

BASTROP LOST PINES FOREST AND WOODLAND

Nature Serve ID: CES205.896

Geology: Sandy Eocene formations, such as Carrizo, Sparta, and Queen City formations are most frequently associated with this system, though it may also occur on the Reklaw Formation and other adjacent formations.

Landform: Dissected uplands.

Soils: Sandy soils characterize this system with typical Ecological Sites including Deep Sand, Sandy, and Sandy Loam being frequently associated. It may also occupy gravelly sites, associated with more recent geologic strata.

Parent Description: This system is dominated by *Pinus taeda* (loblolly pine), often with *Quercus stellata* (post oak) and *Quercus marilandica* (blackjack oak) present to co-dominant. *Quercus incana* (bluejack oak), *Quercus margarettae* (sand post oak), *Carya texana* (black hickory), *Ulmus crassifolia* (cedar elm), *Celtis* spp. (hackberry), and *Juniperus virginiana* (eastern redcedar) may also be present. *Vaccinium arboreum* (farkleberry) is a frequent shrub component of the system. Other shrub and woody vine species that may be present include *Sideroxylon lanuginosum* (gum bumelia), *Callicarpa americana* (American beautyberry), *Ilex vomitoria* (yaupon), *Toxicodendron radicans* (poison-ivy), *Rhus aromatica* (fragrant sumac), *Smilax bona-nox* (saw greenbrier), *Parthenocissus quinquefolia* (Virginia creeper), and *Vitis* spp. (grape). A grassy herbaceous layer may be present with *Schizachyrium scoparium* (little bluestem) commonly encountered, but other species including *Andropogon gerardii* (big bluestem), *Nassella leucotricha* (Texas wintergrass), *Sporobolus junceus* (pineywoods dropseed), *Paspalum plicatulum* (brownseed paspalum), *Paspalum setaceum* (thin paspalum), *Aristida* spp. (threeawn), *Sporobolus clandestinus* (rough dropseed), *Digitaria cognata* (fall witchgrass), *Dichanthelium oligosanthes* var. *scribnerianum* (Scribner panicgrass), and *Dichanthelium oligosanthes* (fewflower panicgrass). Forbs are conspicuous and include *Heterotheca subaxillaris* (camphor weed), *Euphorbia corollata* (flowering spurge), *Monarda citriodora* (lemon beebalm), *Galactia volubilis* (downy milkpea), *Liatris aspera* (rough gayfeather), *Brazoria truncata* (bluntsepal brazoria), *Diodia teres* (rough buttonweed), and many others. Local accumulations of pine needles result in a patchy distribution of herbaceous cover. This system bears some resemblance to pine woodlands and forests further to the east, and may represent a western, more xeric, outlier of these similar systems.

