

## **EDWARDS PLATEAU DRY-MESIC SLOPE FOREST AND WOODLAND**

**Nature Serve ID:** CES303.656

**Geology:** Found on limestone (primarily Cretaceous or Pennsylvanian) slopes within the Edwards Plateau and adjacent ecoregions, including the Carbonate Cross Timbers in the Palo Pinto County area and the Callahan Divide. Cuestas of cretaceous chalk in the Blackland Prairie and calcareous slopes of the Crosstimbers may also be occupied by this system.

**Landform:** Slopes generally greater than 20 percent.

**Soils:** Stones and boulders are conspicuous on the soil surface. Soils are generally dark clay to clay loam and shallow. Steep Rocky and Steep Adobe Ecological Sites may be associated with this system.

**Parent Description:** This system occurs on dry to mesic, middle slopes of the rolling uplands and escarpments of the Edwards Plateau and similar sites. The canopy is typically dominated or co-dominated by deciduous trees, including *Quercus buckleyi* (Texas oak), *Quercus laceyi* (Lacey oak), *Quercus sinuata* var. *breviloba* (white shin oak), *Fraxinus texensis* (Texas ash), *Ulmus crassifolia* (cedar elm), *Prunus serotina* ssp. *eximia* (escarpment black cherry), *Juglans major* (Arizona walnut), and/or *Celtis laevigata* var. *reticulata* (netleaf hackberry). *Quercus fusiformis* (plateau live oak) and *Juniperus ashei* (Ashe juniper) are often present and are sometimes co-dominant with deciduous species of this system. Canopy closure is variable, and this system can be expressed as forests or woodlands. The shrub layer may be well-represented, especially where the overstory canopy is discontinuous. Species such as *Aesculus pavia* var. *flavescens* (red buckeye), *Cercis canadensis* var. *texensis* (Texas redbud), *Forestiera pubescens* (elbowbush), *Ungnadia speciosa* (Mexican buckeye), *Ceanothus herbaceus* (Jersey tea), *Frangula caroliniana* (Carolina buckthorn), *Sophora secundiflora* (Texas mountain-laurel), *Viburnum rufidulum* (rusty blackhaw), *Rhus* spp. (sumac), *Vitis* spp. (grape), and *Garrya ovata* (silktassel) may be present in the shrub layer. With the large amount of exposed rock, frequent accumulation of leaf litter, and significant canopy closure, herbaceous cover is generally sparse, with *Carex planostachys* (cedar sedge) often present. Woodland forbs such as *Tinantia anomala* (widowsteers), *Chaptalia texana* (silver-puff), *Nemophila phacelioides* (baby blue-eyes), *Salvia roemeriana* (cedar sage), *Lespedeza texana* (Texas lespedeza), and various ferns may also be present, if patchy. Grasses such as *Schizachyrium scoparium* (little bluestem) and *Bouteloua* spp. (gramas) may occur, typically scattered and patchy.

