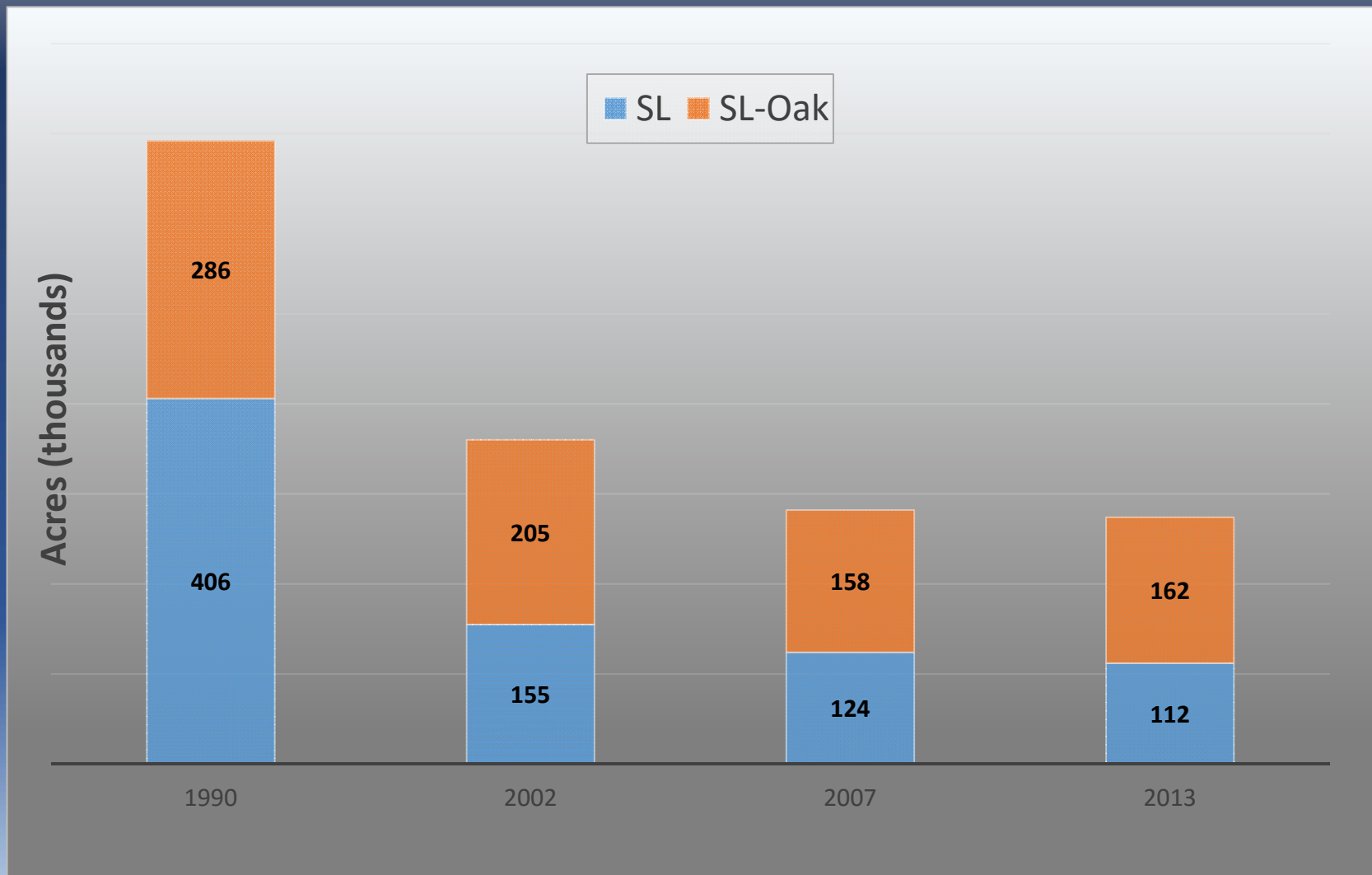


# Where We Are Now -- Successes and Challenges to Restoring Shortleaf Pine in North Carolina

Bill Pickens  
NC Forest Service  
3<sup>rd</sup> Biennial Shortleaf Pine Conference.  
September 24, 2015  
Knoxville, TN

