WESTERN GULF COASTAL PLAIN SMALL STREAM AND RIVER FOREST

Nature Serve ID: CES203.487

Geology: This system largely occurs on Quaternary Alluvium, but may also be found on other mapped geologic surfaces on drainages lacking significant alluvial development.

Landform: This system occupies small rivers, streams, creeks, and upland drainages. These sites tend to be higher in the watershed where less depositional activity occurs. The local geomorphological variation tends to be less than in the West Gulf Coastal Plain Large River Floodplain Forest.

Soils: This system occupies bottomland soils on small streams. Fewer sites are seasonally or semi-permanently flooded.

Description: This system, occupying the bottomlands of small rivers, streams, and creeks, is primarily dominated by hardwood species such as *Liquidambar styraciflua* (sweetgum), *Quercus nigra* (water oak), *Celtis laevigata* (sugar hackberry), *Fraxinus pennsylvanica* (green ash), *Betula nigra* (river birch), *Quercus phellos* (willow oak), *Quercus laurifolia* (laurel oak), *Ulmus americana* (American elm), *Ulmus crassifolia* (cedar elm), *Ulmus alata* (winged elm), *Quercus pagoda* (cherrybark oak), *Quercus falcata* (southern red oak), *Platanus occidentalis* (American sycamore) and *Acer rubrum* (red maple). *Pinus taeda* (loblolly pine), *Pinus elliottii* (slash pine), and/or *Juniperus virginiana* (eastern redcedar) may be present in the canopy, or occur as a sub-canopy stratum. Wetter sites tend to be dominated by more flood-tolerant species such as *Taxodium distichum* (baldcypress), *Nyssa aquatica* (water tupelo), *Gleditsia aquatica* (water honeylocust), *Carya aquatica* (water hickory), *Quercus lyrata* (overcup oak), *Quercus similis* (bottomland post oak), *Planera aquatica* (water elm), and *Quercus phellos* (willow oak). Shrubs may form dense patches with species such as *Cephalanthus occidentalis* (common buttonbush) or *Planera aquatica* (water elm). The understory of forests may be made of species common to the canopy. Other understory and shrub species that may be common include *Carpinus caroliniana* (American hornbeam), *Ostrya virginiana* (American hop-hornbeam), *Morus rubra* (red mulberry), *Ilex decidua* (possumhaw), *Sabal minor* (dwarf palmetto), *Ilex opaca* (American holly), *Ilex vomitoria* (yaupon), *Morella cerifera* (wax-myrtle), *Callicarpa americana* (American beautyberry), *Itea virginica* (Virginia sweetspire), *Arundinaria gigantea* (giant cane), *Alnus serrulata* (smooth alder), and/or *Maclura pomifera* (bois d'arc). Early successional woodlands may be mapped as shrublands, due to reduced woody cover. These sites may be dominated by early successional species such as *Salix nigra* (black willow), *Gleditsia triacanthos* (common honeylocust), *Platanus occidentalis* (American sycamore), or *Ulmus alata* (winged elm). Non-native woody species that may be present include *Triadica sebifera* (Chinese tallow), *Lonicera japonica* (Japanese honeysuckle), and *Ligustrum* spp. (privets). Woody vines may be conspicuous and include *Berchemia scandens* (Alabama supplejack), *Toxicodendron radicans* (poison ivy), *Brunnichia ovata* (eardrop vine), *Smilax bona-nox* (saw greenbrier), and *Ampelopsis arborea* (peppervine). The herbaceous layer may be well developed in some cases. Non-natives such as *Cynodon dactylon* (bermudagrass), *Lolium perenne* (Italian ryegrass), *Paspalum notatum* (Bahia grass), and *Sorghum halepense* (Johnsongrass) may be dominant. Native herbaceous species of this system include *Chasmanthium laxum* (slender woodoats), *Chasmanthium latifolium* (creek oats), *Dichanthelium* spp. (rosette grasses), *Carex cherokeensis* (Cherokee sedge), *Boehmeria cylindrica* (false nettle), *Polygonum* spp. (smartweeds), *Ambrosia trifida* (giant ragweed), *Xanthium strumarium* (cocklebur), *Paspalum floridanum* (Florida paspalum), *Leersia* spp. (cutgrasses), *Tripsacum dactyloides* (eastern gamagrass),

Panicum virgatum (switchgrass), *Elymus virginicus* (Virginia wildrye), and *Geum canadense* (white avens).

