Native Hardwood Restoration Demonstration Site

Indian-Celina Lakes Recreation Area, State Highway 37, St. Croix, Indiana (2 miles south of I-64)

Once you enter, go straight on Indian Lake Road for approximately 1.5 miles. Park at the second paved parking area on the right to access the Demonstration Site. **Please note there is a $5 per vehicle day use fee between April 15 and October 15. Maps are available at: https://www.fs.usda.gov/recarea/hoosier/recarea/?recid=41486

History of southern Indiana forests

Starting in the early 1800s, European settlers cleared much of the forested land in Indiana for building material, fuel, or to provide farmland for crops and pasture. In the south-central part of the state, much of the land was steeply sloped and not conducive to agriculture. By the 1930s, loss of soil fertility, the effects of soil erosion, drought and the Great Depression drove many settlers out. In addition, much forest was lost due to over-harvesting from the late 19th through the early 20th centuries.

The Forest Service purchased land from willing sellers with the immediate goals to rehabilitate the damaged land and control wildfires. The Civilian Conservation Corps (CCC) Program of the 1930's provided jobs for the unemployed and manpower to begin reforesting the hillsides and controlling the massive erosion problems. Primarily, a variety of pines were planted, as they were readily available and able to grow on nutrient-poor soil.

Pines being planted on eroded soil to rehabilitate the land.

Why remove the pines?

While the pines were effective at restoring the soil, today we are working to restore native hardwoods by clearcutting the non-native pines in small areas, many of which are now in declining health. Upon the removal of the non-native pines, we are afforded a decade of prime young hardwood forest habitat that has become increasingly rare on the landscape. Research shows that many bird species depend on young forest for all or part of their lifecycle. Data indicates these birds are declining across North America due to lack of habitat, as forests in the 0-9 year age class become increasingly rare. Natural disturbance processes cannot create enough young forest to sustain viable populations of the wildlife species that require it. On the scale that young forest habitat is currently needed, disturbance through timber harvest and prescribed fire is essential to making meaningful progress. In addition, native hardwoods will provide better habitat and food sources for native wildlife and be more resilient than most pine species in a changing climate.

On the Hoosier National Forest, we are primarily removing the eastern white pines as it has become clear they are not doing well in southern Indiana and are predicted to do worse here as the climate becomes hotter and drier. Their native range is further north and the climate here stresses them, reducing their ability to thrive, and making them more susceptible to pests.

What has happened at this site?

This 37 acre area was a 50 year old eastern white pine stand. Some shortleaf pine and hardwoods were intermixed. The primary objectives for management of this site included removal of non-native pine to restore native hardwoods and provide young forest habitat to a suite of wildlife species such as ruffed grouse, yellow-breasted chat, and American woodcock. Specifically, it was clearcut in 2015 and a variety of vegetation responded to the increased sunlight. Six years later it was treated with prescribed fire to “release” some of the oak and hickory by reducing competition.

What future actions are planned?

The site will be monitored before decisions are made on future actions. It is likely that non-native invasive species will be treated. Another prescribed fire may be implemented but monitoring data will inform that decision.

Take a stroll

We invite you to stroll along the trail and view this site in more detail as it changes with the seasons and continues to develop through the years. Notice the diversity of plants – both woody and herbaceous, as well as insects and birds. Wildlife may be difficult to see with the dense cover provided by this young forest habitat but close your eyes and listen.

Prairie warbler using this young forest for habitat in 2021.