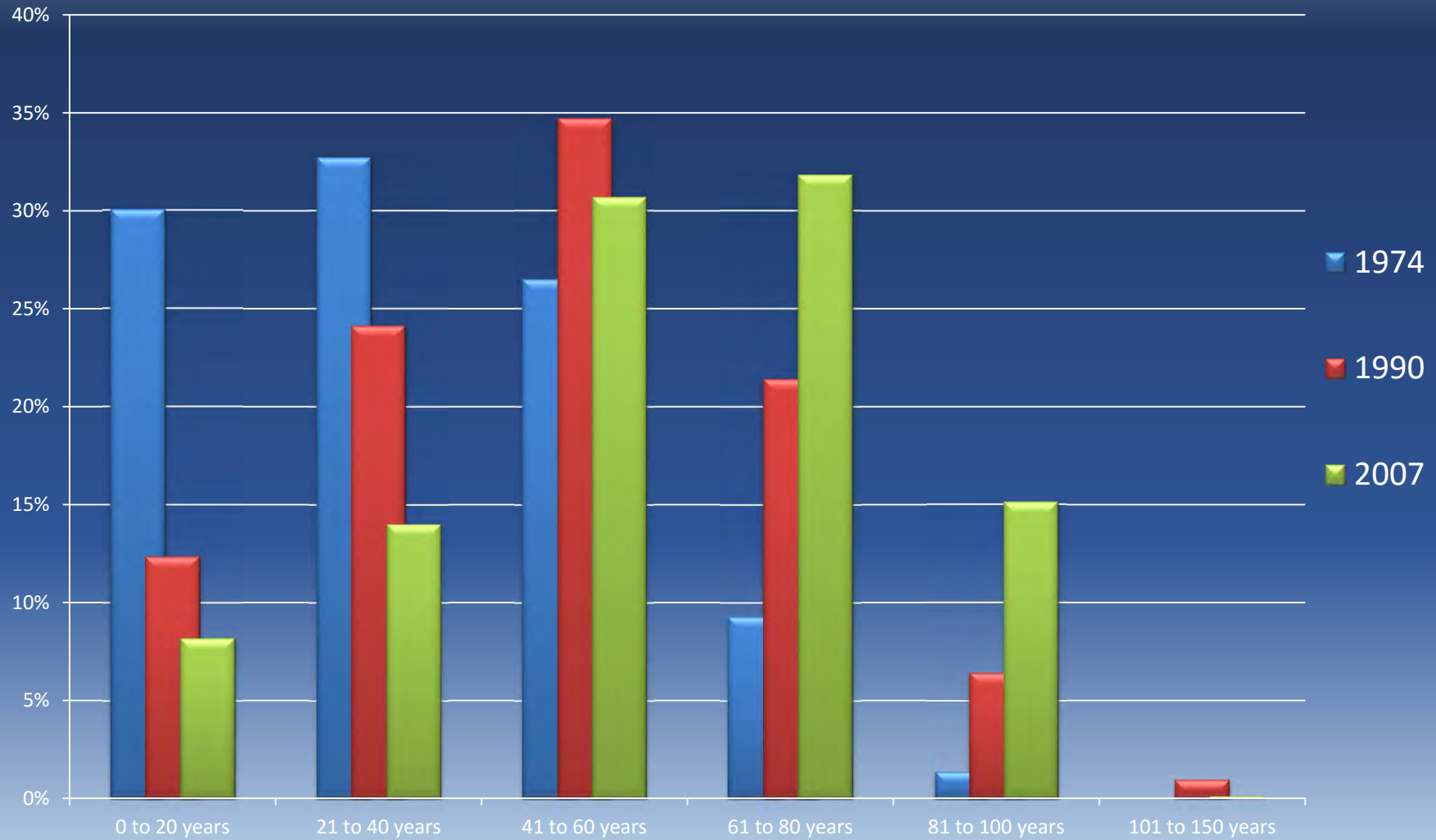


# Shortleaf is losing ground ... & numbers

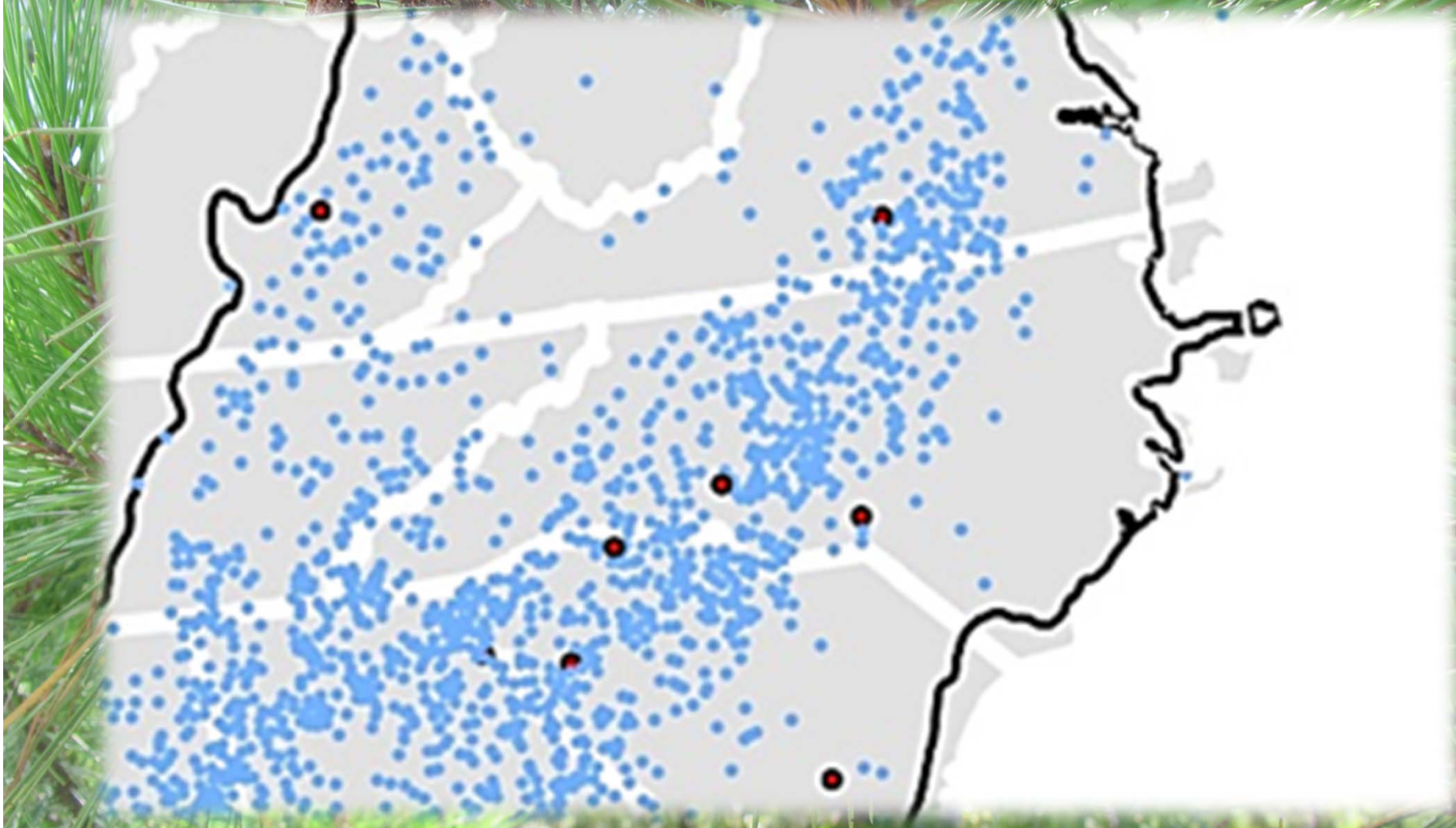


# 75% is > 40 years old

## Percent of Total Area by Stand Age



# FIA Shortleaf Plots



# Successes - Outreach

- Sponsored 4 Shortleaf focused workshops
  - NCSAF Meeting June 2005
  - NCSU Forestry Outreach Teleconference January 2006
  - **Shortleaf Pine Restoration Conference** **Sept. 2010**
  - Shortleaf 101 Workshop May 2015
  - Shortleaf in the Appalachians July 2015
- 7 presentations from 2011 – 2015
  - Consulting Forester, Landowners, Forestry Guild, NCFS Foresters, Fire Council



# Successes - Management

- Increases in Acres planted
- Increases in Seedling demand
- Increases in Acres burned
- Priority in Cost-Share funding

