

# Ecological Succession

The natural progression of plant communities over time

The southeastern United States has five stages of succession identified by dominant vegetation types. Moving through each stage is gradual and no specific point defines transition. Timing of each stage, as well as plant species, is affected by soil, climate, and additional disturbances. Understanding the concept of ecological succession is the basis for all forestry and wildlife management.



Disturbance



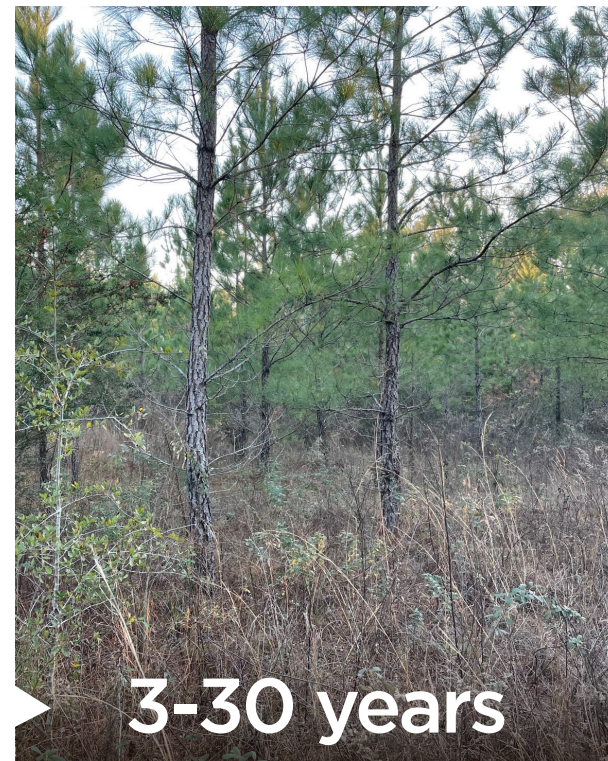
1-2 years

Annual Grasses and Forbs



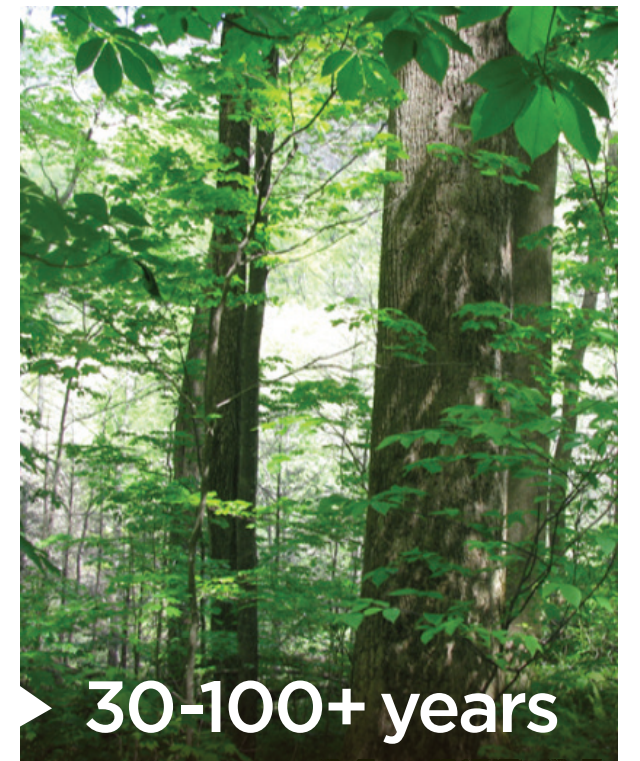
2-5 years

Perennial Grasses, Forbs, and Brambles



3-30 years

Young Forest



30-100+ years

Mature Forest

- Prescribed fire
- Wildfire
- Timber harvest
- Mowing
- Disking
- Tree death
- Storm damage
- Drought



Feller Buncher

- Common ragweed
- Partridge pea
- Carolina geranium
- Horseweed
- Annual fleabane
- Black-eyed Susan
- Passionflower
- Pokeweed
- Witchgrass
- Morning glory
- Beggar's lice
- Florida pusley
- Fall panicum



Passionflower



Bobwhite

- Goldenrod
- Blackberry
- Pokeweed
- Dog fennel
- Winged sumac
- Broomsedge
- Big bluestem
- Little bluestem
- Indiangrass
- Brazilian vervain\*
- Wild mustard

Northern bobwhite, eastern cottontail, white-tailed deer, and numerous song birds thrive in areas with frequent disturbance (less than 5 years frequency). Habitat needs are met by the diversity of vegetation types.

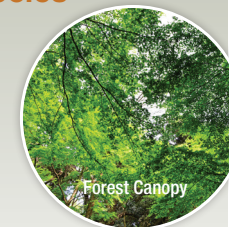
Longleaf pine systems must be maintained with frequent fire. These systems do not fit the traditional successional format. In longleaf pine dominant systems, the overstory is managed as a climax forest while the understory remains in early successional plant communities (1 to 5 years).



Longleaf Fire

- Southern pine species
- Sweetgum
- Yellow-poplar
- Black cherry
- Gallberry
- Yaupon
- Poison ivy
- American beautyberry
- Red maple
- Privet\*
- Chinaberry\*

\* Indicates nonnative species

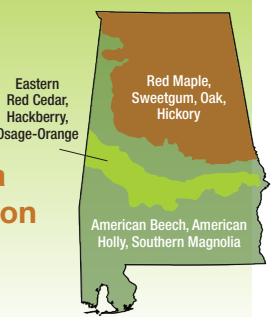


Forest Canopy

In this stage, dominant species are shade intolerant and fast growing. These species form a canopy, shading out forbs, brambles, and grasses in the understory.

- Yellow-poplar
- White oak
- Water oak
- Hickory spp.
- Southern magnolia
- Common persimmon
- American holly
- American beech
- Poison ivy
- Wild ginger
- Virginia creeper
- Saw palmetto

Climax forest is another term for this final stage of succession. In Alabama, this map denotes dominate tree species within a region without any form of disturbance.



Storm Damage