

Forest or Savanna?

You are walking through a Longleaf Pine Sandhill natural community. The open understory of the Sandhill is often called savanna. Abundant sunlight reaches the ground, creating good conditions for grasses and wildflowers to grow. Savannas are maintained by fires that occur naturally.



What happens when fire is removed?

Fast growing hardwood trees invade and change sunlight patterns, water supply, and nutrients. Many groundcover plants are shaded out. Sandhill animals like the gopher tortoise find it harder to live here.

Sandhill once covered most of the land from Virginia to the Mississippi River. Human use has made Sandhills more endangered than the Tropical Rainforest. Less than 2% of Sandhill is left! Preserves like Morningside are trying to keep the little Sandhill we have left healthy with prescribed fire and reintroduction of native species.

Continue on the path to see how native species stay healthy with fire...

Longleaf Pine... Fire Resister

Look around at the longleaf pines: fire-charred bark below, live green branches above. How can this be? Longleaf pines resist damage from low-intensity fires. Thick insulating bark protects the living tissues from killing heat while the bare trunk prevents fire from climbing and spreading.

Baby longleafs look like wiregrass clumps. During this “grass stage”, energy is stored in the roots while a waxy cluster of needles protects the growing tip.

After enough energy is stored, “grass stage” pines shoot up several feet.

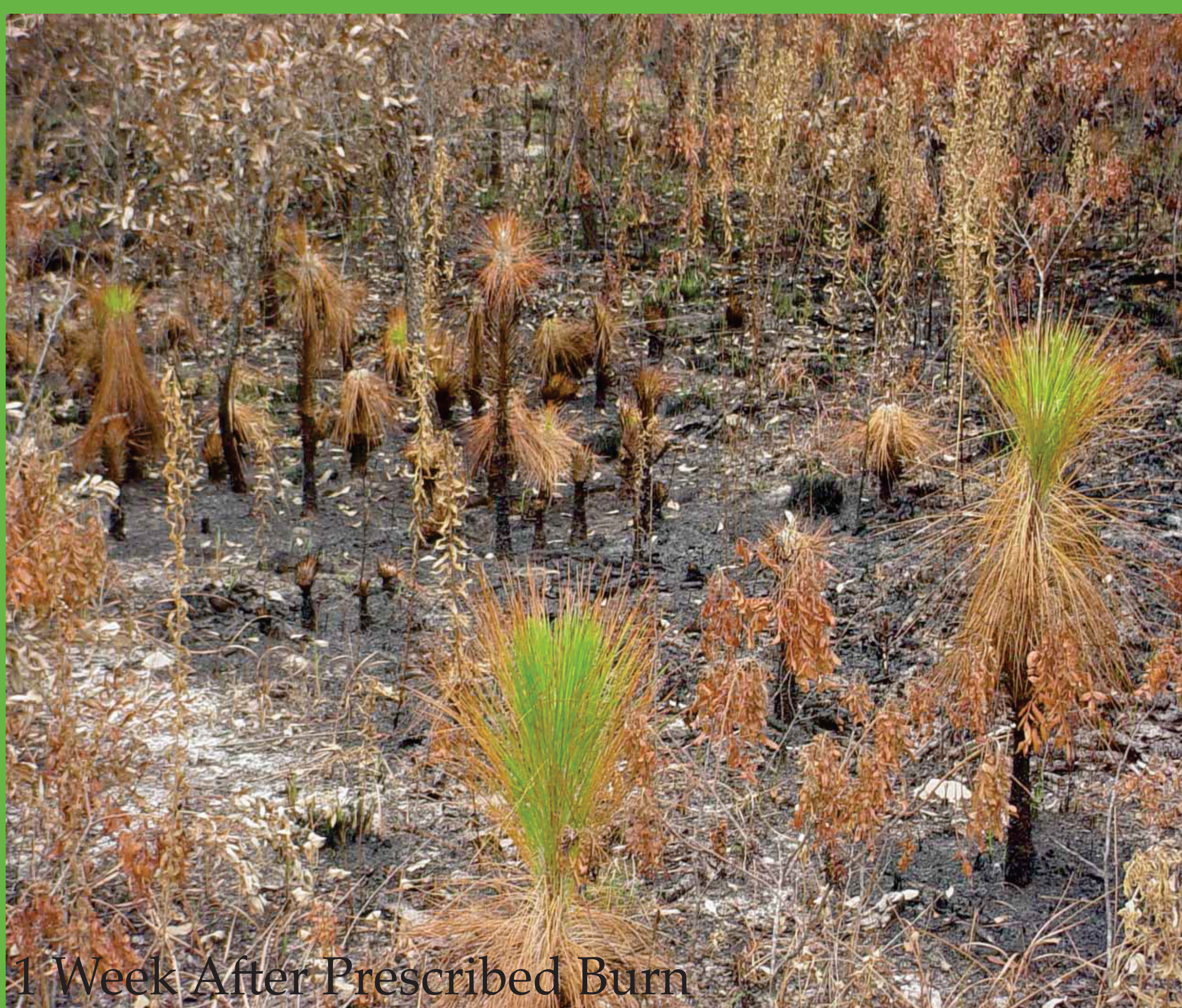
Now the sapling longleafs are above the low flames



1 Day After Prescribed Burn

that move through the Sandhill.

The fire here did kill some small trees and shrubs. Most burned grasses, shrubs, and wildflowers re-sprout from roots after the fire.



1 Week After Prescribed Burn

The bare soil enriched by ash creates the perfect conditions for seeds to sprout.

Continue on to see how the forest has changed over time... with and without fire...



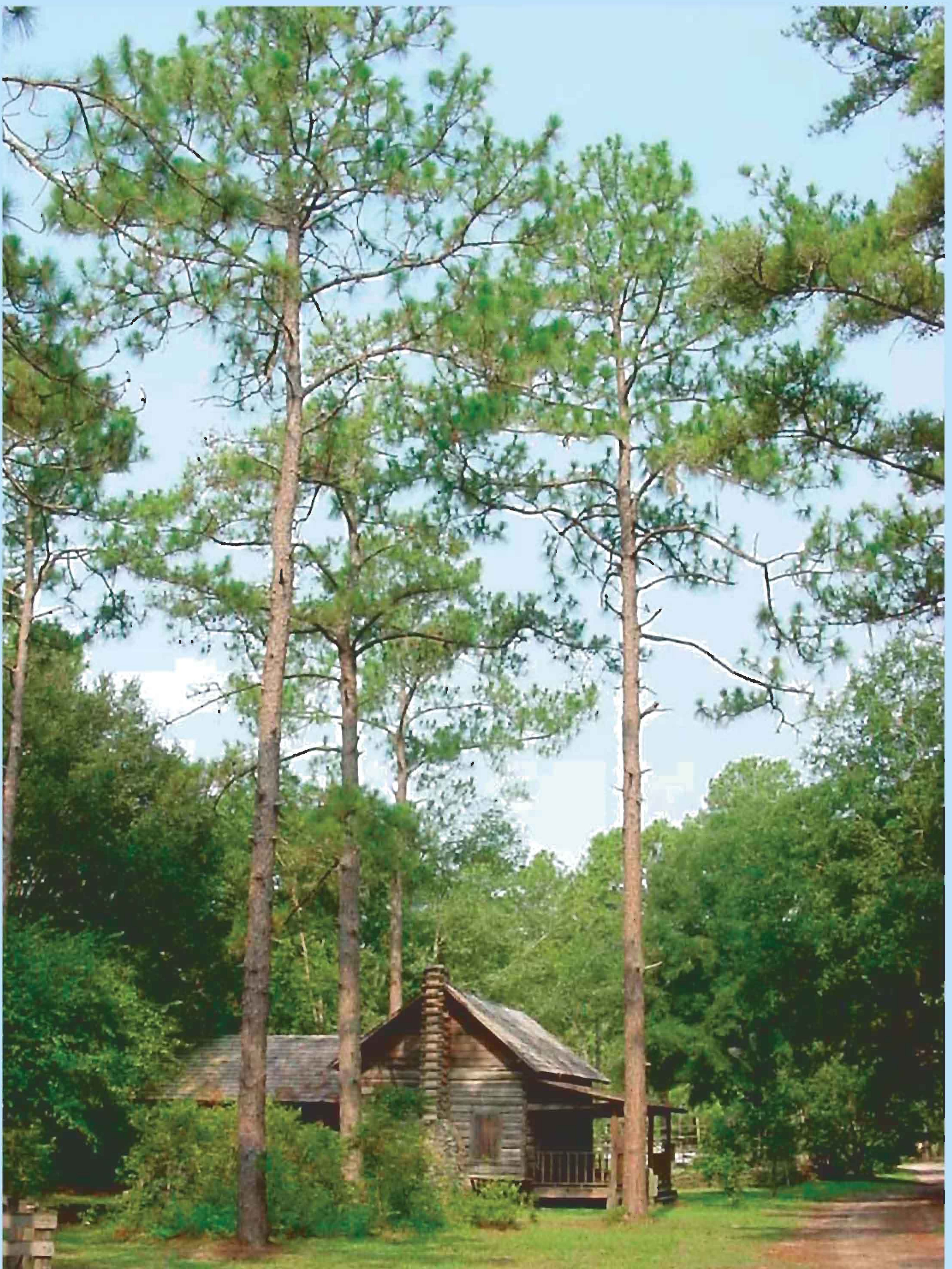
4 Months After Prescribed Burn

Forest Structure Past and Present...

Turn-of-the-century settlers wrote that it was easy to drive a wagon through the open pine savannas. What about today?

Many forests today contain trees growing too close together. Insects and diseases can attack when trees are weak from competing for moisture and nutrients.

What will fire do in these overgrown areas? Low branches and vines act as ladders, letting fire climb up and kill the treetops.



Prescribed Burning... Fighting Fire with Fire!

Native Americans burned often. They knew that the plants both they and the animals needed grew best after fire. Natural or manmade fires swept through every 2-5 years, maintaining an open savanna of wiregrass with scattered pines. The noted naturalist William Bartram, during his travels through Florida in the 1700s, noted fires burning somewhere every day!



Morningside Prescribed Burn February 2003

Many locals remember the summer wild-fires of 1998 that burned nearly a half million acres throughout Florida. These fires got too hot

and too large because for years fire was prevented in these places. Lots of old wood and dry leaves piled up. Drought conditions made them ready to burn.

Use of prescribed fire can prevent such tragedies. Land without prescribed burning is more than 70 times more likely to have uncontrolled wildfire. Did you know that Florida burns more land under prescription than any other state?



Morningside Prescribed Burn February 2003

A Fire Waiting to Happen... Not if, But When

Planned, prescribed burns mimic the effects of low-intensity wildfires, without as many bad side effects. Prescribed burning is done only when weather conditions allow a safe burn. Prescribed burns are planned on days when smoke will rise into the upper atmosphere and be carried away from towns.



Morningside Prescribed Burn February 2003

Do you see areas that look ready for a prescribed burn? Prescribed fire managers must consider many issues when deciding to use fire as a tool:

- 🔥 Natural Community type and goals
- 🔥 Amount and type of fuels and moisture content
- 🔥 Weather patterns
- 🔥 Smoky conditions
- 🔥 Risk to nearby homes and residents
- 🔥 Are the risks to life, property, and the environment greater if we don't burn?
- 🔥 How much of our forest should, or can, undergo prescribed burning?

Using fire to restore forests requires cooperation between citizens, scientists,

industry, public agencies, politicians, and forest managers. Intelligent use of prescribed burning can restore our Longleaf Sandhills back to a stable and sustainable condition.



Morningside Prescribed Burn June 2003

Are We Doing Enough?

What does the future hold for the young longleaf pines in front of you? Think of this small stand as representing the entire Longleaf Sandhill community.

We now know that frequent, low-intensity fire was the force that stabilized resilient, pre-1900s forests. More than 100 years of preventing fire has reduced fire frequency and acres burned, but the fires that do occur are more destructive!

Efforts to suppress wildfires will continue to be essential to save homes and lives. However, we need prescribed fires to restore our forests to healthy, functioning natural communities before they go up in smoke. Frequent, low-intensity controlled burning increases the forests' ability to quickly recover after the inevitable uncontrolled wildfire. Prescribed burning results in forest structures like those created by natural fire. When lightning strikes a forest in the 21st century, what kind of fire will it cause?

The answer is in our hands today.



Dragonfly gathers nutrients from ash



Southern Toad emerging after burn