WEST GULF COASTAL PLAIN CATAHOULA BARRENS

Nature Serve ID: CES203.364

Geology: Restricted to surface outcrops of the Oligocene Catahoula geologic formation, an often tuffaceous sandstone.

Landform: Generally level to gently undulating (but sometimes steep), with surface or near surface exposure of the underlying sandstone bedrock.

Soils: Shallow loams, such as Browndell –Rock outcrop. Soils may contain montmorillonitic clays. These thin soils can be extremely xeric during dry periods, but can also be saturated during wetter months.

Description: Vegetation associated with thin soils over the tuffaceous sandstone of the Catahoula formation is primarily herbaceous. But where the soil is deeper, or fire is excluded for long periods, it can display significant woody cover, with usually stunted representatives of species such as *Pinus palustris* (longleaf pine), *Pinus taeda* (loblolly pine), *Pinus echinata* (shortleaf pine), *Quercus stellata* (post oak), *Quercus marilandica* (blackjack oak), and *Carya texana* (black hickory) dominating the canopy. Shrubs may form a patchy, discontinuous layer with species such as *Ilex vomitoria* (yaupon), *Morella cerifera* (wax-myrtle), *Vaccinium arboreum* (farkleberry), *Forestiera ligustrina* (elbowbush), *Gelsemium sempervirens* (Carolina jessamine), and *Crataegus* spp. (hawthorns) commonly encountered. Maintenance of fire in the landscape will reduce woody cover in these sites, with herbaceous dominated sites displaying increased species richness. On open sites, there may be exposed patches of bedrock or mineral soils, or areas of patchy cover of foliose and/or fruticose lichens. Open sites may have significant herbaceous cover, usually dominated by graminoid species such as *Schizachyrium scoparium* (little bluestem), *Sporobolus clandestinus* (rough dropseed), *Sporobolus silveanus* (Silveus' dropseed), *Schizachyrium tenerum* (slender bluestem), *Tridens strictus* (longspike tridens), *Scleria* spp. (nutrush), and/or *Aristida* spp. (threeawns). *Bigelowia nuttallii* (Nuttall's rayless golden-rod), *Plantago* spp. (plantains), *Minuartia drummondii* (Drummond sandwort), *Chaetopappa asteroides* (common leastdaisy), *Lechea san-sabeana* (San Saba pinweed), *Sabatia campestris* (meadow pink), *Croton michauxii* (narrowleaf rushfoil), *Croton monanthogynus* (doveweed), *Krameria lanceolata* (trailing ratany), *Selaginella arenicola* ssp. *riddellii* (Riddell's spikemoss), *Phemeranthus parviflorus* (prairie flameflower), and a variety of other herbaceous species may also be present. Several sensitive species are associated with this system, including *Schoenolirion wrightii* (Texas sunnybell), *Spiranthes parksii* (Navasota ladies'-tresses), and *Liatris tenuis* (slender gayfeather). This system typically occurs as small patches and many occurrences were likely missed by the current mapping effort.

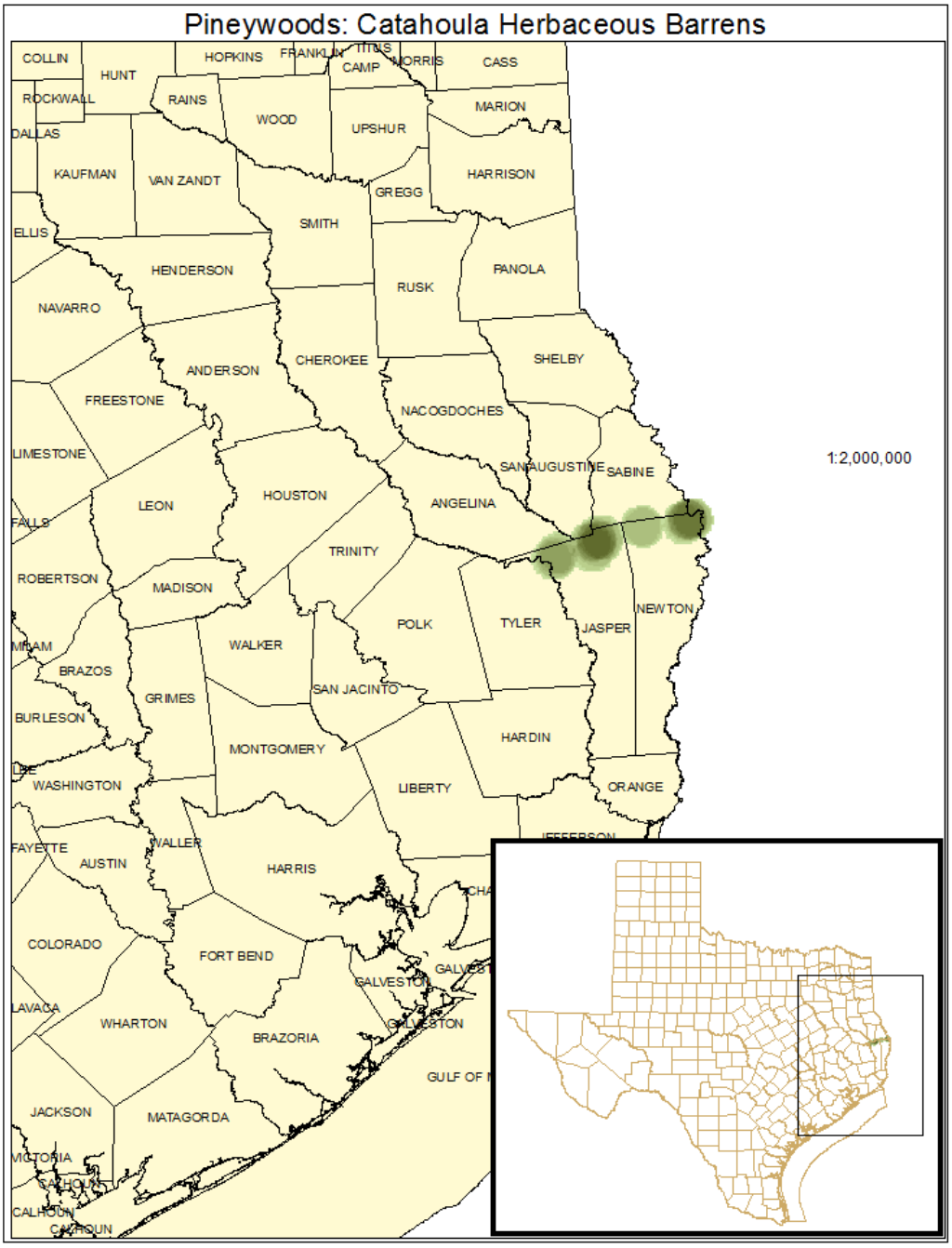
ECOLOGICAL MAPPING SYSTEMS:

PINEYWOODS: CATAHOULA HERBACEOUS BARRENS

Mapping System ID: 4307

EMS Description: Sites with no or, more commonly, scattered woody canopy.

Distribution Map:



Example:

Public Land Occurrence:

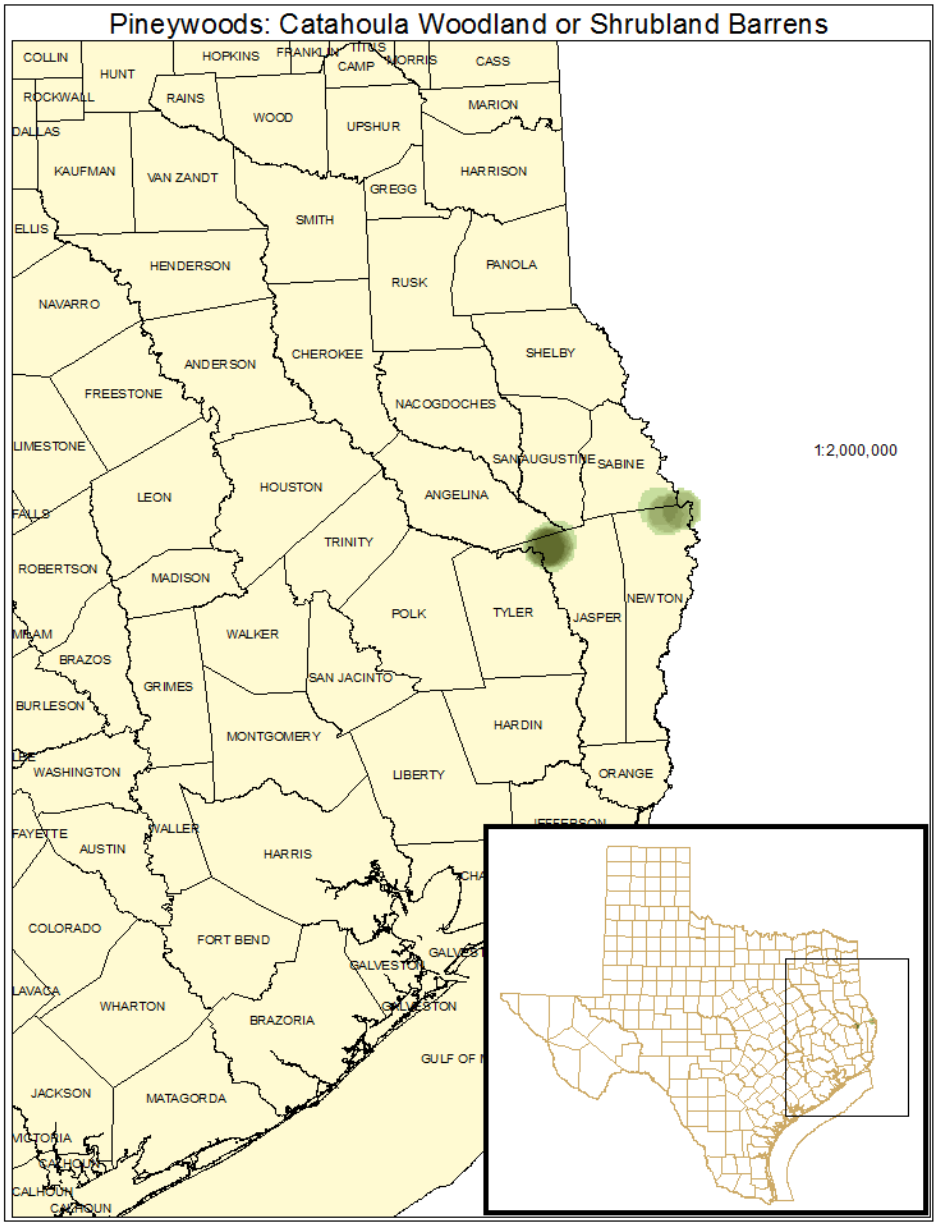
None.

PINEYWOODS: CATAHOULA WOODLAND OR SHRUBLAND BARRENS

Mapping System ID: 4305

EMS Description: These sites have greater woody cover with the tree and shrub species mentioned above. The herbaceous cover of this type is more likely to contain species such as *Chasmanthium sessiliflorum* (narrowleaf woodoats), *Ranunculus fascicularis* (prairie buttercup), and *Piptochaetium avenaceum* (blackseed needlegrass), along with other herbaceous species common to the system. Lack of fire tends to lead to closing of the woody canopy and a reduction in diversity in the herbaceous layer.

Distribution Map:



Example:

Public Land Occurrence:

Angelina National Forest: US Forest Service