

Catoosa / Emory River Conservation Opportunity Area



The Catoosa / Emory River Conservation Opportunity Area (COA) lies within the Cumberland Plateau and Mountains of Tennessee, boasting a variety of habitats, mostly forested, with some of the largest tracts of contiguous forest in Tennessee. Vertical exposed sandstone outcroppings support a unique flora and fauna. This COA is a part of over 300,000 publicly-owned acres that provide outdoor recreation opportunities to an array of user groups. Species of Greatest Conservation Need (GCN) in this area include the Black Mountain Salamander, Green Salamander, Cumberland Dusky Salamander, and Mud Salamander. Two species of endangered bat, the Indiana and Gray Bat, as well as the threatened Northern Long-eared Bat, find both winter and summer habitat in this region.



Streams of the Cumberland Plateau were heavily impacted by mining and forestry activities in the early 1900's, but many are recovering. The more pristine among them support a variety of GCN aquatic species, such as the Spot Fin Chub, Ashy Darter, Blackside Dace, Purple Bean Mussel, Alabama Lamp Mussel and even an undescribed species of crayfish that is new to science.

The Catoosa/Emory River COA boasts some of the largest tracts of contiguous forest in Tennessee, with streams supporting a diversity of aquatic species.

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.

Public Lands within the COA

Catoosa Wildlife Management Area (WMA), Cumberland Mountain State Park (SP), Cumberland Trail SP, Frozen Head State Natural Area (SNA) & SP, Grassy Cove Karst Area National Natural Landmark, Keyes-Harrison WMA, Kingston Refuge, Lone Mountain State Forest, Luper Mountain WMA, Mt. Roosevelt WMA, North Cumberland WMA, Obed Wild & Scenic River



Top to bottom: **Emory River** - Chris M. Morris; **Male River Chub** carrying stone to its nest - Jeremy Monroe, Freshwaters Illustrated/next page; Mud Salamander - Chris Simpson, TWRA

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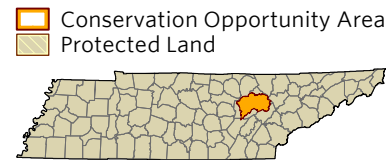
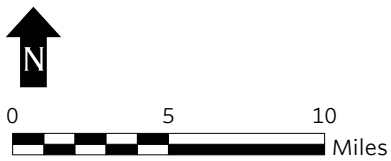
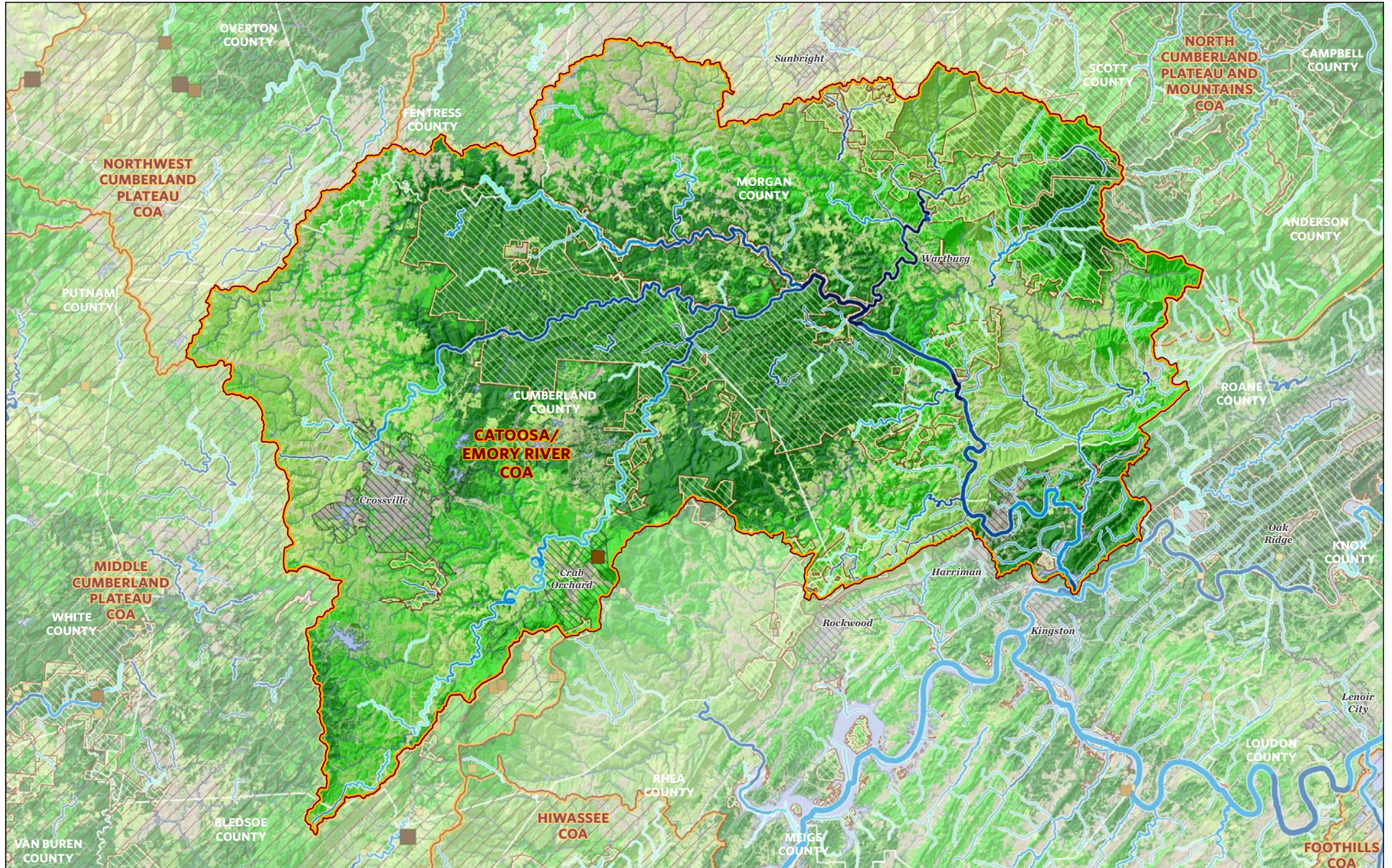
Partnerships