# Successes – Tree Improvement

- Established a New 2<sup>nd</sup> Generation Shortleaf Orchard
  - Scion material from Tennessee and USFS
- Re-measured progeny tests established 25 – 30 years ago
  - Best Growers were the best on all sites
  - Survival , height = no differences in Piedmont or Mountain



# Successes – SL Website

The screenshot shows the homepage of the Shortleaf Pine Initiative website. The background is a photograph of a pine forest. At the top, there is a dark blue banner with the text "Successes – SL Website". Below this is the website's header, which includes the logo "Shortleaf Pine INITIATIVE" and a search bar. The logo features the words "Shortleaf Pine" in a large, green, serif font, with "INITIATIVE" in a smaller, black, sans-serif font below it. A stylized pine branch is positioned below the text. The search bar is located in the top right corner and contains the text "Search Site" and a magnifying glass icon.

Below the header is a green navigation bar with the following menu items: SHORTLEAF PINE INITIATIVE, WHY SHORTLEAF?, GROWING SHORTLEAF, TOOLS & RESOURCES, MEDIA, NEWS & EVENTS, and CONTACT.

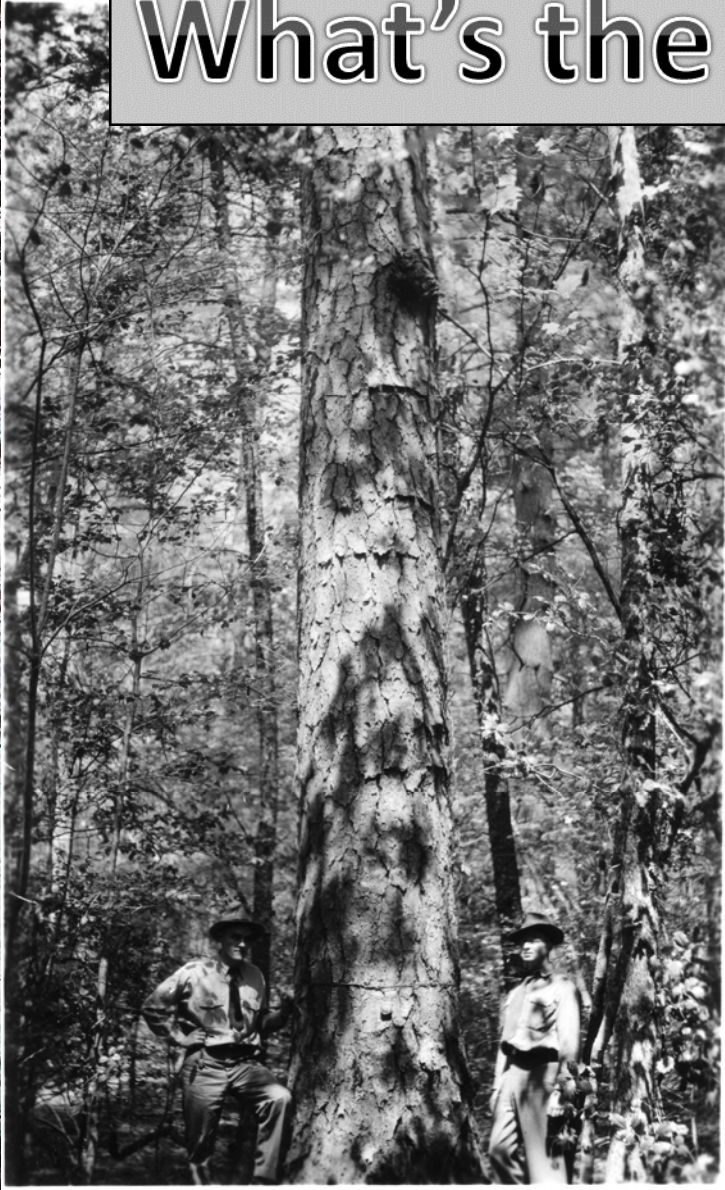
The main content area is divided into two sections. The top section is a dark brown box with the title "Restored SLP Bluestem" and the subtitle "Pushmataha Wildlife Management Area, Oklahoma". To the right of the text is a photograph of a restored pine forest. Below the text is a progress indicator consisting of seven small squares, with the last one being white and the others grey.

