

TAMAULIPAN FLOODPLAIN

Nature Serve ID: CES301.990

Geology: Quaternary alluvium.

Landform: Floodplains of rivers and large creeks where sediment is deposited. Topography is relatively level with some relief associated with levees and depressions developed from meanders of the waterway, or historical meanders of the Rio Grande (Resaca).

Soils: Alluvial soils of the Bottomland Ecological Sites, including loamy, clayey, and sandy. The Lowland Ecological Site type also supports this system.

Parent Description: This ecological system occurs along rivers and major drainages in south Texas from the central portion of the Nueces River south to northeastern Mexico and west to the vicinity of Del Rio, Texas. Generally, the system is expressed as a deciduous woodland or forest with tree height reaching to 15 meters, and canopy cover variable but sometimes reaching near 100 percent. The canopy may have a conspicuous (sometimes dominant to co-dominant) evergreen component of species such as *Ebenopsis ebano* (Texas ebony) and *Ehretia anacua* (anacua). Dominant species of the overstory canopy often includes one or more of the following species: *Celtis laevigata* (sugar hackberry), *Ulmus crassifolia* (cedar elm), *Fraxinus berlandieriana* (Mexican ash), *Prosopis glandulosa* (honey mesquite), *Acacia farnesiana* (huisache), *Diospyros texana* (Texas persimmon), *Leucaena pulverulenta* (tepeguaje), *Celtis ehrenbergiana* (granjeno), *Sapindus saponaria* var. *drummondii* (western soapberry), *Ebenopsis ebano* (Texas ebony), *Ehretia anacua* (anacua), and *Parkinsonia aculeata* (retama). In northern portions of the range of this system, particularly within the Nueces River drainage, *Carya illinoensis* (pecan) and *Quercus fusiformis* (plateau live oak) may be conspicuous components of the overstory. Forests and woodlands may have significant shrub cover including saplings of the overstory species in addition to species such as *Zanthoxylum fagara* (colima), *Condalia hookeri* (brasil), *Forestiera angustifolia* (desert olive), *Sideroxylon* spp. (bumelias), *Aloysia gratissima* (whitebrush), *Acacia greggii* var. *wrightii* (Wright's acacia), *Malpighia glabra* (Barbados cherry), *Guaiacum angustifolium* (guayacan), *Ziziphus obtusifolia* (lotebush) and *Amyris texana* (Texas torchwood). Other shrub species, such as *Buddleja sessiliflora* (Rio Grande butterflybush), *Phaulothamnus spinescens* (snake-eyes), *Lippia alba* (white lipia), and *Amyris madrensis* (Sierra Madre torchwood) may be encountered in southern expressions of the system. *Salix nigra* (black willow) may dominate sites, especially at river's edge and wet sites. Riverbanks and other sites with a reduced overstory canopy (either from disturbance or prolonged inundation) may also be shrub dominated, often with one or few species such as *Baccharis neglecta* (Rooseveltweed), *Baccharis salicifolia* (seepwillow), *Arundo donax* (giant reed), *Sesbania drummondii* (rattlebox sesbania), or *Cephalanthus occidentalis* (common buttonbush), and *Salix exigua* (Texas sandbar willow), *Mimosa asperata* (black mimosa), or *Cephalanthus salicifolius* (willowleaf buttonbush) in the lower Rio Grande Valley. The herbaceous layer is typically not well developed, but may include species such as *Trichloris pluriflora* (multiflower false Rhodes grass), *Setaria scheelei* (southwestern bristlegrass), *Panicum virgatum* (switchgrass), *Paspalum langei* (rustyseed paspalum), *Paspalum denticulatum* (longtom), *Carex crus-corvi* (crowfoot sedge), *Cyperus articulatus* (jointed umbrellasedge), *Rivina humilis* (pigeonberry), *Calyptocarpus vialis* (straggler daisy), *Chromolaena odorata* (cruciata), *Teucrium cubense* (Cuban germander), *Urtica chamaedryoides* (slim stinging nettle), *Parietaria pennsylvanica* (cucumberweed), *Verbesina microptera* (southern frostweed), *Chloracantha spinosa* (spiny

