North Cumberland Plateau and Mountains

Conservation Opportunity Area

The North Cumberland Plateau and Mountains Conservation Opportunity Area (COA) contains the highest elevations on the Cumberland Plateau and some of the largest tracts of contiguous forest in Tennessee. Over 300,000 acres of the area are publicly owned and provide outdoor recreation to an array of user groups, including the North Cumberland Wildlife Management Area (NCWMA).

The Cumberland Mountains contain the highest concentration of breeding Cerulean Warblers in the world. Other unique terrestrial GCN species include Green Salamanders, Allegheny Woodrats, and Northern Long-eared Bats. The more pristine streams in the area support a variety of aquatic GCN species, including the Emerald Darter, Blackside Dace, and the Cumberland Elktoe mussel.

The major ecological threats to the area are fossil fuel extraction activities, acid mine runoff from legacy mines, incompatible forestry practices, and invasive Wild Hogs. TWRA has determined that new contour, cross-ridge, or mountain top removal coal mining is incompatible with agency management and restoration goals for the NCWMA. Re-mining to resolve outstanding water quality and slope stability problems from previous mining and deep-mining, when properly done, are not considered incompatible with TWRA management plans for the NCWMA.

This region contains the highest elevations on the Cumberland Plateau and some of the largest tracts of contiguous forest in Tennessee, with 17 natural habitat types.

Top to bottom: Big South Fork National River and Recreation Area - Byron Jorjorian; Blackside Dace - Conservation Fisheries, Inc.

Public Lands within the COA

Big South Fork National River and Recreation Area, Colditz Cove State Natural Area (SNA), Cove Lake State Park (SP), Cumberland Gap National Historic Park, Cumberland Trail SP, Frozen Head SP, Honey Creek SNA, North Cumberland Wildlife Management Area (WMA), Pickett State Forest & WMA, Pickett SP, Rugby SNA, Tackett Creek WMA, Twin Arches SNA

