



# THE LONGLEAF LEGACY PROJECT WITHIN SAM HOUSTON JONES STATE PARK

## Heritage. Restoration. Rebirth.



### LESSON 5

## Restoration: Healthy Longleaf Pines = Healthier Ecosystem

Longleaf pine forests must be healthy in order to be good homes for plants and animals. Forest animals depend on longleaf pine trees and surrounding plants for food and shelter. The plants and shrubs found in longleaf pine forests are called vegetation. A clean forest floor and an open canopy that allows plenty of sunlight are necessary for thriving vegetation. All of these conditions promote a healthy longleaf pine ecosystem.

### Objectives:

- To list some actions that help longleaf forests to thrive (planned burning and clearing the underbrush)
- To understand how a longleaf pine forest is beneficial to plants, animals and humans
- To understand the concept of restoration, particularly in the context of the longleaf pine forest
- To raise awareness about care and conservation of the environment

**Healthy Longleaf Pine Forests:** A healthy longleaf pine forest helps the longleaf pine ecosystem to thrive. For a longleaf pine forest to be healthy, the ground must remain clear of sticks, branches and debris known as the underbrush. One way of getting rid of this forest litter is to set planned fires to certain parts of the forest. Fire acts like a vitamin for the longleaf pine forest. Longleaf pines are resistant to fire, so they do not burn, but rather benefit from this process. Fire helps to clear away the forest litter and to fertilize the forest ground, helping the pine trees and other vegetation to grow. Prescribed burning is when a group of experts burn parts of the forest to promote a clean forest ground and new plant life. The plants and animals have adapted to fire, and they benefit from the clean forest that prescribed burning creates.

**Wildlife in a Healthy Forest:** Longleaf pine forests are a home to many rare and endangered species. In a healthy longleaf pine forest, plants are able to grow and animals are able to thrive. The bobwhite quail is an example of how wildlife depend on the longleaf pine forest. Carefully planned burning, that takes place every few years, helps to keep the ground clear of debris and litter. This makes it easier for wildlife, like the bobwhite quail, to find insects and seeds for food.

**Benefits of Longleaf Pine Forests:** Longleaf pine forests help humans as well as wildlife. The forest habitats are important to the health and cleanliness of our air, soil and waterways. Longleaf pine trees are typically stronger than other types of pine trees. Further, healthy longleaf forests can help to maintain and protect rivers, freshwater springs and other waterways. They are also strong enough to create sturdy buffers against wildfires and hurricanes and are less likely to be harmed by wind, droughts, fire and disease. Longleaf pine trees are also less likely to be bothered by pests like the southern pine beetle.

**Forest Restoration:** Restoration involves putting things back to the way they used to be. In the case of longleaf pine forests, restoration means helping to bring back the longleaf pine trees, the understory community and the animal communities that once lived there. In Sam Houston Jones State Park, the Longleaf Legacy Project partners are working to restore longleaf pine forests. These restoration efforts are happening in phases. Phases include clearing the forest of all the plants and grasses that do not belong, prescribed burning and taking action to prevent unwanted vegetation from coming back.

*\*Refer to Lesson 6 to learn more about these restoration efforts.*

*continued*

## Key Words & Concepts:

**Adaptation:** A change or the process of change by which an organism or species becomes better suited to its environment.

**Planned or prescribed fire:** Fire that is carefully planned and carried out by trained professionals under specific weather conditions for a specific goal. Also called a controlled burn because experts can somewhat predict what the fire will do.

**Restoration:** Putting things back the way they used to be. In the case of longleaf pine forests, restoration refers to getting back the trees, the understory community and the animal communities that once inhabited them.

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



Mulching



Burning



Growth

[LongleafLegacy.com](http://LongleafLegacy.com)



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### Restoration: Healthy Longleaf Pines = Healthier Ecosystem

#### SUGGESTED ACTIVITIES:

- Make a collage from leaves, pine needles, pieces of grass, sticks, etc. found in any nearby forest, park or nature area (it does not need to be a longleaf pine forest). The collage should showcase all of the different kinds of native leaves, grasses, etc. found in your local environment.
- Write a haiku, limerick or even a song about longleaf forests.
- With the support of local state parks or groups such as the [Coastal Plain Conservancy](#), students can become part of an ongoing maintenance program for a park or local natural space.
- Schools can volunteer to help manage nature areas in need of repair by getting involved on a regular basis in mulching, weeding, follow-up watering, maintaining tree guards and more.