

# Tennessee River Conservation Opportunity Area



## The Tennessee River Conservation Opportunity Area

encompasses portions of the Tennessee River, Buffalo River, and Duck River, which provide important aquatic and terrestrial habitat in the river channels, floodplains, and surrounding uplands. In this COA, the Tennessee River is impounded by Kentucky Dam and is an important recreation area for boating, wildlife viewing, recreational fishing, commercial fishing, and hunting. The section of the Tennessee River in this COA below Wheeler Dam is perhaps the best example of "big river" habitat remaining in Tennessee and is home to rare species of mussels and fishes that are state or federally listed as threatened or endangered. Other important species such as the Pygmy Rattlesnake can be found in terrestrial habitats along the river. The primary land uses in the adjacent floodplains are agriculture and forestry.

The Tennessee River COA also includes extensive upland hardwood forests and pockets of limestone glade and barrens habitats. Public lands, including Land Between the Lakes, are distributed throughout the river corridor, providing important habitat conservation, recreation, and public education benefits.

TWRA will consider future land acquisitions in this COA for watershed protection, critical habitat protection, habitat restoration, streambank stabilization, planting of bottomland hardwoods, and buffer strip plantings along the river. The goal of land management projects is to establish or protect wide forested buffer zones along the rivers and promote the use of best management practices (BMPs) for farming, forestry, and construction projects.

### Public Lands within the COA

Bailey Fork Wetland, Bards Creek Refuge, Barkley Wildlife Management Area (WMA), Beason Creek Wetland, Beech River Wetland, Big Sandy WMA, Bruton Branch Recreation Area, Camden WMA, Carrol Cabin Barrens SNA, Chambers Creek Wetland, Cross Creek NWR, Cypress Pond Refuge, Dry Creek WMA, Eagle Creek WMA, Ft. Donelson National Battlefield, Harmon Creek WMA, Haynes Bottom WMA, Holly Fork WMA, Johnsonville State Park (SP), Land Between the Lakes, Lick Creek WMA, Long Pond Refuge, Mousetail Landing SP, Natchez Trace State Forest/WMA, Natchez Trace SP, Nathan Bedford SP, New Hope WMA, Paris Landing SP, Perryville WMA, Pickwick Landing SP, Walker Branch State Natural Area, West Sandy WMA, White Oak WMA



Photo: Pygmy Rattlesnake - Rob Colvin, TWRA

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**The section of the Tennessee River in this COA below Wheeler Dam is perhaps the best example of "big river" habitat remaining in Tennessee**