North Cumberland Plateau and Mountains Conservation Opportunity Area

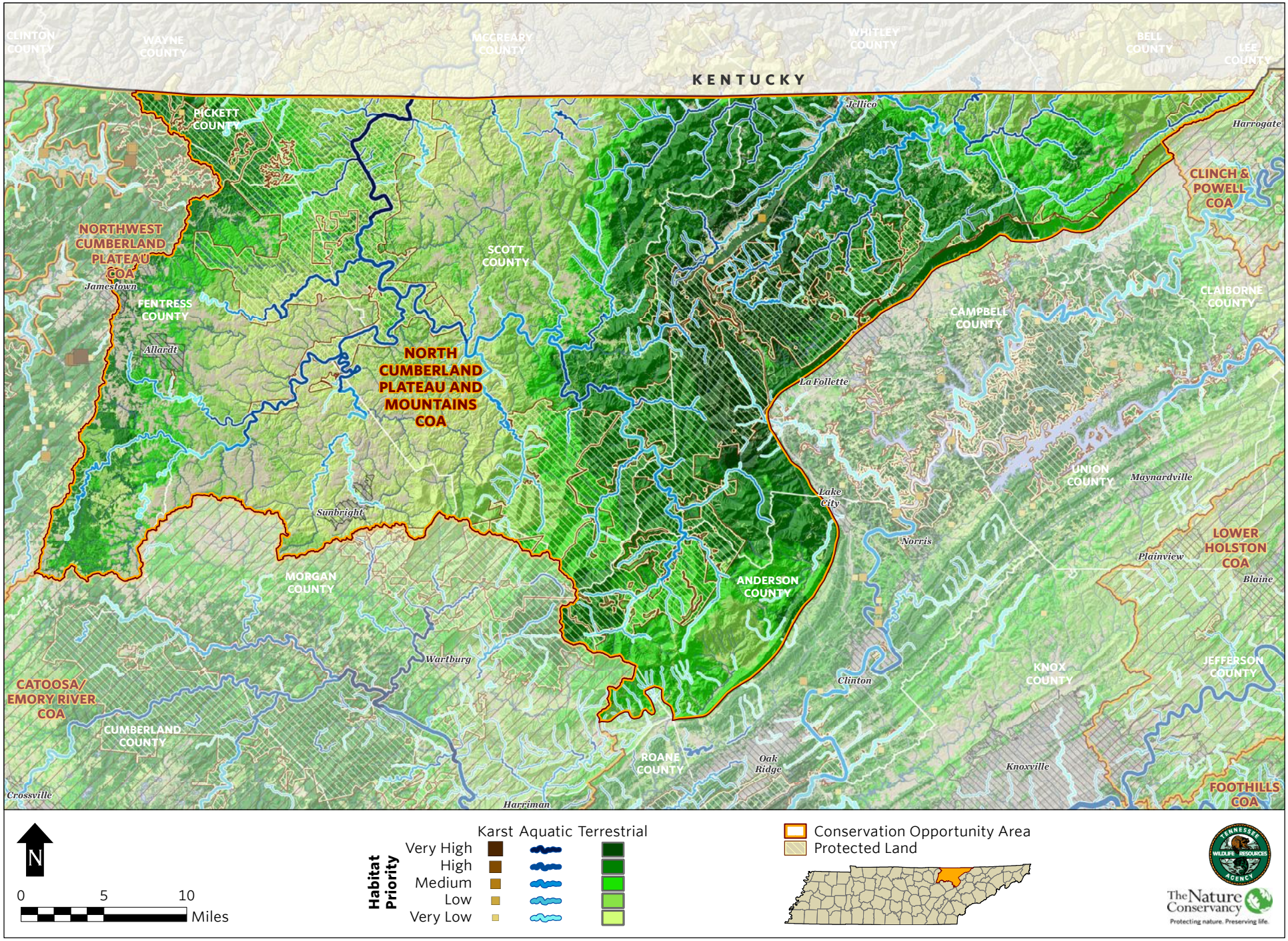
Partnerships

Once the North Cumberlands Forest Resources Habitat Conservation Plan (HCP) is final, TWRA will conduct compliance monitoring and purchase critical units of habitat for imperiled species using HCP land grants. An HCP is approved by the U.S. Fish and Wildlife Service to ensure negative impacts to listed species that arise from nonfederal activities are adequately minimized and mitigated. TWRA will also continue to work with the U.S. Fish and Wildlife Service, the Office of Surface Mining, Reclamation & Enforcement, the Tennessee Department of Environment and Conservation, Tennessee Division of Forestry, The Nature Conservancy, Campbell Outdoor Recreation Association, and private land owners.

	Desired Change	Units
+	Increase the application of Best Management Practices to benefit GCN species and habitats on private lands using government funded incentive programs	number
+	Increase forest acres in or near critical habitat units by restoring degraded forests and other areas.	acres
+	Restore acres or stream miles of habitat through natural process restoration.	acres/miles
+	Develop and implement integrated pest management plan to aid in the control of native and exotic pests.	acres
+	Improve knowledge of the geographical distribution and ecological requirements of GCN species and/or habitat changes through scientific surveys.	projects
+	Increase acres of protected habitat through purchase of land - whether fee title or easements - to link public lands; increase connectivity between habitats; or secure unique habitats/areas for restoration and management.	acres
+	Increase and improve the awareness, education, and cooperation of stakeholders/citizens pertaining to GCN species and habitat.	number
–	Decrease the negative effects of development on GCN species and habitats by providing data to municipalities in planning/zoning processes with potential impacts on GCN species.	plans
+	Increase GCN species populations (propagation/translocation).	animals
–	Avoid and mitigate impacts from coal mining, oil & natural gas exploration by participating in environmental reviews and planning	reviews

To learn more about the North Cumberland Plateau and Mountains Conservation Opportunity Area, please contact: Scott Dykes, Wildlife Diversity Coordinator, Region 4 (423) 587-7037

