

2024 TENNESSEE YEAR IN REVIEW

Our Path Forward

BOARD NOTES

"This report highlights what we accomplished together in 2024. We couldn't do any of this, and much more, without your support. Thank you for choosing to prioritize Tennessee nature."



ON THE COVER Appalachian Mountains © Byron Joriorian THIS PAGE © Courtesy/Christy Smith Butterfly © Terry Cook/TNC Turtle © Gabby Lynch/TNC Bluebird © Terry Cook/TNC



As nature lovers, we already know what's special about Tennessee. From native forests and grasslands to unrivaled aquatic habitat and more caves than anywhere in the United States, Tennessee earns its distinction as our nation's most biodiverse inland state.

Tennessee's natural environment is also significant at a global scale. East Tennessee's Appalachian Mountains are part of a connected landscape that runs from Alabama to Maine. This natural corridor supports an incredible diversity of plants and animals, stores and filters clean water, and sequesters carbon at a scale not found in other parts of the world. This part of Tennessee also includes the Great Smoky Mountains, which is the most visited national park in the United States.

Tennessee is also one of 31 states included in the vast Mississippi River watershed, which comprises 41% of the continental United States and serves as our nation's primary way of transporting agricultural goods from the American Midwest to international markets. In addition to fueling local, state and national economies, the Mighty Mississippi serves as a critically important corridor for more than 325 migratory bird species, dozens of fish species and pollinators such as the monarch butterfly.

With this in mind, our work in Tennessee has never been more important. As The Nature Conservancy pursues its ambitious 2030 goals, now five years away, we are doing our part in addressing the negative effects of climate change and widespread loss of critical plant and animal species.

This report highlights what we accomplished together in 2024. We couldn't do any of this, and much more, without your support. Thank you for choosing to prioritize Tennessee nature.

Ch

Christy Smith Chair of The Nature Conservancy's Tennessee Board of Trustees

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The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.





1 BIG SOUTH FORK Scott County









LAND PROTECTION WINS

We teamed up with partners to protect 6,353 acres in 2024.

690 acres located adjacent to Big South Fork National River Recreation Area in

2 OBED WILD & SCENIC RIVER

43 acres overlooking the Obed Wild & Scenic River National Park in Morgan County

3 CUMBERLAND TRAIL

646 acres, including more than five linear miles of the new Justin P. Wilson Cumberland Trail State Park corridor in Rhea County

4 SAVAGE GULF STATE PARK

670 acres, located next to Savage Gulf State Park in Grundy County, that will eventually be transferred into the park



entrance to Ocoee River Gorge

6 NORTH CUMBERLAND

709 acres within the North Cumberland Wildlife Management Area that expand a matrix of 250,000+ acres of public recreation lands boasting high biodiversity

7 OTEY MILLS REFUGE UNIT

2,613 acres expands a portion of the North Cumberland Wildlife Management Area to protect underground karst features and forest habitat for bats and provide new opportunities for hunting, fishing and hiking.

by the Tennessee Wildlife Resources Agency with assistance from TNC

9 CHEROKEE NATIONAL FOREST

341 acres within the Cherokee National Forest, in Monroe County, representing a critical habitat zone for rare bat species

BY THE NUMBERS



bats emerged from Piper cave, marking the highest number recorded in over 14 years







miles of stream to be reconnected after removing the last remaining dam along Citico Creek

Leaning In On Land Conservation

Managing conservation lands provides long-term sustenance and safety for people and wildlife.



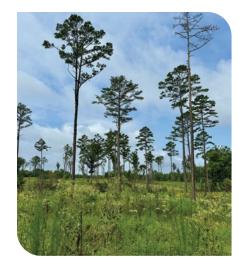
A University of Tennessee studen re-measures seedlings at a shortleaf pine restoration site. © Brittney Townsend/TNC

TNC'S GLOBAL 2030 GOAL: Conserve 1.6 billion acres of land.