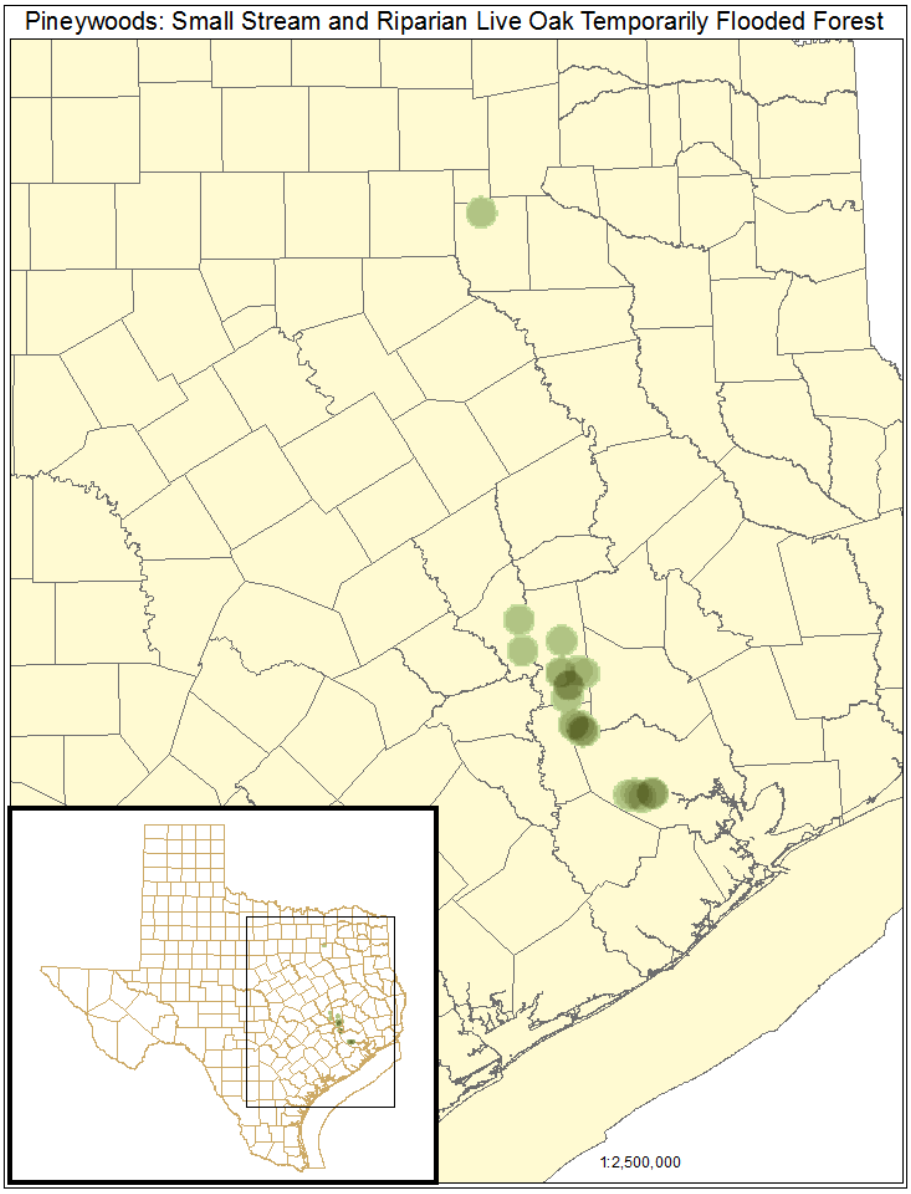
ECOLOGICAL MAPPING SYSTEMS:

PINEYWOODS: SMALL STREAM AND RIPARIAN LIVE OAK TEMPORARILY FLOODED FOREST

Mapping System ID: 4802

EMS Description: This very minor component of the system is dominated by *Quercus virginiana* (coastal live oak). Other deciduous species that retain their leaves for extended periods (and therefore appear as broadleaf evergreen landcover), including *Quercus nigra* (water oak) and *Quercus laurifolia* (laurel oak), may dominate some sites.

Distribution Map:



Example:

Public Land Occurrence:

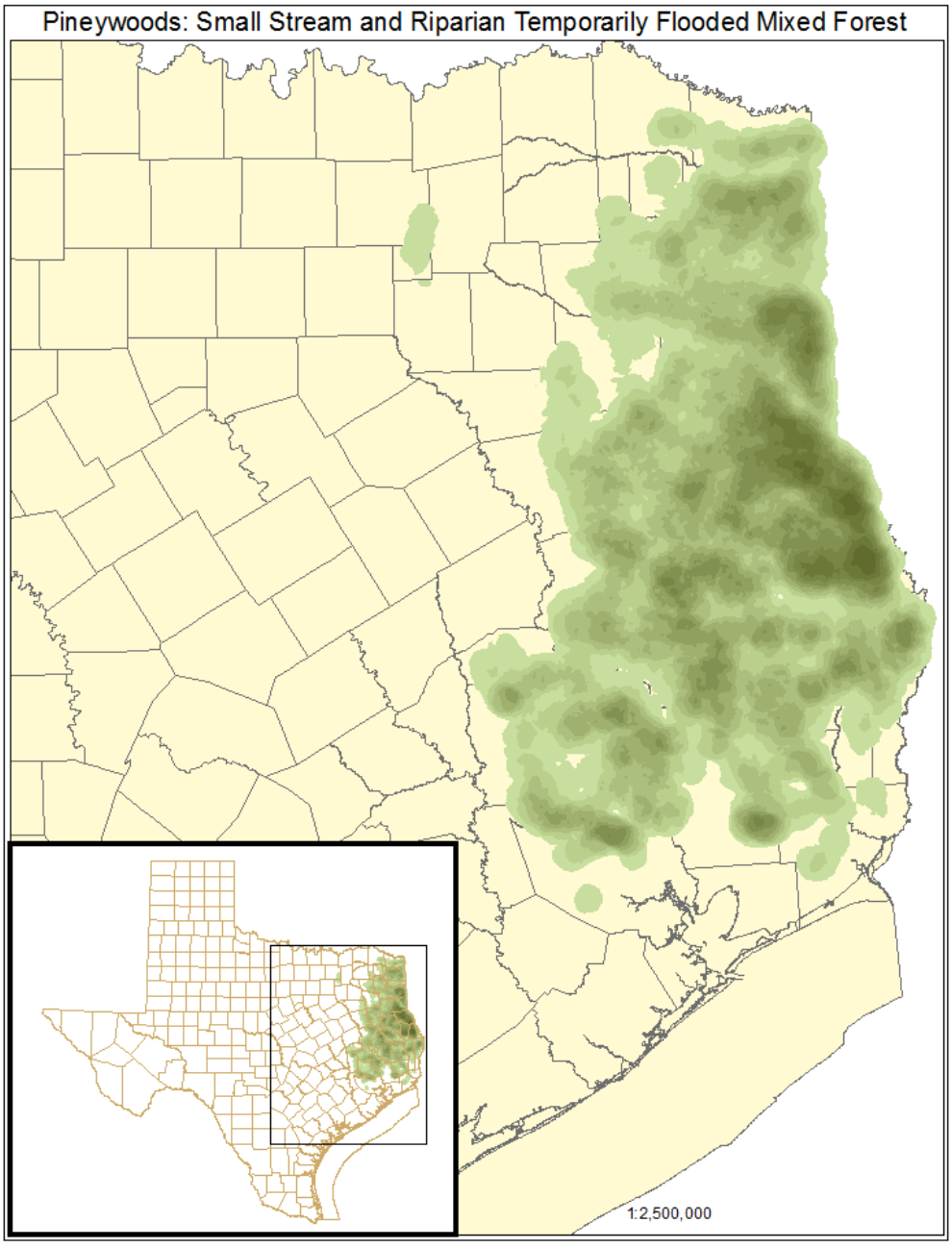
None.