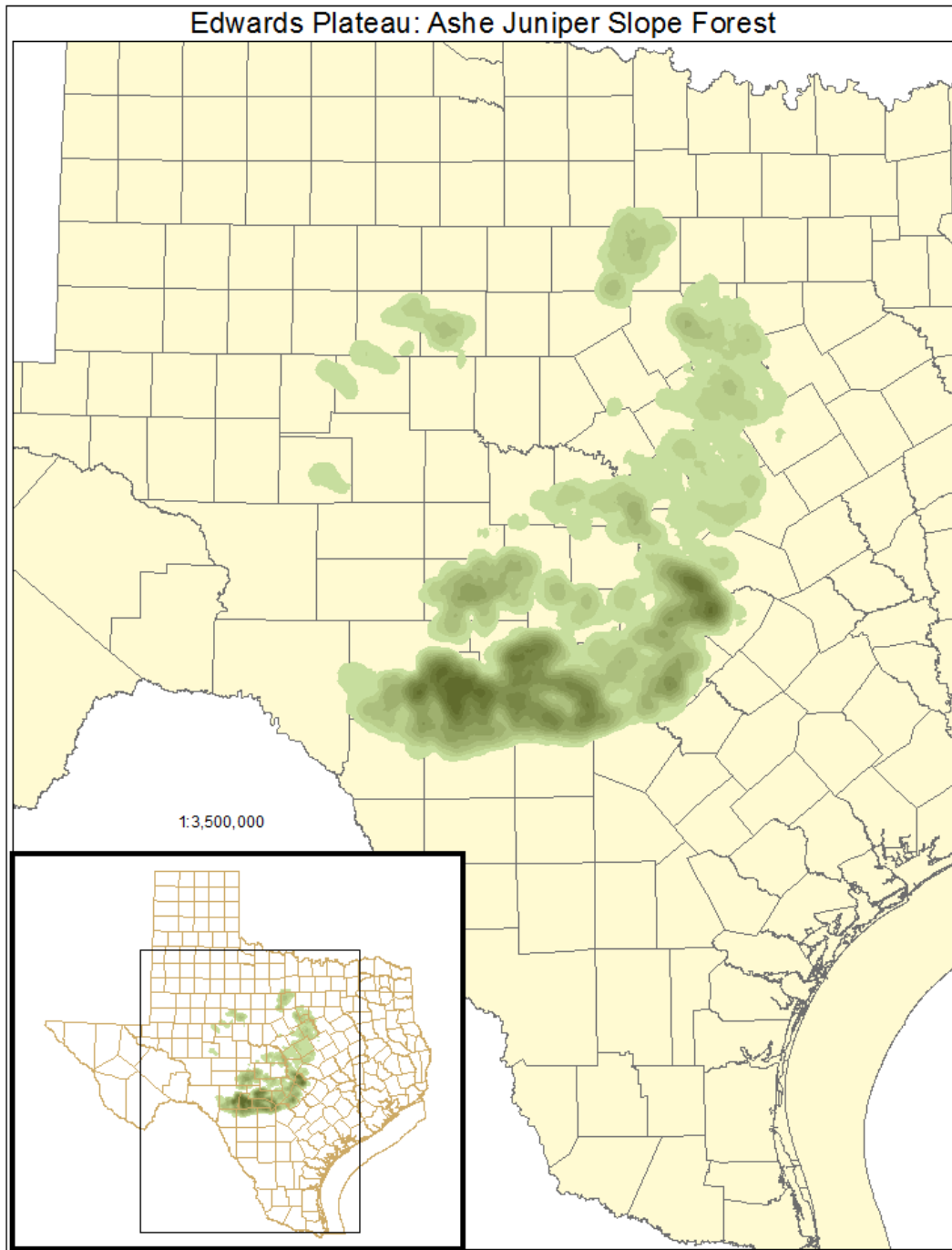
## ECOLOGICAL MAPPING SYSTEMS:

### EDWARDS PLATEAU: ASHE JUNIPER SLOPE FOREST

**Mapping System ID:** 901

**EMS Description:** Forest or woodland of slopes generally greater than 20 percent on steep rocky sites with coniferous evergreen canopy cover. The canopy of these sites is dominated by *Juniperus ashei* (Ashe juniper), but usually with *Quercus fusiformis* (plateau live oak) and a deciduous component present (often *Quercus buckleyi* (Texas oak), *Quercus sinuata* var. *breviloba* (white shin oak), or *Quercus laceyi* (Lacey oak), at least). The canopy is usually relatively closed and the sites are rocky, resulting in a sparse and depauperate shrub and herbaceous layer. However, *Juniperus ashei* (Ashe juniper) may also form a somewhat dense layer to within a meter of the forest floor. *Sophora secundiflora* (Texas mountain-laurel), *Diospyros texana* (Texas persimmon), *Mahonia trifoliolata* (agarito), *Mimosa borealis* (fragrant mimosa), *Quercus sinuata* var. *breviloba* (white shin oak), and *Sideroxylon lanuginosum* (gum bumelia) may also be components of the shrub layer. These juniper dominated slopes tend to be drier, and may be more frequent on slopes with south and west aspects.

**Distribution Map:**



**Example:**



**Public Land Occurrence:**

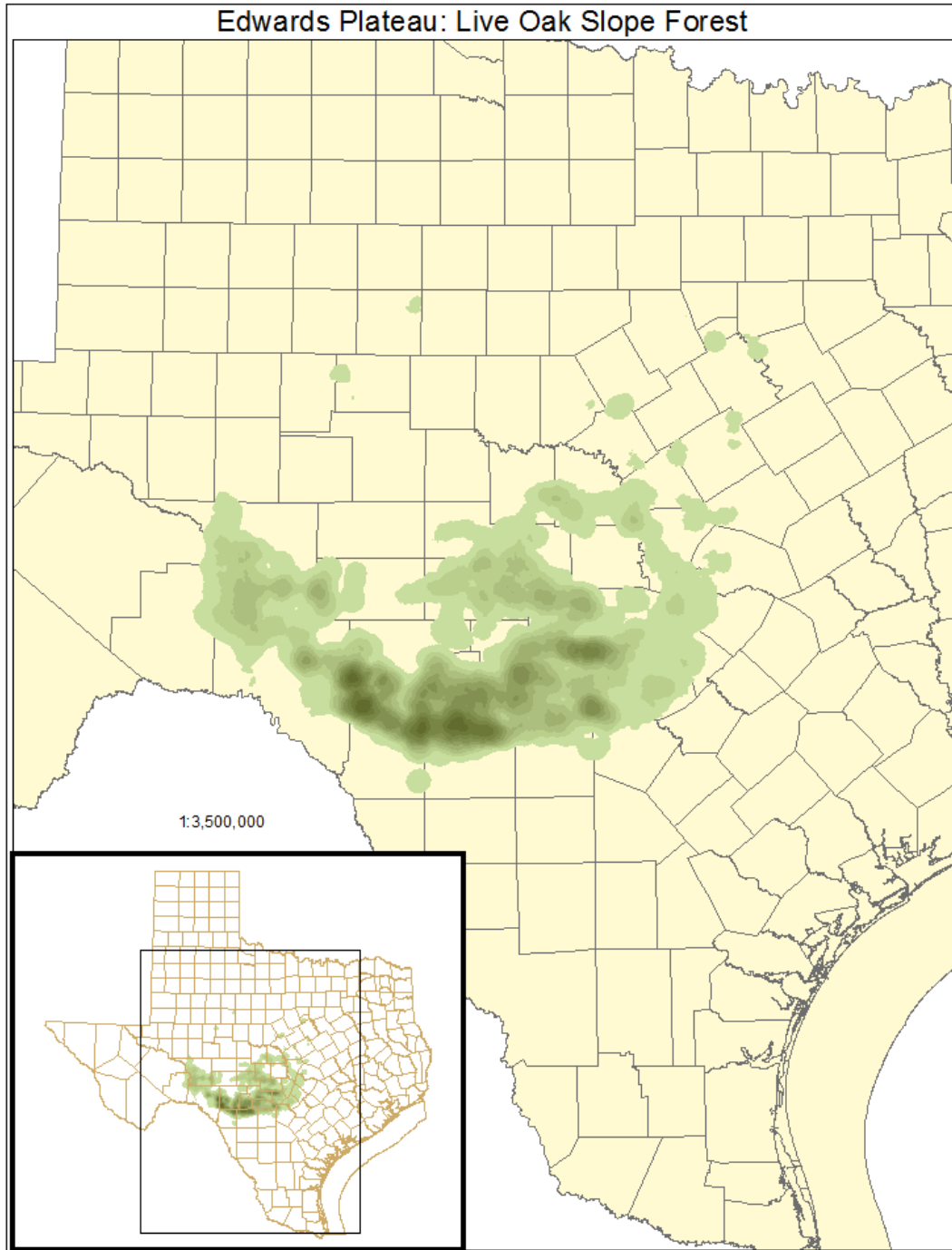
- Abilene State Park Area: Texas Parks & Wildlife Department
- Balcones Canyonlands National Wildlife Refuge: U. S. Fish and Wildlife Service
- Colorado Bend State Park: Texas Parks & Wildlife Department
- Devils River State Natural Area: Texas Parks & Wildlife Department Emma
- Long Metropolitan Park: City of Austin
- Friedrich Wilderness Park: City of San Antonio
- Garner State Park Area: Texas Parks & Wildlife Department
- Government Canyon State Natural Area: Texas Parks & Wildlife Department Hill
- Country State Natural Area: Texas Parks & Wildlife Department
- Kickapoo Cavern State Park Area: Texas Parks & Wildlife Department
- Lost Maples State Natural Area: Texas Parks & Wildlife Department
- Pedernales Falls State Park: Texas Parks & Wildlife Department
- Possum Kingdom State Park Area: Texas Parks & Wildlife Department

## EDWARDS PLATEAU: LIVE OAK SLOPE FOREST

**Mapping System ID:** 902

**EMS Description:** Forest or woodland dominated by *Quercus fusiformis* (plateau live oak) and occupying generally rocky sites on slopes greater than 20 percent. *Juniperus ashei* (Ashe juniper) is typically present, and may be particularly conspicuous as an understory component. Deciduous species such as *Quercus buckleyi* (Texas oak), *Quercus sinuata* var. *breviloba* (white shin oak), *Quercus laceyi* (Lacey oak), *Ulmus crassifolia* (cedar elm), and others may also be present in the canopy. These sites tend to be drier than similar sites that are dominated by a mix of deciduous species in the canopy. The shrub layer is variable and may contain small individuals of the canopy species, as well as species such as *Sophora secundiflora* (Texas mountain-laurel), *Diospyros texana* (Texas persimmon), *Sideroxylon lanuginosum* (gum bumelia), and *Mahonia trifoliolata* (agarito). Relatively closed canopy, rocky substrate, and significant litter layer results in a sparse herbaceous layer.

**Distribution Map:**





**Example:**



**Public Land Occurrence:**

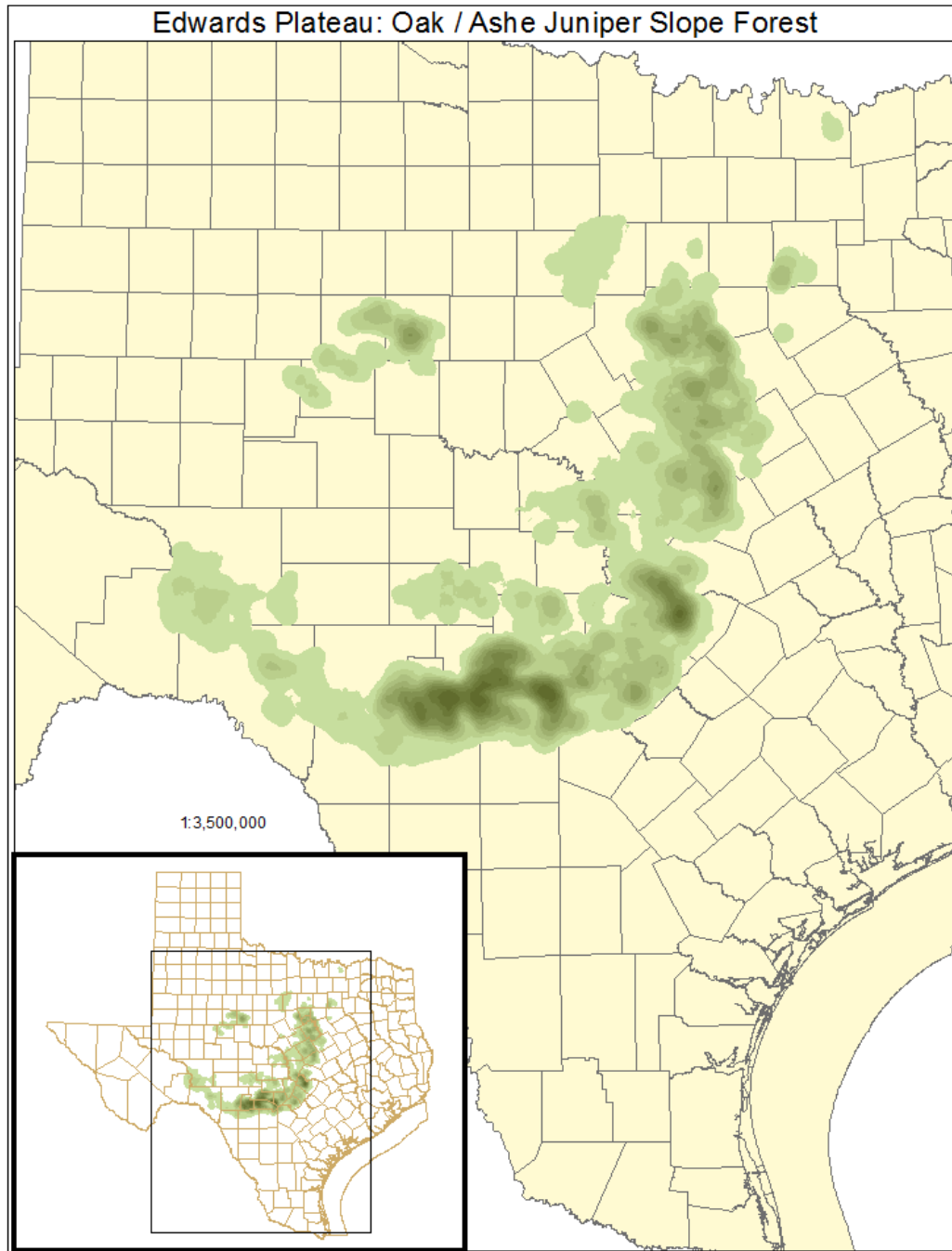
Amistad National Recreation Area: US National Park Service  
Balcones Canyonlands National Wildlife Refuge: U. S. Fish and Wildlife Service  
Colorado Bend State Park: Texas Parks & Wildlife Department  
Devils River State Natural Area: Texas Parks & Wildlife Department  
Garner State Park: Texas Parks & Wildlife Department  
Government Canyon State Natural Area: Texas Parks & Wildlife Department  
Hill Country State Natural Area: Texas Parks & Wildlife Department  
Honey Creek State Natural Area: Texas Parks & Wildlife Department  
Kerr Wildlife Management Area: Texas Parks & Wildlife Department  
Kickapoo Cavern State Park: Texas Parks & Wildlife Department  
Lost Maples State Natural Area: Texas Parks & Wildlife Department  
Mason Mountain Wildlife Management Area: Texas Parks & Wildlife Department  
Old Tunnel Wildlife Management Area: Texas Parks & Wildlife Department  
Walter Buck Wildlife Management Area: Texas Parks & Wildlife Department

**EDWARDS PLATEAU: OAK - ASHE JUNIPER SLOPE FOREST****Mapping System ID: 903**

**EMS Description:** Forests or woodlands on steep rocky slopes, co-dominated by *Juniperus ashei* (Ashe juniper) and deciduous species such as *Quercus buckleyi* (Texas oak), *Quercus laceyi* (Lacey oak), *Quercus muehlenbergii* (chinkapin oak), and *Quercus sinuata* var. *breviloba* (white shin oak). Other deciduous hardwood species such as *Ulmus crassifolia* (cedar elm), *Juglans major* (Arizona walnut), *Prunus serotina* var. *eximia* (escarpment black cherry), *Celtis reticulata* (netleaf hackberry), and *Fraxinus texensis* (texas ash) may also be present to common. *Quercus fusiformis* (plateau live oak) is also frequently conspicuous in the canopy. These sites are intermediate in dryness between juniper dominated slopes and those dominated by deciduous hardwood species. *Juniperus ashei* (Ashe juniper) may reach large sizes on such slopes. The shrub layer is variable but may be well-developed within canopy gaps. Species in the shrub layer may include *Sophora secundiflora* (Texas mountain-laurel), *Forestiera pubescens* (elbowbush), *Ungnadia speciosa* (Mexican buckeye), *Diospyros texana* (Texas persimmon), *Aesculus pavia* var. *flavescens* (red buckeye), *Cercis canadensis* var. *texensis* (Texas redbud), *Sideroxylon lanuginosum* (gum bumelia), and others. The herbaceous layer is generally sparse and depauperate.



**Distribution Map:**



**Example:**



**Public Land Occurrence:**

Abilene State Park: Texas Parks & Wildlife Department

Amistad National Recreation Area: US National Park Service

Balcones Canyonlands National Wildlife Refuge: U. S. Fish and Wildlife Service

Barton Creek Greenbelt: City of Austin

Belton Lake Recreation Area: US Army Corps of Engineers

Devils River State Natural Area: Texas Parks & Wildlife Department

Friedrich Wilderness Park: City of San Antonio

Garner State Park: Texas Parks & Wildlife Department

Government Canyon State Natural Area: Texas Parks & Wildlife Department

Hill Country State Natural Area: Texas Parks & Wildlife Department

Kickapoo Cavern State Park: Texas Parks & Wildlife Department

Lost Maples State Natural Area: Texas Parks & Wildlife Department Pedernales

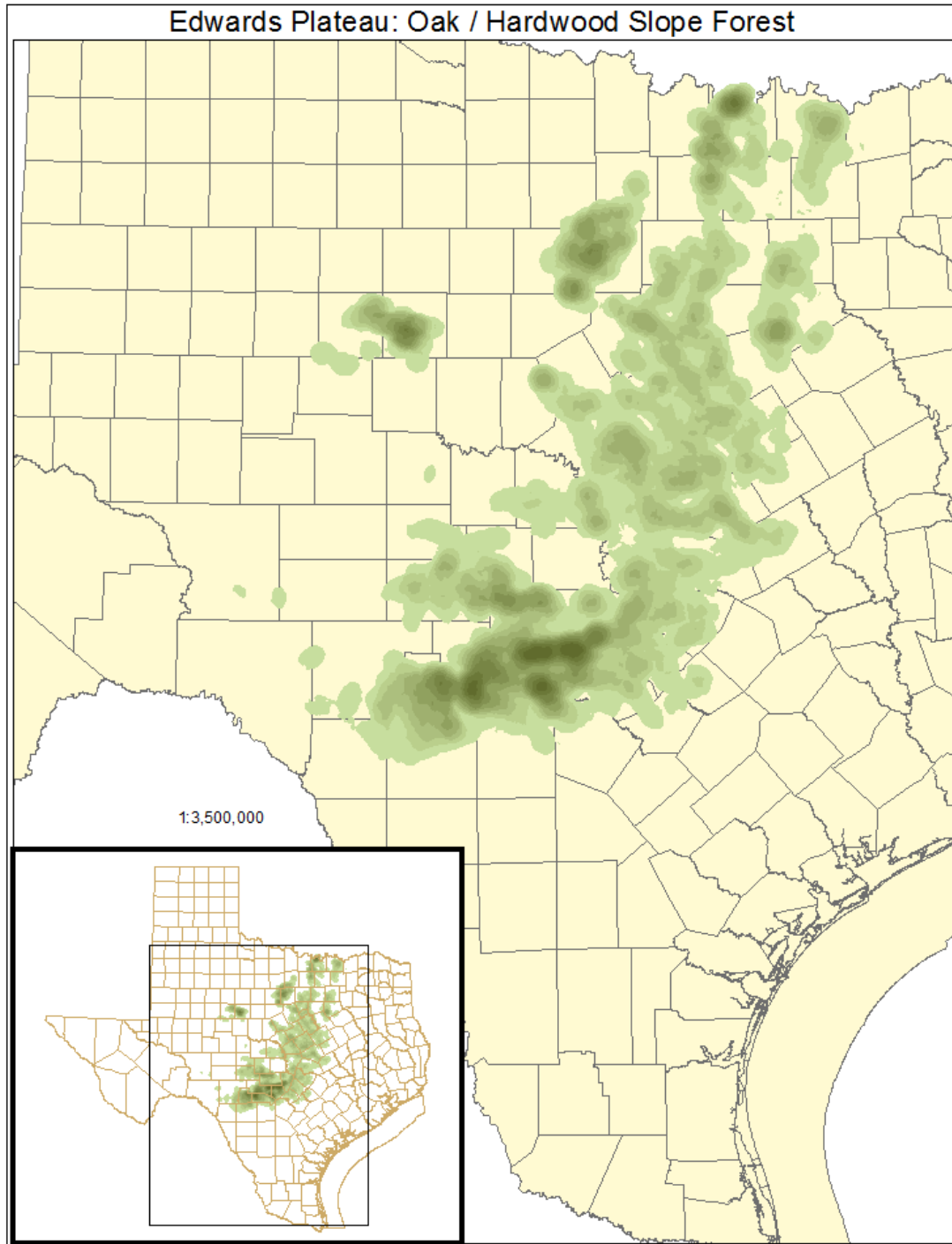
Falls State Park: Texas Parks & Wildlife Department

