



Natural Communities of Louisiana

Hardwood Flatwoods

Rarity Rank: S2S3/G2G3

Synonyms: Willow Oak Flats, Pin Oak Flats

Ecological Systems:

CES203.548 West Gulf Coastal Plain

Nonriverine Wet Hardwood Flatwoods

CES203.193 Lower Mississippi River
Flatwoods

CES203.557 East Gulf Coastal Plain Southern
Loblolly-Hardwood Flatwood

CES203.278 West Gulf Coastal Plain Pine-
Hardwood Flatwoods



General Description:

(Note: Wet Hardwood Flatwoods and Mesic Hardwood Flatwoods are described as distinct communities in the Natural Communities of Louisiana. They are considered together here due to their similarity.)

- Wet hardwood flatwoods occur on hydric soils on poorly drained flats and depressions
- Wet flatwoods are isolated wetlands not usually affected by overbank flooding of a drainage
- Mesic hardwood flatwoods occur on non-hydric, better drained soils on higher topographic positions than wet hardwood flatwoods
- Wet hardwood flatwoods occur on Pleistocene Red River Channels in northwest Louisiana and on Pleistocene Valley Train Sediments on Macon Ridge in the northeast part of the state.
- Soils for both types are poorly drained silt loams to clays.
- On Macon Ridge principal soil series that support this community are Calhoun and Gilbert silt loams; occurrences in the Red River Valley are found on the Acadia series

Plant Community Associates of Wet Hardwood Flatwoods

Common overstory tree species include:

Quercus phellos (willow oak),

Carya ovata (shagbark hickory),

Ulmus crassifolia (cedar elm),

Q. lyrata (overcup oak),

Fraxinus pennsylvanica (green ash),

Ulmus americana (American elm),

Celtis laevigata (hackberry),

Q. texana (Nuttall oak)

Common midstory & understory shrub species include:

Ulmus alata (winged elm),

Sabal minor (palmetto),

Styrax americana (snowbell),

Planera aquatica (planertree)

U. crassifolia (cedar elm),

Ilex decidua (deciduous holly),

Forestiera acuminata (swamp privet)

Common herbaceous species include:

Cardamine bulbosa (bulbous bitter cress),

Clematis crispa (curl-flower),

Hymenocallis liriosome (spider lily),

Cynoscidium digitatum (finger dog shade),

Amsonia tabernaemontana (bluestar),

Ranunculus pusillus (low spearwort)

Plant Community Associates of Mesic Hardwood Flatwoods

Common overstory tree species include:

Carya alba (mockernut hickory),

Nyssa sylvatica (blackgum),



Natural Communities of Louisiana

Common overstory tree species of mesic flatwoods continued:

Quercus alba (white oak),

Q. nigra (water oak),

Liquidambar styraciflua (sweetgum),

Q. pagoda (cherrybark oak),

Q. michauxii (cow oak),

Q. shumardii (Shumard oak),

Common midstory & understory species include:

Cornus florida (flowering dogwood),

Aralia spinosa (Devil's walking stick),

Acer rubrum (red maple),

Aesculus pavia (red buckeye),

Ostrya virginiana (eastern hophornbeam),

Ulmus alata (winged elm),

Vaccinium spp. (huckleberries),

Euonymus americana (strawberry bush),

Common herbaceous species include:

Chasmanthium laxum var. *sessiliflorum* (woods oats), *Dichanthelium* spp. (panic grass),

Podophyllum peltatum (mayapple),

Elephantopus spp. (elephant's foot),

Sanicula canadensis (sanicle),

Agrimonia rostellata (woodland agrimony),

Carex cherokeensis (Cherokee caric sedge),

Dioscorea villosa (wild yam),

Geum canadense (white avens),

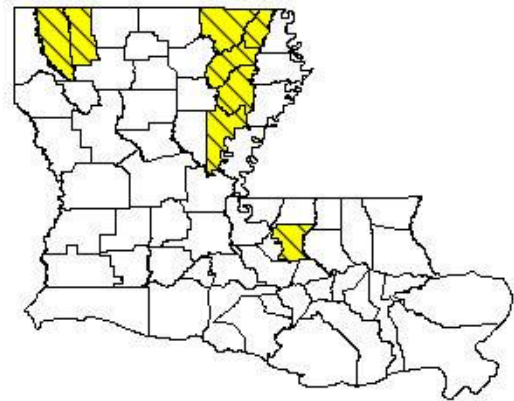
Clematis virginiana (virgin's bower),

Federally-listed plant & animal species:

None

Range:

Primarily on the Macon Ridge of northeast Louisiana within the Mississippi River Alluvial Plain ecoregion, with a few occurrences in the Upper West Gulf Coastal Plain and historical occurrence in East Baton Rouge Parish and possibly adjacent areas.



Threats & Management Considerations:

Hardwood flatwoods represent a huge data gap. Research is needed to determine more accurately its former extent in Louisiana and to identify and characterize remnants of this habitat type. Land use changes have brought about habitat destruction. Conversion to agriculture or pine plantations represent the greatest loss, while construction of roads, pipelines and utilities, invasive and exotic species, physical damage from timber harvesting, and contamination by chemicals (herbicides, fertilizers) all threaten remaining flatwoods.

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 flatwoods. Such management strategies should include:

- Preventing 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