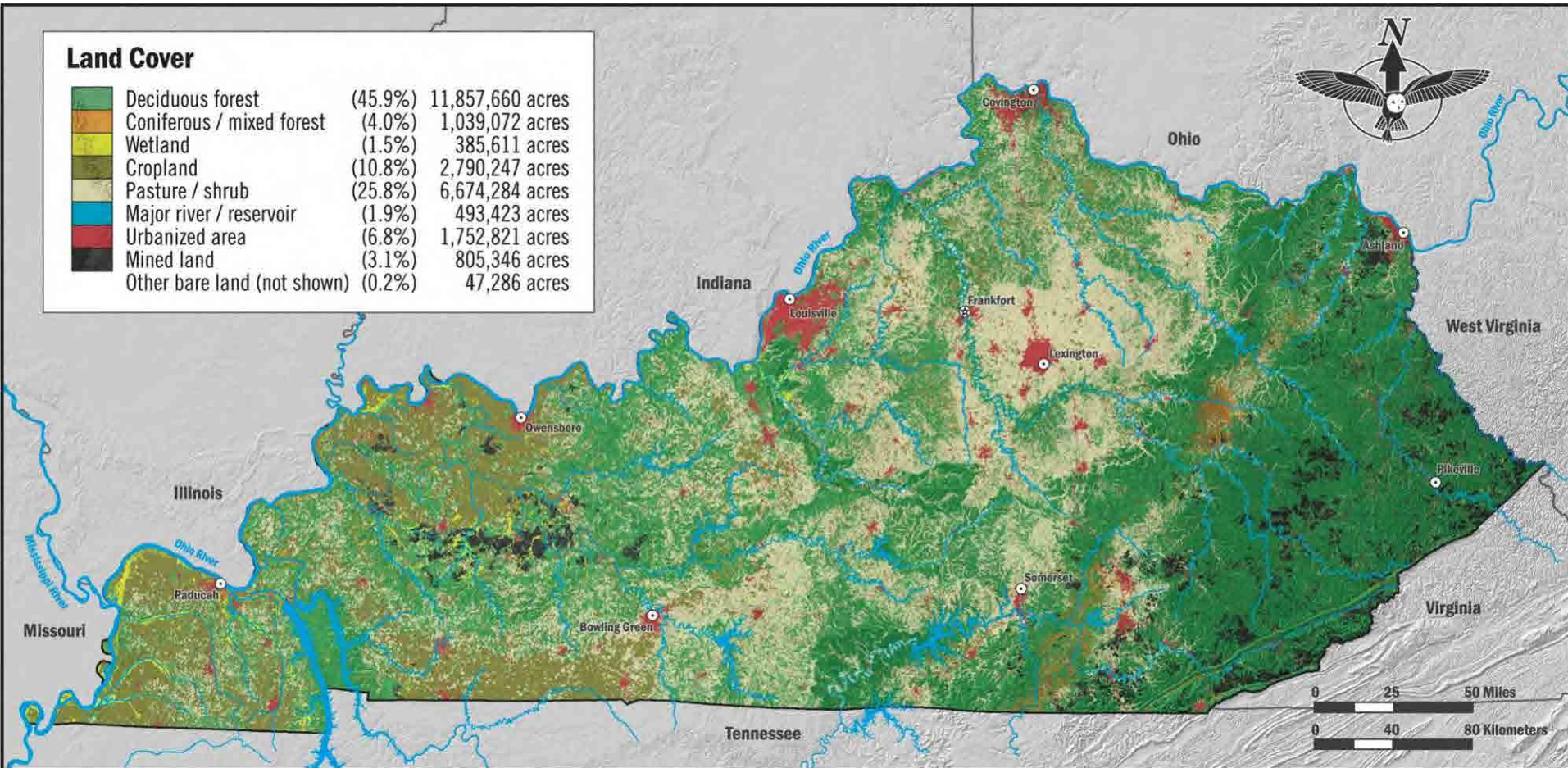
# Kentucky Then



# Kentucky Now

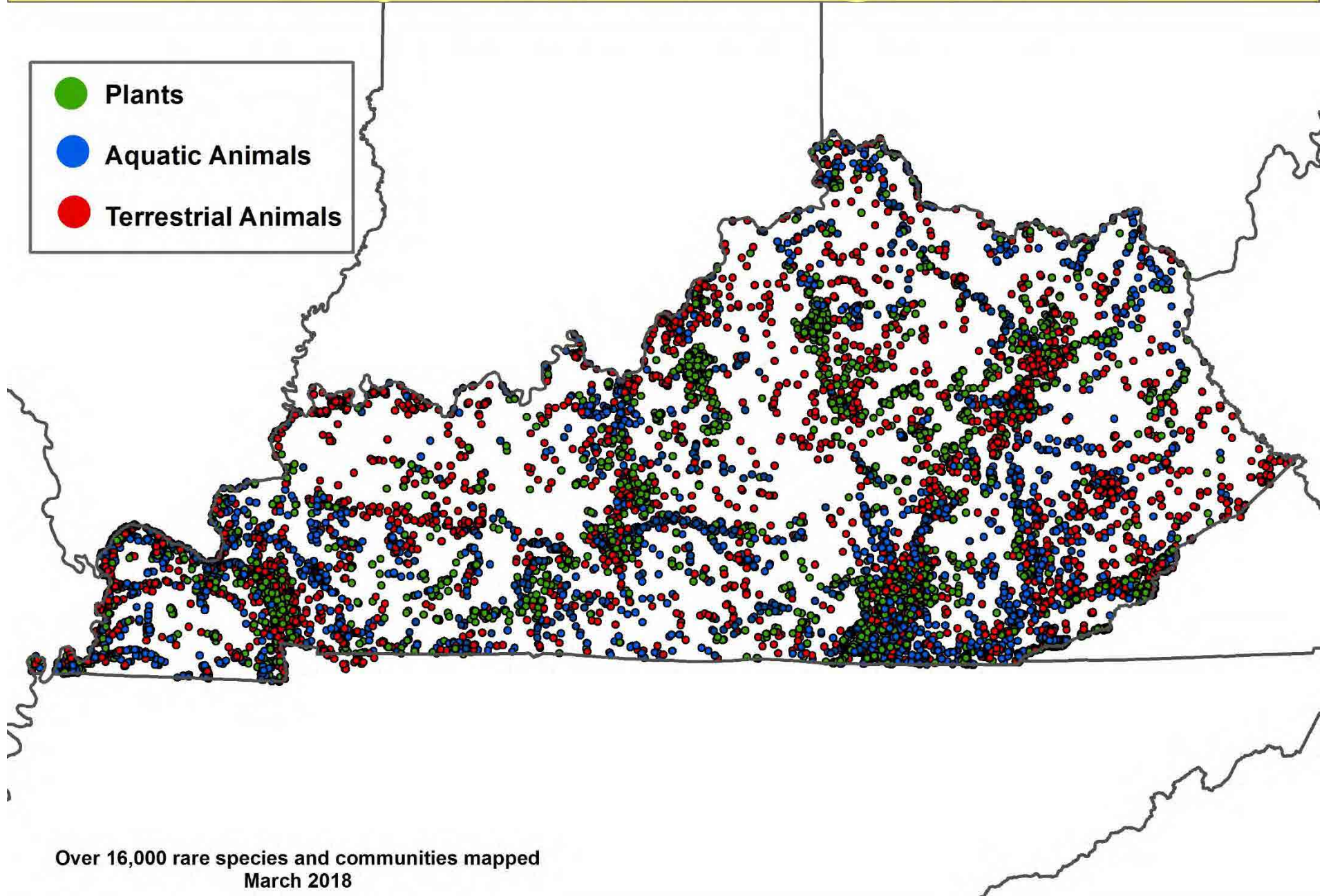
## Land Cover

	Deciduous forest	(45.9%)	11,857,660 acres
	Coniferous / mixed forest	(4.0%)	1,039,072 acres
	Wetland	(1.5%)	385,611 acres
	Cropland	(10.8%)	2,790,247 acres
	Pasture / shrub	(25.8%)	6,674,284 acres
	Major river / reservoir	(1.9%)	493,423 acres
	Urbanized area	(6.8%)	1,752,821 acres
	Mined land	(3.1%)	805,346 acres
