



Natural Communities of Louisiana

Western Xeric Sandhill Woodland

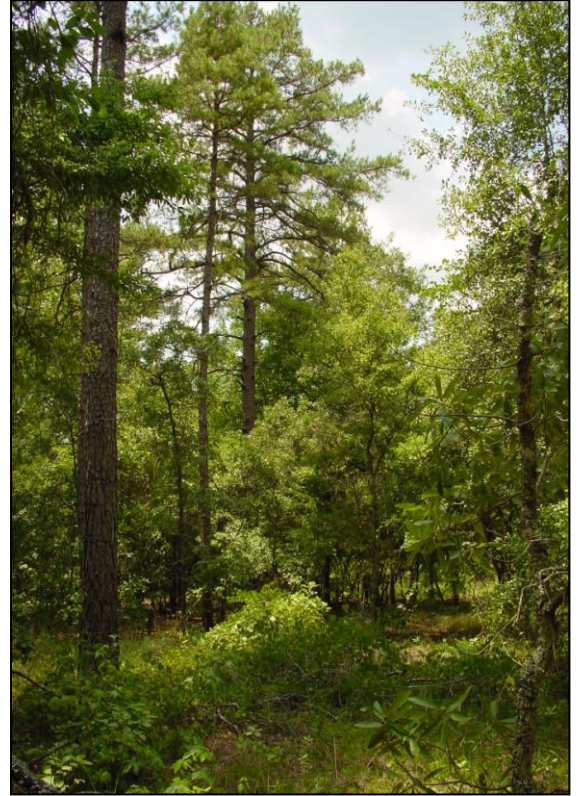
Rarity Rank: S2S3 (S1 - Florida Parishes)/G2G3

Synonyms: Oak-Farkleberry Sandy Lands

Ecological Systems: CES203.056 West Gulf Coastal Plain Sandhill Oak and Shortleaf Pine Forest and Woodland

General Description:

- Developed on deep Tertiary marine sands (particularly of the Sparta formation in northwest Louisiana) and also on Pleistocene stream terraces
- Soil is nutrient-poor and dries quickly creating xeric conditions
- Trees are often stunted because of the extreme site conditions
- Fire is thought to be an important process in maintaining this community, however some woodlands may be isolated by landscape features which make them less subject to fire (e.g., nearly surrounded by a floodplain)
- May have the appearance of a scrubby shrub-woodland
- Small, natural openings may be scattered throughout
- Many state-rare species occur in this community type



Plant Community Associates

Common woody species include:

Pinus echinata (shortleaf pine)

Pinus palustris (longleaf pine)

Q. incana (bluejack oak)

Q. marilandica (blackjack oak)

Pinus taeda (loblolly pine)

Quercus stellata (post oak)

Q. stellata var. *margaretta* (sand post oak)

Q. hemispherica (upland laurel oak)

Common shrub species include:

Asimina parviflora (dwarf paw-paw)

Bumelia lanuginosa (chittum-wood)

Chionanthus virginicus (fringe-tree)

Stillingia sylvatica (stillingia)

Rhus aromatica (aromatic sumac)

Vaccinium arboreum (winter huckleberry)

Ilex vomitoria (yaupon)

Rhamnus caroliniana (Indian cherry)

Hamamelis virginiana (witch-hazel)

Characteristic herbaceous species include:

Opuntia humifusa (prickly-pear cactus)

Asclepias spp. (milkweeds)

Smilax pumila (sarsaparilla vine)

Tephrosia virginiana (goat's-rue)

Tradescantia reverchonii (downy spider wort)

Astragalus soxmaniorum (soxman's milk-vetch),

Streptanthus hyacinthoides (smooth twistflower)

Penstemon murrayanus (cupleaf beardtounge)

Tetragonotheca ludoviciana (Louisiana square-head)

Foliose lichens (especially those in genera *Cladina* and *Cladonia*) may occur in profusion.

Andropogon spp. (broomsedges)

Aristida spp. (three-awn grasses)

Cnidocolous texana (bull-nettles)

Zornia bracteata (viparina)

Polanisia erosa (large clammy-weed)

Silene subciliata (scarlet catchfly),

Prunus gracilis (sandhill plum)

Eriogonum spp. (wild buckwheats)



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Federally-listed plant & animal species:

Picoides borealis (red-cockaded woodpecker)

Endangered; G2; S2

Pituophis ruthveni (Louisiana pine snake)

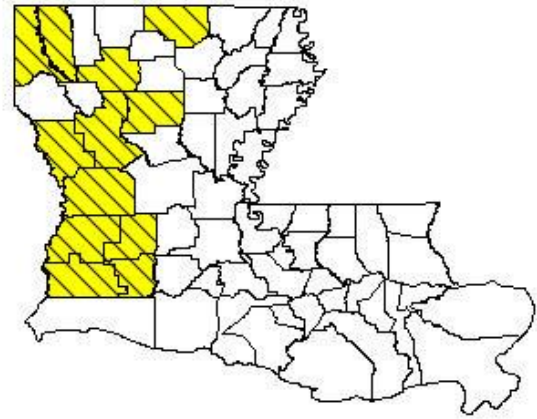
Candidate; G3Q; S2S3

Range:

Western, northwest and northcentral Louisiana in portions of the Lower and Upper West Gulf Coastal Plains

Threats & Management Considerations:

Presettlement extent of Western Xeric Sandhill Woodland habitat is estimated to have been 50,000 to 100,000 acres, with 10 to 25 % remaining today. Northern Caddo Parish is a “hotspot” for this habitat with a relatively high concentration of sandhill woodlands. However, most of the sandhill woodlands there are highly degraded. 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 sandhill woodlands. Such management strategies should include:

- Prevent conversion of existing natural forests to other land uses
- Thin heavily stocked stands, targeting loblolly pine for removal and favoring shortleaf and longleaf pine as “leave” trees
- Use growing season prescribed fire (April-June) at a frequency of every 3 to 5 years
- Survey for and remove any invasive plant species (exotics or woody) with prescribed fire or use of spot herbicides or mechanical means



Stunted tree growth typical of xeric sandhill woodlands.



Soxman's silk-vetch (*Astragalus soxmaniorum*), rare plant of western xeric sandhill woodlands.