aster), *Parthenium confertum* (false ragweed), and *Malvaviscus arboreus* var. *drummondii* (Drummond Turk's cap). Vines such as *Serjania brachycarpa* (littlefruit sipple-jack), *Cocculus diversifolius* (orientvine), *Clematis drummondii* (old man's beard), and *Cissus trifoliata* (ivy treebine) are frequently encountered, and *Tillandsia usneoides* (Spanish moss) often drapes the branches of overstory species. Non-native grasses such as *Cynodon dactylon* (bermudagrass), *Urochloa maxima* (guineagrass), *Pennisetum ciliare* (buffelgrass), *Bothriochloa ischaemum* var. *songarica* (King Ranch bluestem), and *Bromus catharticus* (rescuegrass) are often present to dominant, and sometimes to the exclusion of most other herbaceous species.

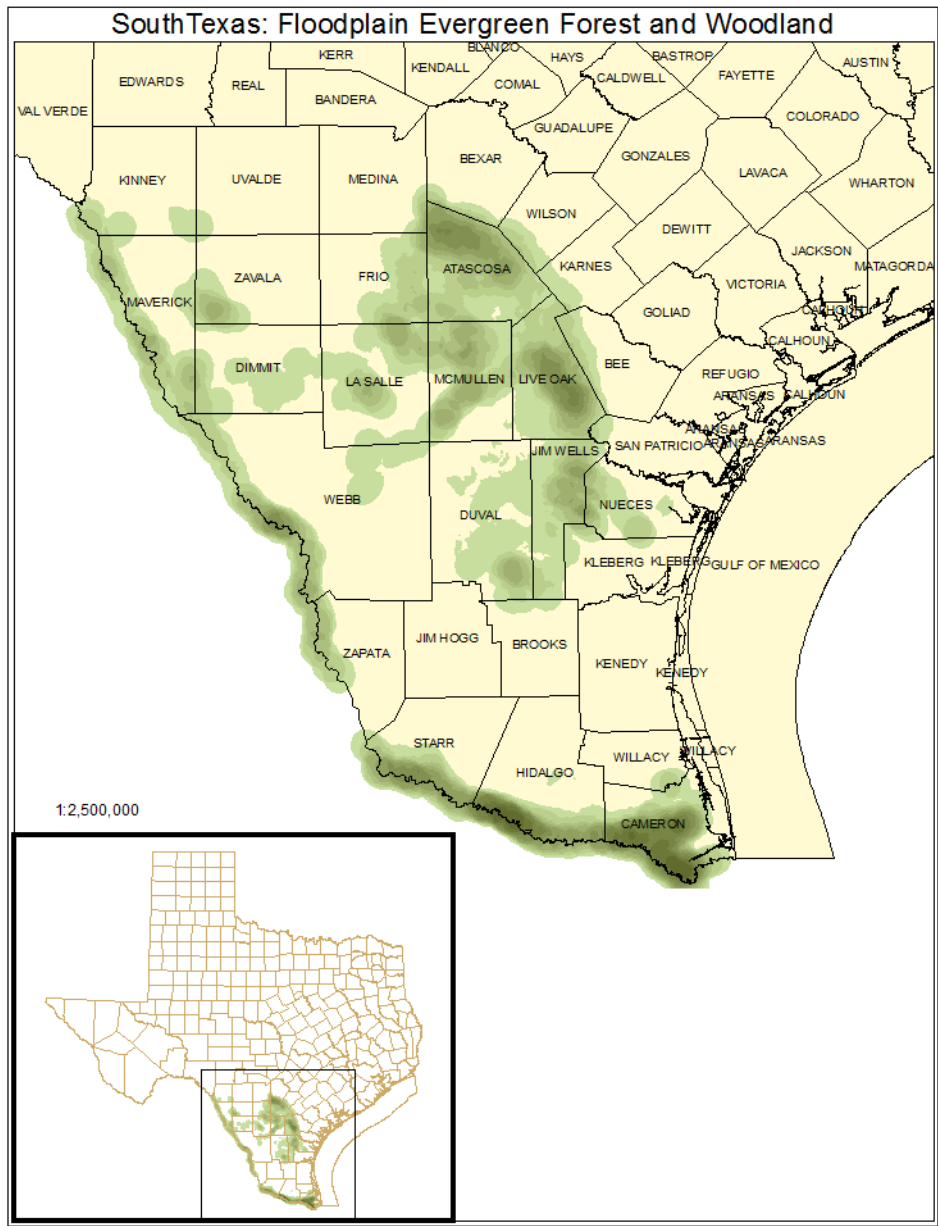
ECOLOGICAL MAPPING SYSTEMS:

SOUTH TEXAS: FLOODPLAIN EVERGREEN FOREST AND WOODLAND

Mapping System ID: 7402

EMS Description: Forests or woodlands with the canopy dominated by broadleaf evergreen species such as *Ebenopsis ebano* (Texas ebony), *Ehretia anacua* (anacua), or, in the north *Quercus fusiformis* (plateau live oak). Deciduous species may be present, but broadleaf evergreen species clearly dominate.

Distribution Map:



Example:

Not available at this time.

Public Land Occurrence:

Bentsen-Rio Grande Valley State Park: The World Birding Center

James E. Daughtrey Wildlife Management Area: Texas Parks & Wildlife Department

Lower Rio Grande Valley National Wildlife Refuge-Boscage De La Palma: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Cottam: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Resaca Del Rancho Viejo: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Santa Maria: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Tulosa Ranch: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Abrams Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Cottam Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-El Morillo Banco Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Gabrielson Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Casita West Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Joya Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Parida Banco Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Madero Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Pate Bend Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Rio San Juan Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Sam Fordyce-North Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Zamora Bend Unit: US Fish and Wildlife Service

Santa Ana National Wildlife Refuge: US Fish and Wildlife Service

Example:**Public Land Occurrence:**

James E. Daughtrey Wildlife Management Area: Texas Parks & Wildlife Department

Las Palomas Wildlife Management Area-Las Grulla Unit: Texas Parks & Wildlife Department

Lower Rio Grande Valley National Wildlife Refuge-Resaca Del Rancho Viejo: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Tulosa Ranch: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Cottam Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Gabrielson Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Guerra Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Grulla Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Parida Banco Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Madero Unit: US Fish and Wildlife Service