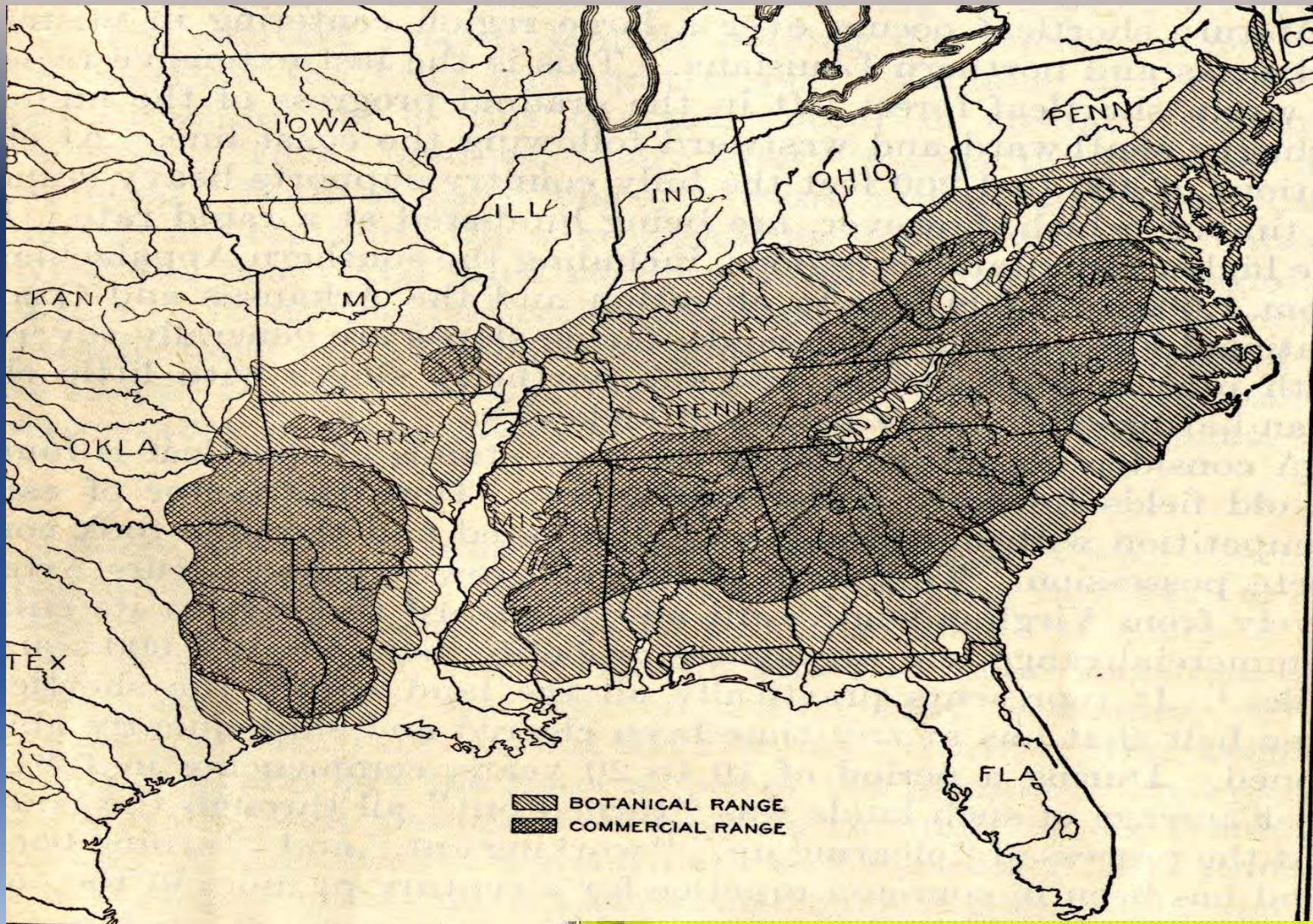
The bottom section is a white box with the text: "Shortleaf pine (*Pinus echinata*) forests and associated habitats contain extraordinary cultural, ecological, and economic value by providing wildlife habitat, recreational opportunities, enhanced water quality, and high value wood products. Despite these values and services, shortleaf pine has significantly declined across much of its 22-state range. The Shortleaf Pine Initiative created this website to provide the essential tools and resources necessary for restoration of shortleaf pine."

