

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.

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



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.

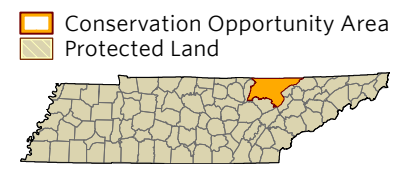
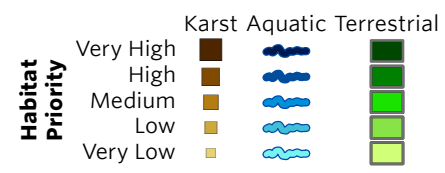
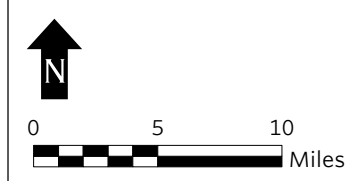
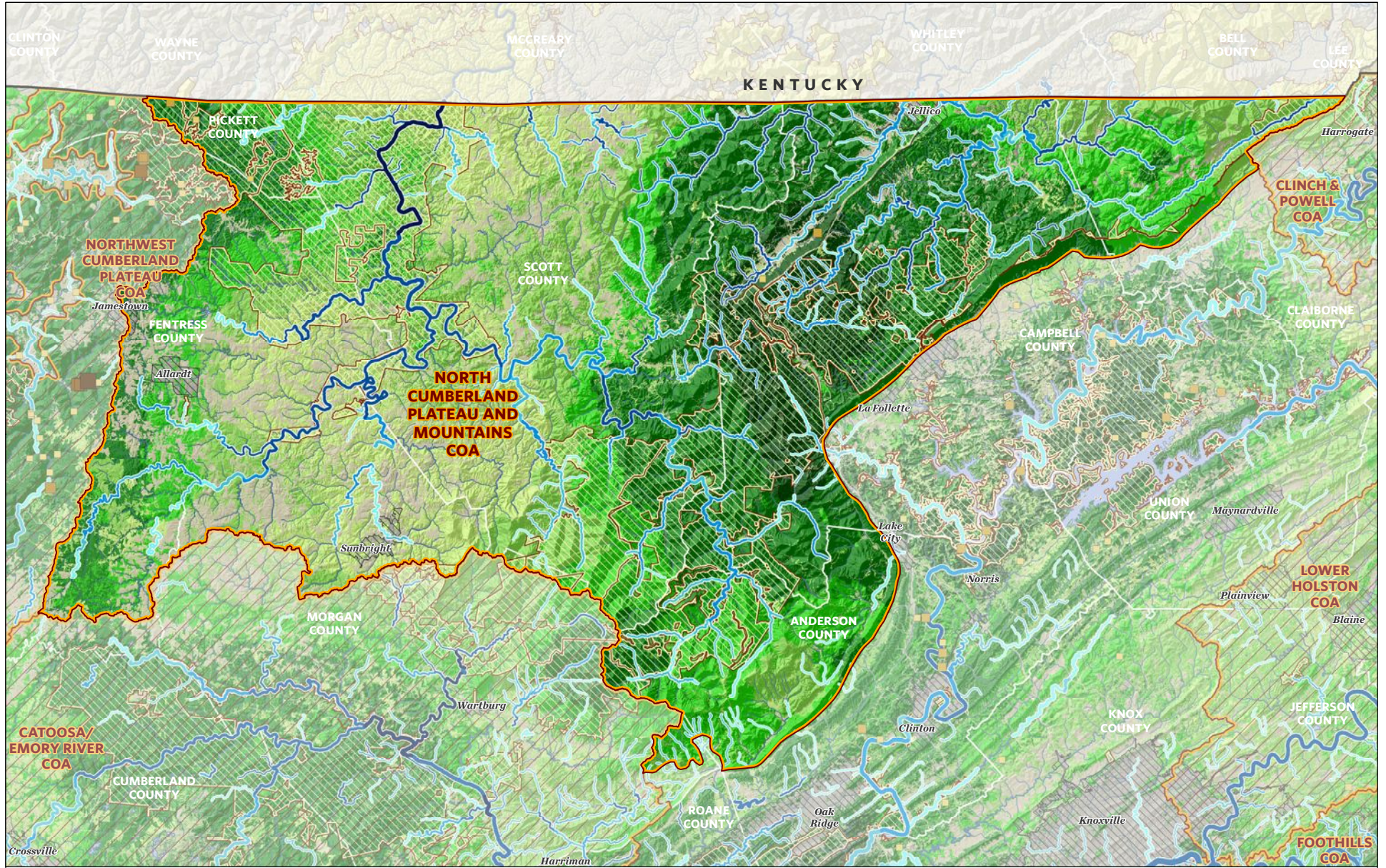
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Partnerships

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

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

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