Burns Advance Shortleaf Pine Restoration at Chestnut Mountain

Back in 2019, not long after assuming ownership of the Bridgestone Nature Reserve at Chestnut Mountain, our Nature Conservancy staff gathered with partners to plant 75,000 shortleaf pine seedlings in a portion of the 5,763-acre property. Before the planting, TNC's Fire Team carefully treated the 200-acre restoration site with low intensity, controlled burning, a natural disturbance that is necessary for preventing encroachment by hardwood tree species and making way for native grasses and wildflowers that characterize the open woodland habitat once common throughout the region.

In 2024, TNC staff and partners returned to deliver fire to the area for the first time since 2019. Repeating a burn helps maintain this fire-dependent forest, which also includes warm season grasses, forbs and wildflowers. Next, TNC will closely monitor the restoration site for signs of native flora and fauna that include bluestem (Schizachyrium scoparium) and Indian (Sorghastrum nutans) grasses, yellow-fringed orchid (Platanthera ciliaris), rosepink (Sabatia angularis) and bobwhite quail (Colinus virginianus).









enthusiasts.

TNC looks forward to working together in and around both new public lands to benefit nature and provide positive outdoor experiences for Tennesseans.

LEFT TO RIGHT Shortleaf Pine Woodland © Brittney Townsend/TNC; Aerial View of Shortleaf Pine Restoration Site © The Nature Conservancy; Blue False Indigo Sprout © Brittney Townsend/TNC

Multi-year Cave Restoration Yields Encouraging Results

In 2021, The Nature Conservancy extended its land conservation efforts to Piper Cave, where staff spent nearly two years cleaning debris from the former saltpeter mine-turned-personal-bunker to welcome back federally-endangered gray bats. Now restored to a more natural state, this subterranean space should support gray and other hibernating bats during winter and maternity colonies during summer.

In addition to rewilding the interior of the cave, in 2024 TNC restored natural entrances previously walled off to accommodate two decades of human activity. With help from members of the caving community and partners from the Tennessee Wildlife Resources Agency, the Tennessee Valley Authority and the U.S. Fish and Wildlife Service, TNC also built gates at two cave entrances to welcome bats and deter trespassers. All of the hard work paid off in May when just two years since acquiring, restoring and gating Piper Cave, our staff recorded the highest numbers of bats–28,262–using the site to date, including a growing population of gray bats.

"This achievement exceeded expectations and validates our hard work and commitment to conserving bat species after years of decline. Projects like this are exactly what is needed to get a species removed from the endangered species list."

> CORY HOLLIDAY, TNC'S CAVE AND KARST PROGRAM MANAGER IN TENNESSEE

Partnership In Action: New State Parks Leverage Conservation Around Tennessee

In addition to securing and restoring land at our own nature preserves, The Nature Conservancy helped partners do the same. In August, this included celebrating the opening of the new Middle Fork Bottoms State Park. Located along the Middle Fork of the Forked Deer River in Madison County, this new addition to Tennessee's system of state parks culminated after an almost a decade-long effort by TNC, the West Tennessee River Basin Authority and the Tennessee Wildlife Resources Agency to restore wetland habitat on this property to benefit plants and animals, and outdoor

TNC also convened with the Tennessee Department of Environment and Conservation, the Tennessee Department of Agriculture's Division of Forestry and the Tennessee Wildlife Resources Agency at our Bridgestone Nature Reserve at Chestnut Mountain. The purpose of this gathering was to discuss opportunities for ongoing collaboration around a forthcoming adjacent state park – Scott's Gulf Wilderness.

THIS PAGE TOP TO BOTTOM New Gate at Piper Cave © Cory Holliday/TNC; New Sign at Middle Fork Bottoms State Park © Laurel Creech/TNC; Local leaders Gather at Chestnut Mountain © The Nature Conservancy





BO BAXTER. DIRECTOR AND SENIOR CONSERVATION BIOLOGIST AT CONSERVATION FISHERIES, INC.

"We were glad to engage TNC in several projects, including long-term monitoring of smoky madtom, vellowfin madtom, blotchside logperch and Citico darter populations in Citico Creek to determine trends that will inform their recovery. We also continue to expand the distribution of Citico darters in Citico Creek by releasing fish above the barrier dam."





Safeguarding Freshwater Resources

Elevating the pace and scale of our work supports healthy, functioning watersheds.



WATER

Waterfall © Byron Jorjorian

TNC'S GLOBAL 2030 GOAL:

Conserve more than 620,000 miles of rivers.

Science Helps Balance Water Demands and Conservation Needs on the Duck River

In 2024, American Rivers listed the Duck River among the "Most Endangered" in our nation. That is not the type of distinction anyone wants for what is considered one of the most biodiverse rivers in North America, one boasting 60 species of mussels-19 which are listed as federally threatened or endangered—as well as fish, snails, insects and other species.

With support from Ascend Federal Credit Union, TNC has partnered with Tennessee Tech University on a set of research projects that provide a foundational understanding of how future droughts and water withdrawals might impact aquatic ecosystems. In addition to building on TNC's conservation efforts in this river since 1999, these projects will inform collaborative water supply planning and conservation efforts with key stakeholders in the Duck River Basin.

ABOVE Duck River Summer Research © The Nature Conservancy

"With demands for the Duck's water outpacing what it can sustainably provide, The Nature Conservancy is helping develop the science that shows how we can balance the needs of species with growing communities, agriculture, recreation and other competing demands."

> ROB BULLARD, TNC'S DIRECTOR OF WATER IN TENNESSEE

Partnership In Action: Several Projects Serve as Models for Freshwater Conservation Around the U.S.

In 2024, The Nature Conservancy invested in partnerships that are expected to yield impressive returns for Tennessee's freshwater resources.

- TNC continued to advance our Watershed Restoration Partnership with the U.S. Forest Service and USDA Natural Resources Conservation Service in Southern Appalachia, particularly at the Cherokee National Forest's Citico Creek. Together, we stepped up efforts to remove seven undersized or outdated culverts and other barriers to the natural flow of water required by 67 fish and mussel species, including the federally endangered smoky madtom (Noturus baileyi), Citico darter (Etheostoma sitikuense) and federally threatened yellowfin madtom (Noturus flavipinnis). TNC also collaborated on improving a stream crossing and bridge over Little Citico Creek for people visiting the wilderness area for hiking, fishing, and backcountry camping. Additionally, the partners completed the design for removing Citico Creek's last remaining dam to reconnect over 38 miles of stream and better mimic its natural flow.
- TNC advanced its groundbreaking partnership with the U.S. Army Corps of Engineers (USACE) by gathering with partner agencies and organizations for a two-day workshop organized around managing locks and dams on the Cumberland River to improve conditions for fish and wildlife. This effort represents one of many pursued as part of the Sustainable Rivers Program (SRP), a formal partnership between TNC and USACE that focuses on modernizing this national system of water control projects to improve and enhance social, economic and environmental benefits. As the largest water manager in the United States, the USACE oversees a national infrastructure that influences more than 52,000 miles of rivers. So far, they have enrolled about 25 percent of their portfolio in the SRP.
- TNC continued to explore a growing partnership with **Conservation Fisheries**, Inc. (CFI), which specializes in propagating and releasing rare aquatic species back into restored rivers and streams throughout the southeastern United States. Thanks to support from the Bonneville Environmental Foundation, TNC partnered with CFI on propagation of marbled darters (Etheostoma marmorpinnum) from the Little River in East Tennessee. Additionally, members of TNC's Tennessee and Appalachians teams visited CFI's Knoxville facility to explore other opportunities for working together across this globally important landscape.



CLIMATE

Cumberland Forest

© Mike Wilkinson

TNC'S GLOBAL 2030 GOAL:

metric tons

of carbon

emissions

each year.

dioxide

store 3 billion

Reduce or

Building Climate Resilience

Harnessing nature in key places helps to absorb and store carbon.



The Nature Conservancy's 253,000-acre Cumberland Forest-located in a Central Appalachians landscape spanning Tennessee, Kentucky and Virginia-represents a project unlike any other pursued in the region. An investment fund assembled by TNC retains ownership of the property, which TNC manages. Other entities have owned the coal, oil and gas reserves located beneath the surface for many decades. The mineral estate owners pay extraction revenues, also known as royalties, to the surface landowner according to local, state and federal laws. Ever since striking this deal in 2019, TNC has reinvested the mineral royalties into economic development and conservation projects in local communities within the Cumberland Forest Project geography.

To date in Tennessee, the Cumberland Forest Community Fund has awarded five grants to local communities. In 2024, that included awarding \$106,000 to the Clinch-Powell Resource Conservation and Development Council for community-based projects such as creating outdoor access to sustainable adventuring in the Cumberland Gap, updating outdoor recreation facilities for youth in Clairfield, developing public trails and outdoor spaces in the Clearfork Valley, cleaning up litter at public spaces in Campbell County and building a history-themed community walking trail in Rutledge.

"The Cumberland Forest Community Fund exemplifies community-inclusive conservation. By enhancing outdoor recreation venues, supporting local economies and protecting the natural landscapes that attract tourism revenue, we are fostering sustainable growth at a local level and creating opportunities for more people to connect with nature."

GABBY LYNCH, TNC'S DIRECTOR OF LAND IN TENNESSEE





Transforming mine lands a clean energy hubs

The Nature

power homes across the U.S.



Visit nature.org/miningthesun to read a new report, featuring TNC's Cumberland Forest Project, that highlights how mine lands and brownfields can supply a significant amount of clean energy to

Partnership In Action: Collaborative Effort Advances Wildlife Conservation and Multi-**Use Public Recreation at Doe Mountain**

In 2012, The Nature Conservancy teamed up with the State of Tennessee and Johnson County to acquire what is now the Doe Mountain Recreation Area (DMRA). At the time, the 8,600-acre property was one of the largest remaining privately owned blocks of forest in Tennessee's Southern Appalachian region. Since then, TNC has collaborated with various organizations to conserve the mountain's native habitats through a forest carbon storage program and to boost economic development by supporting outdoor recreation and tourism. In 2024, three actions advanced these goals:

- The Tennessee Department of Environment and Conservation's new Office of Outdoor Recreation awarded a \$392,000 grant to DMRA for trail development and signage.
- The DMRA released an Economic Impact Analysis that highlighted a \$1 million annual economic output, support for 17 local jobs and visits from outdoor enthusiasts traveling from 30 states.
- Dr. Jon Davenport, Assistant Professor of Biology at Appalachian State University, brought undergraduate students to conduct wildlife surveys and learn field biology techniques at DMRA. Some findings included documenting nine species of salamander, including the rare Yonahlossee salamander (Plethodon vonahlossee), as well as a variety of mammals like spotted skunk (Spilogale putorius) and long-tailed weasel (Neogale frenata).

POLICY CORNER

In an open letter published in 2024, The Nature Conservancy's Tennessee State Director, Laurel Creech, thanked Governor Lee and the Tennessee Legislature for approving \$71.5 million through the Tennessee Heritage Conservation Trust Fund to be used for conserving Tennessee's landscapes, supporting wildlife, expanding outdoor recreation and

building climate resilience. In her letter, **Creech also called for more innovative** strategies that generate recurring, predictable annual funding for naturein Tennessee and beyond-to address the effects of a changing climate and a global decline in biodiversity.

TNC also contributed expertise to a Tennessee Valley Authority (TVA) working group focused on the 2025 Integrated Resource Plan, a comprehensive effort aimed at shaping TVA's energy system through 2050. Having a seat at this table provided an opportunity to advocate for a clean energy transition that benefits nature, our climate and local communities. It represents the first time that TNC has served in this type of role in a U.S. energy utility planning process, an experience that will serve as a model for broader TNC engagement with this industry nationwide.



ABOVE Mountain Biking at Doe Mountain © DMRA

BIODIVERSITY

Celebrating Tennessee Wildlife

Prioritizing Tennessee's plants and animals benefits our environment, food supply and economies.



"SWAPs represent the most comprehensive conservation plans in the U.S. In addition to using the most current science to identify negative population trends for our plant and animal species, they articulate strategies for alleviating stressors that are contributing to species loss. It is always an evolving process and with every iteration, we learn more and also identify knowledge gaps that TNC and our partners continue to pursue."

Tennessee's State Wildlife Action Plan Provides Blueprint for Conserving Wildlife

In the spirit of "keeping common species common," The Nature Conservancy is again partnering with the Tennessee Wildlife Resources Agency to complete a ten-year, comprehensive revision to Tennessee's State Wildlife Action Plan (SWAP). The SWAP focuses on the state's species of greatest conservation need (SGCN) and habitats critical to their survival, guiding strategies to preserve Tennessee's rich natural heritage.

Since the 2015 Tennessee SWAP, 175 rare and/or declining species-81 animals and 94 plants-have been added to the SGCN list in Tennessee. From the obscure three-toothed snail (Triodopsis platysayoides) to the better-known eastern screech-owl (Megascops asio) and American bumblebee (Bombus pensylvanicus), numerous wildlife species face unprecedented threats and population decline. Other highlights of the 2025 revision process include:

- Formation of a SWAP Steering Committee, comprised of conservation partners from across the state, to form shared strategies around implementing and monitoring long-term outcomes of the 2025 SWAP.
- Addition of a Private Lands chapter that engages landowners seeking to create and/or improve environmental conservation practices on their property.
- Inclusion of Regional Conservation Opportunity Areas that highlight priority habitats located along Tennessee's border and in neighboring states to guide increased collaboration.

Tennessee's revised SWAP will be released for public comment in Spring 2025 and a final version will be published in Fall of 2025.

Every summer for more than 20 years, Nashville has become ground zero for a remarkable natural spectacle: the gathering of purple martins (*Progne subis*) during their annual migration. Each year, these federally protected birds form a large night roost in or near downtown Nashville before embarking on their long journey to South America for the winter.

In 2024, The Nature Conservancy celebrated this exciting event by joining Bird Safe Nashville, Friends of Warner Parks, the Nashville Zoo and others in marking one year since Nashville officially become an Urban Bird Treaty City. During the initiative's inaugural year, TNC teamed up with over 50 partners to conserve key bird habitats around the city and find ways to educate residents and visitors about the importance of bird conservation. It also established an online presence with an official webpage (www.nashvilleurbanbirdcity.org) and Instagram handle (@nashvilleurbanbird) in an effort to reach an even broader audience!



During 2024, approximately 150,000 purple martins established roosts in downtown Nashville, in trees located near Nissan Stadium, home of the Tennessee Titans, and at 3rd and Church Street in downtown Nashville. In these locations, hundreds of residents and visitors gathered at dusk each night to witness these magnificent swallows forage high above the city before spiraling down into their roosts as darkness arrived.

JANIE BECKER, SWAP CONSERVATION MANAGER IN TENNESSEE

Partnership In Action: Nashville Celebrates One Year as an Urban Bird Treaty City





Cumberland Forest Ell © Steven David Johnson

BIODIVERSITY underpins every aspect of life on Earth, but it is declining at an unprecedented rate.

To reverse this trend, we must find better ways to manage humanity's footprint on lands and waters. Tackling the global loss of biodiversity involves more financial and human resources dedicated to nature than ever before.



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Alabama Delta © Hunter Nichols/TNC





Beyond Our Borders

The work that we do in Tennessee has an impact on people and wildlife throughout the southeastern U.S. and vice-versa. Some highlights include:

- Receiving a \$200 million EPA Climate Pollution Reduction Grant to pursue nature-based solutions that reduce carbon emissions in **Maryland**, **North Carolina**, **South Carolina and Virginia**.
- Protecting an 8,000-acre tract in **Alabama's** "Land Between the Rivers," part of the Mobile-Tensaw Delta, home to the greatest number of freshwater species in the nation and identified as one of the best opportunities for carbon capture in the U.S. outside of the Cumberland Plateau in the Appalachians.
- Scoring a \$400,000 Appalachian Regional Commission grant for an outdoor recreation and conservation corridor that will boost local economies in **Virginia, Kentucky and Tennessee**.