	Other bare land (not shown)	(0.2%)	47,286 acres



# Kentucky's Natural Heritage database

- Plants
- Aquatic Animals
- Terrestrial Animals





Over 16,000 rare species and communities mapped  
March 2018



# Conservation Sites

## Conservation Sites



### Standard Sites (585)

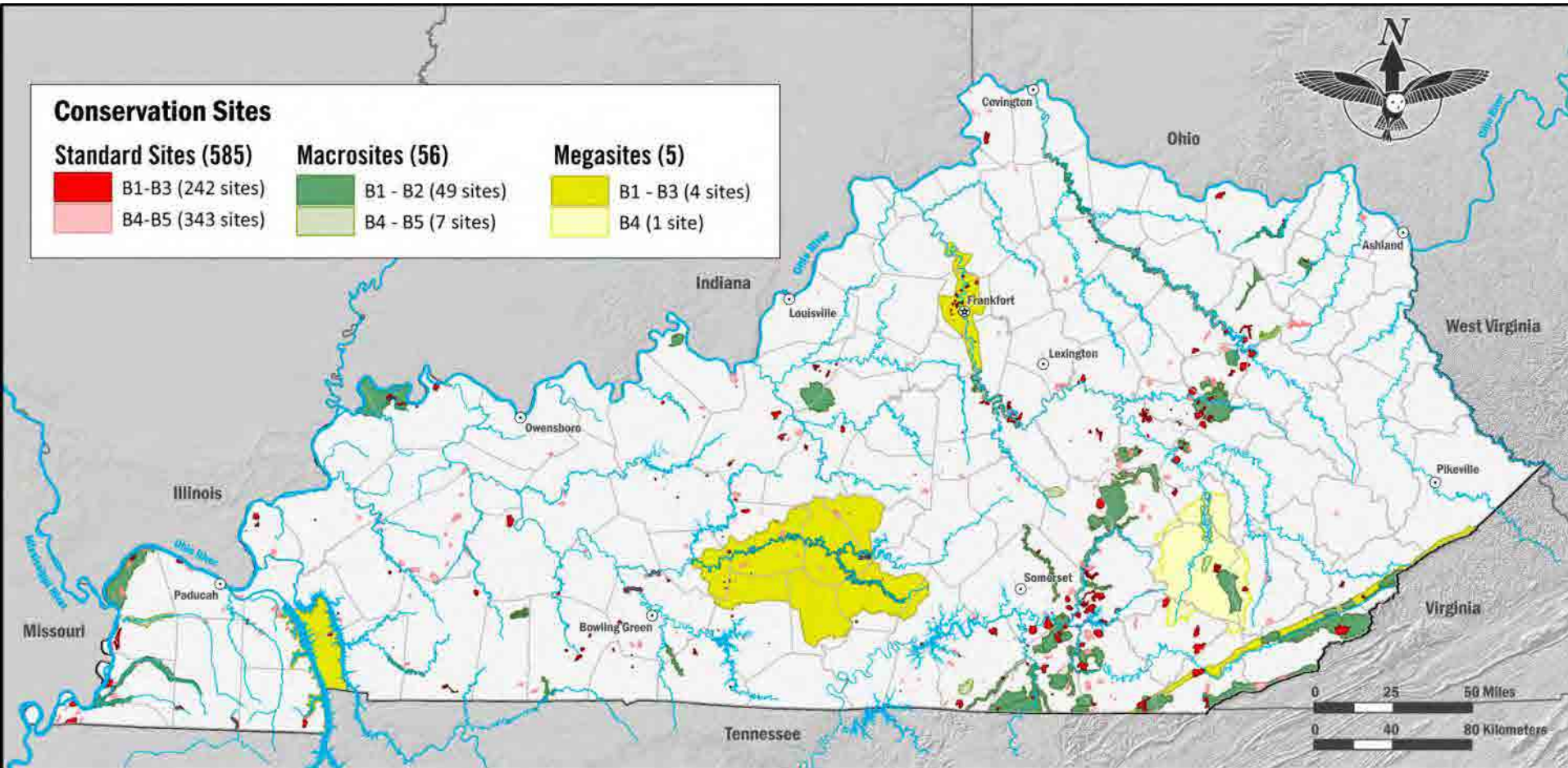
-  B1-B3 (242 sites)
-  B4-B5 (343 sites)

### Macrosites (56)








-  B1 - B2 (49 sites)
-  B4 - B5 (7 sites)

### Megasites (5)

-  B1 - B3 (4 sites)
-  B4 (1 site)

