



Public Land Agency



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TREE GROWTH IS NOT ALWAYS THE PRIMARY CONSIDERATION

when managing a forest. Some forests are managed specifically to restore ecosystems and increase biodiversity. For example, longleaf pine forests once dominated the Southeast U.S., and many land management agencies are working to restore these ecosystems across the region. These forests can include over 2,500 species of plants and 300 bird species, including red-cockaded woodpeckers—an endangered species. The woodpeckers’ preferred habitat is the longleaf pine ecosystem and the loss of this type of habitat is the primary cause of the species’ decline. Restoring longleaf pine ecosystems could greatly help in the recovery of the red-cockaded woodpecker.

Through multiple-use management, forest agencies often manage for plants and animals

Longleaf pine ecosystems are managed with prescribed fire.

that are endangered, threatened, or species of special concern; timber production and harvesting; watershed protection; wildlife habitat; and recreation. To understand how this is done, it is best to think of the longleaf pine forest as having three layers: the upper canopy of pine; a midstory of oak trees; and ground cover, which includes smaller plants and grasses. Healthy longleaf pine habitat consists of an upper story of longleaf pine (including trees of various ages), a very sparse middle story of oak trees, and a biologically diverse understory of plants and grasses.

In many cases, land that was previously planted in slash pine is being harvested with silvicultural best management

practices (BMPs) and replanted with longleaf pine. In other cases, suppression of fire in the past has led to the growth of a thick understory of oak trees, which creates too much shade for many ground cover species. When these trees are removed without damaging the longleaf pine trees, managers create better conditions for understory species associated with longleaf forests

Since longleaf pine is adapted to periodic fire, managers use prescribed fire to mimic the type of fire that would have been started by lightning during the numerous summer thunderstorms in the Southeast. Prescribed fires are started under specified weather conditions to achieve predetermined management objectives, such as reducing vegetation or maintaining biodiversity. Once the slash pine and oaks have been removed, the prescribed fires are typically all that is needed to promote the longleaf pine ecosystem, which offers preferred habitat for endangered and threatened species, as well as many other species.

As biodiversity improves in these forests, more people often find them attractive places for outdoor recreation, like bird watching, horseback riding, hiking, and trail biking. Too many visitors could disrupt breeding and nesting of the endangered birds, so managers have to manage people too.