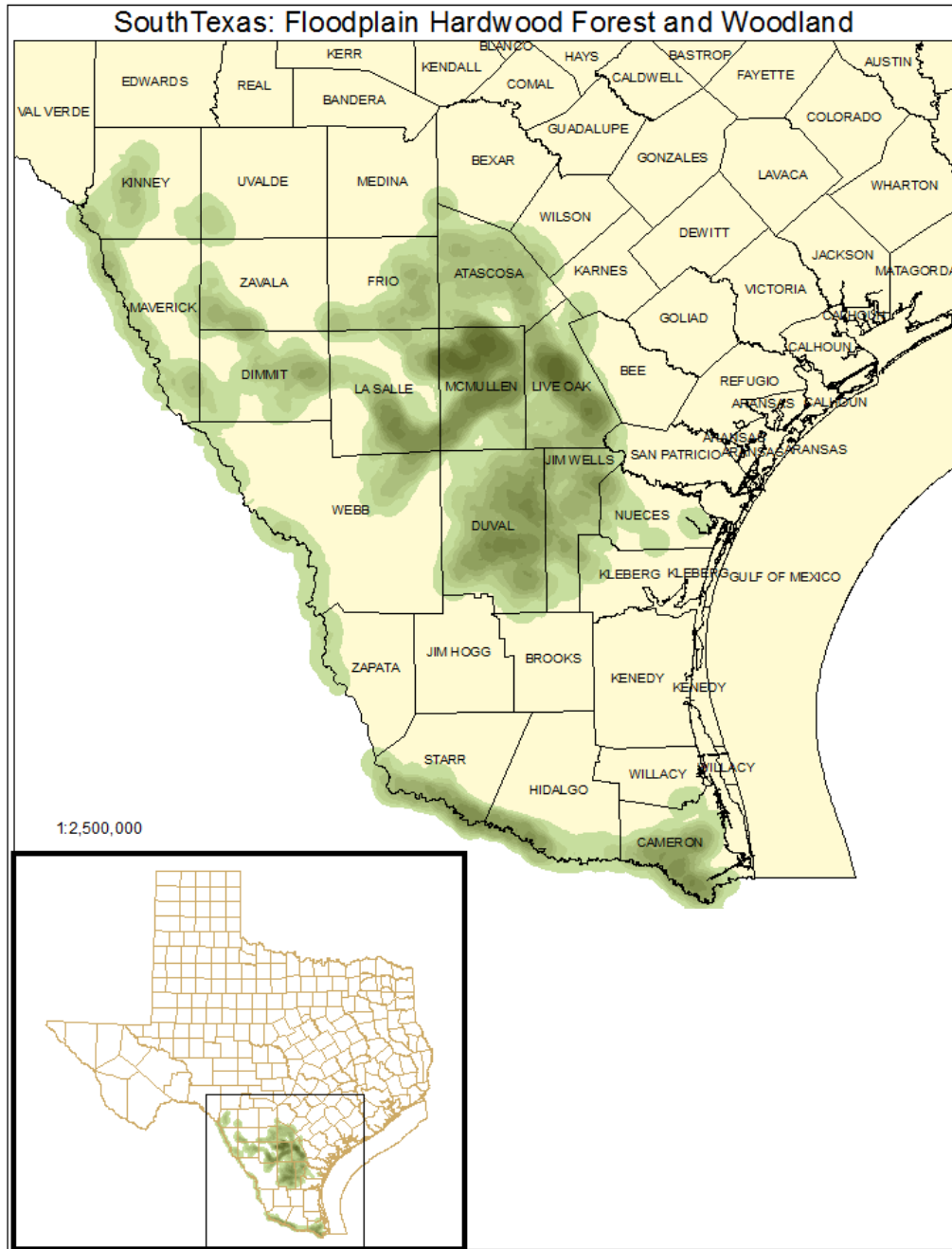
World Birding Center-Bentsen-Rio Grande Valley State Park: Texas Parks & Wildlife Department

SOUTH TEXAS: FLOODPLAIN HARDWOOD FOREST AND WOODLAND

Mapping System ID: 7404

EMS Description: Forests or woodlands with the canopy dominated by deciduous species such as *Celtis laevigata* (sugar hackberry), *Ulmus crassifolia* (cedar elm), *Celtis ehrenbergiana* (granjeno), *Prosopis glandulosa* (honey mesquite), *Leucaena pulverulenta* (tepeguaje), and *Diospyros texana* (Texas persimmon).

Distribution Map:



Example:



Public Land Occurrence:

Choke Canyon State Park

James E. Daughtrey Wildlife Management Area: Texas Parks & Wildlife Department

Las Palomas Wildlife Management Area-Taormina: Texas Parks & Wildlife Department

Lower Rio Grande Valley National Wildlife Refuge-Cottam: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Resaca Del Rancho Viejo: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Santa Maria: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Villa Nueva: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Arroyo Ramirez Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Chicharra Banco Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Cottam Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Cuevitas Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Joya Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Los Velas Unit: US Fish and Wildlife Service



Lower Rio Grande Valley National Wildlife Refuge-Palmview Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Pate Bend Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Sam Fordyce-North Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Sam Fordyce Unit: US Fish and Wildlife Service