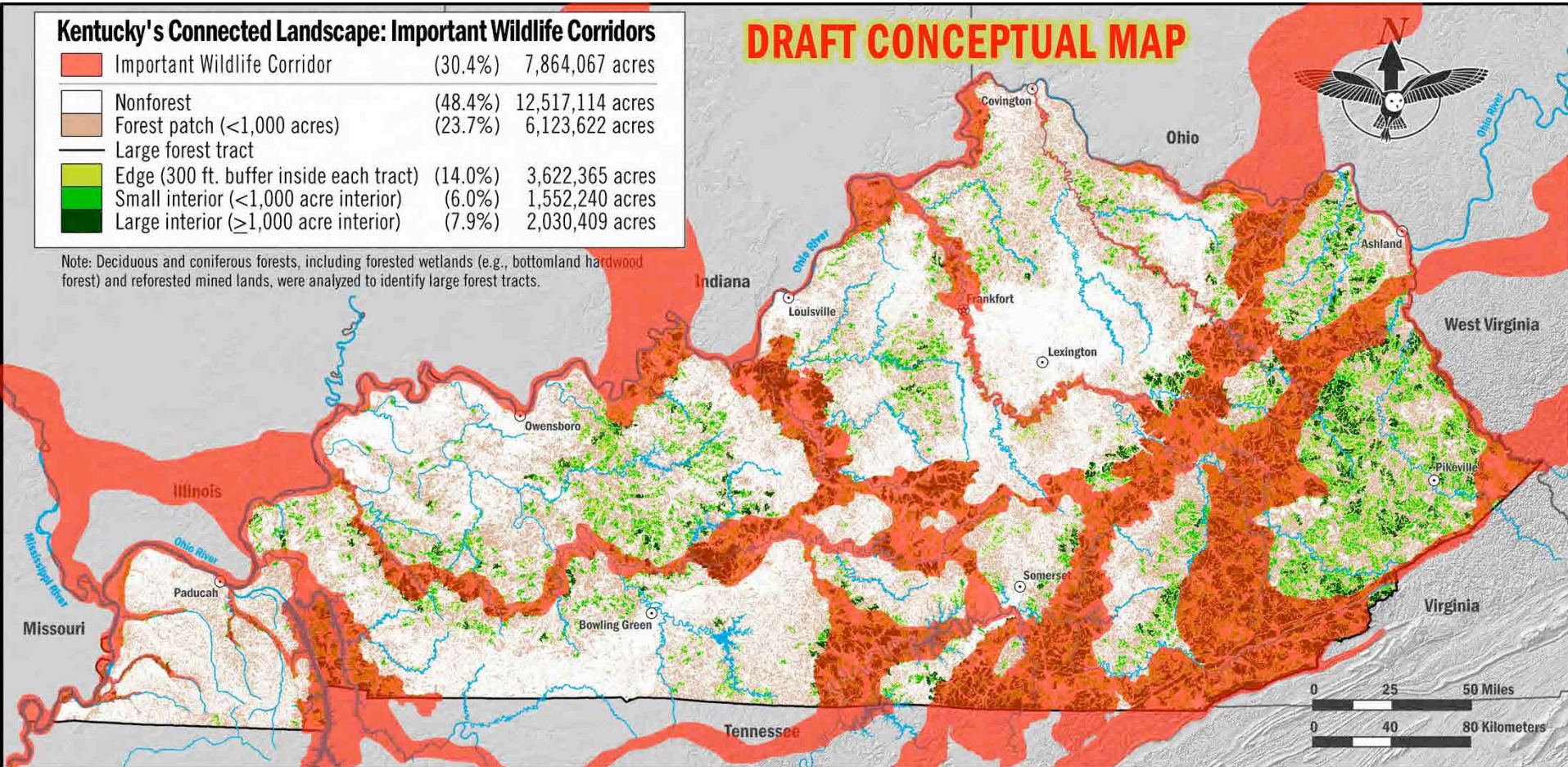


## Kentucky's Connected Landscape: Important Wildlife Corridors

	Important Wildlife Corridor	(30.4%)	7,864,067 acres
	Nonforest	(48.4%)	12,517,114 acres
	Forest patch (<1,000 acres)	(23.7%)	6,123,622 acres
	Large forest tract		
	Edge (300 ft. buffer inside each tract)	(14.0%)	3,622,365 acres
	Small interior (<1,000 acre interior)	(6.0%)	1,552,240 acres
	Large interior (≥1,000 acre interior)	(7.9%)	2,030,409 acres

Note: Deciduous and coniferous forests, including forested wetlands (e.g., bottomland hardwood forest) and reforested mined lands, were analyzed to identify large forest tracts.

## DRAFT CONCEPTUAL MAP

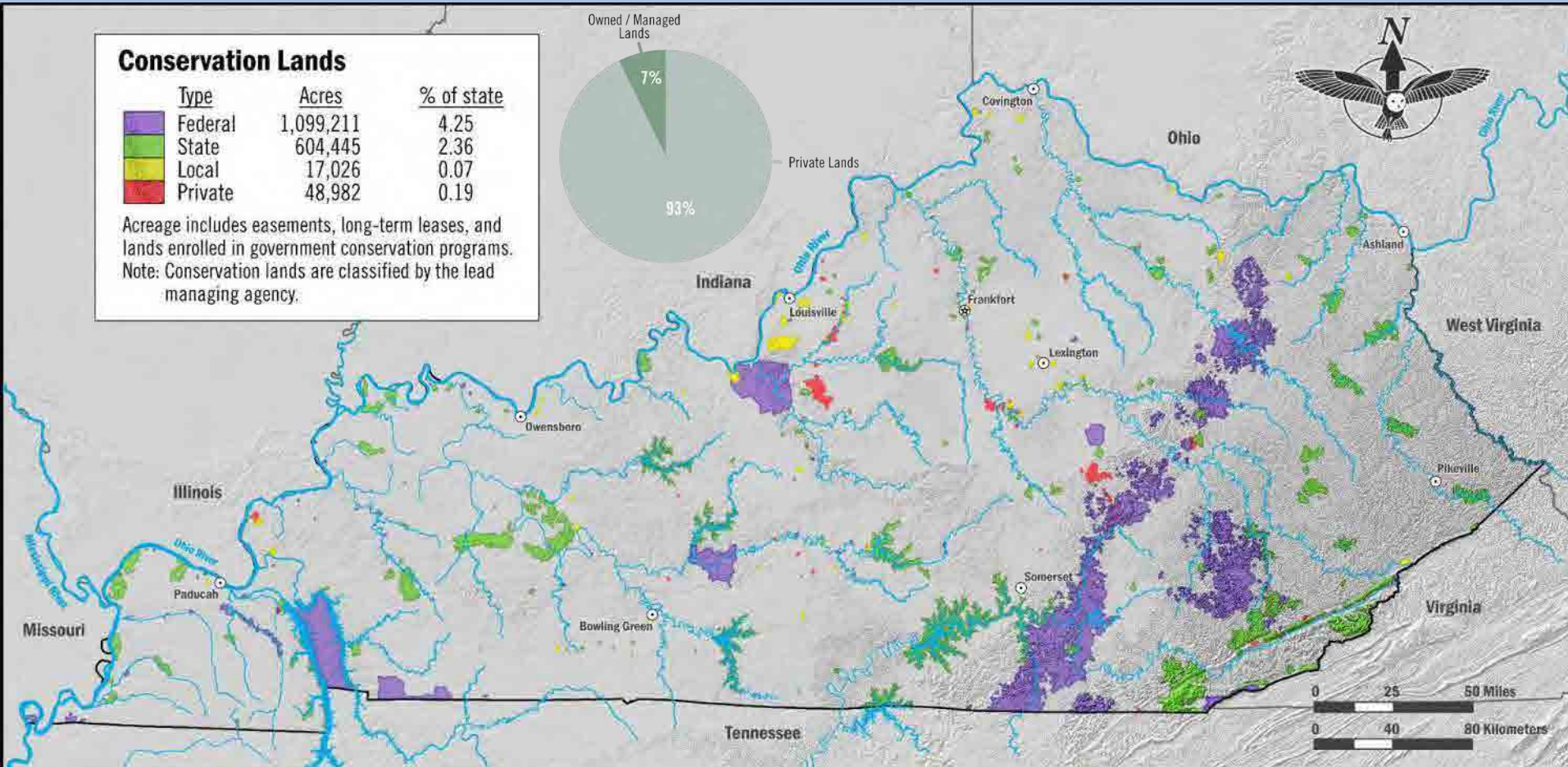
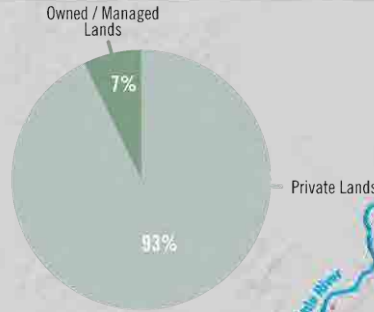