Stillhouse Hollow Lake Recreation Area: US Army Corps of Engineers

**EDWARDS PLATEAU: OAK - HARDWOOD SLOPE FOREST****Mapping System ID: 904**

**EMS Description:** Forest or woodland on slopes generally greater than 20 percent on steep rocky sites with significant deciduous canopy cover. These sites tend to be somewhat more mesic than similar sites dominated by evergreen canopy. The overstory may be diverse, with species such as *Quercus buckleyi* (Texas oak), *Quercus laceyi* (Lacey oak), *Quercus sinuata* var. *breviloba* (white shin oak), *Quercus muehlenbergii* (chinkapin oak), *Ulmus crassifolia* (cedar elm), *Celtis laevigata* var. *reticulata* (netleaf hackberry), *Fraxinus texensis* (Texas ash), *Prunus serotina* var. *eximia* (escarpment black cherry), *Juglans major* (Arizona walnut), and others. This system may occupy slopes on cretaceous limestone or chalk occurring north and east of the Edwards Plateau. In these situations, *Quercus shumardii* (Shumard oak), *Quercus muehlenbergii* (chinkapin oak), *Ulmus rubra* (slippery elm), and/or *Juglans nigra* (black walnut) may be present in the canopy, and may represent significant components of it. *Quercus fusiformis* (plateau live oak) and *Juniperus ashei* (Ashe juniper) may be present, often reaching large size under these conditions. Species such as *Aesculus pavia* var. *flavescens* (red buckeye), *Cercis canadensis* var. *texensis* (Texas redbud), *Cornus drummondii* (rough-leaf dogwood), *Forestiera pubescens* (elbowbush), *Ungnadia speciosa* (Mexican buckeye), *Ceanothus herbaceus* (Jersey tea), *Frangula caroliniana* (Carolina buckthorn), *Viburnum rufidulum* (rusty blackhaw), *Vitis* spp. (grape), and *Garrya ovata* (siltassel) tend to occur in the shrub layer more frequently in this vegetation type than in the evergreen vegetation types of this system. Though dense canopy, rocky substrate, and significant litter accumulation results in a sparse herbaceous layer, forbs such as *Tinantia anomala* (widowstears), *Chaptalia texana* (silver-puff), *Nemophila phacelioides* (baby blue-eyes), *Salvia roemeriana* (cedar sage), *Lespedeza texana* (Texas lespedeza), and various ferns may be present, if patchy.

**Distribution Map:**





**Example:**



**Public Land Occurrence:**

Abilene State Park: Texas Parks & Wildlife Department  
Belton Lake Recreation Area: US Army Corps of Engineers  
Cedar Hill State Park: Texas Parks & Wildlife Department  
Devils River State Natural Area: Texas Parks & Wildlife Department  
Fort Richardson State Park and Historical Site: Texas Parks & Wildlife Department  
Friedrich Wilderness Park: City of San Antonio  
Garner State Park: Texas Parks & Wildlife Department  
Government Canyon State Natural Area  
Granger Wildlife Management Area: Texas Parks & Wildlife Department  
Kickapoo Cavern State Park: Texas Parks & Wildlife Department  
Lost Maples State Natural Area: Texas Parks & Wildlife Department  
Mason Mountain Wildlife Management Area: Texas Parks & Wildlife Department  
Pedernales Falls State Park: Texas Parks & Wildlife Department  
Possum Kingdom State Park: Texas Parks & Wildlife Department