TWRA will develop and expand partnerships with the U.S. Army Corps of Engineers, Natural Resources Conservation Service, Tennessee Valley Authority, Tennessee Dept. of Environment and Conservation, The Nature Conservancy, Tennessee Parks and Greenways Foundation, Tennessee Clean Water Network, the Cumberland River Compact, 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/stream miles of critical habitat by restoring to appropriate ecological system conditions.	acres/miles
+ Decrease acres of habitat negatively affected by undesirable native and exotic plant and animal species.	acres
+ Increase understanding of GCN species' geographical distribution, life history, and ecological needs to improve management aimed at promoting survival over the long-term.	projects
+ Increase acreage of permanently protected habitat to benefit GCN species.	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 planning entities in environmental or land use planning.	plans
+ Restore GCN species populations in key habitat areas where numbers are low through propagation/translocation.	animals
+ Avoid and mitigate impacts from coal mining, oil & natural gas exploration by participating in environmental reviews.	reviews

To learn more about the Catoosa / Emory River Conservation Opportunity Area, please contact: Chris Simpson, Wildlife Diversity Coordinator, Region 3 (931) 484-9571



CATOOSA/EMORY RIVER COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Amphibian	<i>Aneides aeneus</i> (Green Salamander)
Amphibian	<i>Cryptobranchus alleganiensis</i> (Hellbender)
Amphibian	<i>Desmognathus abditus</i> (Cumberland Dusky 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>Pseudotriton montanus</i> (Mud Salamander)
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>Asio flammeus</i> (Short-eared Owl)
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>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>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>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)

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Bird	<i>Riparia riparia</i> (Bank Swallow)
Bird	<i>Scolopax minor</i> (American Woodcock)
Bird	<i>Setophaga caerulea</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>Lampsilis virescens</i> (Alabama Lampmussel)
Bivalve	<i>Medionidus conradicus</i> (Cumberland Moccasinshell)
Bivalve	<i>Pleurobema oviforme</i> (Tennessee Clubshell)
Bivalve	<i>Pleuronaia barnesiana</i> (Tennessee Pigtoe)
Bivalve	<i>Villosa iris</i> (Rainbow)
Bivalve	<i>Villosa perpurpurea</i> (Purple Bean)
Crustacean	<i>Cambarus crinipes</i> (Hairyfoot Crayfish)
Crustacean	<i>Cambarus deweesae</i> (Valley Flame Crayfish)
Crustacean	<i>Cambarus obeyensis</i> (Obey Crayfish)
Crustacean	<i>Cambarus</i> sp. 1 (Emory River Crayfish)
Crustacean	<i>Cambarus</i> sp? (Obed Crayfish)
Fish	<i>Acipenser fulvescens</i> (Lake Sturgeon)
Fish	<i>Chrosomus tennesseensis</i> (Tennessee Dace)
Fish	<i>Erimonax monachus</i> (Spotfin Chub)
Fish	<i>Etheostoma cinereum</i> (Ashy Darter)
Fish	<i>Etheostoma vulneratum</i> (Wounded Darter)
Fish	<i>Notropis rubellus</i> (Rosyface Shiner)
Fish	<i>Percina aurantiaca</i> (Tangerine Darter)
Fish	<i>Percina squamata</i> (Olive Darter)
Fish	<i>Percina williamsi</i> (Sickle Darter)
Gastropod	<i>Stenotrema edgarianum</i> (Sequatchie Slitmouth)
Mammal	<i>Martes pennanti</i> (Fisher)
Mammal	<i>Mustela nivalis</i> (Least Weasel)
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 longirostris</i> (Southeastern Shrew)
Mammal	<i>Spilogale putorius</i> (Eastern Spotted Skunk)
Plant	<i>Adlumia fungosa</i> (Climbing Fumitory)
Plant	<i>Amelanchier sanguinea</i> (Roundleaf Shadbush)
Plant	<i>Aureolaria patula</i> (Spreading False-foxglove)
Plant	<i>Cimicifuga rubifolia</i> (Appalachian Bugbane)
Plant	<i>Draba ramosissima</i> (Branching Whitlow-grass)
Plant	<i>Juglans cinerea</i> (Butternut)
Plant	<i>Leucothoe racemosa</i> (Fetter-bush)
Plant	<i>Lilium canadense</i> (Canada Lily)
Plant	<i>Panax quinquefolius</i> (American Ginseng)
Plant	<i>Potamogeton amplifolius</i> (Large-leaf Pondweed)

