# Upper Holston

## Conservation Opportunity Area

**The Upper Holston Conservation Opportunity Area** (COA) is contained within the Ridge and Valley province, and the land use activity within it the can be characterized as agricultural, residential, and municipal. Small farms interspersed with residential development are common within this COA. Kingsport is the major municipality and is home to one of the largest industrial complexes in the state, Eastman Chemical Company.

Most of the larger streams in this COA meander parallel to the ridges and contain extensive cobble and gravel shoal areas. Smaller streams are characterized by limestone rubble with bedrock riffles and silty sand pool areas. These geological features increase productivity by adding nutrients to the soil and waters of this region, enhancing wildlife species diversity.

This COA encompasses approximately 200 square miles and contains the Holston River headwaters, which branch in Kingsport to form the North and South Forks of the Holston River. A significant portion of this COA is publicly owned and provides outdoor recreational opportunities, particularly along the rivers. This COA harbors multiple GCN species (some of which are federally protected), including Spotfin Chub, Spiny River Snail, Tangerine Darter, Tennessee Dace and Surgeon Crayfish.

### Public Lands within the COA

Bays Mountain State Natural Area, Holston Ordnance Works Wildlife Management Area, Warriors' Path State Park

**This region contains the Holston River headwaters, which branch in Kingsport to form the North and South Forks of the Holston River.**

Top to bottom: Surgeon Crayfish - Carl Williams, TWRA; Tennessee Shiners surround a Stoneroller - Dave Hersimtschuk, Freshwaters Illustrated; Holston River above Cherokee Reservoir - TWRA/next page: Male River Chub - Jeremy Monroe, Freshwaters Illustrated

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## Partnerships

To implement priority conservation and management strategies, TWRA will continue to work with the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Tennessee Department of Environment and Conservation, Tennessee Division of Forestry, the Tennessee Valley Authority, and private land owners. TWRA will also seek to educate local governments and private developers about sensitive habitats and water quality issues.

| | 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 secure critical habitat units and 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 |

To learn more about the Upper Holston Conservation Opportunity Area, please contact:
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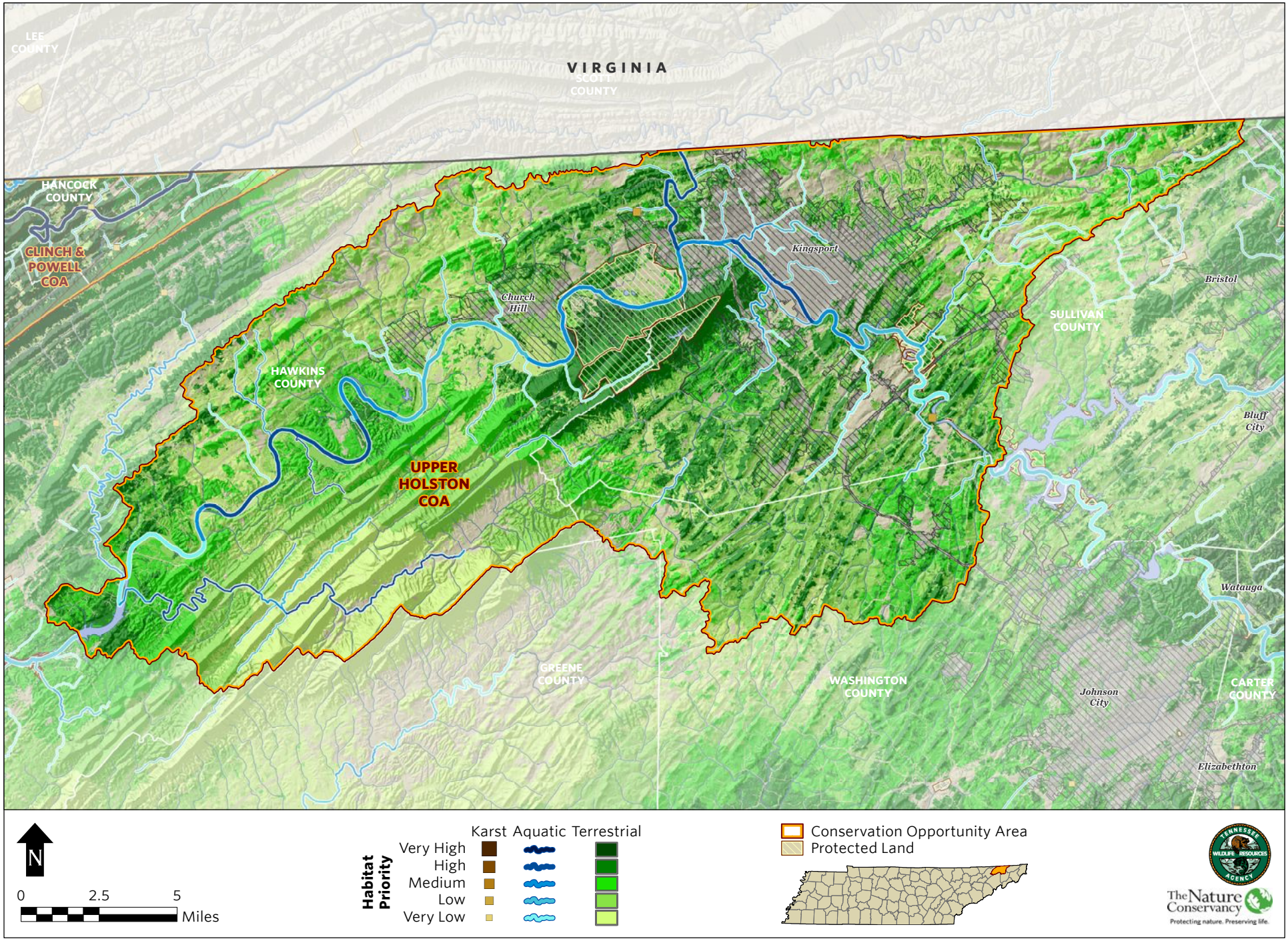

| Taxa Group | UPPER HOLSTON COA GCN SPECIES (TN)<br>Scientific & Common Names |
|---|---|
| Bat | Myotis grisescens (Gray Bat) |
| Bat | Myotis leibii (Eastern Small-footed Bat) |
| Bat | Myotis septentrionalis (Northern Myotis) |
| Bat | Myotis sodalis (Indiana Bat) |
| Bat | Perimyotis subflavus (Tri-colored Bat) |
| Bird | Accipiter striatus (Sharp-shinned Hawk) |
| Bird | Ammodramus savannarum (Grasshopper Sparrow) |
| Bird | Anas rubripes (American Black Duck) |
| Bird | Aquila chrysaetos (Golden Eagle) |
| Bird | Bonasa umbellus (Ruffed Grouse) |
| Bird | Calidris mauri (Western Sandpiper) |
| Bird | Calidris pusilla (Semipalmated Sandpiper) |
| 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 | Grus americana (Whooping Crane) |
| 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 | Ictinia mississippiensis (Mississippi Kite) |
| Bird | Lanius ludovicianus (Loggerhead Shrike) |
| Bird | Melanerpes erythrocephalus (Red-headed Woodpecker) |
| Bird | Nycticorax nycticorax (Black-crowned Night-heron) |
| Bird | Parkesia motacilla (Louisiana Waterthrush) |
| Bird | Protonotaria citrea (Prothonotary Warbler) |
| Bird | Riparia riparia (Bank Swallow) |
| Bird | Scolopax minor (American Woodcock) |
| 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 | Tyto alba (Barn Owl) |
| Bird | Vermivora cyanoptera (Blue-winged Warbler) |

| Taxa Group | UPPER HOLSTON COA GCN SPECIES (TN)<br>Scientific & Common Names |
|---|---|
| Bivalve | Fusconaia cuneolus (Finerayed Pigtoe) |
| Bivalve | Pleuronaia barnesiana (Tennessee Pigtoe) |
| Bivalve | Villosa perpurpurea (Purple Bean) |
| Crustacean | Orconectes forceps (Surgeon Crayfish) |
| Fish | Chrosomus tennesseensis (Tennessee Dace) |
| Fish | Erimonax monachus (Spotfin Chub) |
| Fish | Erimystax dissimilis (Streamline Chub) |
| Fish | Notropis rubellus (Rosyface Shiner) |
| Fish | Percina aurantiaca (Tangerine Darter) |
| Fish | Percina burtoni (Blotchside Logperch) |
| Gastropod | Discus bryanti (Sawtooth Disc) |
| Gastropod | Euchemotrema fraternum montanum ((a pillsnail)) |
| Gastropod | Io fluvialis (Spiny Riversnail) |
| Gastropod | Paravitrea tantilla (Teasing Supercoil) |
| Gastropod | Paravitrea tridens (White-foot Supercoil) |
| Gastropod | Ventridens coelaxis (Bidentate Dome) |
| Insect | Allocapnia brooksi (Sevier Snowfly) |
| Insect | Gomphus consanguis (Cherokee Clubtail) |
| Insect | Speyeria diana (Diana Fritillary) |
| Plant | Meehania cordata (Heartleaf Meehania) |
| Plant | Panax quinquefolius (American Ginseng) |
| Reptile | Terrapene carolina (Eastern Box Turtle) |
| Subterranean - Arachnid | Nesticus tennesseensis ((a spider)) |
| Subterranean - Crustacean | Caecidotea nickajackensis (Nickajack Cave Isopod) |
| Subterranean - Crustacean | Stygobromus mackini (Southwestern Virginia Cave Amphipod) |
| Subterranean - Gastropod | Helicodiscus multidens (Twilight Coil) |
| Subterranean - Insect | Pseudanophthalmus paradoxus (Ridgetop Cave Beetle) |
| Subterranean - Millipede | Pseudotremia sp. (cave millipeds) |
| Subterrestrial - Arachnid | Porrhomma cavernicola (Appalachian Cave Spider) |

| UPPER HOLSTON COA HABITATS (TN) | |
|---|---|
| **Terrestrial Habitat Type** | **Total acres of very high, high, and medium ranked habitat** |
| **Natural habitats** | |
| Southern Ridge and Valley / Cumberland Dry Calcareous Forest | 42945 |
| South-Central Interior Mesophytic Forest | 22197 |
| Allegheny-Cumberland Dry Oak Forest and Woodland | 9645 |
| South-Central Interior Small Stream and Riparian | 2683 |
| Southern Appalachian Low-Elevation Pine Forest | 2465 |
| South-Central Interior Large Floodplain | 895 |
| Southern and Central Appalachian Cove Forest | 685 |
| Appalachian (Hemlock)-Northern Hardwood Forest | 379 |
| | |
| | |
| **Semi-natural habitats** | |
| Pasture | 14180 |
| Old Field / Successional | 6431 |
| Cropland | 300 |
| | |
| | |
| **Aquatic Habitat Type** | **Total stream miles of very high, high, and medium ranked habitat** |
| Headwaters & Streams | 46 |
| Small River | 3 |
| Medium River | 34 |