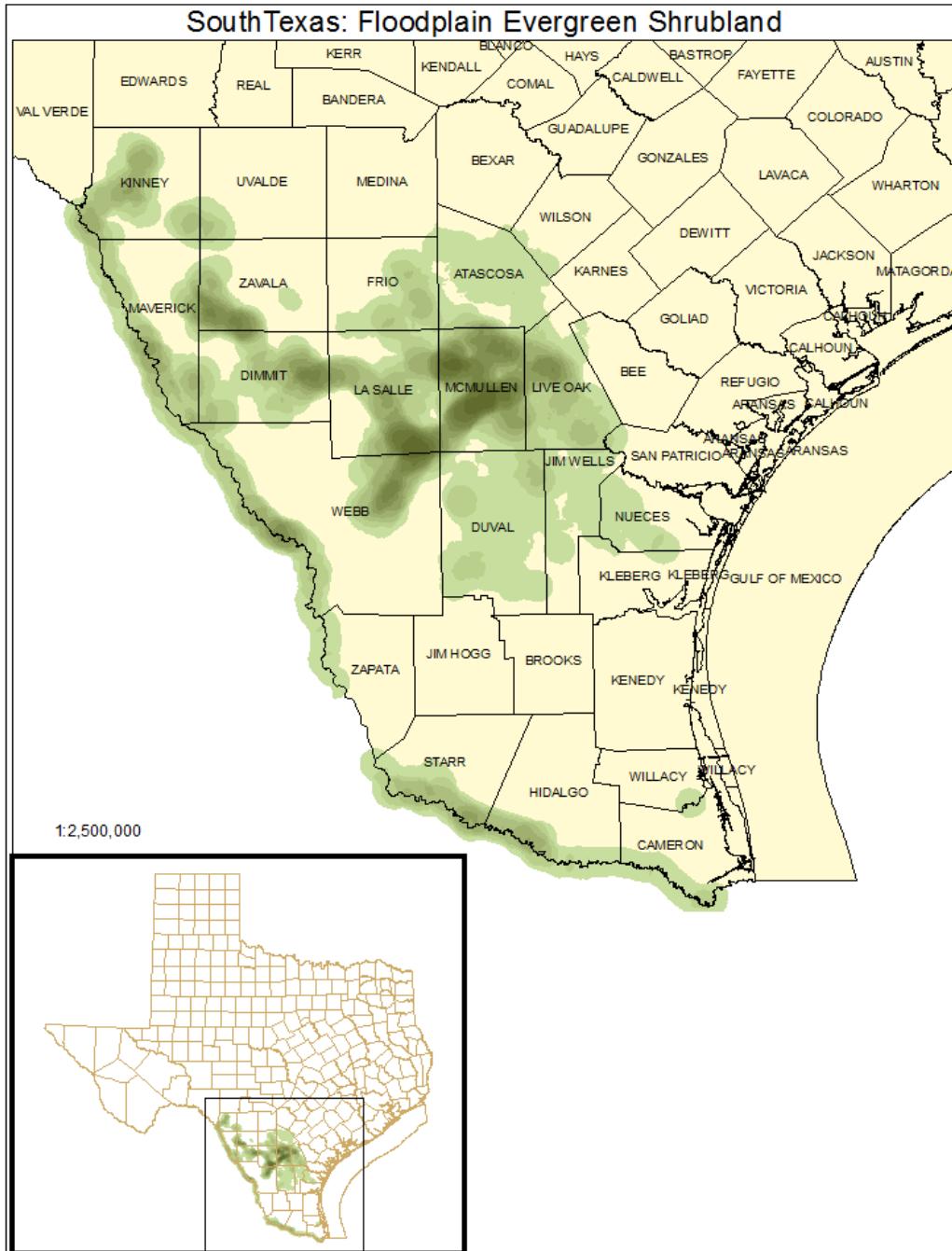


SOUTH TEXAS: FLOODPLAIN EVERGREEN SHRUBLAND

Mapping System ID: 7405

EMS Description: Dense shrublands containing species such as *Acacia farnesiana* (huisache), *Opuntia engelmannii* var. *lindheimeri* (Lindheimer pricklypear), *Arundo donax* (giant reed), *Guaiaacum angustifolium* (guayacan), and *Zanthoxylum fagara* (colima).

