



Spruce Pine-Hardwood Flatwood

Rarity Rank: S1/G1G2

Synonyms: Pine-Hardwood Flatwoods

Ecological Systems: CES203.557 East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods

General Description:

- Flatwoods type indigenous to the western Florida Parishes in southeast Louisiana
- Wetland variant occupies poorly drained flats, depressional areas and small drainages (sometimes called “slashes”) that lie in a mosaic with higher, non-wetland areas which support a mesic variant
- Both variants are distinguished by the prevalence of *Pinus glabra* (spruce pine) over *P. taeda* (loblolly pine), although loblolly is usually present at some level
- Hardwoods usually dominate the forest, but spruce pine can dominate areas within the stand
- Soils are hydric, acidic silt loams including the Encrow, Gilbert and Springfield series
- Soils are significantly higher in nutrient levels than those historically supporting the *P. palustris* (longleaf pine) communities occupying similar hydrologic settings immediately to the east
- Fire in these forests is considered very rare as fuel conditions are not conducive to fire and the component plant species are not fire adapted



Plant Community Associates of Wet Hardwood Flatwoods

Common overstory tree species include:

Pinus glabra (spruce pine),

Acer rubrum (red maple),

Fraxinus caroliniana (Carolina ash),

Fagus grandifolia (American beech),

Nyssa biflora (swamp blackgum),

Quercus laurifolia (laurel oak),

Q. nigra (water oak),

Q. phellos (willow oak),

P. taeda (loblolly pine),

Carya glabra (pignut hickory),

F. pennsylvanica (green ash),

Magnolia grandiflora (Southern magnolia),

N. sylvatica (blackgum),

Q. michauxii (swamp chestnut oak),

Q. pagoda (cherrybark oak),

Liquidambar styraciflua (sweetgum)

Common midstory & understory species include:

Cephalanthus occidentalis (buttonbush),

Crataegus opaca (mayhaw),

Diospyros virginiana (persimmon),

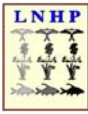
I. opaca (American holly),

Cornus foemina (swamp dogwood),

C. viridis (greenhaw),

Ilex decidua (deciduous holly),

Itea virginica (Virginia willow),



Natural Communities of Louisiana



Common midstory & understory species continued:

Morella cerifera (wax myrtle),
Sambucus canadensis (elderberry),
Styrax americanus (snowbell),
Vitis rotundifolia (muscadine),
Berchemia scandens (rattan vine),
Campsis radicans (trumpet creeper),
Arundinaria gigantea (switchcane)

Toxicodendron radicans (poison ivy),
Smilax spp. (greenbriars),
Viburnum dentatum (arrowwood),
Ampelopsis arborea (peppervine),
Brunnichia cirrhosa (ladies' eardrops),
Sabal minor (dwarf palmetto),

Common herbaceous & fern species include:

Boehmeria cylindrica (hempweed),
Chasmanthium spp. (spikegrasses),
Hypericum spp. (St. Andrew's cross),
Justicia ovata (waterwillow),
Lysimachia radicans (trailing yellow loosestrife),
Osmunda regalis (royal fern),
Panicum gymnocarpon (savannah panicgrass),
Sabatia calycina (coastal rose gentian),
Thelypteris palustris (Southern shield fern),
Triadenum walteri (greater marsh St. John's wort),

Carex spp. (sedges),
Cyperus spp. (flatsedges),
Juncus spp. (rushes),
Ludwigia spp. (primrose willow),
Onoclea sensibilis (sensitive fern),
Polygonum spp. (smartweed),
Rhynchospora spp. (beaksedge),
Saururus cernuus (lizard's tail),
Woodwardia areolata (netted chain fern)
Vernonia gigantea ssp. *gigantea* (ironweed)

Federally-listed plant & animal species:

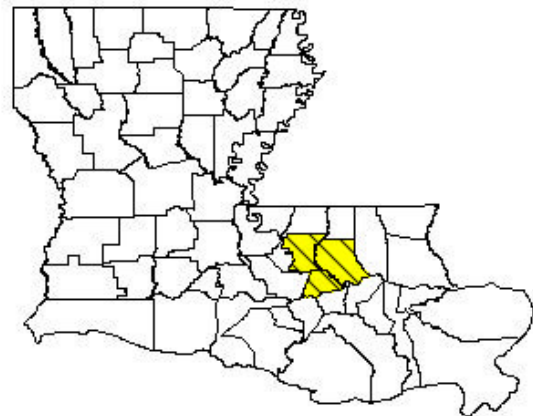
None

Range:

Restricted to East Gulf Coastal Plain in Louisiana, occurring in a very narrow range in Livingston, East Baton Rouge and perhaps Ascension Parishes

Threats & Management Considerations:

Presettlement acreage is estimated at 50,000 to 100,000 acres with only 10 % currently remaining. The predominant threat to this habitat type is conversion to commercial and residential developments due to the rapid expansion of urbanization along the Interstate-12 corridor in the Florida Parishes. Other major factors threatening this association include logging and conversion to commercial pine plantations, hydrological alterations, construction of roads, utilities and pipelines, and invasive 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 spruce pine – hardwood flatwoods. Such management strategies should include:

- Prevent conversion of existing natural forests to other land uses
- Maintain natural species composition by following appropriate hardwood management techniques
- No harvesting during wet periods to prevent soil damage
- Surveying for and removal of any invasive plant species (exotics or woody) with use of spot herbicides or mechanical means
- No ditching, bedding, plowed fire lines or other soil disturbance within flatwoods or adjacent areas that may alter natural water flow patterns