# Conservation Lands

## Conservation Lands

Type	Acres	% of state
Federal	1,099,211	4.25
State	604,445	2.36
Local	17,026	0.07
Private	48,982	0.19

Acreage includes easements, long-term leases, and lands enrolled in government conservation programs.  
Note: Conservation lands are classified by the lead managing agency.



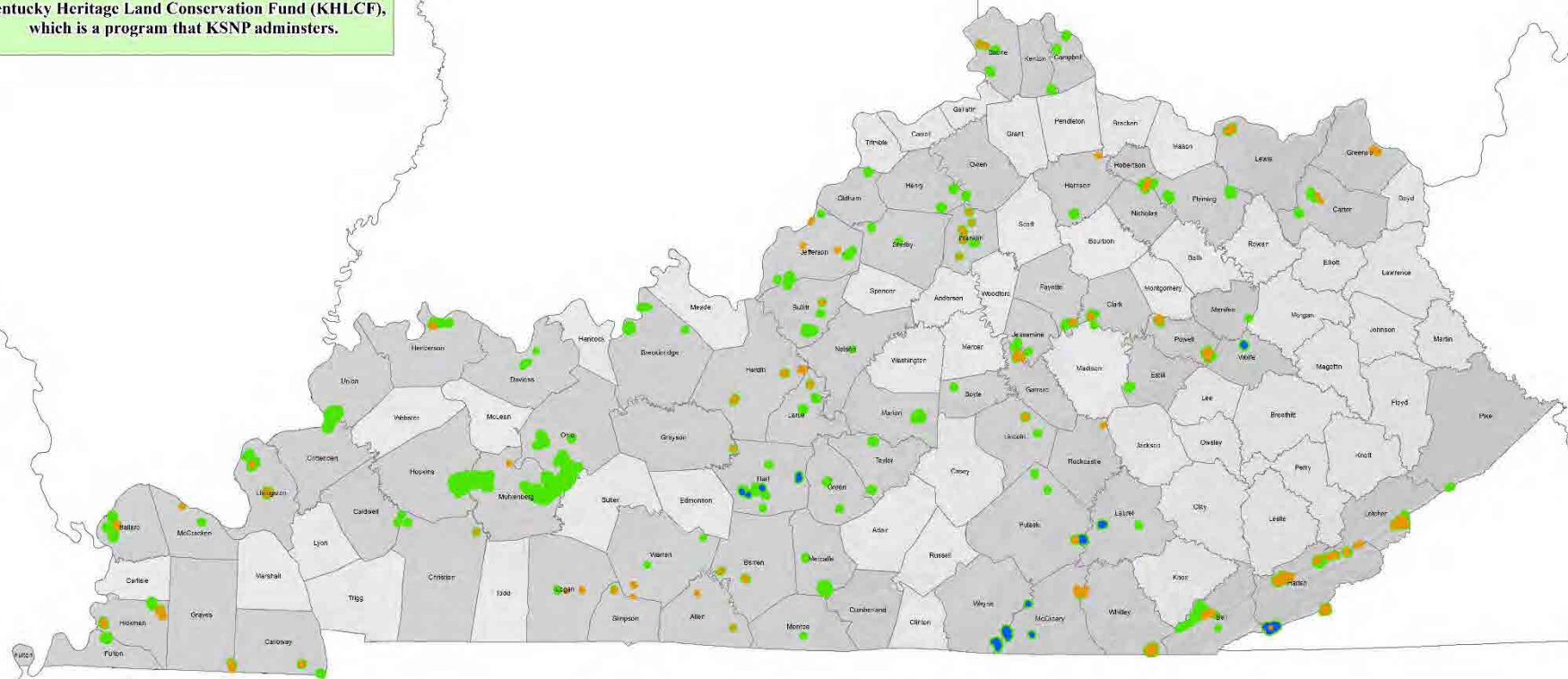
Less than 7% of Kentucky is state or federally owned



# KENTUCKY STATE NATURE PRESERVES (KSNP)

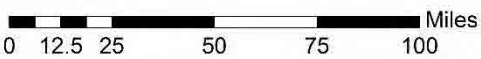


KSNP conserves 150 natural areas encompassing 105,000 acres across the state in our State Nature Preserves system, Wild Rivers Conservation Areas, and Heritage Lands Conservation Easements. The majority of our natural areas were purchased with the Kentucky Heritage Land Conservation Fund (KHLCF), which is a program that KSNP administers.



Legend:

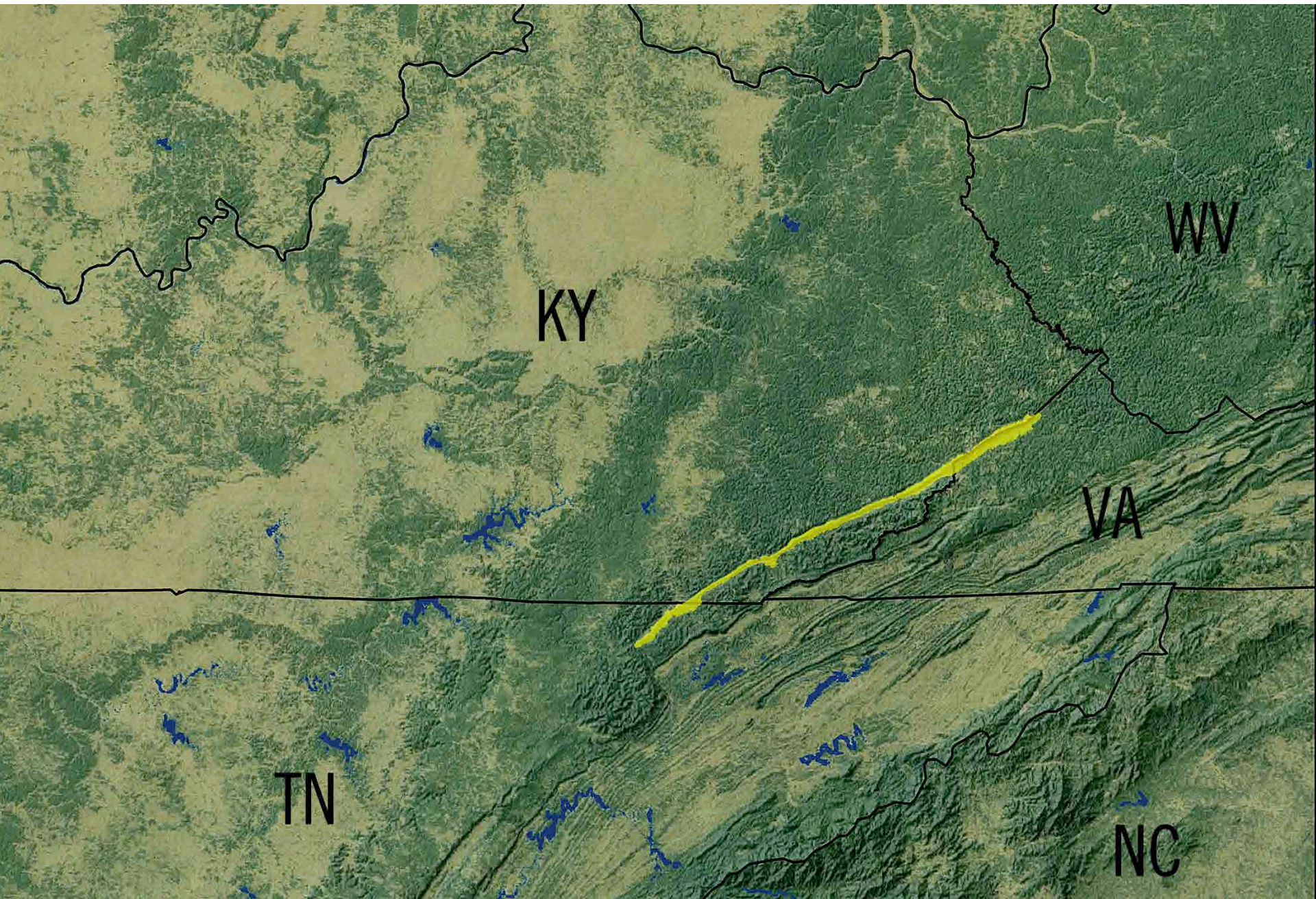
- Blue square: Kentucky Wild Rivers Conservation Areas
- Orange square: Kentucky State Nature Preserves
- Green square: Kentucky Heritage Lands



Our mission is to protect Kentucky's natural heritage by

- (1) identifying, acquiring and managing natural areas that represent the best known occurrences of rare native species, natural communities and significant natural features in a statewide nature preserve system;
- (2) working with others to protect biological diversity; and
- (3) educating Kentuckians as to the value and purpose of nature preserves and biodiversity conservation.





