

Western Highland Rim Forests

Conservation Opportunity Area



Much of the Western Highland Rim of middle Tennessee is dominated by Southern Dry Oak and mixed mesophytic forests, representing the largest remaining contiguous forest habitat region in not only middle Tennessee, but also the larger Central Hardwoods forest region extending north through Kentucky and into southern Illinois, Indiana, and Ohio. Much of the land is held in private ownership, and in the past decades large acreages of hardwoods have been converted to industrial pine plantations. Other habitats, including remnant barrens and prairies, headwaters springs, and streams and rivers, are also important components of Western Highland Rim ecosystems.

Major threats to the contiguous forests and other habitats of the Western Highland Rim are reduction of these habitats due to timber harvests and habitat alteration due to incompatible forestry practices. These forests support a large diversity of breeding birds that include Cerulean Warbler, Red-headed Woodpecker, Acadian Flycatcher, and Yellow-billed Cuckoo.

Intact forests also help to maintain water quality, protecting diverse habitats for freshwater animals, including the Hellbender, Birdwing Pearlymussel, Coppercheek Darter and Slackwater Darter. The largest and possibly last remaining reproductive population of Eastern Hellbenders in middle Tennessee is located in the Buffalo River system, primarily the Little Buffalo River. Future work will determine what the key limiting factors are for this species and if populations can be restored through propagation and reintroduction.

Public Lands within the COA

Autney Hollow State Natural Area (SNA), Beaver Dam Creek Wildlife Management Area (WMA), Buffalo River State Scenic River (SSR), Cheatham Lake WMA, Cheatham WMA, David Crockett State Park (SP), Devil's Backbone SNA, Dry Branch SNA, Dyson Ditch Refuge, Eagle Creek WMA, Happy Hollow WMA, Harpeth River SP/SSR, Hick Hill WMA, Langford Branch SNA, Laurel Hill WMA, Lewis State Forest, Middle Tennessee State Univ. WMA, Montgomery Bell SP/SNA, Mound Bottom State Archeological Area, Narrows of the Harpeth State Historical Area (SHA), Natchez Trace Parkway, Newsomes Mill SHA, Pardue Pond Refuge, Stillhouse Hollow Falls SNA, Tie Camp WMA, Williamsport WMA



Southern dry oak and mesic forests predominate on the Western Highland Rim, which has the largest remaining contiguous forest in middle Tennessee.

Photos: Cerulean Warbler - Ed Schneider/next page: Red-headed Woodpecker - Allen Sparks; Harpeth River State Park - Mark Spangler

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Partnerships

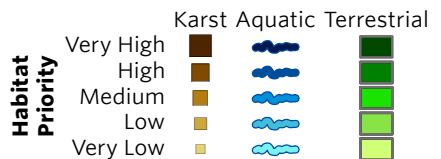
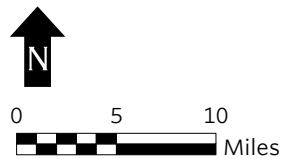
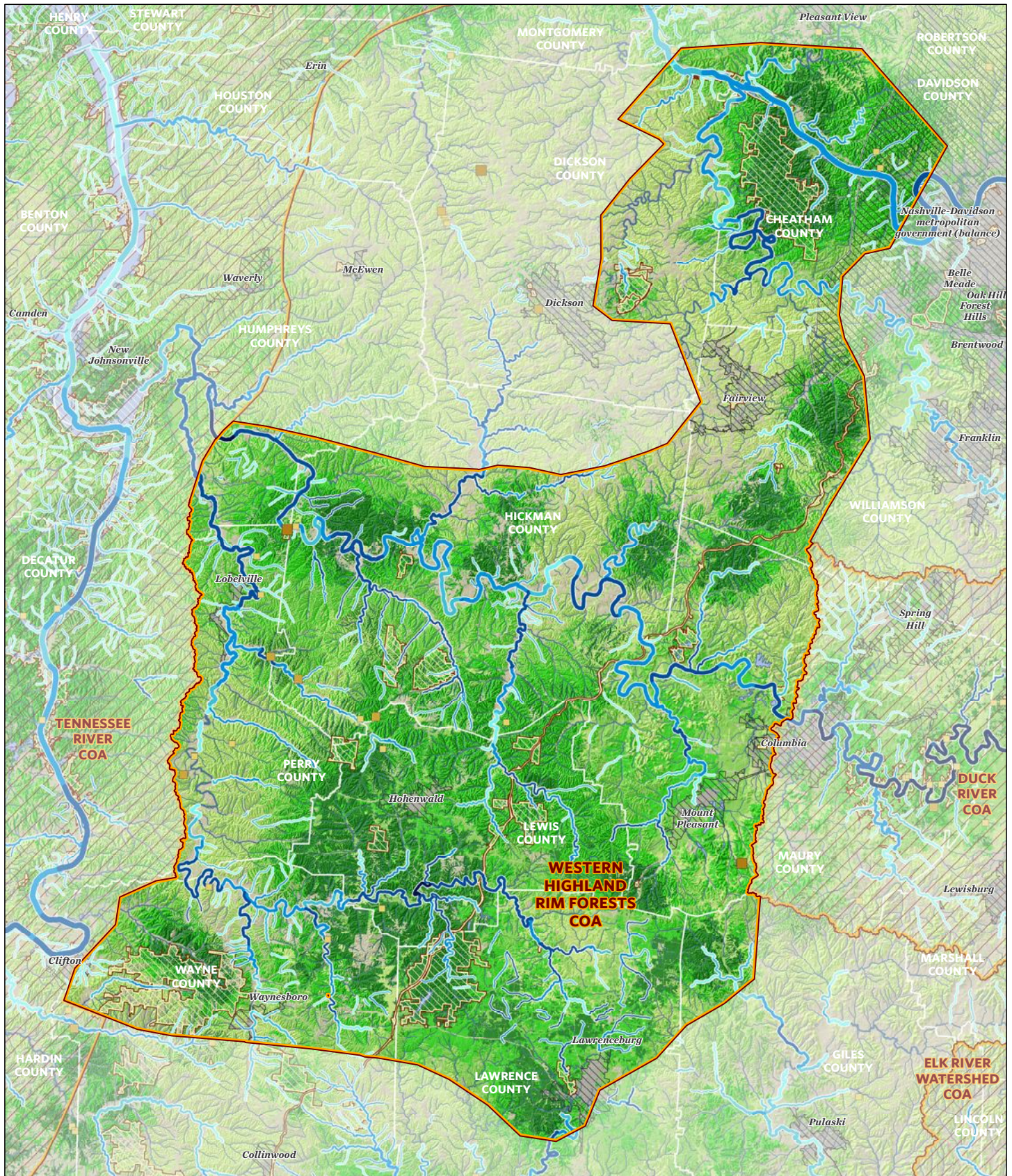
TWRA management strategies will focus on protecting or improving forest health, the quality and quantity of forested habitat, and the freshwater resources within this COA. TWRA will develop and expand partnerships with the U.S. Fish and Wildlife Service, Natural Resources Conservation Service, U.S. Army Corps of Engineers, Tennessee Dept. of Forestry, Tennessee Dept. of Environment and Conservation, The Nature Conservancy, Partners in Flight, the Central Hardwoods Joint Venture, Tennessee Historical Society, Tennessee Bat Working Group, and Tennessee, universities, and private landowners.



Desired Change	Units
+ Increase restoration of critical land units and aquatic resources through Best Management Practices on private lands using government-funded incentive programs	number
+ Increase acres of fire-dependent grasslands and forest managed with prescribed fire.	acres
+ Restore riparian buffers and physical stream habitat in priority locations throughout the watershed.	miles
+ Increase understanding of geographical distribution, life history, and ecological needs of target species to improve management aimed at promoting survival over the long-term.	projects
+ Increase knowledge of the status of important habitats and wildlife species through monitoring.	projects
+ Increase acres of habitat under permanent conservation management to benefit GCN species.	acres
✓ Develop and/or participate in regional conservation planning initiatives sponsored by federal, state, and local agencies.	plans
+ Improve forest habitat through development of new forestry Best Management Practice standards	assists



To learn more about the Western Highland Rim Forests Conservation Opportunity Area, please contact: Josh Campbell, Wildlife Diversity Coordinator, Region 2 (615) 781-6626



WESTERN HIGHLAND RIM FORESTS COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Amphibian	<i>Cryptobranchus alleganiensis</i> (Hellbender)
Amphibian	<i>Necturus maculosus</i> (Mudpuppy)
Amphibian	<i>Siren intermedia</i> (Lesser Siren)
Bat	<i>Myotis grisescens</i> (Gray 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>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>Melanerpes erythrocephalus</i> (Red-headed Woodpecker)
Bird	<i>Nycticorax nycticorax</i> (Black-crowned Night-heron)
Bird	<i>Parkesia motacilla</i> (Louisiana Waterthrush)
Bird	<i>Peucaea aestivalis</i> (Bachman's Sparrow)
Bird	<i>Protonotaria citrea</i> (Prothonotary Warbler)
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)