At the bottom of the white box are three small images with captions below them: "WHY SHORTLEAF PINE?" (a close-up of a pine needle), "GROWING SHORTLEAF PINE" (a photograph of a pine forest), and "TOOLS & RESOURCES" (a map of the United States showing the 22-state range of shortleaf pine).

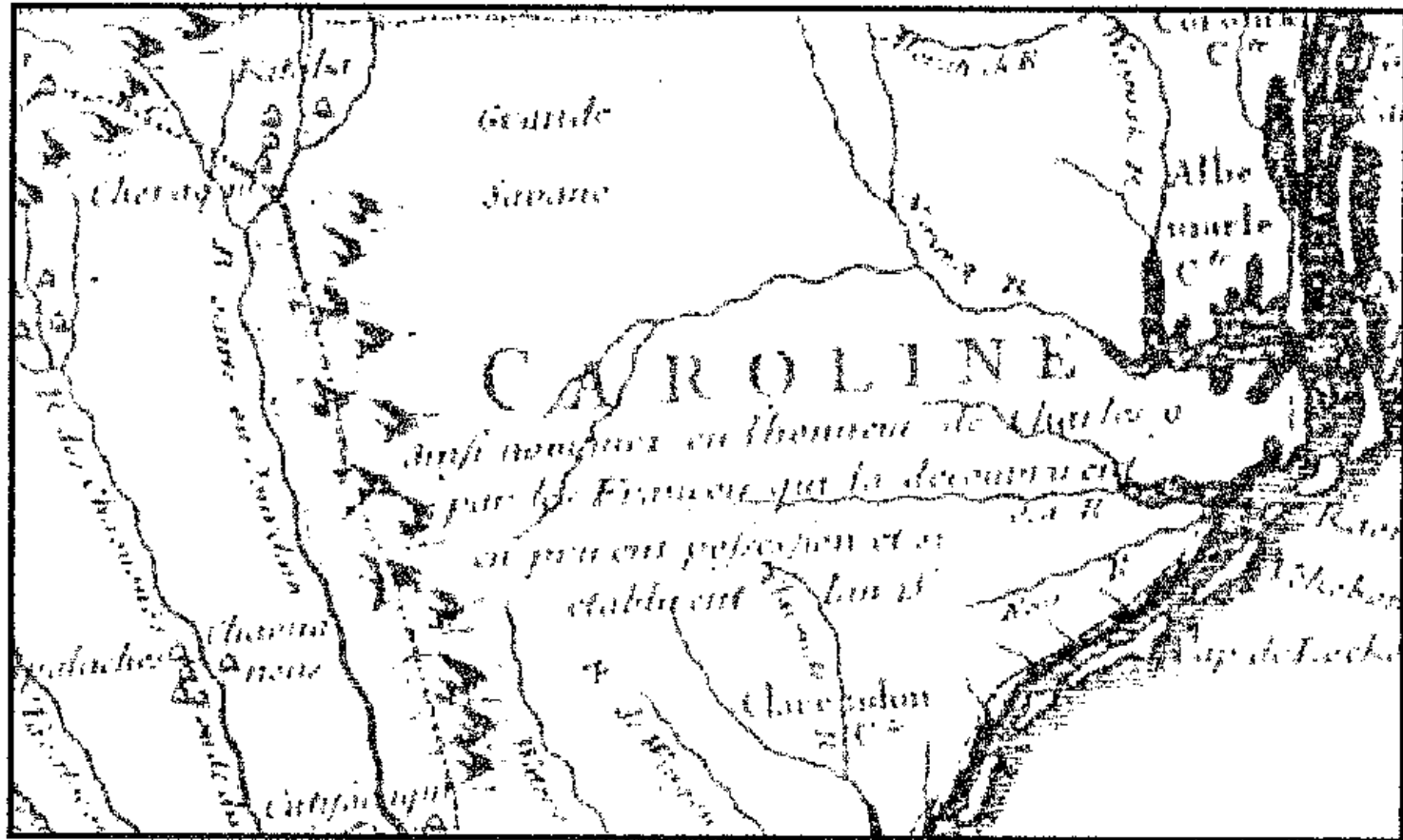


What's the next step?





Mattoon 1915



C. 1718 map showing "Grand Savane" of Piedmont

# Naturally occurred .....

- Dry Oak—Hickory Forest
- Dry-Mesic Oak—Hickory Forest,
- Dry Basic Oak—Hickory Forest
- Dry-Mesic Basic Oak—Hickory Forest,
- Piedmont Monadnock Forest
- Xeric Hardpan Forest (all subtypes),
- Dry Piedmont Longleaf Pine Forest

## Strategies for Restoration

# What do we want our Shortleaf Forests to Look Like?



## Strategies for Restoration

# What do we want our Shortleaf Forests to Look Like?

- The forest now compared to what it was
- Timber production or ecological restoration
- Savannas, mixed pine-oak, plantations



# Strategies to Restoration: Select for success

- Select the Right Sites
- What about Littleleaf
- Mixed stands





# Strategies to Restoration: Grow the Next Forest

## Artificial Regeneration

- Adequate Site Prep
- Quality Seedlings
- Mixed stands-Match Species