KY

WV

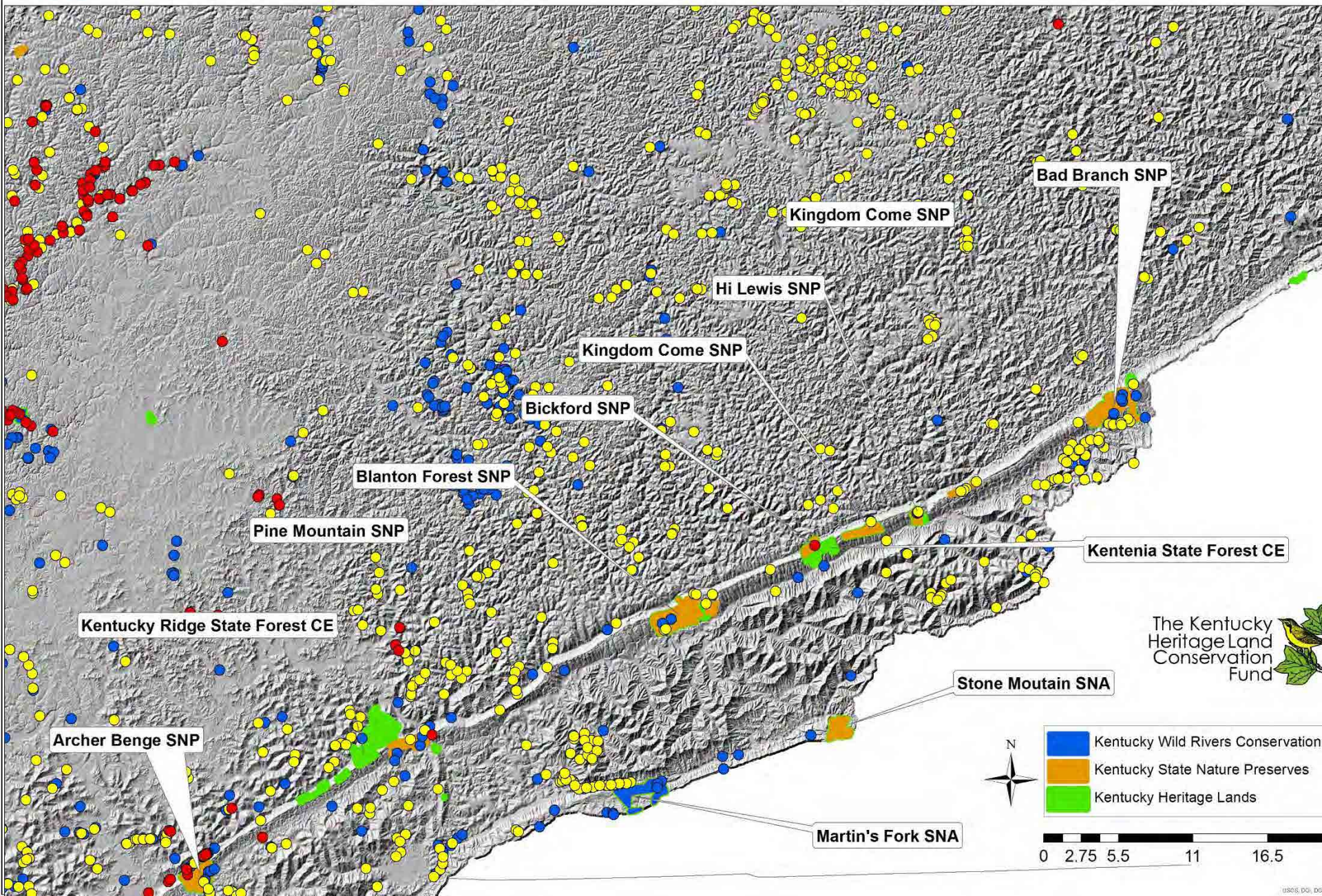
VA

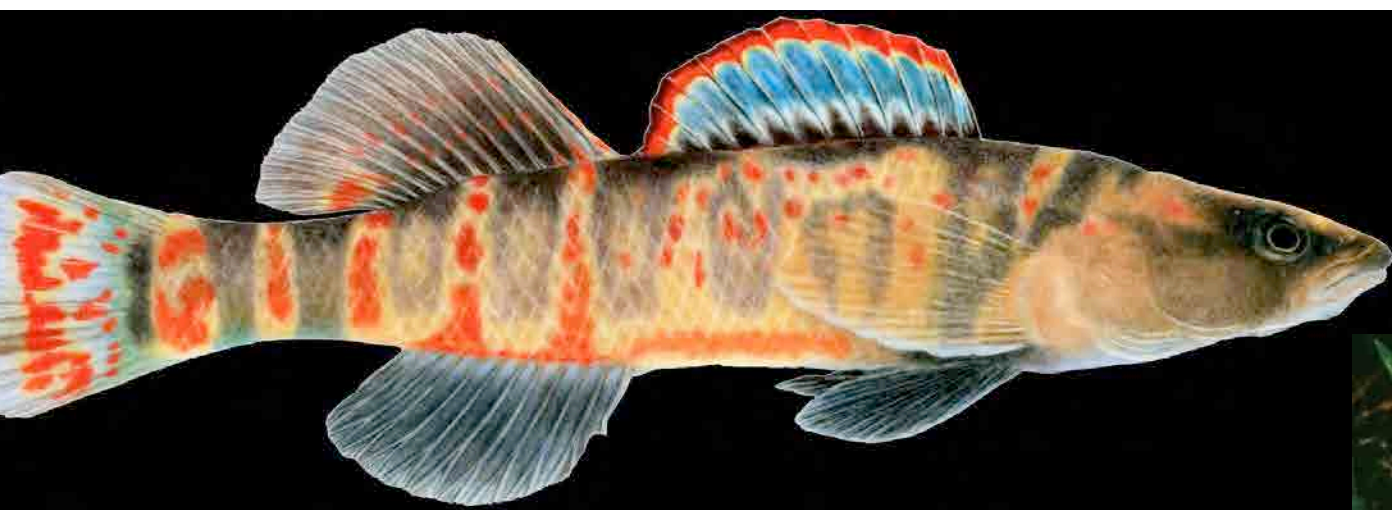
TN

NC



# Globally Rare Species on Pine and Cumberland Mountain

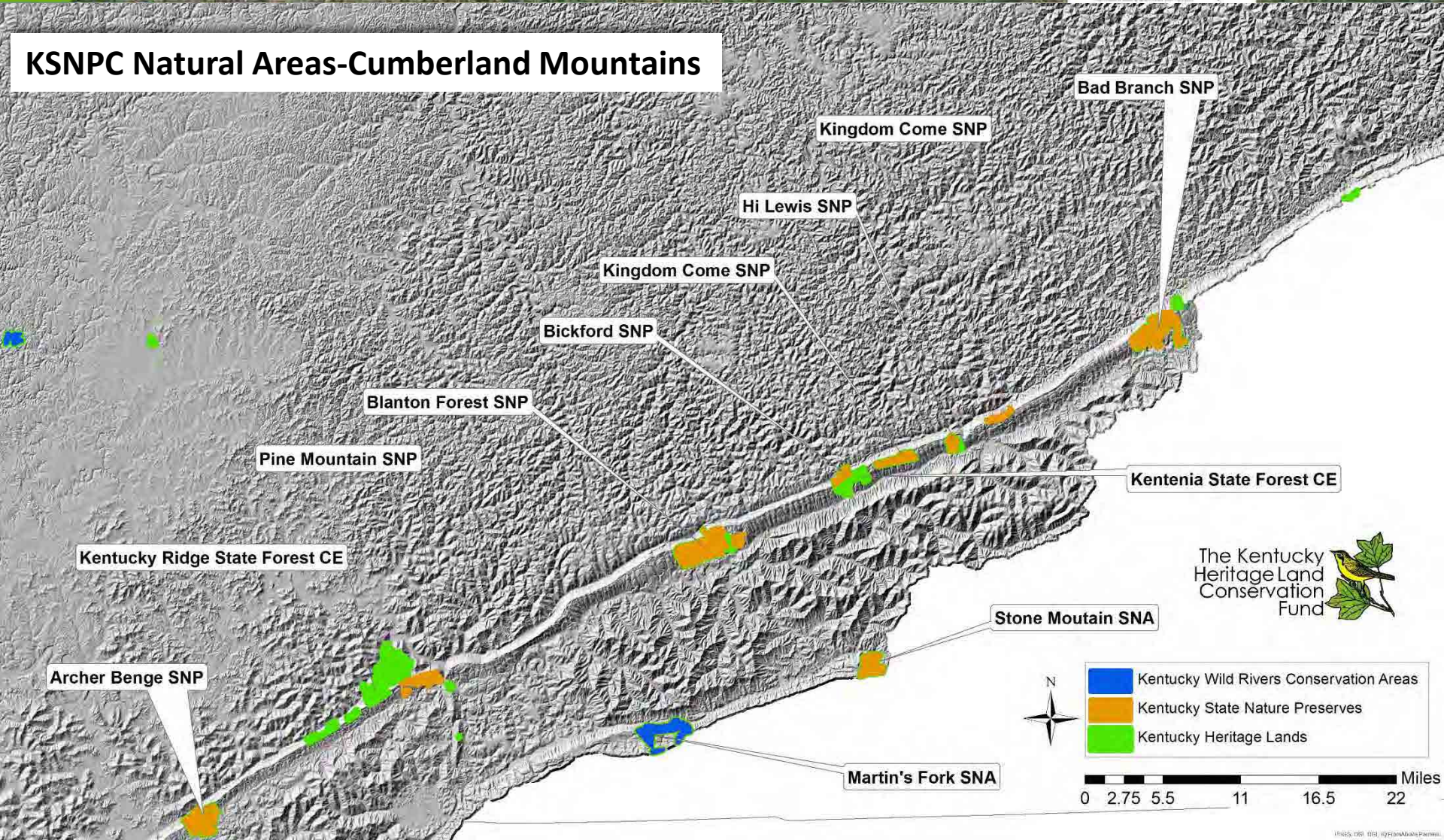




# PINE MOUNTAIN WILDLANDS CORRIDOR



## KSNPC Natural Areas-Cumberland Mountains





It's not enough to understand the natural world,  
the point is to defend and preserve it.”