WESTERN HIGHLAND RIM FORESTS COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Bird	<i>Setophaga fusca</i> (Blackburnian Warbler)
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>Cumberlandia monodonta</i> (Spectaclecase)
Bivalve	<i>Lasmigona complanata complanata</i> (White Heelsplitter)
Bivalve	<i>Ligumia recta</i> (Black Sandshell)
Bivalve	<i>Medionidus conradicus</i> (Cumberland Moccasinshell)
Bivalve	<i>Obovaria subrotunda</i> (Round Hickorynut)
Bivalve	<i>Pleurobema clava</i> (Clubshell)
Bivalve	<i>Pleurobema cordatum</i> (Ohio 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)
Bivalve	<i>Toxolasma lividum</i> (Purple Lilliput)
Bivalve	<i>Villosa taeniata</i> (Painted Creekshell)
Bivalve	<i>Villosa vanuxemensis</i> (Mountain Creekshell)
Fish	<i>Acipenser fulvescens</i> (Lake Sturgeon)
Fish	<i>Carpionodes velifer</i> (Highfin Carpsucker)
Fish	<i>Cycleptus elongatus</i> (Blue sucker)
Fish	<i>Erimonax monachus</i> (Spotfin Chub)
Fish	<i>Erimystax dissimilis</i> (Streamline Chub)
Fish	<i>Erimystax insignis</i> (Blotched Chub)
Fish	<i>Etheostoma aquali</i> (Coppercheek Darter)
Fish	<i>Etheostoma boschungii</i> (Slackwater Darter)
Fish	<i>Etheostoma cinereum</i> (Ashy Darter)
Fish	<i>Etheostoma denoncourti</i> (Golden Darter)
Fish	<i>Etheostoma luteovinctum</i> (Redband Darter)
Fish	<i>Etheostoma microlepidum</i> (Smallscale Darter)
Fish	<i>Etheostoma pseudovulatum</i> (Egg-mimic Darter)
Fish	<i>Etheostoma striatulum</i> (Striated Darter)
Fish	<i>Etheostoma tippecanoe</i> (Tippecanoe Darter)
Fish	<i>Hemitremia flammea</i> (Flame Chub)
Fish	<i>Ichthyomyzon unicuspis</i> (Silver Lamprey)
Fish	<i>Notropis asperifrons</i> (Burrhead Shiner)
Fish	<i>Notropis rubellus</i> (Rosyface Shiner)
Fish	<i>Noturus fasciatus</i> (Saddled Madtom)
Fish	<i>Noturus stanauli</i> (Pygmy Madtom)
Fish	<i>Percina burtoni</i> (Blotchside Logperch)
Fish	<i>Percina phoxocephala</i> (Slenderhead Darter)
Insect	<i>Ophiogomphus acuminatus</i> (Acuminate Snaketail)
Mammal	<i>Neotoma magister</i> (Allegheny Woodrat)
Mammal	<i>Spilogale putorius</i> (Eastern Spotted Skunk)
Plant	<i>Acalypha deamii</i> (Deam's Copperleaf)
Plant	<i>Allium burdickii</i> (Narrow-leaf Ramps)
Plant	<i>Amsonia tabernaemontana</i> var. <i>gattingeri</i> (Limestone Blue Star)
Plant	<i>Apios priceana</i> (Price's Potato-bean)
Plant	<i>Carex hirtifolia</i> (Pubescent Sedge)
Plant	<i>Castanea dentata</i> (American Chestnut)