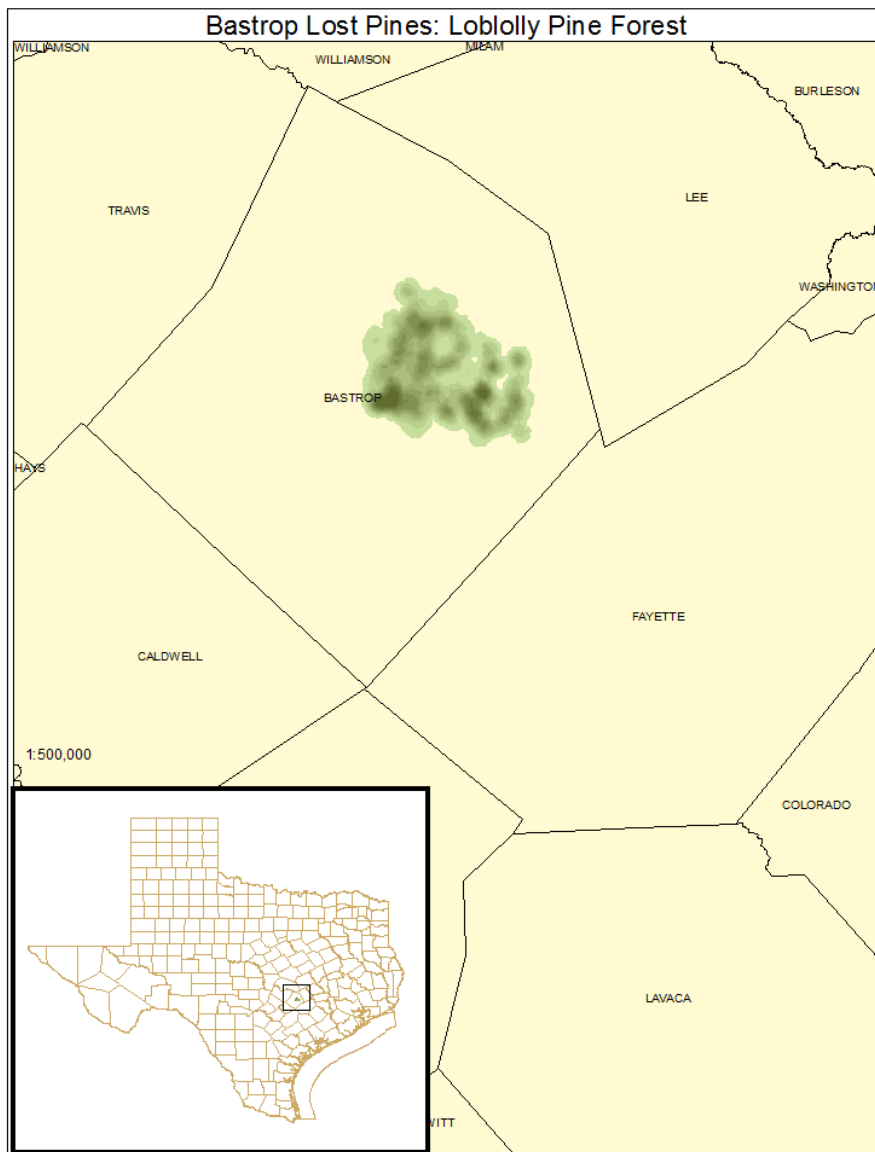
ECOLOGICAL MAPPING SYSTEMS:

BASTROP LOST PINES: LOBLOLLY PINE FOREST

Mapping System ID: 101

EMS Description: This vegetation type is characteristic of the system, with clear dominance of *Pinus taeda* (loblolly pine). *Vaccinium arboreum* (farkleberry) may form a conspicuous understory, with *Schizachyrium scoparium* (little bluestem) as a common herbaceous dominant. Oak species, such as *Quercus stellata* (post oak) and *Quercus marilandica* (blackjack oak) may be present in the canopy, but pines dominate. In some cases, areas mapped as this vegetation type may be dominated by *Juniperus virginiana* (eastern redcedar).

Distribution Map:



Example:



Public Land Occurrence:

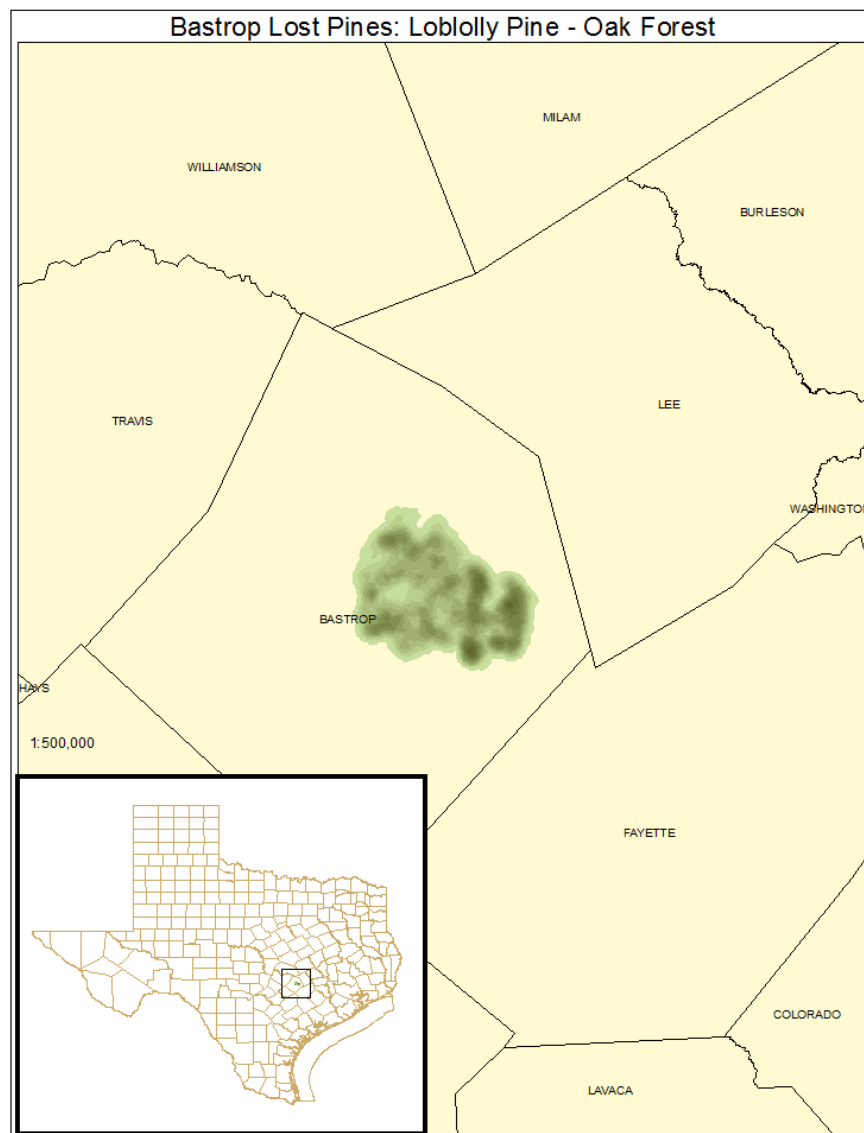
Bastrop State Park: Texas Parks & Wildlife Department
Buescher State Park: Texas Parks & Wildlife Department
South Shores Park: Lower Colorado River Authority