PINEWOODS: SMALL STREAM AND RIPARIAN TEMPORARILY FLOODED MIXED FOREST

Mapping System ID: 4803

EMS Description: This mapped type may have significant cover contributed by *Pinus taeda* (loblolly pine), *Pinus elliottii* (slash pine), and/or *Juniperus virginiana* (eastern redcedar). Deciduous species described above share the canopy with these evergreen species.

Distribution Map:



Example:

Public Land Occurrence:

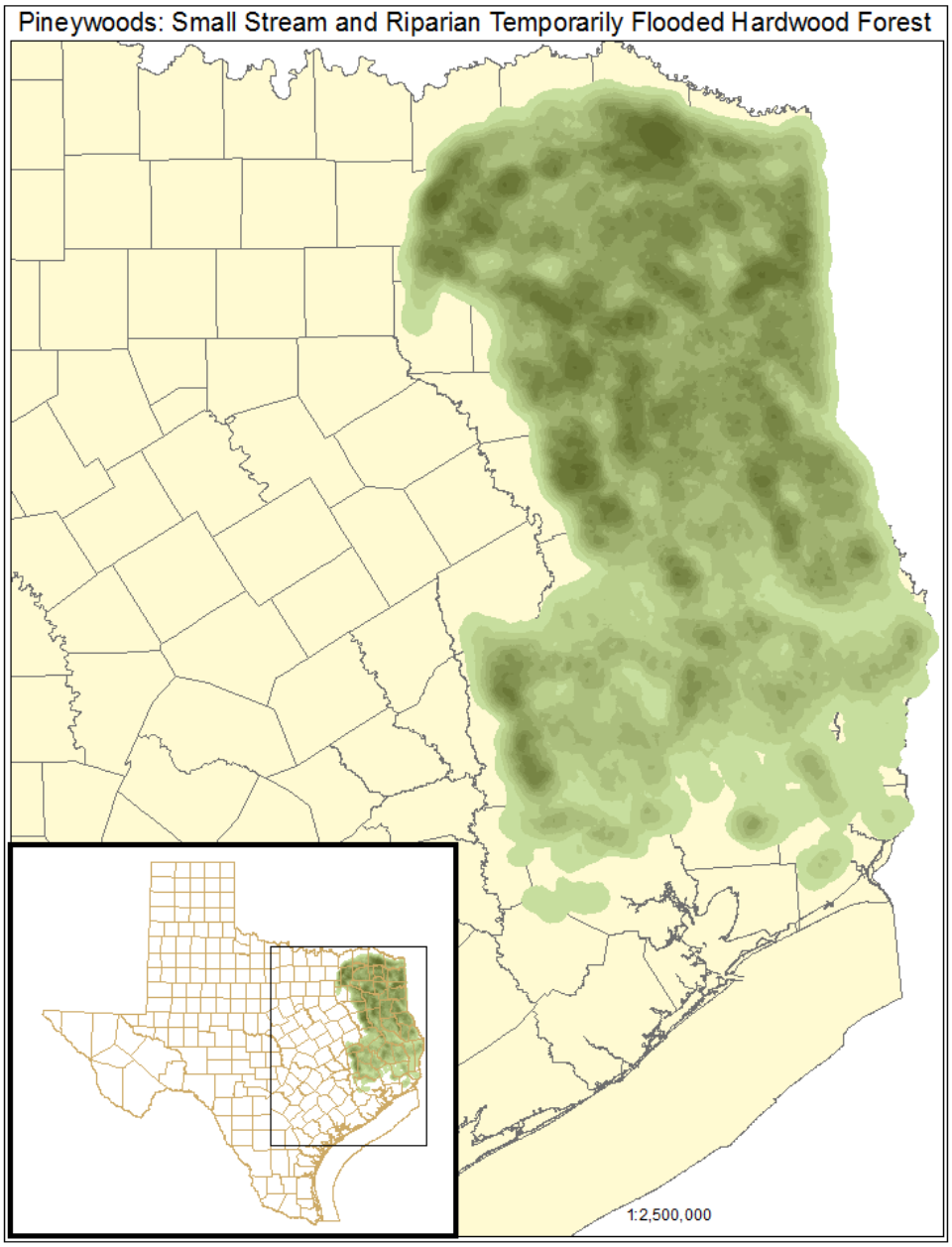
Angelina National Forest: US Forest Service
Bannister Wildlife Management Area: Texas Parks & Wildlife Department
Big Thicket National Preserve: US National Park Service
Davy Crockett National Forest: US Forest Service
Roy E. Larsen Sandyland Sanctuary: The Nature Conservancy
Sabine National Forest: US Forest Service
Sam Houston National Forest Wildlife Management Area: Texas Parks & Wildlife Department

PINEYWOODS: SMALL STREAM AND RIPARIAN TEMPORARILY FLOODED HARDWOOD FOREST

Mapping System ID: 4804

EMS Description: This is the prevalent mapped type for this system, with typical dominant species including *Liquidambar styraciflua* (sweetgum), *Quercus nigra* (water oak), *Celtis laevigata* (sugar hackberry), *Ulmus crassifolia* (cedar elm), and *Fraxinus pennsylvanica* (green ash). Many other hardwood species as mentioned above may be found at these sites.

