

THE LONGLEAF LEGACY PROJECT WITHIN SAM HOUSTON JONES STATE PARK

Heritage. Restoration. Rebirth.



LESSON 2

Heritage: From Longest-lived Southern Pine Species to Endangered Ecosystem

Longleaf pines are witnesses to history. They take 100 to 150 years to reach mature size and can live to be 500 years old. How did the longleaf pine go from one of America's most plentiful trees to one of its most endangered? As America developed into a country and its population grew, settlers began to convert longleaf pine forests to other uses.

Objectives:

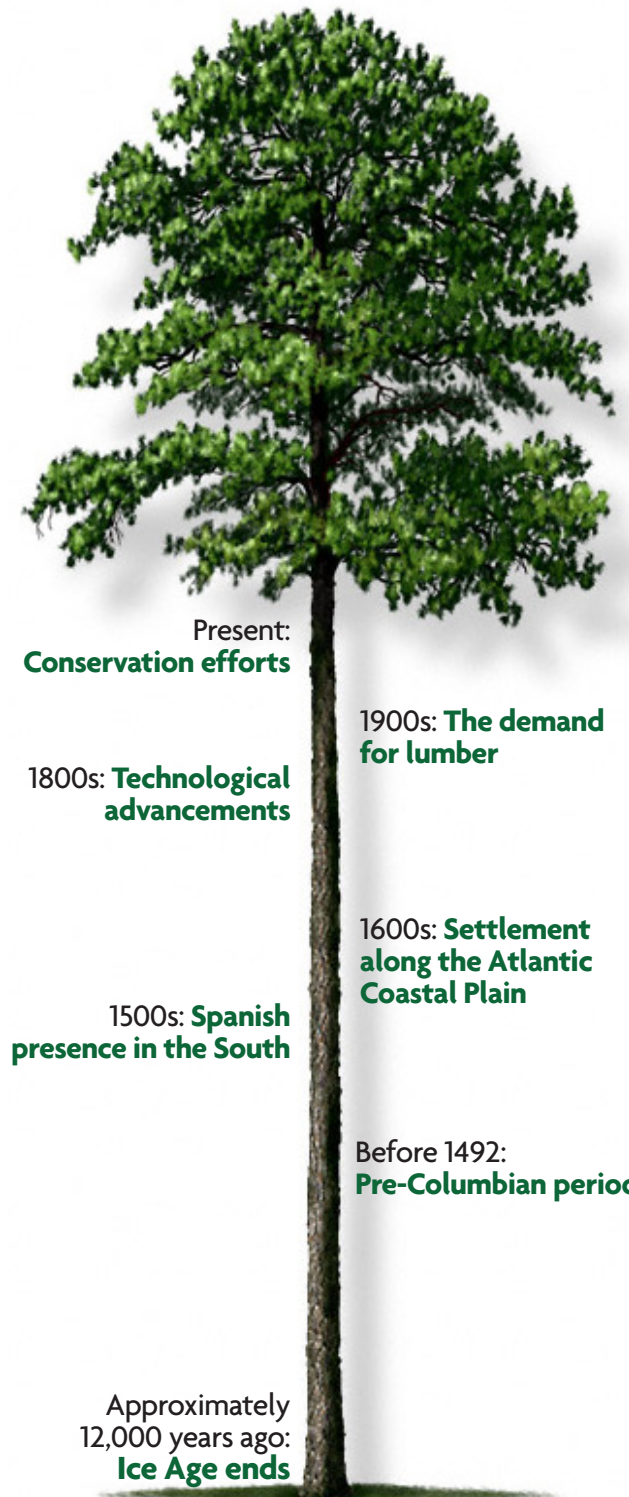
- To understand the history and longevity of longleaf pine forests
- To comprehend how humans throughout history have impacted longleaf pine forests
- To understand how technology, particularly in the logging and railroad industries, impacted longleaf pine forests
- To become aware of the current state of the longleaf pine forest and the conservation efforts underway

The Longleaf Pine through History:

Approximately 12,000 years ago: Ice Age ends ➔ Longleaf pine forests date back to the most recent Ice Age. Approximately 12,000 years ago, the pines were scattered across southern Texas and northern Mexico. As the large sheets of ice called glaciers melted, longleaf pines expanded north and east from Texas to Virginia.

Before 1492: Pre-Columbian period ➔ Throughout the 1400s, Native Americans lived in areas where longleaf pine forests grew. They used fire to burn nearby forests for cattle grazing and to remove dense shrubs and plants. The fire-dependent longleaf pine forests benefitted from this practice and thrived, becoming one of the most widespread ecosystems in North America. During this period, the trees occupied more than 90 million acres in the southeastern United States from Virginia to Texas.

1500s: Spanish presence in the South ➔ During the 1500s, The Spanish lived in the Southeast from Texas to Florida. Their presence in the forested region stopped other settlers from moving into the area and helped to preserve longleaf pine forests. This region later became part of the United States, and colonial settlers began to populate the area.



continued

1600s: Settlement along the Atlantic Coastal Plain ➡ European settlers lived along the Atlantic Coast and impacted the longleaf forests in that region. These settlers converted longleaf pine forests into farms, plantations, big cities and small towns. This interrupted the natural wildfire cycles that had helped the forests to thrive.

