



CUMBERLAND MOUNTAINS COA

The Cumberland Mountains Conservation Opportunity Area (COA) encompasses 707,878 acres along the Tennessee and Virginia borders in the southeastern corner of Kentucky. The boundary of this COA is delineated on the south and east by the Tennessee and Virginia state lines, respectively. The northern edge follows the boundaries of Bell, Harlan and Letcher Counties, with the southern two thirds of Letcher County included in the COA. In general, this COA encompasses areas just slightly northwest of Pine Mountain south to the Black and Cumberland Mountain ranges. Much of the high elevation portions of these mountain ranges are included within this COA, including Black Mountain which is the highest point in the state at approximately 4100 feet. Cumberland Mountain COA has been heavily impacted by resources extraction in the form of both surface and underground coal mining, natural gas drilling, and logging. Most of this COA is comprised of Appalachian hardwood forests (75%) with interspersed grassland (2.7%) and scrub (2.5%) areas resulting from surface coal extraction. While most of this region is characterized by sandstone bedrock and acidic soils, there is a thin band of limestone that runs on the north face of Pine Mountain that contains numerous important limestone caves with SGCN species. Human settlement is contained within several small cities and along river and creek drainages with less than three percent of the area classified as developed.

The headwaters of both the Kentucky River (Middle and North Forks) and the Cumberland River (Clover Fork, Poor Fork and Martin's Fork) are situated within the



The Kentucky Red Backed Vole often utilizes rare mountain seep habitats. Baseline species information is needed regarding distribution, life history, and habitat needs for this highest priority SGCN.

Photo: John MacGregor.

Cumberland Mountains SGCN Priority by Taxa

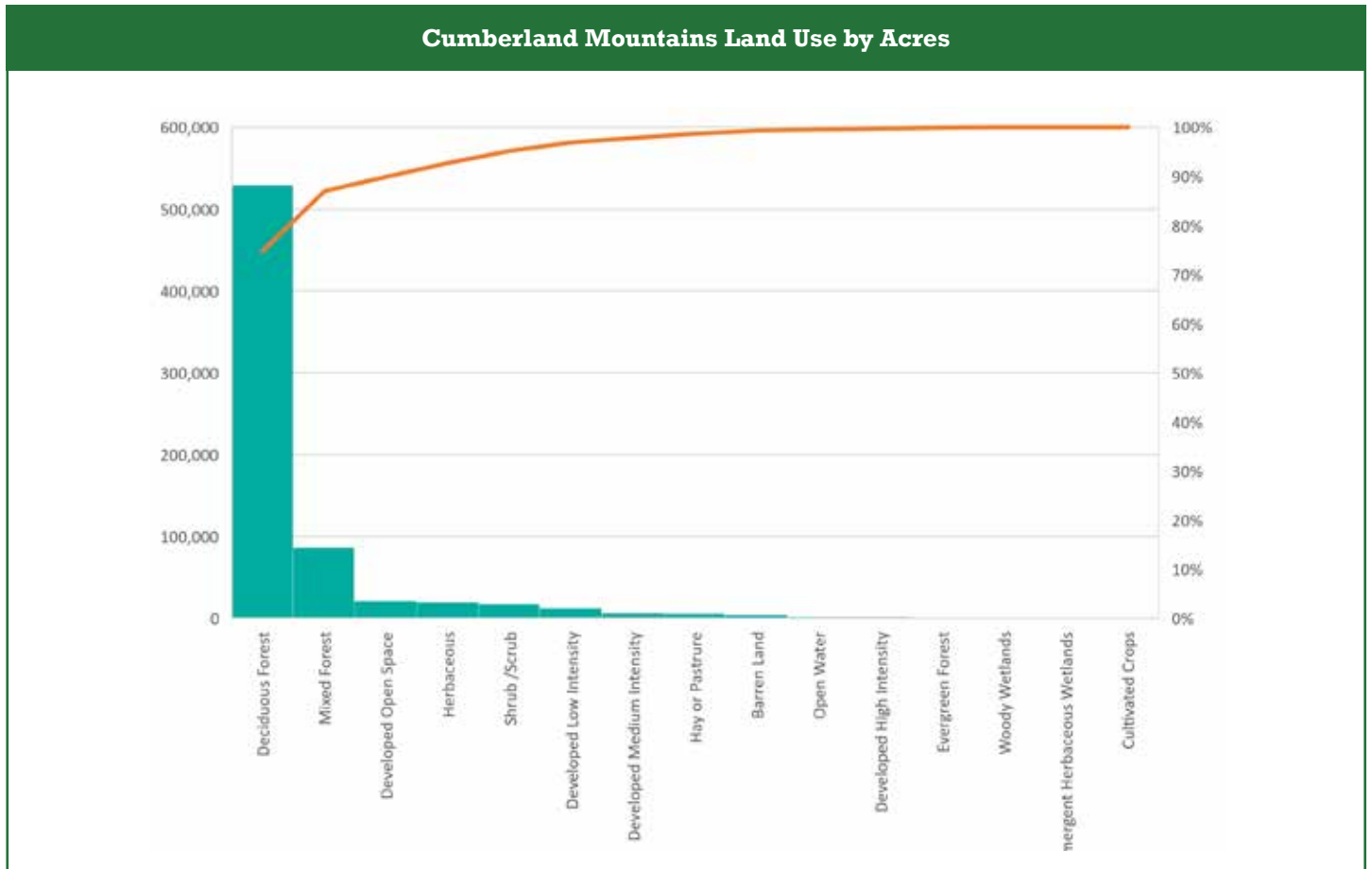
Taxa	Moderate Priority	High Priority	Highest Priority	Data Deficient	Plant	Grand Total
Amphibians	3	1	1	5		10
Birds	45	8	1			54
Crustaceans		3		5		8
Fishes		1	3			4
Freshwater Mussels and Snails		2	2	1		5
Insects	4	6	7			17
Mammals	5	13	1	10		29
Plants					7	7
Reptiles	1			5		6
Grand Total	58	34	15	26	7	140