WESTERN HIGHLAND RIM FORESTS COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Plant	<i>Cerastium velutinum</i> var. <i>velutinum</i> (Velvety Cerastium)
Plant	<i>Elymus svensonii</i> (Svenson's Wild-rye)
Plant	<i>Erythronium rostratum</i> (Beaked Trout-lily)
Plant	<i>Hasteola suaveolens</i> (Sweet-scented Indian-plantain)
Plant	<i>Helianthus eggertii</i> (Eggert's Sunflower)
Plant	<i>Juglans cinerea</i> (Butternut)
Plant	<i>Juncus brachycephalus</i> (Small-headed Rush)
Plant	<i>Lilium canadense</i> (Canada Lily)
Plant	<i>Lilium michiganense</i> (Michigan Lily)
Plant	<i>Liparis loeselii</i> (Fen Orchid)
Plant	<i>Lonicera flava</i> (Yellow Honeysuckle)
Plant	<i>Lonicera prolifera</i> (Grape Honeysuckle)
Plant	<i>Marshallia trinervia</i> (Broad-leaved Barbara's-buttons)
Plant	<i>Melanthium latifolium</i> (Broadleaf Bunchflower)
Plant	<i>Melanthium woodii</i> (Ozark Bunchflower)
Plant	<i>Minuartia godfreyi</i> (Godfrey's Stitchwort)
Plant	<i>Panax quinquefolius</i> (American Ginseng)
Plant	<i>Parnassia grandifolia</i> (Large-leaved Grass-of-parnassus)
Plant	<i>Paysonia densipila</i> (Duck River Bladderpod)
Plant	<i>Phlox pilosa</i> ssp. <i>ozarkana</i> (Ozark Downy Phlox)
Plant	<i>Physaria globosa</i> (Short's Bladderpod)
Plant	<i>Prenanthes crepidinea</i> (Nodding Rattlesnake-root)
Plant	<i>Stellaria fontinalis</i> (Water Stitchwort)
Reptile	<i>Anolis carolinensis</i> (Green Anole)
Reptile	<i>Crotalus horridus</i> (Timber Rattlesnake)
Reptile	<i>Heterodon platirhinos</i> (Eastern Hognosed Snake)
Reptile	<i>Terrapene carolina</i> (Eastern Box Turtle)
Reptile	<i>Virginia striatula</i> (Rough Earth Snake)
Subterranean - Arachnid	<i>Hesperochernes mirabilis</i> (Southeastern Cave Pseudoscorpion)
Subterranean - Arachnid	<i>Macrocheles</i> sp. 3 (mite)
Subterranean - Arachnid	<i>Phanetta subterranea</i> (Subterranean sheet-web spider)
Subterranean - Crustacean	<i>Caecidotea bicrenata</i> ((a cave obligate isopod))
Subterranean - Crustacean	<i>Cambarus tenebrosus</i> (Cavespring Crayfish)
Subterranean - Crustacean	<i>Crangonyx antennatus</i> (Appalachian cave amphipod)
Subterranean - Crustacean	<i>Gammarus minus</i> (Lesser spring amphipod)
Subterranean - Crustacean	<i>Stygobromus exilis</i> (Central Kentucky Cave Obligate)
Subterranean - Fish	<i>Typhlichthys subterraneus</i> (Southern Cavefish)
Subterranean - Flatworm	<i>Cambarincola leptadenus</i> ((a cave obligate roundworm))
Subterranean - Gastropod	<i>Helicodiscus barri</i> (Raccoon Coil)
Subterranean - Insect	<i>Batriasymmodes quisnamus</i> ((a cave obligate beetle))
Subterranean - Insect	<i>Batrisodes ferulifer</i> ((a cave obligate beetle))
Subterranean - Insect	<i>Folsomia candida</i> (springtail)
Subterranean - Insect	<i>Litocampa cookei</i> (Cooke's Cave Dipluran)
Subterranean - Insect	<i>Platynus tenuicollis</i> (ground beetle)
Subterranean - Insect	<i>Pseudanophthalmus bendermani</i> (Benderman's Cave Beetle)
Subterranean - Insect	<i>Pseudanophthalmus hesperus</i> ((a cave obligate beetle))
Subterranean - Insect	<i>Pseudanophthalmus occidentalis</i> (Western Cave Beetle)
Subterranean - Insect	<i>Pseudosinella hirsuta</i> (Hirsute Cave Springtail)
Subterranean - Insect	<i>Psyllipsocus ramburi</i> ((a cave barklice))
Subterranean - Insect	<i>Sinella cavernarum</i> ((a springtail))
Subterranean - Insect	<i>Tomocerus bidentatus</i> (Two-toothed springtail)
Subterranean - Insect	<i>Typhlogastrura christianseni</i> (Christiansen's cave springtail)
Subterranean - Insect	Undetermined species (sepsid Black scavenger fly)

WESTERN HIGHLAND RIM FORESTS COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Subterranean - Millipede	Chaetaspis debilis ((a cave obligate millipede))
Subterranean - Millipede	Scoterpes hesperus ((a cave obligate millipede))
Subterranean - Millipede	Scoterpes musicarustica ((a cave obligate millipede))

WESTERN HIGHLAND RIM FORESTS COA HABITATS (TN)	
Terrestrial Habitat Type	Total acres of very high, high, and medium ranked habitat
Natural habitats	
Southern Interior Low Plateau Dry-Mesic Oak Forest	320738
South-Central Interior Mesophytic Forest	307417
South-Central Interior Small Stream and Riparian	3690
South-Central Interior Large Floodplain	2622
Southern Appalachian Low-Elevation Pine Forest	1666
Central Interior Calcareous Cliff and Talus	231
Semi-natural habitats	
Pasture	82015
Old Field / Successional	26541
Cropland	24353
Forest Plantation	93
Aquatic Habitat Type	Total stream miles of very high, high, and medium ranked habitat
Headwaters and Streams	313
Small River	148
Medium River	143
Large River	22