Distribution Map:



Example:

Public Land Occurrence:

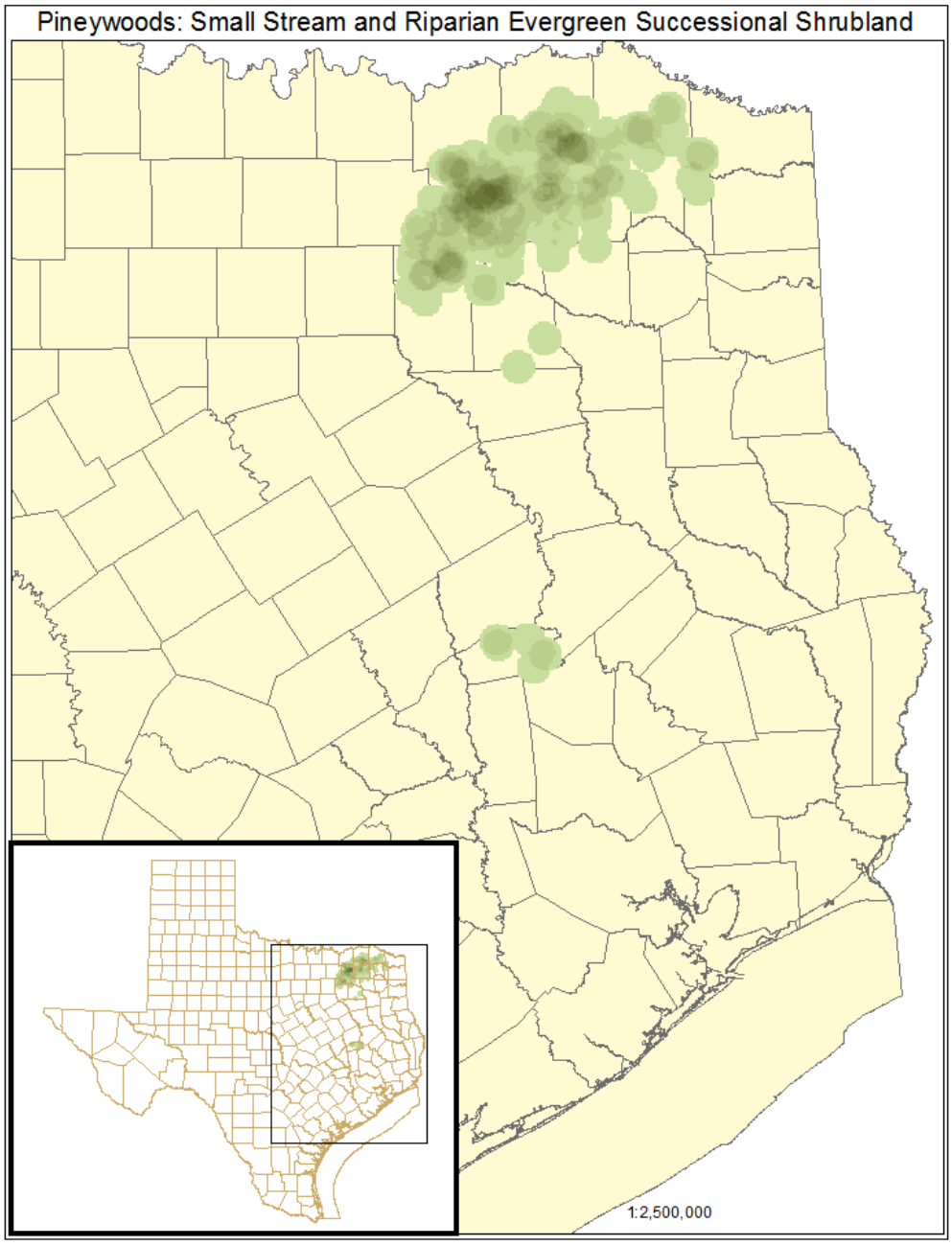
Angelina National Forest: US Forest Service
Big Thicket National Preserve: US National Park Service
Cooper Wildlife Management Area: Texas Parks & Wildlife Department
Davy Crockett National Forest: US Forest Service
Roy E. Larsen Sandyland Sanctuary: The Nature Conservancy
Sabine National Forest: US Forest Service
Sam Houston National Forest Wildlife Management Area: Texas Parks & Wildlife Department
White Oak Creek Wildlife Management Area: Texas Parks & Wildlife Department
Wright Patman Lake: US Army Corps of Engineers

PINEYWOODS: SMALL STREAM AND RIPARIAN EVERGREEN SUCCESSIONAL SHRUBLAND

Mapping System ID: 4805

EMS Description: This minor component of the system likely corresponds to areas dominated by *Juniperus virginiana* (eastern redcedar), or by young *Pinus taeda* (loblolly pine) or *Pinus elliottii* (slash pine).

Distribution Map:



Example:

Public Land Occurrence:

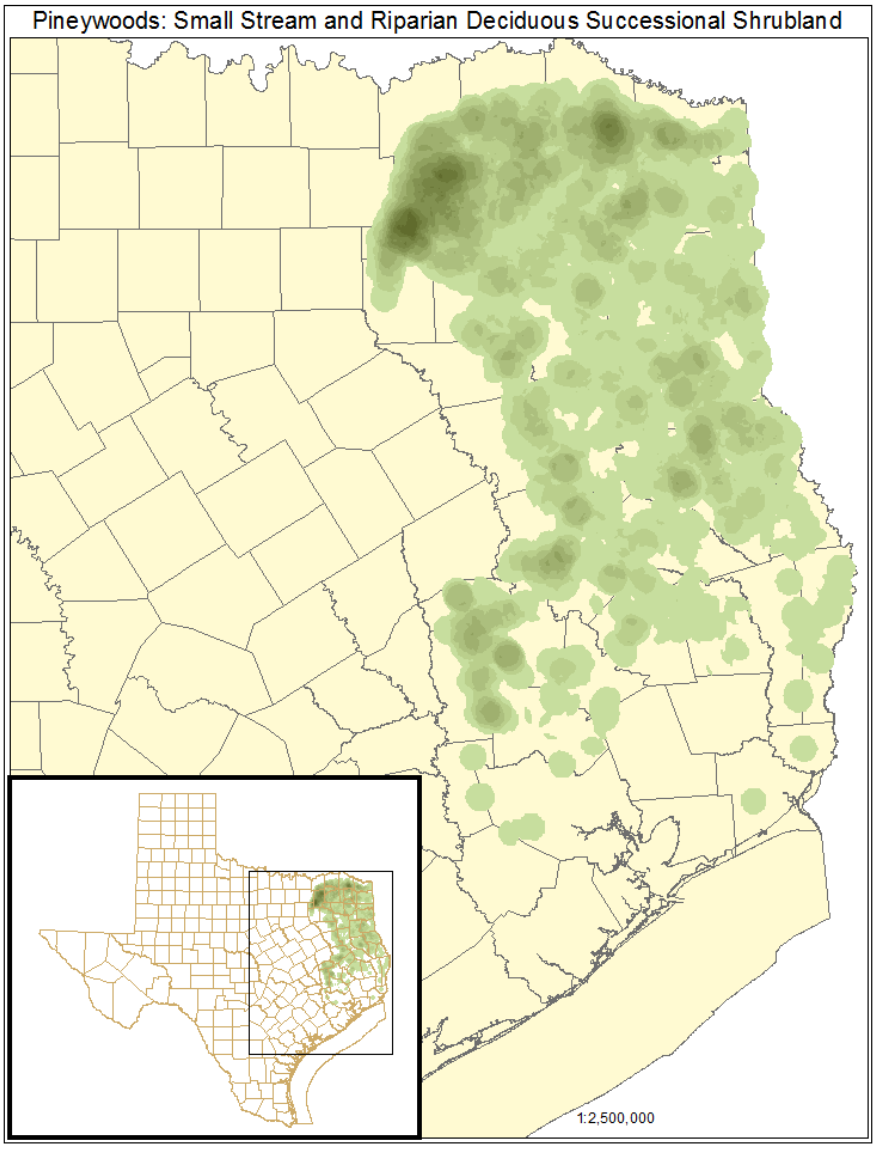
None.

PINEYWOODS: SMALL STREAM AND RIPARIAN DECIDUOUS SUCCESSIONAL SHRUBLAND

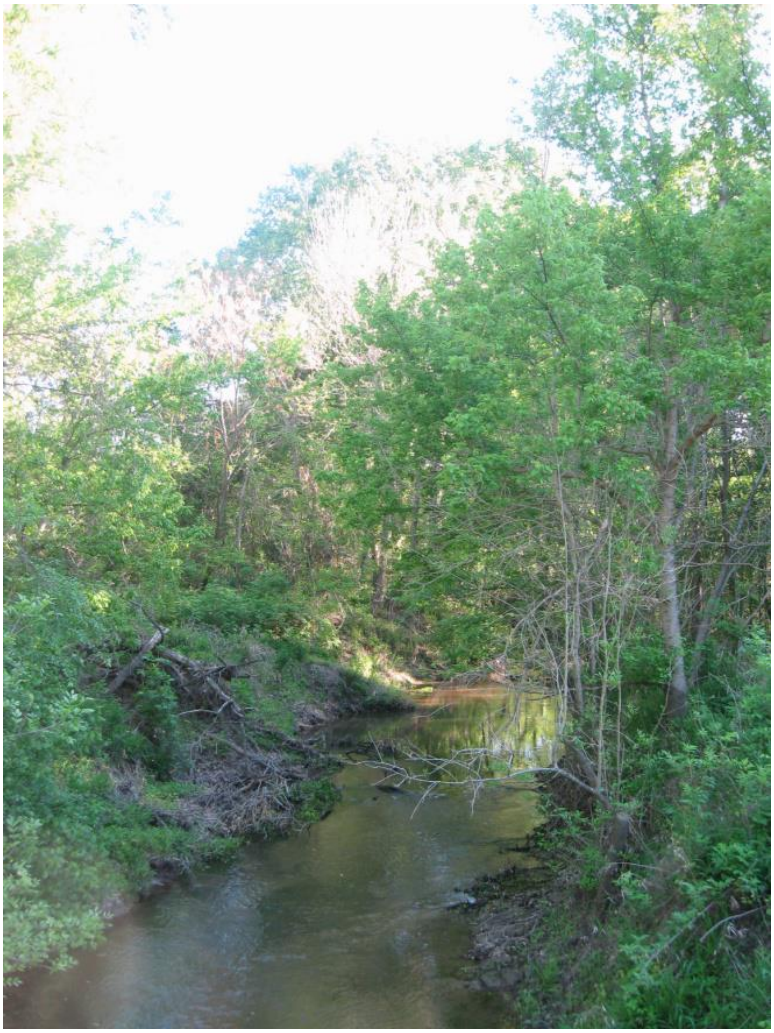
Mapping System ID: 4806

EMS Description: This minor component of the system often represents young woodlands with reduced woody cover due to disturbance. Species dominating these sites may include *Celtis laevigata* (sugar hackberry), *Betula nigra* (river birch), *Salix nigra* (black willow), *Fraxinus pennsylvanica* (green ash), *Acer negundo* (boxelder), *Platanus occidentalis* (American sycamore), or *Liquidambar styraciflua* (sweetgum). Shrub species may also be conspicuous to dominant, including *Cephalanthus occidentalis* (common buttonbush), *Ilex decidua* (possumhaw), *Ilex vomitoria* (yaupon), or *Alnus serrulata* (smooth alder).

Distribution Map:



Example:



Public Land Occurrence:

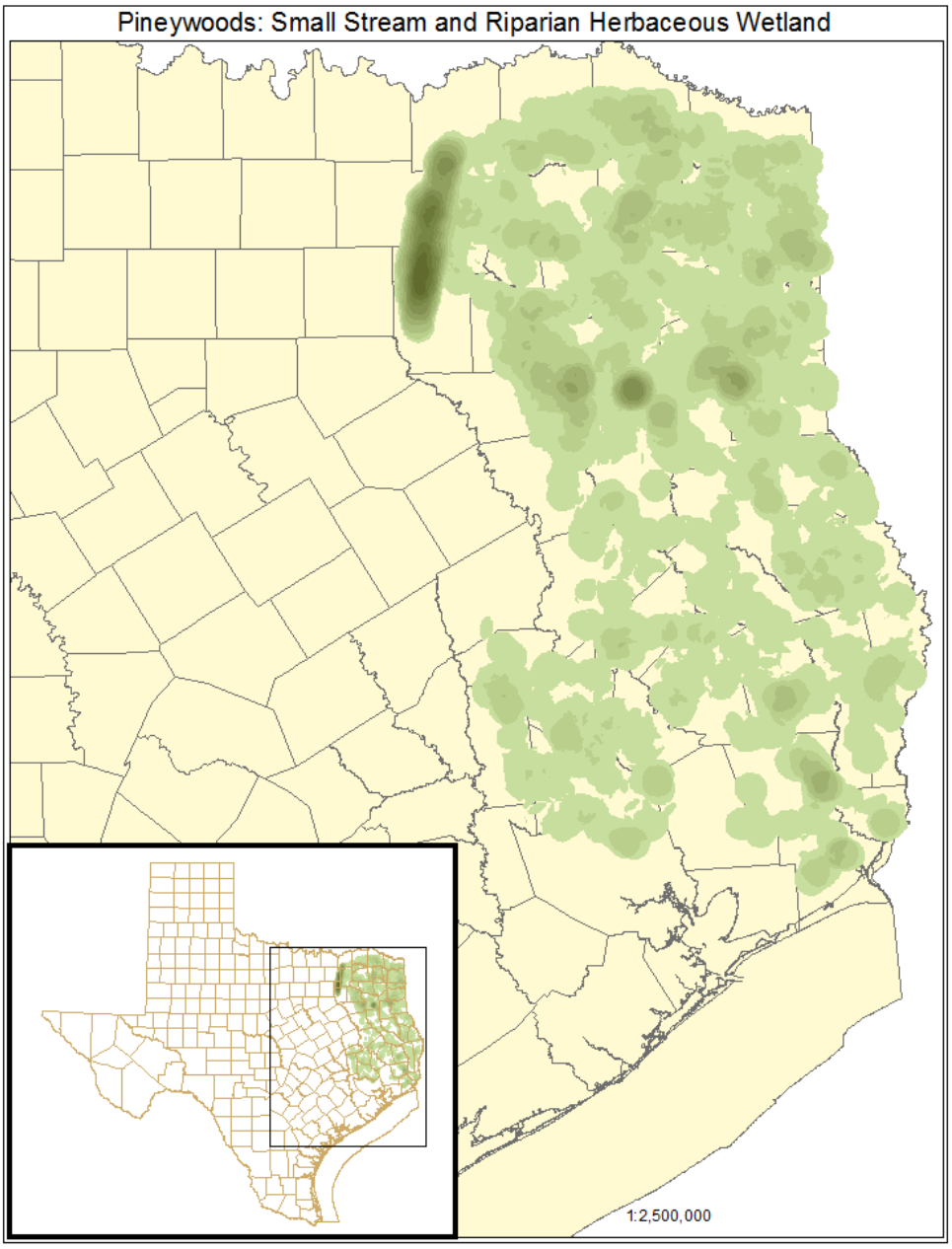
None.

PINEYWOODS: SMALL STREAM AND RIPARIAN HERBACEOUS WETLAND

Mapping System ID: 4807

EMS Description: This mapped type corresponds to sites that contain marsh landcover along small streams. These sites tend to be wetter than Pineywoods: Small Stream and Riparian Wet Prairie. These sites may be dominated by *Typha* spp. (cattails), *Juncus* spp. (rushes), *Carex* spp. (caric sedges), *Sagittaria* spp. (arrowheads), *Justicia* spp. (water-willows), *Panicum hemitomon* (maidencane), *Ludwigia* spp. (water-primroses), and *Polygonum* spp. (smartweeds).

Distribution Map:



Example:

Public Land Occurrence:

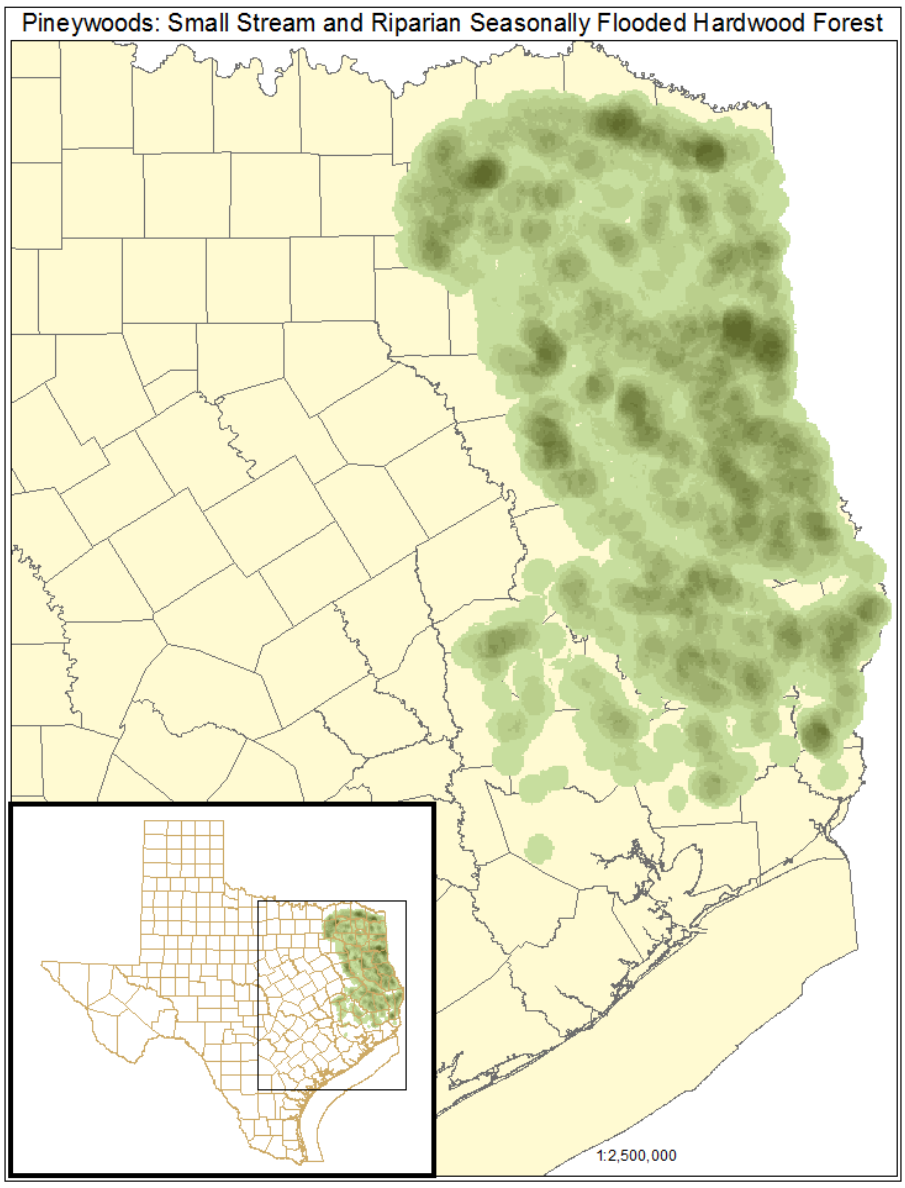
Alazan Bayou Wildlife Management Area: Texas Parks & Wildlife Department
Angelina National Forest: US Forest Service
Big Thicket National Preserve: US National Park Service
Little Sandy National Wildlife Refuge: US Fish and Wildlife Service
Sam Houston National Forest Wildlife Management Area: Texas Parks & Wildlife Department
White Oak Creek Wildlife Management Area: Texas Parks & Wildlife Department
Wright Patman Lake: US Army Corps of Engineers

PINEYWOODS: SMALL STREAM AND RIPARIAN SEASONALLY FLOODED HARDWOOD FOREST

Mapping System ID: 4814

EMS Description: This mapped type occupies wetter sites within the system and tends to have significant cover of species more tolerant of frequent flooding, such as *Quercus lyrata* (overcup oak), *Taxodium distichum* (baldcypress), *Quercus phellos* (willow oak), *Nyssa aquatica* (water tupelo), and *Salix nigra* (black willow). *Quercus nigra* (water oak), *Liquidambar styraciflua* (sweetgum), *Ulmus americana* (American elm), and *Fraxinus pennsylvanica* (green ash) are often dominant.

Distribution Map:



Example:

Public Land Occurrence:

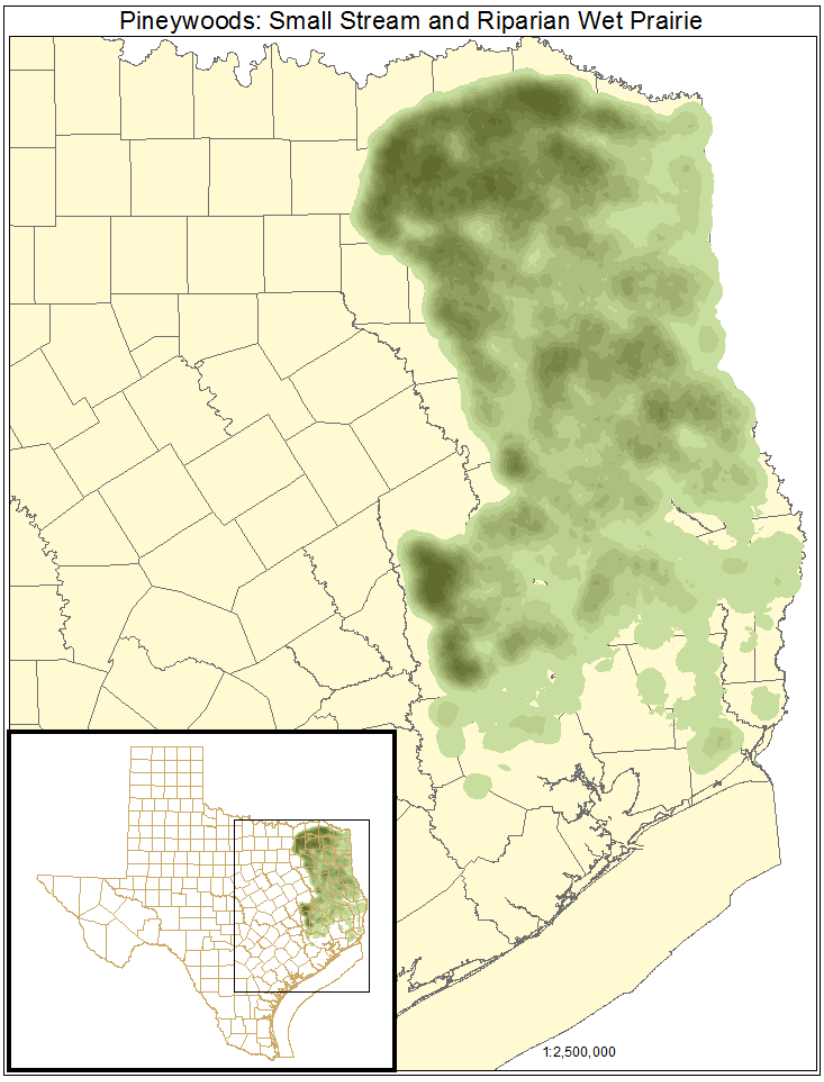
Angelina National Forest: US Forest Service
Big Thicket National Preserve: US National Park Service
Cooper Wildlife Management Area: Texas Parks & Wildlife Department
Davy Crockett National Forest: US Forest Service
Roy E. Larsen Sandyland Sanctuary: The Nature Conservancy
Sabine National Forest: US Forest Service
Sam Houston National Forest Wildlife Management Area: Texas Parks & Wildlife Department
Wright Patman Lake: US Army Corps of Engineers