BASTROP LOST PINES: LOBLOLLY PINE / OAK FOREST

Mapping System ID: 103

EMS Description: This vegetation type represents the transition from strictly *Pinus taeda* (loblolly pine) dominated sites to those more characteristic of the surrounding post oak savanna. As such, *Quercus stellata* (post oak), and to a lesser extent, *Quercus marilandica* (blackjack oak) are significant components of the canopy, though *Pinus taeda* (loblolly pine) remains a co-dominant canopy species. *Carya texana* (black hickory), *Ulmus crassifolia* (cedar elm), and *Celtis laevigata* (sugar hackberry) may be conspicuous deciduous elements in the canopy. *Juniperus virginiana* (eastern redcedar) may also be present, co-dominant, or sometimes dominant on sites mapped as this vegetation type.

Distribution Map:



Example:



Public Land Occurrence:

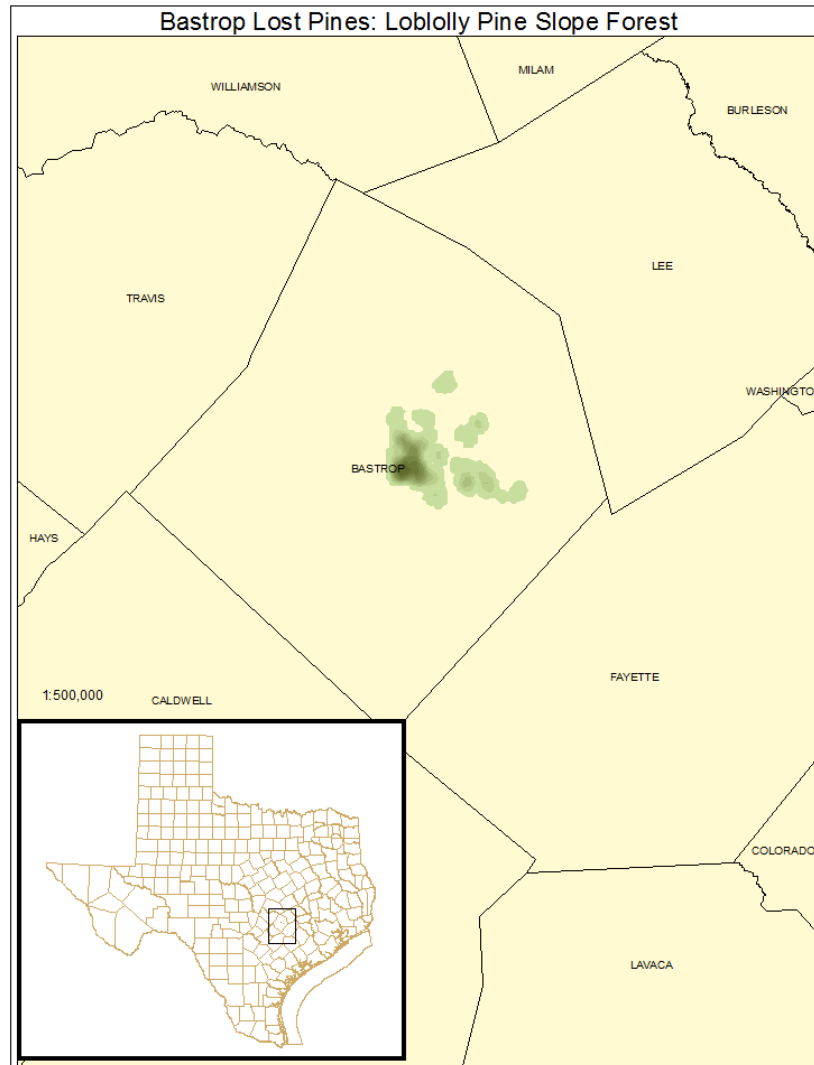
Bastrop State Park: Texas Parks & Wildlife Department
Buescher State Park: Texas Parks & Wildlife Department
South Shores Park: Lower Colorado River Authority

BASTROP LOST PINES: LOBLOLLY PINE SLOPE FOREST

Mapping System ID: 121

EMS Description: This vegetation type occupies slopes greater than twenty percent and likely represents a more mesic and closed canopy representation of the Bastrop Lost Pines Loblolly Pine Forest. As such, the canopy is dominated by *Pinus taeda* (loblolly pine), with *Quercus stellata* (post oak), *Ulmus* spp. (elms), *Juniperus virginiana* (eastern redcedar) and *Quercus marilandica* (blackjack oak) also present, but as minor components of the canopy. This forest is often found on the Sandstone Hill ecoclass. Differentiation from the surrounding upland forests based on species composition will be problematic. The shrub and herbaceous layer is less well-developed than in the surrounding uplands, due to the more closed nature of the canopy. Since *Juniperus virginiana* (eastern redcedar) in the canopy also results in coniferous evergreen canopy, forests dominated by this species may be mapped as this vegetation type.

Distribution Map:



Example:



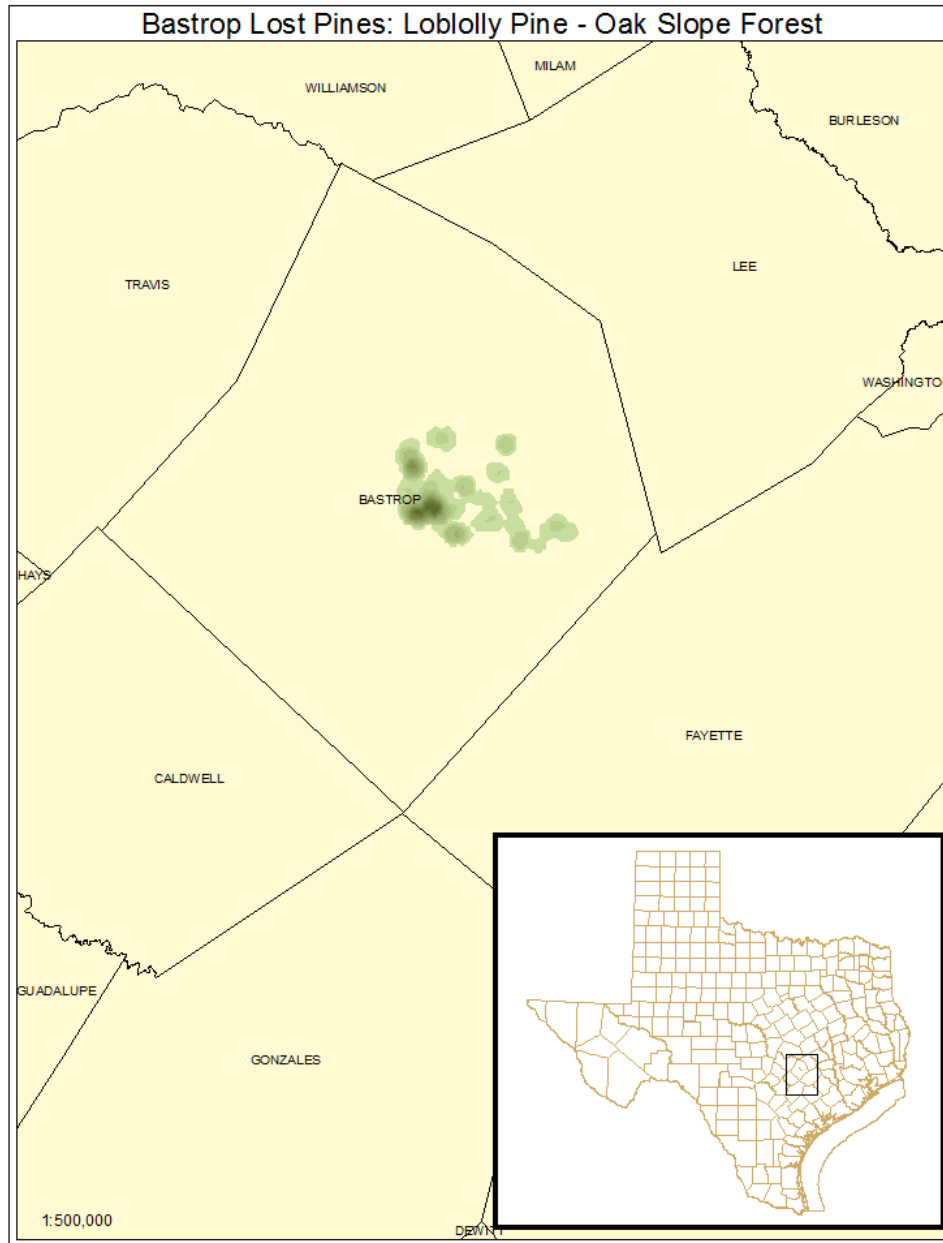
Public Land Occurrence:

Bastrop State Park: Texas Parks & Wildlife Department
Buescher State Park: Texas Parks & Wildlife Department
South Shores Park: Lower Colorado River Authority

BASTROP LOST PINES: LOBLOLLY PINE / OAK SLOPE FOREST**Mapping System ID: 123**

EMS Description: This vegetation type on slopes greater than twenty percent is a minor mapped type in this system. The overstory canopy is co-dominated by the coniferous evergreens *Pinus taeda* (loblolly pine) and/or *Juniperus virginiana* (eastern redcedar) and deciduous oaks such as *Quercus stellata* (post oak) and *Quercus marilandica* (blackjack oak). *Ulmus* spp. (elms) and *Celtis laevigata* (sugar hackberry) are also common components of the overstory. This vegetation type is often found on the Sandstone Hill ecoclass. One interesting small patch (20 – 80 acres) community that may be embedded within this mapped type occurs below the highest occurrences of the Sandylands types of the Post Oak Savanna region. This community occurs where sandhills make contact with sandy loam and sandy clay associated with the Recklaw Formation. It is an infrequent to rare community, mostly found on south and southeast facing slopes, and dominated by *Pinus taeda* (loblolly pine), *Quercus nigra* (water oak), *Nyssa sylvatica* (black gum), *Ilex opaca* (American holly), *Morella cerifera* (wax-myrtle), and *Callicarpa americana* (American beautyberry). The herbaceous layer of this community is dominated by *Rhynchospora glomerata* (cluster beakrush), *Eleocharis torilis* (twisted spikerush), *Andropogon virginicus* (broomsedge bluestem), *Chasmanthium laxum* (slender woodoats), *Dichanthelium scoparium* (velvet panicgrass), and *Pteridium aquilinum* (bracken fern). Well-developed understory seep forest flora occurs on mid and lower slopes within this type, with spring runs, spongy muck, and in some cases, quaking conditions. These seepage areas are dominated by *Woodwardia virginica* (Virginia chain fern), *Woodwardia areolata* (chain fern), *Triadenum virginicum* (Virginia St. Johnswort), *Osmunda regalis* var. *spectabilis* (royal fern), and *Osmunda cinnamomaea* (cinnamon fern), though the latter two species are rare in this landscape. This restricted community may be found in Bastrop, Lee, and Gonzales counties (lacking *Pinus taeda* (loblolly pine) in Gonzales County and therefore not mapped in this vegetation type there). Representative occurrences can be found at Hoppy Spring (Bastrop State Park) and Yegua Knobs Preserve (Bastrop/Lee County).

Distribution Map:



Example:



Public Land Occurrence:

Bastrop State Park: Texas Parks & Wildlife Department

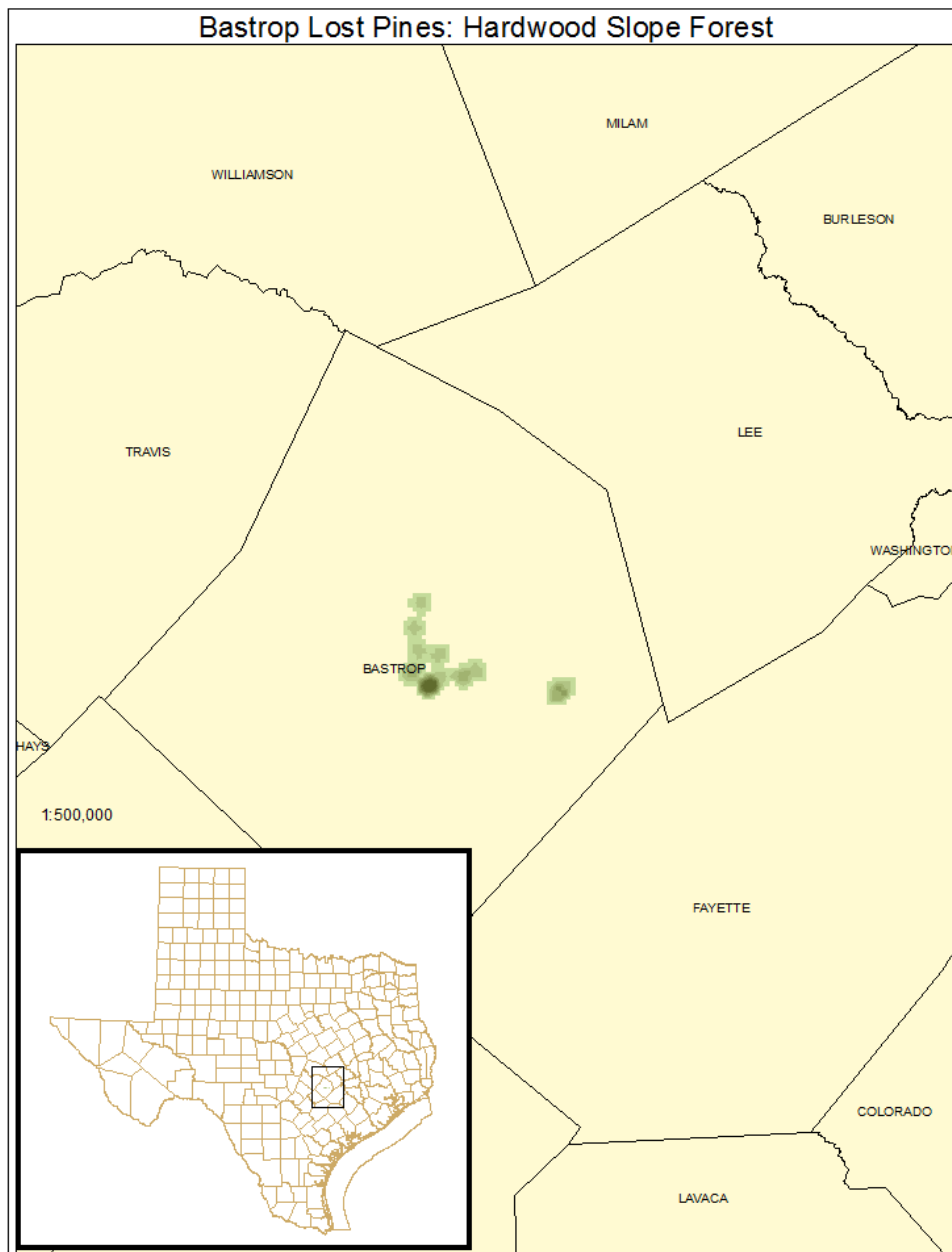
Buescher State Park: Texas Parks & Wildlife Department

BASTROP LOST PINES: HARDWOOD SLOPE FOREST

Mapping System ID: 124

EMS Description: This is a very minor component of the system, occurring on slopes greater than 20% and dominated by hardwood species such as *Quercus stellata* (post oak), *Quercus marilandica* (blackjack oak), *Ulmus crassifolia* (cedar elm), *Ulmus americana* (American elm), and *Celtis laevigata* (sugar hackberry). This vegetation type is similar to Post Oak Savanna: Oak / Hardwood Slope Forest of the surrounding landscape.

Distribution Map:



Example:



Public Land Occurrence:

Bastrop State Park: Texas Parks & Wildlife Department

South Shores Park: Lower Colorado River Authority