Cumberland Mountains COA. Other watersheds included within this COA at a much lesser extent include the South Fork of the Kentucky, Upper Levisa and Powell Rivers. The Kentucky River is a 260-mile-long major tributary of the Ohio River that supplies drinking water for approximately twenty percent of the state's population. The Cumberland River is also a major tributary of the Ohio River that flows 688 miles from this COA south through Tennessee until turning back north and forming Lake Barkley in far western Kentucky prior to its confluence with the Ohio River.

Of the 707,878 acres contained within the Cumberland Mountains COA, roughly ten percent is protected (77, 554 acres), including the 11,115 acres of Cumberland Gap National Historic Park located within Kentucky and this COA. Another 47,732 acres of coal and timber land are under Wildlife Management Area agreements for public hunting and habitat management yet remain in corporate ownership with no form of long-term protections in place. Resource extraction in the form of mountaintop removal coal mining and sandstone and limestone quarries have heavily altered habitats within this COA. Elimination, degradation and sedimentation of stream resources has impacted a variety of amphibians, crustaceans and fishes while the general disturbance of natural systems inherent to large-scale landscape modification has impacted a large number of bird, freshwater mussel, plant, reptile and terrestrial invertebrate species. Although reclaimed post-mining, these areas of resource extraction are quickly



The Cumberland Mountains are located in the southeast corner of eastern Kentucky and are characterized by linear mountain ridges, including Pine and Cumberland Mountains, running southwest to northeast through the COA. Photo: Marc Evans



recolonized with a variety of invasive herbaceous and shrub species such as Autumn Olive and Sericea Lespedeza.

The Cumberland Mountains COA has records for 140 SGCN, with 15 of those in the highest category of concern. Interestingly, birds and mammals make up 83 of the 140 listed species. Several globally rare natural communities occur in this COA, including the high elevation forests on the top of Black Mountain, headwater and streamside bog communities on Pine and Cumberland Mountains, and fire-maintained pitch pine barrens grasslands of Pine Mountain. These rare terrestrial communities contain concentrated populations of SGCN and state listed species and are important for the conservation of SGCN.

The modification of natural systems has an impact on the greatest number of species in this COA. High priority actions for the COA include: partnerships to reduce the prevalence of invasive species, land protection (old growth, corridors) and habitat management of existing conservation lands (such as prescribed fire and beaver mimicking disturbances for rare wetland habitats). External partnerships with KDFWR are already underway to improve habitats on reclaimed mine lands using prescribed fire and other means to reduce the incursion of invasive shrubs and to promote healthy grassland areas. Current partnerships exist with the Rocky Mountain Elk Foundation, Green Forest Works/University of Kentucky, and The Nature Conservancy, with the latter facilitating a permanent recreation and management easement on over 50,000 acres of land at the southern end of this COA.



The Yellow-spotted Woodland Salamander is difficult to survey for and its distribution in Kentucky is very poorly known. Surveys for this species within the Cumberland Mountains COA are a priority for this and other DD SGCN. Photo: John MacGregor.