North Cumberland Plateau and Mountains Conservation Opportunity Area



	NORTH CUMBERLAND PLATEAU AND MOUNTAINS COA GCN SPECIES (TN)
Taxa Group	**Scientific & Common Names**
Amphibian	Aneides aeneus (Green Salamander)
Amphibian	Aneides aeneus (Green Salamander)
Amphibian	Desmognathus abditus (Cumberland Dusky Salamander)
Amphibian	Desmognathus welteri (Black Mountain Salamander)
Amphibian	Desmognathus welteri (Black Mountain Salamander)
Amphibian	Hemidactylium scutatum (Four-toed Salamander)
Amphibian	Pseudacris brachyphona (Mountain Chorus Frog)
Amphibian	Siren intermedia (Lesser Siren)
Bat	Corynorhinus rafinesquii (Rafinesque's Big-eared Bat)
Bat	Myotis grisescens (Gray Bat)
Bat	Myotis leibii (Eastern Small-footed Bat)
Bat	Myotis lucifugus (Little Brown Bat)
Bat	Myotis septentrionalis (Northern Myotis)
Bat	Myotis sodalis (Indiana Bat)
Bat	Perimyotis subflavus (Tri-colored Bat)
Bird	Accipiter striatus (Sharp-shinned Hawk)
Bird	Ammodramus henslowii (Henslow's Sparrow)
Bird	Ammodramus savannarum (Grasshopper Sparrow)
Bird	Anas rubripes (American Black Duck)
Bird	Aquila chrysaetos (Golden Eagle)
Bird	Bartramia longicauda (Upland Sandpiper)
Bird	Bonasa umbellus (Ruffed Grouse)
Bird	Calidris himantopus (Stilt Sandpiper)
Bird	Calidris mauri (Western Sandpiper)
Bird	Calidris pusilla (Semipalmated Sandpiper)
Bird	Caprimulgus carolinensis (Chuck-will's-widow)
Bird	Caprimulgus vociferus (Whip-poor-will)
Bird	Cardellina canadensis (Canada Warbler)
Bird	Chaetura pelagica (Chimney Swift)
Bird	Chordeiles minor (Common Nighthawk)
Bird	Circus cyaneus (Northern Harrier)
Bird	Cistothorus platensis (Sedge Wren)
Bird	Colinus virginianus (Northern Bobwhite)
Bird	Empidonax minimus (Least Flycatcher)
Bird	Empidonax traillii (Willow Flycatcher)
Bird	Euphagus carolinus (Rusty Blackbird)
Bird	Falco peregrinus (Peregrine Falcon)
Bird	Geothlypis Formosa (Kentucky Warbler)
Bird	Haliaeetus leucocephalus (Bald Eagle)
Bird	Helmitheros vermivorum (Worm-eating Warbler)
Bird	Hylocichla mustelina (Wood Thrush)
Bird	Icteria virens (Yellow-breasted Chat)
Bird	Icterus spurius (Orchard Oriole)
Bird	Lanius ludovicianus (Loggerhead Shrike)
Bird	Limnothlypis swainsonii (Swainson's Warbler)
Bird	Melanerpes erythrocephalus (Red-headed Woodpecker)
Bird	Nycticorax nycticorax (Black-crowned Night-heron)
Bird	Parkesia motacilla (Louisiana Waterthrush)
Bird	Pluvialis dominica (American Golden Plover)
Bird	Protonotaria citrea (Prothonotary Warbler)
Bird	Riparia riparia (Bank Swallow)
Bird	Scolopax minor (American Woodcock)

	NORTH CUMBERLAND PLATEAU AND MOUNTAINS COA GCN SPECIES (TN)
Taxa Group	**Scientific & Common Names**
Bird	Setophaga caerulescens (Black-throated Blue Warbler)
Bird	Setophaga cerulea (Cerulean Warbler)
Bird	Setophaga discolor (Prairie Warbler)
Bird	Setophaga dominica (Yellow-throated Warbler)
Bird	Setophaga fusca (Blackburnian Warbler)
Bird	Sitta pusilla (Brown-headed Nuthatch)
Bird	Sturnella magna (Eastern Meadowlark)
Bird	Tryngites subruficollis (Buff-breasted Sandpiper)
Bird	Tyto alba (Barn Owl)
Bird	Vermivora chrysoptera (Golden-winged Warbler)
Bird	Vermivora cyanoptera (Blue-winged Warbler)
Bivalve	Actinonaias pectorosa (Pheasantshell)
Bivalve	Alasmidonta atropurpurea (Cumberland Elktoe)
Bivalve	Alasmidonta marginata (Elktoe)
Bivalve	Alasmidonta viridis (Slippershell Mussel)
Bivalve	Anodontoides denigratus (Cumberland Papershell)
Bivalve	Epioblasma brevidens (Cumberlandian Combshell)
Bivalve	Epioblasma florentina walkeri (Tan Riffleshell)
Bivalve	Ligumia recta (Black Sandshell)
Bivalve	Medionidus conradicus (Cumberland Moccasinshell)
Bivalve	Pegias fabula (Littlewing Pearlymussel)
Bivalve	Pleurobema clava (Clubshell)
Bivalve	Pleurobema oviforme (Tennessee Clubshell)
Bivalve	Pleurobema sintoxia (Round Pigtoe)
Bivalve	Strophitus undulatus (Creeper)
Bivalve	Villosa iris (Rainbow)
Bivalve	Villosa taeniata (Painted Creekshell)
Bivalve	Villosa trabalis (Cumberland Bean)
Crustacean	Cambarus bouchardi (Big South Fork Crayfish)
Crustacean	Cambarus crinipes (Hairyfoot Crayfish)
Crustacean	Cambarus deweesae (Valley Flame Crayfish)
Fish	Acipenser fulvescens (Lake Sturgeon)
Fish	Chrosomus cumberlandensis (Blackside Dace)
Fish	Erimystax dissimilis (Streamline Chub)
Fish	Etheostoma baileyi (Emerald Darter)
Fish	Etheostoma lemniscatum (Tuxedo Darter)
Fish	Etheostoma luteovinctum (Redband Darter)
Fish	Etheostoma maydeni (Redlips Darter)
Fish	Etheostoma obeyense (Barcheek Darter)
Fish	Etheostoma percnurum (Duskytail Darter)
Fish	Etheostoma sagitta (Arrow Darter)
Fish	Etheostoma striatulum (Striated Darter)
Fish	Etheostoma susanae (Cumberland Darter)
Fish	Etheostoma tippecanoe (Tippecanoe Darter)
Fish	Notropis buccatus (Silverjaw Minnow)
Fish	Notropis rubellus (Rosyface Shiner)
Fish	Noturus baileyi (Smoky Madtom)
Fish	Noturus flavipinnis (Yellowfin Madtom)
Fish	Percina macrocephala (Longhead Darter)
Fish	Percina squamata (Olive Darter)
Mammal	Martes pennanti (Fisher)
Mammal	Napaeozapus insignis (Woodland Jumping Mouse)