A young pine tree is growing in a forest after a fire. The ground is covered in charred wood and pine needles. The background shows a clear blue sky and other trees.

# Strategies to Restoration: Grow the Next Forest

## Natural Regeneration

- Target Existing Stands
- Adequate Site Prep

# Lessons Learned

## There is a lot of:

- Competition
  - Growing space
  - Funds
  - Interest
  
- Interest

# Lessons Learned

There is a lot of:

- Gaps in Knowledge and Experience
  
- Gaps in Research
  
- Real and perceived bias
  - SPB Risk
  - Littleleaf Disease Risk
  - Growth
  - Site Suitability

# Lessons Learned

Smoke Management Concerns

Shortleaf takes time to establish

Natural regeneration has not been dependable

SL is not fire proof

A lot of Shortleaf does not sprout after top-kill

# What's Down the Tracks?

An upland species without production capacity of loblolly nor the ecological capacity of longleaf.....


“It seems unremarkable and therefore is expendable”

Dr Gary Blank , NCSU



# “Shortleaf is the New Longleaf”

- Include Private Landowners
- Make an Economic argument to Complement an Ecological one
- Be “Honest Brokers” of Information
  - SL is an option
- Find a Hook
  - Cultural, ecological, history
- Educate and Demonstrate
- Be Patient



*Questions???.  
or Comments*

[bill.pickens@ncagr.gov](mailto:bill.pickens@ncagr.gov)  
919-553-6178 x233