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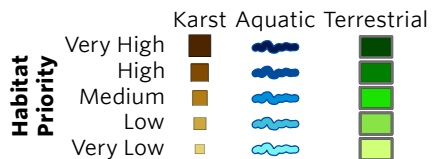
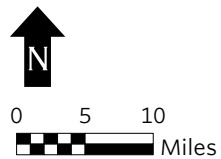
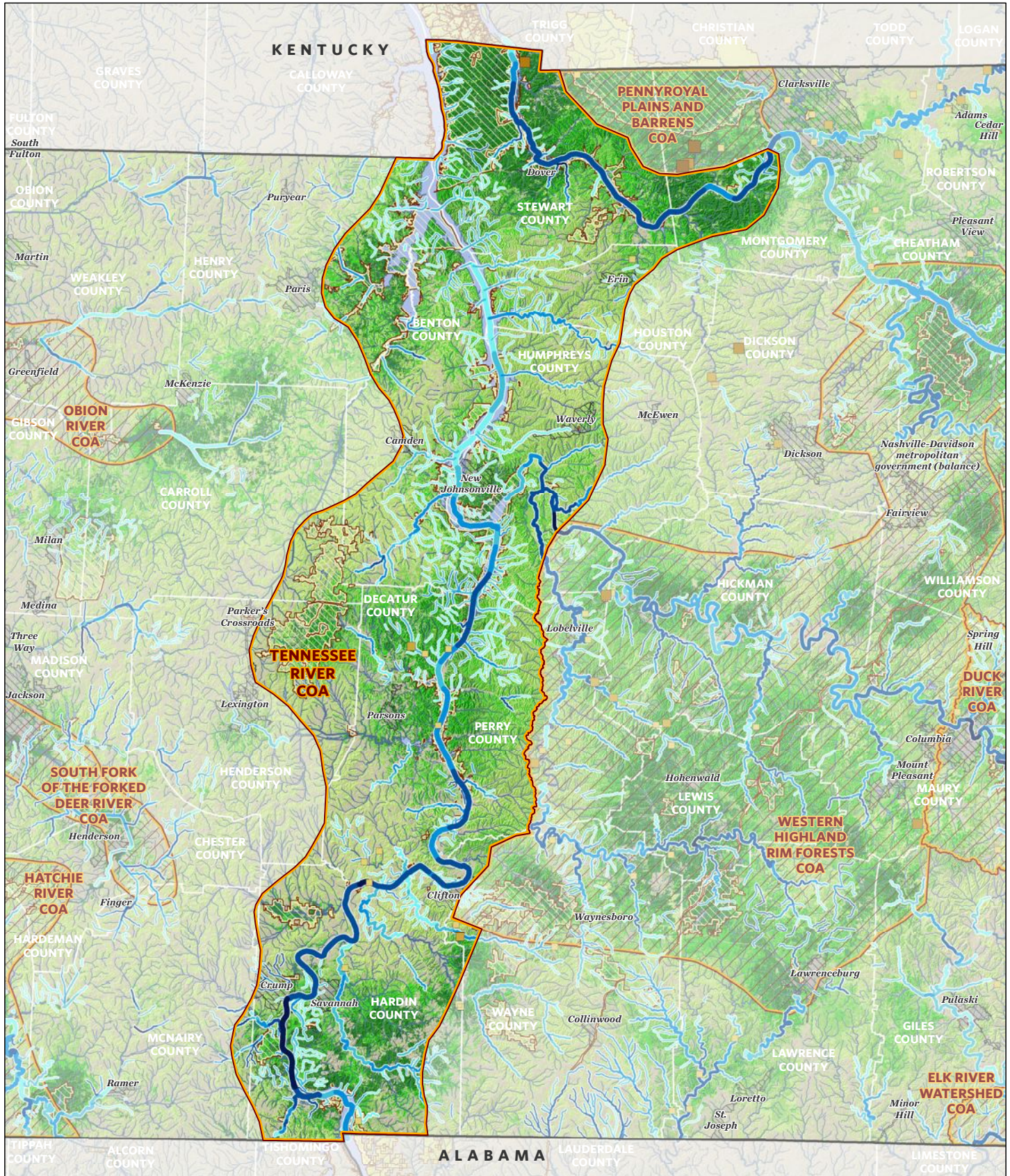
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## Partnerships

TWRA will also seek partnerships with other agencies and landowners to implement many of these management strategies on private lands within the COA. TWRA will develop and foster partnerships with the Tennessee Department of Environment and Conservation, Tennessee Department of Forestry, the Tennessee Valley Authority, the US Fish & Wildlife Service, The Nature Conservancy, Wolf River Conservancy, Tennessee Ornithological Society, Natural Resources Conservation Service, Farm Bureau, Tennessee Department of Agriculture Forestry Division, Ducks Unlimited, Cooperative Extensions, citizen scientists, universities, various other institutions, and local governments.

Desired Change	Units
<b>+</b> Restore acres of bottomland hardwood forest and width of riparian zone by converting former agriculture lands.	acres
<b>+</b> Restore riparian buffers and physical stream habitat in priority locations throughout the watershed	miles
<b>+</b> Create or improve buffers around tributaries and a sediment retention basin to reduce sediment load and runoff of contaminants into the lake.	acres
<b>+</b> Increase acres of buffer habitat around sinkholes and caves.	acres
<b>+</b> Increase mudflat and moist soil habitat through enhanced water management to provide habitat for migrating birds.	acres
<b>+</b> Protect existing riparian zones and bottomland hardwood forests.	acres
<b>✓</b> Preserve mussel habitat.	miles
<b>+</b> Improve population viability of native freshwater mussel species.	animals
<b>+</b> Increase Alligator Snapping Turtle populations in key habitat areas where numbers are low through propagation and translocation of individuals.	animals
<b>✓</b> Reconnect the river channels in the COA to their floodplains to achieve a more natural ecological condition by working with TVA to improve dam management for the benefit of native habitat and species.	assists

To learn more about the Tennessee River Conservation Opportunity Area, please contact:  
Rob Colvin, Wildlife Diversity Coordinator, Region 1 (731) 423-5725



The Nature Conservancy  
Protecting nature. Preserving life.



