



THE LONGLEAF LEGACY PROJECT WITHIN SAM HOUSTON JONES STATE PARK

Heritage. Restoration. Rebirth.



LESSON 7

Restoration: Removing the Underbrush and Making Way for Growth

Longleaf pine forests thrive when the forest ground, or floor, is clear of sticks and litter. Forest restoration efforts include clearing the forest floor's underbrush (shrubs, bushes or small trees growing beneath large trees in a forest) to get rid of plants that do not belong and to encourage the growth of plants that do belong. Mulching, mowing and treating selected species with herbicides are all methods experts use to remove underbrush and keep forests clear of unwanted woody vegetation.

Objectives:

- To explain why a clear and clean forest floor is important to the health and restoration of longleaf pine forests
- To describe and understand how restoration experts will remove unwanted vegetation from the longleaf pine forest

Making Room for Native Plants: Healthy longleaf pine forests contain thriving plants and animals that are native to the ecosystem. Native plants and animals are those that naturally belong in an area and have always grown and lived there. In a longleaf pine forest, the native plants include blue stem, muhly, switchgrass and the endangered American chaffseed. When a longleaf forest is not properly maintained, these plants struggle to grow because unwanted shrubs and debris get in the way. The forest floor must be cleared of the sticks, branches and debris that do not belong in order to make room for the native plants that do belong.

Clearing the Forest Floor: A healthy longleaf pine forest requires a clean forest floor. Buildup of sticks, branches and debris increases the risk of wildfire and gets in the way of the healthy growth of native plants. Regularly removing the underbrush in longleaf pine forests helps to keep the ground clear of unwanted woody plants and shrubs. Longleaf pine forest floor cleaning efforts include mulching, mowing and treating selected species with herbicides.

Encouraging Growth in Sam Houston Jones State Park: As students learned in Lesson 6, mechanical mulching is the first step in longleaf pine forest restoration. The mechanical mulching process uses a machine to remove debris to clear out the forest. To the untrained eye this step may look harmful to the forest because it looks like the ground is being disturbed, but by getting rid of plants and shrubs that do not belong, the mulching process enables plants that do belong to have room to grow. Just as the native plants and species depend on the pines for health, so too do the pines depend on a healthy ecosystem in which to grow. Native plants are an important part of longleaf pine ecosystems and provide food and shelter to many different types of wildlife.

Once the mulching process clears the forest floor, experts will use substances called herbicides to stop weeds and unwanted species from growing back. These herbicides are carefully selected and are used on species that prevent native plants and grasses from thriving.

** Learn more about controlled burns and their importance to a healthy longleaf pine forest in Lesson 8 on prescribed fires.*

continued



Mulching



Native grass



Underbrush

Key Words & Concepts:

Herbicide: A substance that prevents unwanted vegetation, such as weeds, from growing.

Groundcover: A generic term used to describe the mat of plants found on the forest floor. In longleaf pine forests, this groundcover is usually dominated by species of grass like wiregrass or split-beard bluestem.

Mulching: Mulching removes plants and shrubs that do not belong in the forest and makes room for plants that do belong.

Native: Natural to a specific location. For example, blue stem, muhly, switchgrass and the endangered American chaffseed are native to the longleaf pine forests in Louisiana.

Underbrush: Shrubs, plants and small trees found under trees in a forest.

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SUGGESTED ACTIVITY:

- Mulching is an important part of the health of any ground or garden. If your school has a garden, use it to demonstrate mulching to students and engage them in the growing process. If your school does not have a garden, consider planting seeds in a soil pot kept in the classroom to monitor the growth process. Below is an example of a longleaf pine growth cycle from experts at [The Longleaf Alliance](#). Discuss with your students the growing process for the plants around your classroom.

