



Natural Communities of Louisiana

Saline Oak Woodland

Rarity Rank: S1/G2

Synonyms: Post Oak Woodlands, Saline Woodlands

Ecological Systems: CES203.291 West Gulf Coastal Plain Saline Glade

General Description:

- Natural woodland with generally open grassy understory
- Arise on low flat terraces adjacent to small streams
- Often occur in a mosaic with saline prairies
- Development of hawthorn or shrub thickets along the outer edges of the woodland as it integrates into saline prairie openings
- Scattered pimple mounds may be present
- Shallow ponds or sloughs with no direct connection to adjacent streams or waterways are also often present
- Tree species typically stunted, 5 to 10 meters in height
- Occurs on saline-sodic soils of alluvial origin in the Upper West Gulf Coastal Plain and Mississippi River Alluvial Plain of Arkansas and Louisiana
- Soils have high levels of exchangeable sodium, high alkalinity, very poor movement of water and air, and resistance to both wetting and drying
- Subsoil that acts as a dense clay pan restricting tree root penetration and water movement
- Role of fire in this community is unknown; some areas may support relatively frequent fire while others are too thinly vegetated to carry a fire



Plant Community Associates

Characteristic overstory species include:

Quercus similis (delta post oak),

Q. phellos (willow oak),

Q. nigra (water oak),

Gleditsia triacanthos (honeylocust),

Q. lyrata (overcup oak),

Q. pagoda (cherrybark oak),

Ulmus crassifolia (cedar elm),

Fraxinus pennsylvanica (green ash)

Common woody understory species include:

Crataegus berberifolia (barberry hawthorn),

C. virdis (green hawthorn),

C. spathulata (littlehip hawthorn),

Hypericum hypericoides (St. Andrew's cross)

C. brachyacantha (blueberry hawthorn),

C. marshallii (parsley hawthorn),

Ilex decidua (deciduous holly),



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Common herbaceous species include:

Carex cherokeensis (Cherokee caric sedge),
Chasmanthium sessiliflorum (woods oats),
Solidago sp. (goldenrods)

Chasmanthium latifolium (spikegrass),
Panicum rigidulum (redtop panicum),

Federally-listed plant & animal species:

Geocarpa minimum (in adjacent saline prairies)

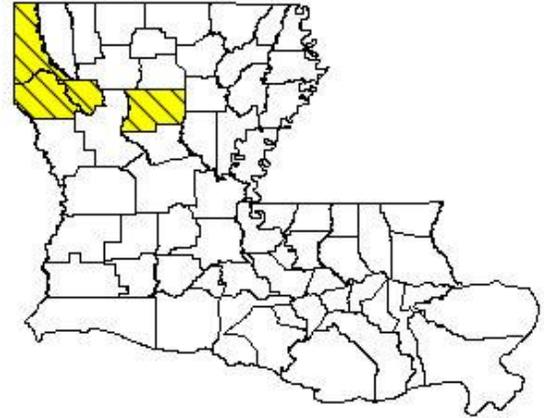
Threatened; G2; S1

Range:

Primarily in the Upper and Lower West Gulf Coastal Plains

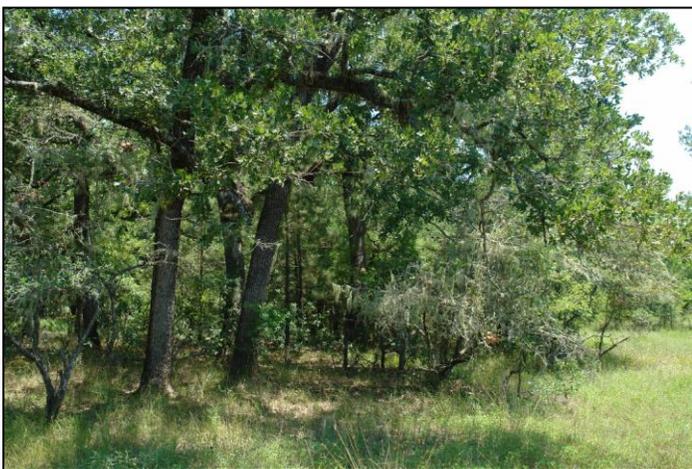
Threats & Management Considerations:

Little is known about the historic extent or current condition of saline oak woodlands in Louisiana. Surveys are warranted to identify remaining woodlands. Threats to these woodlands include hydrologic alteration, logging, residential and commercial development, construction of roads, pipelines and utilities, off-road vehicle use, contamination by chemicals (herbicides, fertilizers), and invasive and 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 saline oak woodlands. Such management strategies should include:

- Preventing conversion of existing natural woodlands to other land uses
- No bedding or other soil disturbance that may alter natural water flow patterns
- Use of periodic prescribed fire (every 5 to 10 years)
- Prohibiting off-road vehicle use or restricting use to existing trails
- Monitoring for and removal of any invasive or exotic species by prescribed burning, spot herbicide treatments or mechanical means



Woodland to prairie interface with scrubby hawthorns along woodland edge



Small pond depression within saline oak woodland