TENNESSEE RIVER COA GCN SPECIES (TN)	
Taxa group	Scientific & Common names
Amphibian	<i>Acris gryllus</i> (Southern Cricket Frog)
Amphibian	<i>Cryptobranchus alleganiensis</i> (Hellbender)
Amphibian	<i>Hemidactylium scutatum</i> (Four-toed Salamander)
Amphibian	<i>Hyla gratiosa</i> (Barking Treefrog)
Amphibian	<i>Hyla versicolor</i> (Gray Treefrog)
Amphibian	<i>Necturus maculosus</i> (Mudpuppy)
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 leconteii</i> (LeConte'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>Asio flammeus</i> (Short-eared Owl)
Bird	<i>Bartramia longicauda</i> (Upland Sandpiper)
Bird	<i>Botaurus lentiginosus</i> (American Bittern)
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>Charadrius melodus melodus</i> (Piping Plover)
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>Egretta caerulea</i> (Little Blue Heron)
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>Grus americana</i> (Whooping Crane)
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>Ictinia mississippiensis</i> (Mississippi Kite)
Bird	<i>Ixobrychus exilis</i> (Least Bittern)
Bird	<i>Lanius ludovicianus</i> (Loggerhead Shrike)
Bird	<i>Limnothlypis swainsonii</i> (Swainson's Warbler)
Bird	<i>Limosa haemastica</i> (Hudsonian Godwit)
Bird	<i>Melanerpes erythrocephalus</i> (Red-headed Woodpecker)
Bird	<i>Nycticorax nycticorax</i> (Black-crowned Night-heron)
Bird	<i>Parkesia motacilla</i> (Louisiana Waterthrush)

TENNESSEE RIVER COA GCN SPECIES (TN)	
Taxa group	Scientific & Common names
Bird	<i>Peucaea aestivalis</i> (Bachman's Sparrow)
Bird	<i>Pluvialis dominica</i> (American Golden Plover)
Bird	<i>Protonotaria citrea</i> (Prothonotary Warbler)
Bird	<i>Rallus elegans</i> (King Rail)
Bird	<i>Riparia riparia</i> (Bank Swallow)
Bird	<i>Scolopax minor</i> (American Woodcock)
Bird	<i>Setophaga cerulea</i> (Cerulean Warbler)
Bird	<i>Setophaga discolor</i> (Prairie 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>Thryomanes bewickii</i> (Bewick's Wren)
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)
Bird	<i>Vireo bellii</i> (Bell's Vireo)
Bivalve	<i>Cumberlandia monodonta</i> (Spectaclecase)
Bivalve	<i>Cyprogenia stegaria</i> (Fanshell)
Bivalve	<i>Lampsilis abrupta</i> (Pink Mucket)
Bivalve	<i>Ligumia recta</i> (Black Sandshell)
Bivalve	<i>Obovaria retusa</i> (Ring Pink)
Bivalve	<i>Plethobasus cooperianus</i> (Orangefoot Pimpleback)
Bivalve	<i>Plethobasus cyphus</i> (Sheepnose)
Bivalve	<i>Pleurobema clava</i> (Clubshell)
Bivalve	<i>Pleurobema cordatum</i> (Ohio Pigtoe)
Bivalve	<i>Pleurobema plenum</i> (Rough Pigtoe)
Bivalve	<i>Pleurobema rubrum</i> (Pyramid Pigtoe)
Bivalve	<i>Pleuronaia barnesiana</i> (Tennessee Pigtoe)
Bivalve	<i>Pleuronaia dolabelloides</i> (Slabside Pearlymussel)
Bivalve	<i>Quadrula cylindrica cylindrica</i> (Rabbitsfoot)
Bivalve	<i>Simpsonaias ambigua</i> (Salamander Mussel)
Crustacean	<i>Orconectes alabamensis</i> (Alabama Crayfish)
Crustacean	<i>Orconectes wrighti</i> (Hardin Crayfish)
Fish	<i>Acipenser fulvescens</i> (Lake Sturgeon)
Fish	<i>Atractosteus spatula</i> (Alligator Gar)
Fish	<i>Carpionodes velifer</i> (Highfin Carpsucker)
Fish	<i>Cycleptus elongatus</i> (Blue sucker)
Fish	<i>Erimystax dissimilis</i> (Streamline Chub)
Fish	<i>Erimystax insignis</i> (Blotched Chub)
Fish	<i>Etheostoma aquali</i> (Coppercheek Darter)
Fish	<i>Etheostoma denoncourti</i> (Golden Darter)
Fish	<i>Etheostoma neopterum</i> (Lollypop Darter)
Fish	<i>Etheostoma pseudovulatum</i> (Egg-mimic Darter)
Fish	<i>Etheostoma pyrrhogaster</i> (Firebelly Darter)
Fish	<i>Fundulus chrysotus</i> (Golden Topminnow)
Fish	<i>Hemitremia flammea</i> (Flame Chub)
Fish	<i>Ichthyomyzon gagei</i> (Southern Brook Lamprey)
Fish	<i>Notropis rubellus</i> (Rosyface Shiner)
Fish	<i>Noturus fasciatus</i> (Saddled Madtom)
Fish	<i>Noturus gladiator</i> (Piebald Madtom)
Fish	<i>Noturus stanauli</i> (Pygmy Madtom)
Fish	<i>Percina burtoni</i> (Blotchside Logperch)