	NORTH CUMBERLAND PLATEAU AND MOUNTAINS COA GCN SPECIES (TN)
Taxa Group	**Scientific & Common Names**
Mammal	Neotoma magister (Allegheny Woodrat)
Mammal	Ochrotomys nuttalli (Golden Mouse)
Mammal	Parascalops breweri (Hairy-tailed Mole)
Mammal	Sorex cinereus (Cinereus Shrew)
Mammal	Sorex fumeus (Smoky Shrew)
Mammal	Sorex hoyi (American Pygmy Shrew)
Mammal	Sorex longirostris (Southeastern Shrew)
Mammal	Spilogale putorius (Eastern Spotted Skunk)
Mammal	Synaptomys cooperi (Southern Bog Lemming)
Mammal	Zapus hudsonius (Meadow Jumping Mouse)
Plant	Ageratina luciae-brauniae (Lucy Braun's White Snakeroot)
Plant	Aureolaria patula (Spreading False-foxglove)
Plant	Berberis canadensis (American Barberry)
Plant	Bryoxiphium norvegicum (Sword Moss)
Plant	Carex echinata ssp. echinata (Little Prickly Sedge)
Plant	Chrysogonum virginianum (Green-and-gold)
Plant	Corydalis sempervirens (Pale Corydalis)
Plant	Cypripedium kentuckiense (Southern Lady's-slipper)
Plant	Drepanolejeunea appalachiana ((a liverwort))
Plant	Fothergilla major (Mountain Witch-alder)
Plant	Hymenophyllum tayloriae (Taylor's Filmy Fern)
Plant	Juglans cinerea (Butternut)
Plant	Jungermannia fossombronioides ((a liverwort))
Plant	Lejeunea blomquistii (Blomquist Leafy Liverwort)
Plant	Lilium canadense (Canada Lily)
Plant	Lilium philadelphicum (Wood Lily)
Plant	Lonicera dioica (Mountain Honeysuckle)
Plant	Lophocolea appalachiana ((a liverwort))
Plant	Melanthium woodii (Ozark Bunchflower)
Plant	Metzgeria uncigera (Metzgeria)
Plant	Microlejeunea globosa (Cardot's Lejeunea)
Plant	Minuartia cumberlandensis (Cumberland Sandwort)
Plant	Panax quinquefolius (American Ginseng)
Plant	Pellia appalachiana ((a liverwort))
Plant	Platanthera flava var. herbiola (Tubercled Rein-orchid)
Plant	Potamogeton tennesseensis (Tennessee Pondweed)
Plant	Scopelophila cataractae (Agoyan Cataract Moss)
Plant	Spiraea virginiana (Virginia Spiraea)
Plant	Taxus canadensis (American Yew)
Plant	Tetrodontium brownianum (Little Georgia)
Reptile	Anolis carolinensis (Green Anole)
Reptile	Crotalus horridus (Timber Rattlesnake)
Reptile	Heterodon platirhinos (Eastern Hognosed Snake)
Reptile	Pituophis melanoleucus melanoleucus (Northern Pinesnake)
Reptile	Terrapene carolina (Eastern Box Turtle)
Subterranean - Arachnid	Calymmaria persica (Cave-loving funnel-web spider)
Subterranean - Arachnid	Hesperochernes mirabilis (Southeastern Cave Pseudoscorpion)
Subterranean - Arachnid	Liocranoides sp. (Two-clawed spider)
Subterranean - Arachnid	Meta ovalis (American cave orb weaver)
Subterranean - Arachnid	Phanetta subterranea (Subterranean sheet-web spider)
Subterranean - Crustacean	Caecidotea stygia ((a cave obligate isopod))
Subterranean - Crustacean	Cambarus tenebrosus (Cavespring Crayfish)

	NORTH CUMBERLAND PLATEAU AND MOUNTAINS COA GCN SPECIES (TN)
Taxa Group	**Scientific & Common Names**
Subterranean - Crustacean	Crangonyx antennatus (Appalachian cave amphipod)
Subterranean - Crustacean	Crangonyx sp. (amphipods)
Subterranean - Crustacean	Diacyclops sp. (Indiana Groundwater Copepod)
Subterranean - Crustacean	Ligidium elrodii hancockensis ((a cave obligate isopod))
Subterranean - Crustacean	Orconectes australis (Southern Cave Crayfish)
Subterranean - Crustacean	Orconectes barri (Cumberland Plateau Cave Crayfish)
Subterranean - Crustacean	Stygobromus exilis (Central Kentucky Cave Obligate)
Subterranean - Fish	Typhlichthys subterraneus (Southern Cavefish)
Subterranean - Flatworm	Sphalloplana percoeca ((a cave obligate planarian))
Subterranean - Gastropod	Glyphyalinia sp. (terrestrial snails)
Subterranean - Insect	Aleochara lucifuga ((a rove beetle))
Subterranean - Insect	Aloconota laurentiana ((a rove beetle))
Subterranean - Insect	Arrhopalites pygmaeus ((a springtail))
Subterranean - Insect	Bembidion lacunarium (ground beetle)
Subterranean - Insect	Ceuthophilus stygius (cave cricket)
Subterranean - Insect	Hadenoecus opilionides ((a cave obligate cricket))
Subterranean - Insect	Litocampa cookei (Cooke’s Cave Dipluran)
Subterranean - Insect	Litocampa sp. 1 (undescribed cave dipluran)
Subterranean - Insect	Litocampa sp. 6 (Buffalo Cove Cave Dipluran)
Subterranean - Insect	Litocampa sp. 8 (Mountain Eye Cave Dipluran)
Subterranean - Insect	Megaselia cavernicola (cave hump-backed fly)
Subterranean - Insect	Nelsonites walteri ((a cave obligate beetle))
Subterranean - Insect	Pseudanophthalmus beakleyi ((a cave obligate beetle))
Subterranean - Insect	Pseudanophthalmus scutilus (New Mammoth Cave Beetle)
Subterranean - Insect	Pseudosinella hirsuta (Hirsute Cave Springtail)
Subterranean - Insect	Pseudosinella orba ((a cave obligate springtail))
Subterranean - Insect	Rhadine caudata (ground beetle)
Subterranean - Insect	Spelobia tenebrarum (Cave dung fly)
Subterranean - Insect	Stenoponia americana (flea)
Subterranean - Millipede	Pseudotremia roebuckorum (Roebuck's Cave Millipede)
Subterranean - Millipede	Pseudotremia sp. (cave millipeds)
Subterranean - Millipede	Scoterpes copei ((a cave obligate millipede))

NORTH CUMBERLAND PLATEAU AND MOUNTAINS COA HABITATS (TN)	
Terrestrial Habitat Type	**Total acres of very high, high, and medium ranked habitat**
Natural habitats	
Allegheny-Cumberland Dry Oak Forest and Woodland	327260
Southern and Central Appalachian Cove Forest	55529
Appalachian (Hemlock)-Northern Hardwood Forest	52086
Southern Ridge and Valley / Cumberland Dry Calcareous Forest	27413
South-Central Interior Mesophytic Forest	18058
Southern Appalachian Low-Elevation Pine Forest	15501
South-Central Interior Small Stream and Riparian	7911
Southern Appalachian Montane Pine Forest and Woodland	5374
Cumberland Acidic Cliff and Rockhouse	280
Semi-natural habitats	
Old Field / Successional	3748
Pasture	314
Aquatic Habitat Type	**Total stream miles of very high, high, and medium ranked habitat**
Headwaters & Streams	315
Small River	108
Medium River	22