



# Natural Communities of Louisiana

## Western Upland Longleaf Pine Forest

**Rarity Rank:** S2S3/G2G3

**Synonyms:** Sandhill Pine Forest, Clayhill Pine Forest

**Ecological Systems:** CES203.293 West Gulf Coastal Plain Upland Longleaf Pine Forest and Woodland

### General Description:

- Occurs in the hilly uplands, dissected by small to large branch or creek bottoms which may contain bayheads or seeps
- Soils are acidic loamy sands to acid clays associated with Pleistocene or Tertiary formations
- Bogs may be found on mid- to low slopes within these forests
- Highly diverse herbaceous flora
- *Pinus palustris* (longleaf pine) is the dominant overstory species, and with frequent fire it is often the only canopy species
- Fire maintained natural community (frequent fires maintain herbaceous layer and prevent establishment of fire sensitive, weedy species, such as loblolly pine)



### Plant Community Associates

#### Common woody species include:

*Pinus palustris* (longleaf pine)  
*Pinus taeda* (loblolly pine)  
*Quercus falcata* (southern red oak)  
*Q. marilandica* (blackjack oak)  
*C. texana* (black hickory, central Louisiana)  
*Sassafras albidum* (sassafras)  
*Q. hemisperica* (upland laurel oak, sandy soils)

*Pinus echinata* (shortleaf pine)  
*Nyssa sylvatica* (black gum)  
*Q. stellata* (post oak)  
*Carya tomentosa* (mockernut hickory)  
*Diospyros virginiana* (persimmon)  
*Q. incana* (bluejack oak, sandy soils)

#### Common midstory & understory species include:

*Cornus florida* (flowering dogwood)  
*V. elliotii* (elliott's blueberry)  
*V. darrowii* (dwarf blueberry, southeast Louisiana)  
*Callicarpa americana* (French mulberry)  
*Bumelia lanuginosa* (chittum-wood)  
*Rubus* spp. (blackberries)  
*Vitis* spp. (grapes)  
*Gelsemium sempervirens* (yellow jessamine)

*Vaccinium arboreum* (winter honeysuckle)  
*V. stamineum* (deer berry)  
*Gaylussacia dumosa* (huckleberry, se LA)  
*Morella cerifera* (wax myrtle)  
*Ilex vomitoria* (yaupon)  
*Rhus copallina* (winged sumac)  
*Smilax* spp. (greenbriers)  
*Parthenocissus quinquefolia* (VA creeper)

#### Common herbaceous species include:

*Andropogon* spp. (broomsedges)  
*Aristida* (three-awn grasses)  
*Panicum* (panic grasses)  
*Paspalum* (pasp grasses)

*Schizachyrium* spp. (bluestems)  
*Sporobolus* (dropseeds)  
*Anthaenantia* (silky scales)  
*Digitaria* (crab grasses)

#### Common herbaceous species continued:



# Natural Communities of Louisiana

*Eragrostis* (love grasses)  
*Gymnopogon* (skeleton grasses)

*Erianthus* (plume grasses)  
*Muhlenbergia* (muhly grasses)

**Common forb (wildflower) species include:**

*Eurybia* spp. & *Symphotrichum* spp. (asters)  
*Chrysopsis* spp. (golden asters)  
*Elaphantopus* spp. (elephant-foot)  
*Euthamia* spp. (flat-topped goldenrods)  
*Helenium* spp. (sneeze-weeds)  
*Liatris* spp. (blazing-stars)  
*Solidago* spp. (goldenrods)  
*Baptisia* spp. (indigos)  
*Crotolaria* spp. (rattle pods)  
*Lespedeza* spp. (bush clovers)  
*Rhynchosia* spp. (snout beans)  
*Oenothera* spp. (evening primroses)  
*Lobelia* spp. (lobelias)  
*Ruellia* spp. (wild petunias)  
*Asclepias* spp. (mildweeds)  
*Euphorbia* spp. (spurges)  
*Agalinis* spp. (false foxgloves)

*Carphephorus odoratissimus* (vanilla plant)  
*Heterotheca* spp. (golden asters)  
*Eupatorium* spp. (thoroughworts)  
*Gnaphalium* spp. (rabbit tobaccos)  
*Helianthus* spp. (sunflowers)  
*Rudbeckia* spp. (brown-eyed susans)  
*Vernonia* spp. (ironweeds)  
*Rhexia* spp. (meadow beauties)  
*Desmodium* spp. (beggar's ticks)  
*Stylsanthes biflora* (pencil-flower)  
*Tephrosia* spp. (hoary peas)  
*Polygala* spp. (milkworts)  
*Callirhoe papaver* (poppy-mallow)  
*Hypoxis* spp. (yellow-eyed grasses)  
*Lechea* spp. (pinweeds)  
*Sabatia* spp. (rose-gentians)  
*Pteridium aquilinum* (bracken fern)

**Federally-listed plant & animal species:**

*Picoides borealis* (red-cockaded woodpecker)  
*Pituophis ruthveni* (Louisiana pine snake)

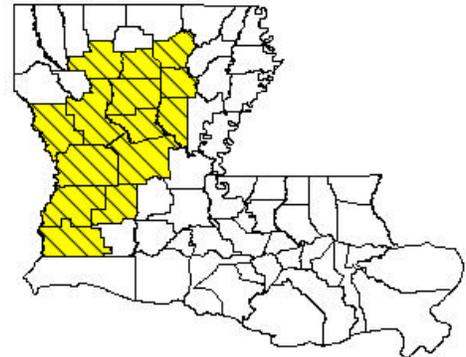
Endangered; G2; S2  
Candidate; G3Q; S2S3

**Range:**

Western and central Louisiana in portions of the Lower and Upper West Gulf Coastal Plains

**Threats & Management Considerations:**

Western upland longleaf pine forests historically dominated large areas with estimated presettlement acreage at 2,000,000 to 4,000,000 with only 10 to 25 % remaining. Much of this forest was converted to other forest types or lost to agriculture and development. Other threats include construction of roads, pipelines or utilities, fire suppression, use of chemical herbicides or fertilizers, and introduction of invasive or exotic species.



Use of appropriate management activities and developing a compatible management plan prevents destruction or degradation of this habitat type and promotes long-term maintenance of healthy longleaf forests. Such management strategies should include:

- Prevent conversion of existing natural forests to other land uses
- Use growing season prescribed fire (April-June) at a frequency of every 1 to 3 years
- Replant with longleaf seedlings only
- Thin over-stocked stands, targeting loblolly and slash pines for removal and favor longleaf pine as “leave” trees
- Survey for and remove any invasive plant species (exotics or woody) with prescribed fire or use of spot herbicides or mechanical means