TENNESSEE RIVER COA GCN SPECIES (TN)	
Taxa group	Scientific & Common names
Fish	<i>Percina phoxocephala</i> (Slenderhead Darter )
Gastropod	<i>Vertigo teskeyae</i> (Swamp Vertigo)
Insect	<i>Ophiogomphus acuminatus</i> (Acuminate Snaketail)
Mammal	<i>Neotoma magister</i> (Allegheny Woodrat)
Mammal	<i>Ochrotomys nuttalli</i> (Golden Mouse)
Mammal	<i>Sorex cinereus</i> (Cinereus Shrew)
Mammal	<i>Sorex longirostris</i> (Southeastern Shrew)
Mammal	<i>Zapus hudsonius</i> (Meadow Jumping Mouse)
Plant	<i>Apios priceana</i> (Price's Potato-bean)
Plant	<i>Boechera shortii</i> (Short's Rock-cress)
Plant	<i>Bolboschoenus fluviatilis</i> (River Bulrush)
Plant	<i>Cimicifuga rubifolia</i> (Appalachian Bugbane)
Plant	<i>Cypripedium kentuckiense</i> (Southern Lady's-slipper)
Plant	<i>Desmodium ochroleucum</i> (Creamflower Tick-trefoil)
Plant	<i>Echinochloa walteri</i> (Walter's Barnyard Grass)
Plant	<i>Erythronium rostratum</i> (Beaked Trout-lily)
Plant	<i>Fuirena squarrosa</i> (Hairy Umbrella-sedge)
Plant	<i>Hasteola suaveolens</i> (Sweet-scented Indian-plantain)
Plant	<i>Heteranthera limosa</i> (Blue Mud-plantain)
Plant	<i>Hottonia inflata</i> (Featherfoil)
Plant	<i>Juglans cinerea</i> (Butternut)
Plant	<i>Lilium michiganense</i> (Michigan Lily)
Plant	<i>Liparis loeselii</i> (Fen Orchid)
Plant	<i>Lysimachia fraseri</i> (Fraser's Loosestrife)
Plant	<i>Packera plattensis</i> (Prairie Ragwort)
Plant	<i>Panax quinquefolius</i> (American Ginseng)
Plant	<i>Polygala mariana</i> (Maryland Milkwort)
Plant	<i>Prenanthes aspera</i> (Rough Rattlesnake-root)
Plant	<i>Ranunculus flabellaris</i> (Yellow Water-crowfoot)
Plant	<i>Ribes odoratum</i> (Buffalo Currant)
Plant	<i>Sagittaria brevirostra</i> (Short-beaked Arrowhead)
Plant	<i>Solidago rupestris</i> (Rock Goldenrod)
Plant	<i>Spiranthes odorata</i> (Sweetscent Ladies'-tresses)
Plant	<i>Symphyotrichum pratense</i> (Barrens Silky Aster)
Plant	<i>Symplocos tinctoria</i> (Horse-sugar)
Reptile	<i>Anolis carolinensis</i> (Green Anole)
Reptile	<i>Anolis carolinensis</i> (Green Anole)
Reptile	<i>Apalone mutica</i> (Smooth Softshell Turtle)
Reptile	<i>Crotalus horridus</i> (Timber Rattlesnake)
Reptile	<i>Heterodon platirhinos</i> (Eastern Hognosed Snake)
Reptile	<i>Macrochelys temminckii</i> (Alligator Snapping Turtle)
Reptile	<i>Ophisaurus attenuatus longicaudus</i> (Eastern Slender Glass Lizard)
Reptile	<i>Pituophis melanoleucus melanoleucus</i> (Northern Pinesnake)
Reptile	<i>Sistrurus miliarius streckeri</i> (Western Pygmy Rattlesnake)
Reptile	<i>Terrapene carolina</i> (Eastern Box Turtle)
Reptile	<i>Virginia striatula</i> (Rough Earth Snake)
Subterranean - Arachnid	<i>Calymmaria persica</i> (Cave-loving funnel-web spider)
Subterranean - Arachnid	<i>Hesperochernes mirabilis</i> (Southeastern Cave Pseudoscorpion)
Subterranean - Arachnid	<i>Liocranoides gertschi</i> (Gertsch's tengellid spider)
Subterranean - Arachnid	<i>Phanetta subterranea</i> (Subterranean sheet-web spider)
Subterranean - Crustacean	<i>Caecidotea bicrenata</i> ((a cave obligate isopod))
Subterranean - Crustacean	<i>Caecidotea bicrenata bicrenata</i> ((a cave obligate isopod))
Subterranean - Crustacean	<i>Cambarus tenebrosus</i> (Cavespring Crayfish)