1800s: Technological advancements ➡ The invention of the steam engine in the early 1800s also significantly impacted the decline of longleaf pine forests in the United States. By 1880, most of the longleaf pine trees along streams and railroads had been harvested.

1900s: The demand for lumber ➡ After clearing much of the forest in the East, by 1930 lumber companies began to move west. In the 1950s, the construction of mills, designed to convert trees to paper and other products, created an increased need for smaller, faster growing trees. Longleaf pines grow slowly in their early years compared to other pines, so foresters planted other types of trees that could be harvested more quickly.

Present: Conservation efforts ➡ Logging, farming, the development of big cities and small towns and the lack of planned fires (a longleaf's favorite vitamin) to clear the underbrush diminished the forests over time. Today, less than 4 million acres of longleaf pine forests remain, making it one of the most endangered ecosystems in North America. In Louisiana, less than 10% of original longleaf pine forests in the state still exist. The Longleaf Legacy Project in Sam Houston Jones State Park in Lake Charles is sponsored by Sasol, along with the Louisiana Department of Culture, Recreation and Tourism, The Coastal Plain Conservancy, Patagonia and the Community Foundation of SWLA. The project is dedicated to the heritage, restoration and rebirth of the longleaf pine forest.

**Learn more about longleaf conservation efforts in Lesson 6 on restoration.*

Helpful Links:

History and current condition of the longleaf pine:

https://www.srs.fs.fed.us/pubs/gtr/gtr_srs166.pdf

Key Words & Concepts:

Acres: A unit of measure used to describe large areas, equal to 43,560 square feet. A square acre would be approximately 209 feet by 209 feet, and a circular acre would have a radius of 117.75 feet. Visually, one acre is about the size of a football field.

Atlantic Coastal Plain: A region along the East Coast of the United States. The region extends 2,200 miles from the bottom tip of New York down through Florida.

Conservation: The protection of things found in nature. Conservation requires the careful use of all Earth's natural resources: water, soil, minerals, wildlife and forests. Conservation involves the preservation of natural resources so they will still be around in the future. Conservation efforts also help keep the environment clean and healthy.

Ecosystem: Plant and animal communities, their environment and the resulting interactions. An ecosystem can be as simple as a mud puddle or dead log or as complex as a forest containing thousands of acres.

Endangered: A plant, animal or insect that is in imminent danger of becoming extinct. Species can be federally endangered (in peril of global extinction) like the red-cockaded woodpecker or American chaffseed plant, or state endangered (in peril of extinction from a region) like the gopher tortoise in Mississippi.

Habitat: An animal's environment (where it lives). This area must supply all of the animal's life needs.

Ice Age: A time in the past where temperatures were cold and large sheets of ice, called glaciers, covered parts of the world.

Longleaf Pine: A southern pine species which once dominated the uplands of the southeastern United States. It is the state tree of Alabama. Also called: The Fire Forest, Pine Barrens, Pineywoods, High Pines, Flatwoods, Mountain Pine, Yellow Pine Forests, etc.

National Forests: A system of publicly owned forestlands scattered across the nation and managed for multiple uses by the U.S. Forest Service. Compared to the forests in the western United States, little of the southern longleaf pine landscape is contained in National Forests – most is privately owned.

Mills: Factories used to turn things like trees into products like paper and wood chips. For example, pulp mills convert wood chips into pulp, a soft, wet piece of material.

Pre-Columbian Period: A term used to describe the time before explorer Christopher Columbus sailed to the Americas in 1492.

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.



Endangered



Habitat



Longleaf Pine

LongleafLegacy.com

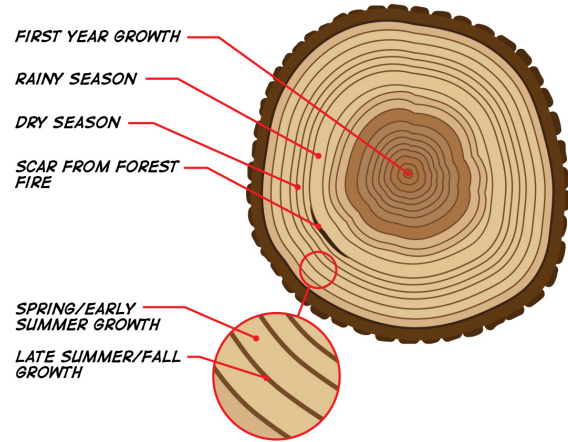


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SUGGESTED ACTIVITIES:

- Be nature detectives with your students! Discuss dendrochronology (the science of dating a tree in history) and tree rings with students to underscore how longleaf pines are witnesses to often hundreds of years of history.



- Relate the history of longleaf pine forests to other notable historical events that the class has covered. Use the longleaf timeline below and draw lines to mark when these historical events happened in reference to longleaf pine history. Below are suggested historical events. These can be interchanged with relevant events discussed in your classroom.

SUGGESTED HISTORICAL EVENTS:

American Revolution

The Louisiana Purchase

Civil Rights Movement

Colonists settle in present-day New England

California Gold Rush

Invention of the telephone

Apollo 11 moon landing

Christopher Columbus sailed to the New World

George Washington is elected president

