



# BIG BARRENS COA

The Big Barrens Conservation Opportunity Area (COA) includes 1,047,125 acres in south central Kentucky and is bordered by the Green River COA on the east and the West Kentucky COA to the west. The Big Barrens COA is situated within the Interior Plateau physiographic region. The landscape is primarily an open rolling karst plain often referred to as the Pennyroyal Plains and is characterized by numerous sinkholes, caves, underground streams, and upland grasslands and wetlands, although forested hilly areas and forested riparian corridors do occur here. The boundary was delineated by reviewing SGCN species locations and habitat, natural grassland/open wetland remnants and rare grassland/open wetland species occurrences in the OKNP natural heritage database. Big Barrens COA contains several important watersheds including the Red, Lower Cumberland and Barren River, as well smaller portions of the Middle Green and Pond River watersheds.

Kentucky once contained millions of acres of large expansive prairies and barrens prior to European settlement, and a large portion of these grasslands were in the Big Barrens COA. Today, few remnants remain in what is now a mostly agricultural landscape, with land use dominated by row crops, hay pasture and developed open space. Deciduous forests are a dominant land use category in riparian areas and also in some uplands. Top threats identified within this COA include natural system modification, pollution,



Globally rare Eastern Prairie Blue Wild Indigo, *Baptisia aberrans*, grows in open full sun on calcareous prairies and needs some level of disturbance to persist.

Photo: Tara Littlefield



Some of the largest blocks of remnant prairie east of the Mississippi River occur in Big Barrens COA.

Photo: Marc Evans

and agriculture and aquaculture. Despite these impacts, some of the largest blocks of remnant prairie east of the Mississippi River persist in this COA, primarily located on Fort Campbell Military Reservation, U. S. Forest Service (USFS) lands, state lands and along service corridors.

## Big Barrens SGCN Priority by Taxa

Taxa	Moderate Priority	High Priority	Highest Priority	Data Deficient	Plant	Grand Total
Amphibians	3	1	2	4		10
Birds	93	15	1	1		110
Crustaceans		6		11		17
Fishes	7	14	7	6		34
Freshwater Mussels and Snails	8	24	9	15		56
Insects		2				2
Mammals	2	10		12		24
Plants					32	32
Reptiles	1	2		14		17
<b>Grand Total</b>	<b>114</b>	<b>74</b>	<b>19</b>	<b>63</b>	<b>32</b>	<b>302</b>

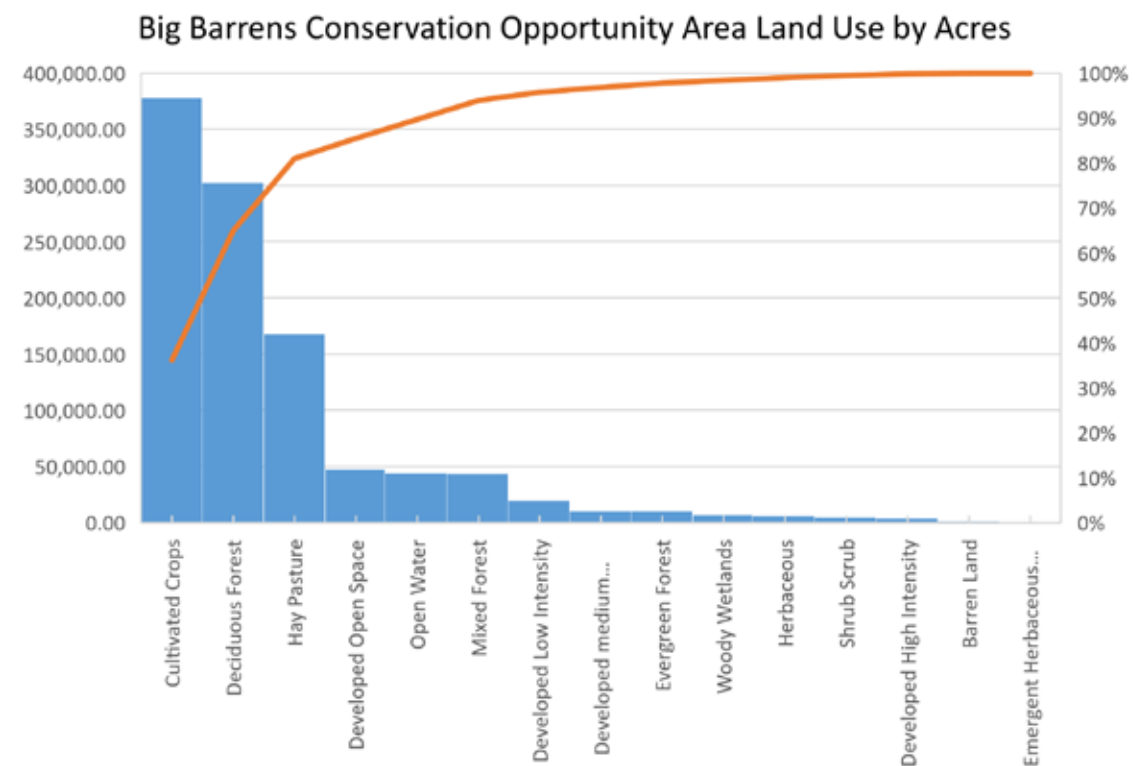
Big Barrens COA has records for 302 SGCN, including 19 among the highest prioritization category for animals and 32 Tier 1 globally rare plants. The majority of SGCN occurring within this area are bird species (grassland and wetland associated birds), followed by freshwater mussels, snails, and fish. This COA contains numerous SGCN grassland and wetland associated species and is also a hotspot for state threatened and endangered grassland and open wetland plants and insects.

While the majority of this COA is in private ownership (82%), 18% of the land is owned by state and federal organizations including Land between the Lakes National Recreation Area, Fort Campbell Military Reservation, United States Fish and Wildlife Services (USFWS), Office of Kentucky Nature Preserves (OKNP), sites funded by the Kentucky Heritage Land Conservation Fund (KHLCF), University of Kentucky, Western Kentucky University, and Kentucky State Parks. There is opportunity to increase private land conservation through programs administered by Kentucky Department Fish and Wildlife Resources (KDFWR) and Natural Resource Conservation Service (NRCS), OKNP and USFWS. Priority conservation actions include Land/Water Protection, Land/Water Management, External Capacity Building, and Education and Awareness.

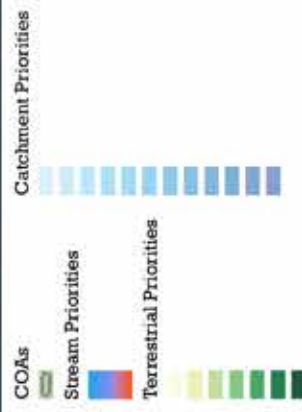


The Mountain Creekshell freshwater mussel is a highest priority SGCN. Within Kentucky, its current distribution is primarily within Big Barrens COA. For this species, additional work is warranted to collect baseline species information and to verify taxonomy.  
Photo: Mike Compton

### Big Barrens Land Use by Acres



# Big Barrens COA



Maps prepared by GIS staff at KDFWR in partnership with OKNP and TNC. Service Layers courtesy of: Source: Esri, USDA FSA, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, DGI, KyFromAbove Partners, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS.