



# The Habitat Corner

## PROTECTING TENNESSEE'S RARE HABITATS

Many describe Tennessee as one of the most remarkable areas of the United States when it comes to unique habitat types and landscape features. From the backwaters of the Mississippi River in the west, to the high elevation eastern balds of the Great Smoky Mountains, Tennessee's diverse landscape never ceases to amaze. One of the most globally unique and endangered habitat types is known as cedar glades. Cedar glades are found primarily in the mid-South, and in Tennessee are mainly located in the Central Basin physiographic region.

Glades are areas that have very thin soils with an abundance of exposed limestone bedrock (i.e., outcrops). This shallow bedrock creates areas of poor drainage where water pools in the winter, but become almost desert-like in the heat of summer. Only specially adapted plants can survive these extreme environmental fluctuations.

Cedar glades and the grassy barrens often surrounding them support unique communities of plants and animals, many of which are found nowhere else in the world. In fact, the name "cedar glades" is a bit misleading, as the unique ecology of these sites is due to the presence of limestone outcrops and the surrounding areas where soils are shallow. These shallow soils and bedrock outcrops, when combined with processes like fire, limit the number of trees that can be established – maintaining the open character of the glades and surrounding barrens. In the areas where few trees and shrubs are present is where the action happens from a habitat perspective, supporting a great diversity of native grasses and wildflowers.

Cedar glades are a great example of how multiple agencies are coming together to protect rare and sensitive habitat types. The Tennessee Department of Environment and Conservation (TDEC) has protected many important cedar glade sites in their State Natural Areas (SNA). The Natural Resources Conservation Service (NRCS), U.S. Fish and Wildlife Service (USFWS), and Tennessee Wildlife Resources Agency are working with private landowners across multiple counties to protect and maintain these unique habitats.

In 2014, Rutherford County landowner Chris Percy contacted me to inquire how he could improve wildlife habitat on his 150-acre farm. During my initial site visit along with NRCS District Conservationist Chris Hancock, we realized there were many more plant and animal species at play than what is normally found.

By *Clint Borum, TWRA Wildlife Habitat Biologist*

Coincidentally, USFWS biologists Geoff Call and Bryan Watkins were involved with glade restoration operations at Flat Rock Cedar Glades SNA, located just to the south. When we all met on-site, there was immediate agreement that this area needed to be restored and maintained, and together the four of us developed a NRCS conservation Mr. Percy was willing to implement.

Two sections of the property were invaded with thick cedar trees, a result of long-term fire suppression. To restore glade conditions, a gyrotrac (somewhat like a Bobcat machine with a fast-rotating drum with teeth on the front) removed the encroaching cedars, and the areas were scheduled for a periodic prescribed burns. Prescribed fire is essential in maintaining open spaces in glade habitats. In its absence, cedars will again encroach on the site reducing its ability to support glades vegetation and associated wildlife. Without prescribed fire, many of the exclusive species of plants that only exist in these unique habitats would be lost. Mr. Percy has since completed the clearing and I will assist him in performing the prescribed burn in March 2016. Funding granted through NRCS and USFWS assisted in helping cover the restoration costs.

This project is an excellent example of how partner agencies can work together and how NRCS and FWS funds are being utilized to protect and manage extremely sensitive and unique habitat types across Tennessee.



Species such as this prairie warbler thrive in Tennessee's cedar glades.

## *"Helping Landowners and Wildlife Through Habitat Enhancement"*

The Tennessee Wildlife Resources Agency has Private Lands Biologists that will assist you in developing a management plan for your property and a strategy to implement it. See [www.TWRAPrivateLands.org](http://www.TWRAPrivateLands.org) for who to contact for technical assistance and other useful information on habitat management and programs.