TENNESSEE RIVER COA GCN SPECIES (TN)	
Taxa group	Scientific & Common names
Subterranean - Crustacean	Crangonyx antennatus (Appalachian cave amphipod)
Subterranean - Crustacean	Orconectes pellucidus (Mammoth Cave Crayfish)
Subterranean - Crustacean	Pseudocandona jeanneli (Jeannel's Cave Ostracod)
Subterranean - Crustacean	Stygobromus exilis (Central Kentucky Cave Obligate)
Subterranean - Fish	Typhlichthys subterraneus (Southern Cavefish)
Subterranean - Insect	Aleochara lucifuga ((a rove beetle))
Subterranean - Insect	Atheta annexa ((a rove beetle))
Subterranean - Insect	Atheta trogliphila ((a trogliphilic rove beetle))
Subterranean - Insect	Batriasymmodes quisnamus ((a cave obligate beetle))
Subterranean - Insect	Batrisodes sp. (ant beetles)
Subterranean - Insect	Ceuthophilus sp. (cave crickets)
Subterranean - Insect	Macrocera nobilis (fungus gnat)
Subterranean - Insect	Megaselia cavernicola (cave hump-backed fly)
Subterranean - Insect	Onychiurus reluctus (springtail)
Subterranean - Insect	Platynus tenuicollis (ground beetle)
Subterranean - Insect	Prionochaeta opaca (small carrion beetle)
Subterranean - Insect	Pseudanophthalmus ciliaris ciliaris ((a cave obligate beetle))
Subterranean - Insect	Pseudanophthalmus colemanensis (Coleman Cave Beetle)
Subterranean - Insect	Pseudanophthalmus hesperus ((a cave obligate beetle))
Subterranean - Insect	Pseudanophthalmus sp. (cave ground beetles)
Subterranean - Insect	Pseudosinella aera ((a cave obligate springtail))
Subterranean - Insect	Pseudosinella hirsuta (Hirsute Cave Springtail)
Subterranean - Insect	Sciara sp. (fungus gnats)
Subterranean - Insect	Sinella cavernarum ((a springtail))
Subterranean - Insect	Spelobia tenebrarum (Cave dung fly)
Subterranean - Insect	Tomocerus bidentatus (Two-toothed springtail)
Subterranean - Millipede	Cambala sp. (millipeds)
Subterranean - Millipede	Chaetaspis debilis ((a cave obligate millipede))
Subterranean - Millipede	Pseudotremia undescribed sp. (Shear's cave millipede)
Subterranean - Millipede	Scoterpes hesperus ((a cave obligate millipede))
Subterranean - Millipede	Scoterpes undescribed sp. ((a cave millipede))
Subterranean - Roundworm	Cambarincola leptadenus ((a cave obligate roundworm))



TENNESSEE RIVER COA HABITATS (TN)	
Terrestrial Habitat Type	Total acres of very high, high, and medium ranked habitat
<b>Natural habitats</b>	
South-Central Interior Mesophytic Forest	269,025
Southern Interior Low Plateau Dry-Mesic Oak Forest	121,301
East Gulf Coastal Plain Northern Mesic Hardwood Slope Forest	52,499
East Gulf Coastal Plain Northern Dry Upland Hardwood Forest	43,063
East Gulf Coastal Plain Large River Floodplain Forest	29,208
South-Central Interior Large Floodplain	21,103
East Gulf Coastal Plain Small Stream and River Floodplain Forest	15,623
East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest	11,718
South-Central Interior Small Stream and Riparian	9,370
Southern Appalachian Low-Elevation Pine Forest	255
Central Interior Calcareous Cliff and Talus	6
East Gulf Coastal Plain Limestone Forest	5
<b>Semi-natural habitats</b>	
Pasture	29,418
Old Field / Successional	28,439
Cropland	21,944
<b>Aquatic Habitat Type</b>	
Headwaters and Streams	193
Small River	57
Medium River	23
Large River	148