CATOOSA/EMORY RIVER COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Plant	Potamogeton tennesseensis (Tennessee Pondweed)
Plant	Spiraea virginiana (Virginia Spiraea)
Plant	Trillium pusillum (Least Trillium)
Reptile	Crotalus horridus (Timber Rattlesnake)
Reptile	Heterodon platirhinos (Eastern Hognosed Snake)
Reptile	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)
Reptile	Pituophis melanoleucus melanoleucus (Northern Pinesnake)
Reptile	Terrapene carolina (Eastern Box Turtle)
Subterranean - Arachnid	Hesperochernes mirabilis (Southeastern Cave Pseudoscorpion)
Subterranean - Arachnid	Kleptochthonius infernalis ((a cave obligate pseudoscorpion))
Subterranean - Crustacean	Caecidotea circulus ((a cave obligate isopod))
Subterranean - Crustacean	Caecidotea nickajackensis (Nickajack Cave Isopod)
Subterranean - Crustacean	Caecidotea scyphus ((a cave obligate isopod))
Subterranean - Crustacean	Cambarus hamulatus (Prickly Cave Crayfish)
Subterranean - Crustacean	Cambarus tenebrosus (Cavespring Crayfish)
Subterranean - Crustacean	Crangonyx antennatus (Appalachian cave amphipod)
Subterranean - Crustacean	Stygobromus exilis (Central Kentucky Cave Obligate)
Subterranean - Crustacean	Stygobromus sp. 22 (Swamp River Cave Amphipod)
Subterranean - Flatworm	Sphalloplana percoeca ((a cave obligate planarian))
Subterranean - Gastropod	Helicodiscus barri (Raccoon Coil)
Subterranean - Insect	Arrhopalites sp. 2 near bimus ((undescribed cave springtail))
Subterranean - Insect	Euhadenoecus puteaus (cave cricket)
Subterranean - Insect	Hadenoecini sp. (cave crickets)
Subterranean - Insect	Lesteva pallipes (rove beetle)
Subterranean - Insect	Litocampa cookei (Cooke's Cave Dipluran)
Subterranean - Insect	Megaselia cavernicola (cave hump-backed fly)
Subterranean - Insect	Pseudanophthalmus jonesi (Grassy Cove Cave Beetle)
Subterranean - Insect	Pseudanophthalmus sp. (Baker cave beetle)
Subterranean - Insect	Pseudosinella pecki (Peck's cave springtail)
Subterranean - Insect	Spelobia tenebrarum (Cave dung fly)
Subterranean - Insect	Tomocerus bidentatus (Two-toothed springtail)
Subterranean - Millipede	Pseudotremia sp. 10 (Baker cave milliped)

CATOOSA/EMORY RIVER 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	166294
South-Central Interior Mesophytic Forest	50608
Appalachian (Hemlock)-Northern Hardwood Forest	49130
Southern Appalachian Low-Elevation Pine Forest	29421
South-Central Interior Small Stream and Riparian	6681
Southern and Central Appalachian Cove Forest	5096
Southern Ridge and Valley / Cumberland Dry Calcareous Forest	4903
South-Central Interior Large Floodplain	97
Cumberland Acidic Cliff and Rockhouse	34
Southern Appalachian Montane Pine Forest and Woodland	11
Semi-natural habitats	
Old Field / Successional	15565
Pasture	7733
Cropland	117
Aquatic Habitat Type	
Headwaters and Streams	147
Small River	61
Medium River	32