~ Edward Abbey

Why do we like bugs and bunny programs



## Major Precursors of Environmental Ethics

Henry David Thoreau



1817-1862

John Muir



1838-1914

Aldo Leopold



1887-1948

HDT: **Nature** has “higher uses”—aesthetic, spiritual, as well as material

—anthropocentric (human-centered)

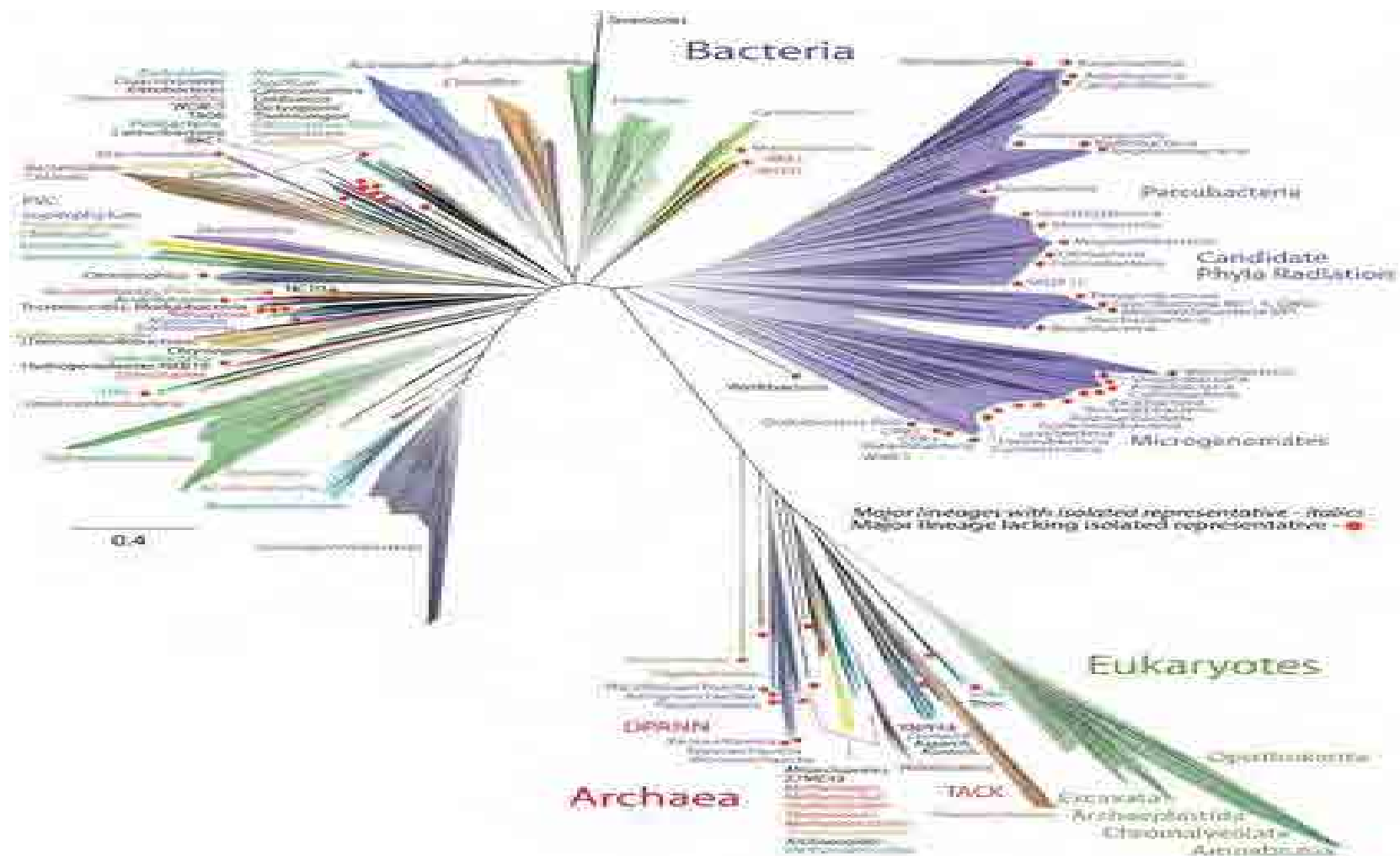
JM: **Snakes, bears, alligators** have “rights” & intrinsic value

—non-anthropocentric / individualistic

AL: “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”