PINEYWOODS: SMALL STREAM AND RIPARIAN WET PRAIRIE

Mapping System ID: 4817

EMS Description: This mapped type occupies sites less wet than those occupied by Pineywoods: Small Stream and Riparian Herbaceous Wetland. They may be dominated by non-native species such as *Cynodon dactylon* (bermudagrass), *Lolium perenne* (Italian ryegrass), *Paspalum notatum* (Bahia grass), and *Sorghum halepense* (Johnsongrass). Native species that may occupy these sites include *Schizachyrium scoparium* (little bluestem), *Panicum virgatum* (switchgrass), *Tripsacum dactyloides* (eastern gamagrass), *Elymus virginicus* (Virginia wildrye), *Chasmanthium* spp. (woodoats), *Dichanthelium* spp. (rosette grasses), *Paspalum floridanum* (Florida paspalum), *Sorghastrum nutans* (Indiangrass), and *Carex* spp. (caric sedges). Forbs such as *Ambrosia psilostachya* (western ragweed), *Ambrosia trifida* (giant ragweed), *Xanthium strumarium* (cocklebur), and *Geum canadense* (white avens) are frequently encountered.

Distribution Map:



Example:

Public Land Occurrence:

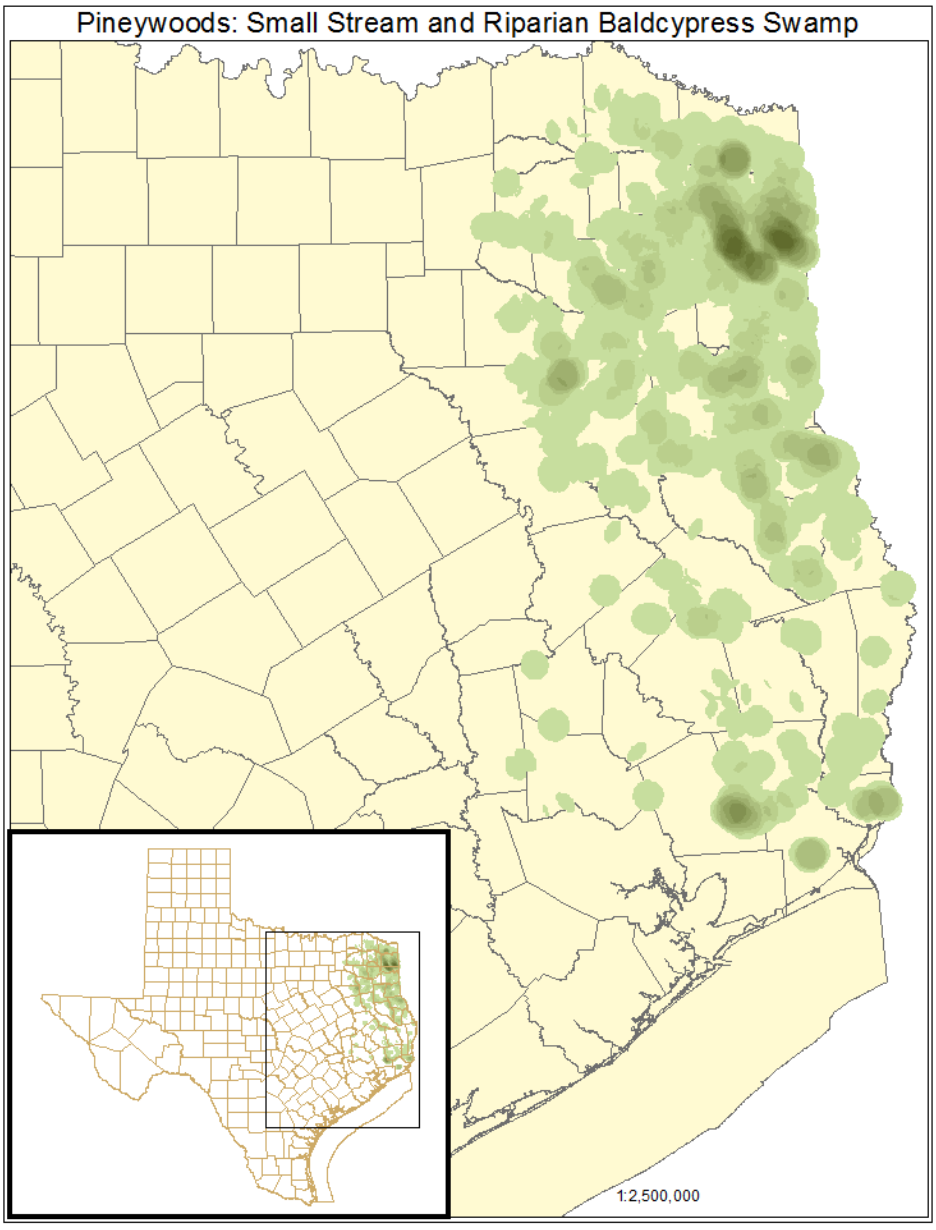
None.

PINEYWOODS: SMALL STREAM AND RIPARIAN BALDCYPRESS SWAMP

Mapping System ID: 4824

EMS Description: Swamps are a relatively minor component along these small rivers, streams, and creeks. They are typically dominated by *Taxodium distichum* (baldcypress), but may be dominated or co-dominated by other species including *Planera aquatica* (water elm), *Nyssa aquatica* (water tupelo), *Gleditsia aquatica* (water honeylocust), *Quercus lyrata* (overcup oak), *Salix nigra* (black willow), or *Quercus laurifolia* (laurel oak). *Liquidambar styraciflua* (sweetgum) may also be a conspicuous component.

Distribution Map:



Example:

Public Land Occurrence:

Angelina National Forest: US Forest Service
Big Thicket National Preserve: US National Park Service
Cooper Wildlife Management Area: Texas Parks & Wildlife Department
Little Sandy National Wildlife Refuge: US Fish and Wildlife Service
Sabine National Forest: US Forest Service
White Oak Creek Wildlife Management Area: Texas Parks & Wildlife Department
Wright Patman Lake: US Army Corps of Engineers