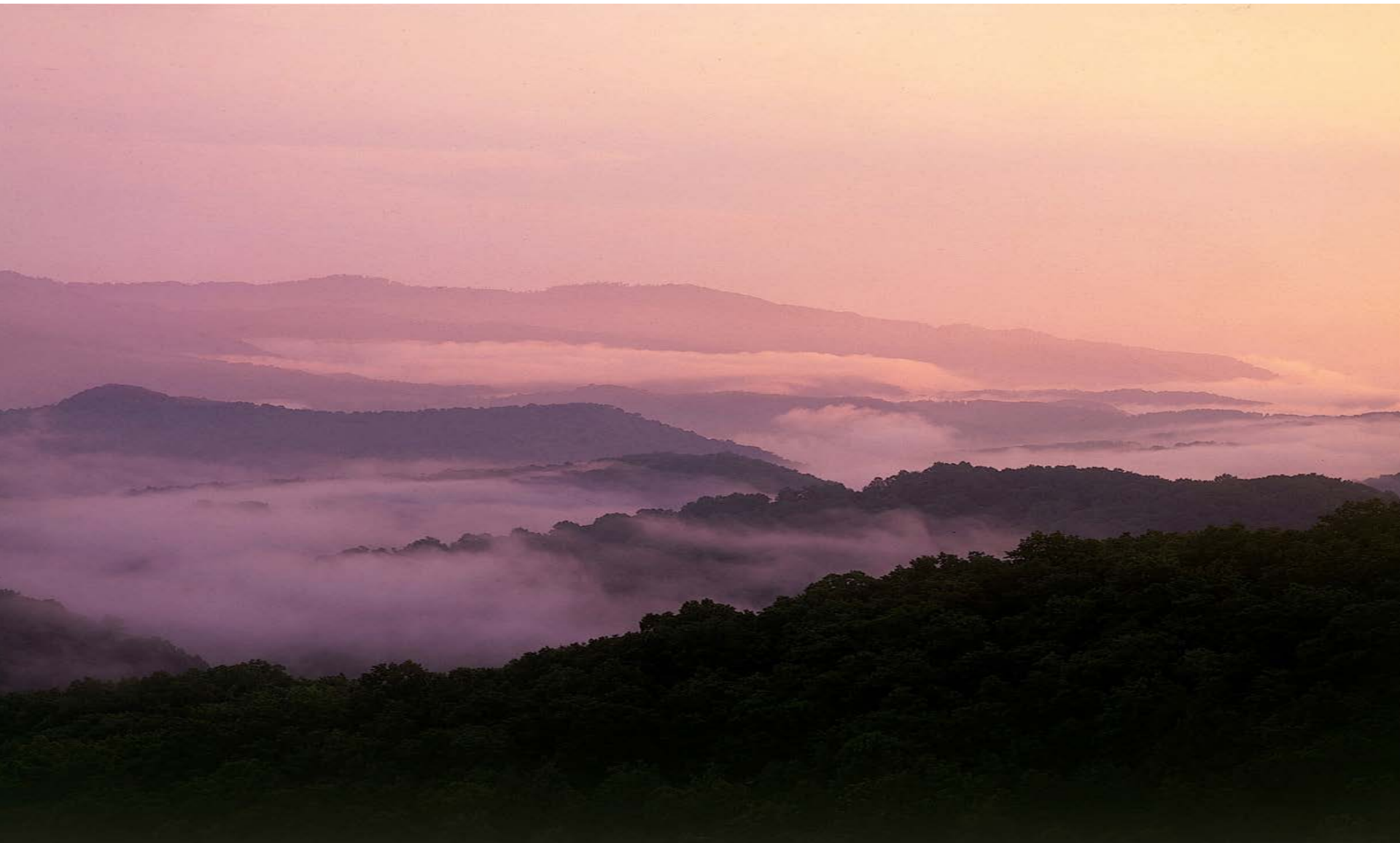
—non-anthropocentric / holistic







# First of the Cumberland Mountains



# Marc Evans, KNLT chair, Heritage Ecologist





Still remnants of Lucy's time







**Photo by Tim Brothers**



# **Pine Mountain Ridgeline**



**View from Pineville looking northeast**  
Map created by: Greg Abernathy, KSNPC







# Pine Mountain Land Cover

- 
- The map displays the Pine Mountain region with various land cover types. A yellow outline indicates the KNLTP Pine Mountain Legacy Project boundary. The terrain is color-coded by land use: green for Forest Land, light green for Agricultural / Open Land, purple for Wetland, blue for Major River / Reservoir, black for Mined Land, and red for Urban Area. Major roads are shown as red lines, and the state line is a white dashed line. The map also shows topographic features like rivers and reservoirs.
- KNLTP Pine Mountain Legacy Project
  - Agricultural / Open Land
  - Forest Land
  - Wetland
  - Major River / Reservoir
  - Mined Land\*
  - Urban Area
  - Major Road
  - State Line

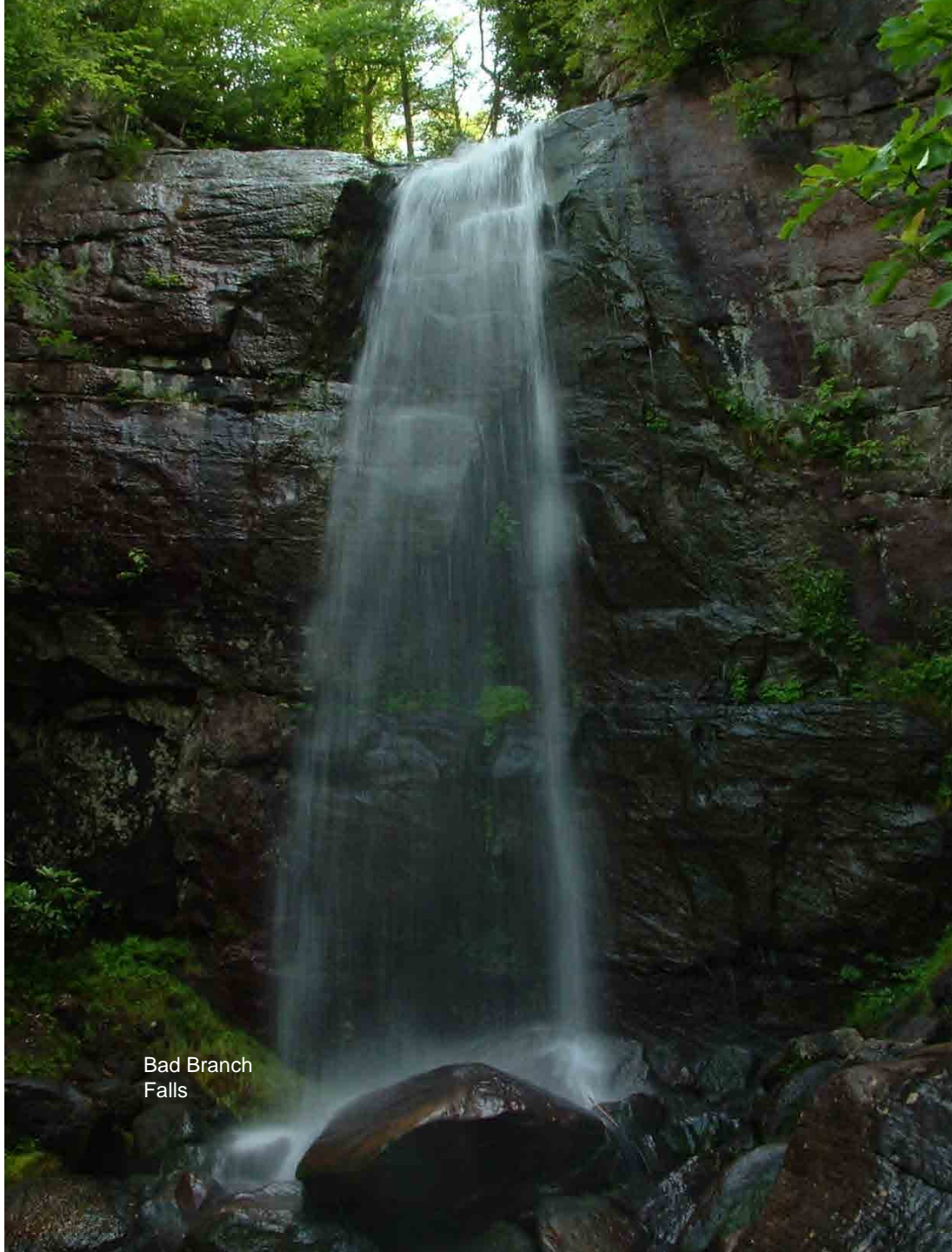
\* Mined lands in Kentucky are supplemented with GAP Land Cover data.



0 5 10 Miles

#### Data Sources:

Bureau of Transportation Statistics Roads  
ESRI/GDT State Boundary Data  
Kentucky-GAP Land Cover  
USGS National Elevation Dataset (NED)  
USGS National Hydrography Dataset (NHD)  
USGS National Land Cover Dataset (NLCD)



Bad Branch  
Falls







# Indiana Bat Conservation Fund