Distribution Map:



Example:**Public Land Occurrence:**

James E. Daughtrey Wildlife Management Area: Texas Parks & Wildlife Department

Lower Rio Grande Valley National Wildlife Refuge-Cottam: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Hidalgo Bend: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Chicharra Banco Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Cottam Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Guerra Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Guerra North Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Loma Verde Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Los Negros Creek Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Palmview Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Pate Bend Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Sam Fordyce-North Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Zambrano Unit: US Fish and Wildlife Service

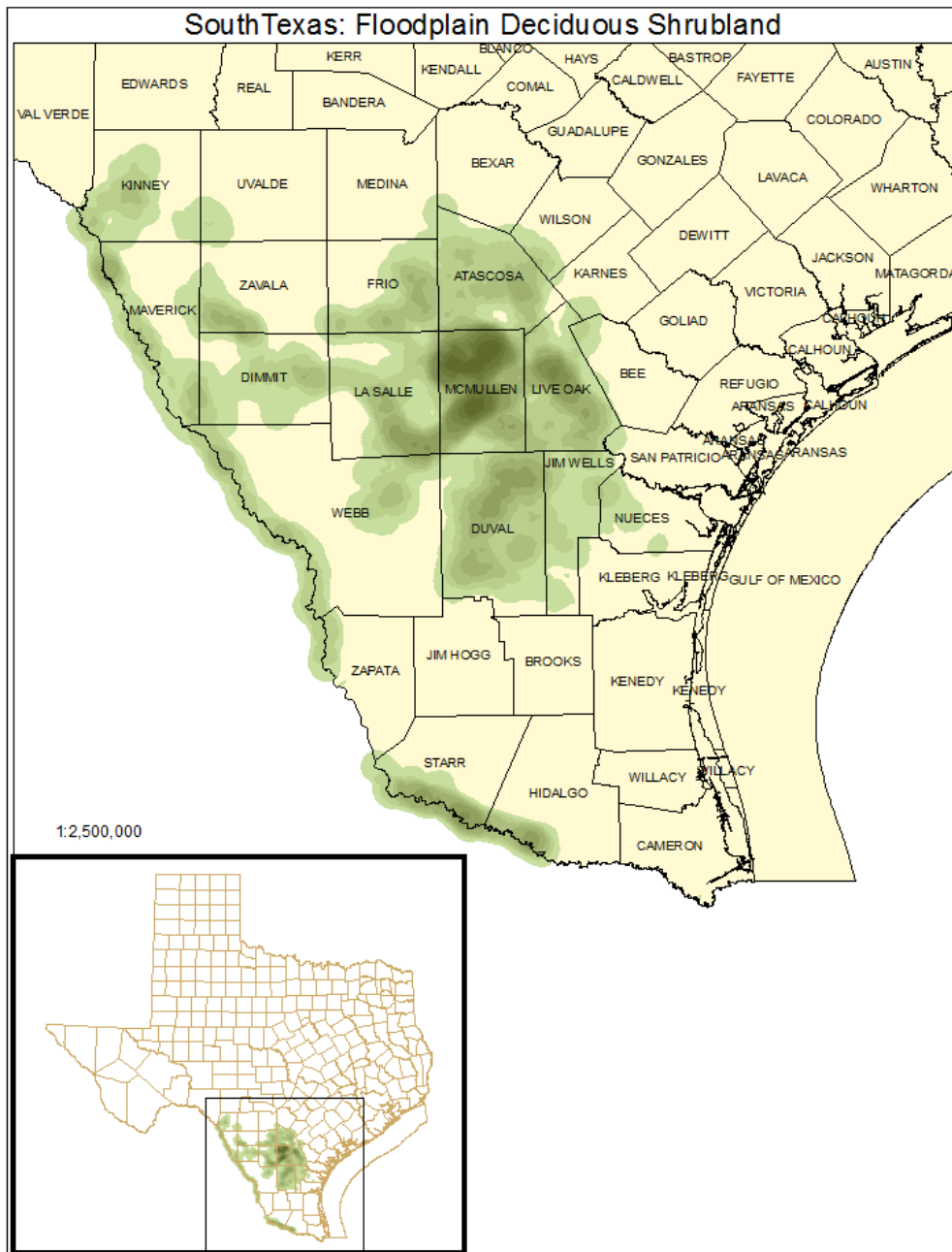


SOUTH TEXAS: FLOODPLAIN DECIDUOUS SHRUBLAND

Mapping System ID: 7406

EMS Description: Shrublands or somewhat sparse woodlands dominated by species such as *Prosopis glandulosa* (honey mesquite), *Celtis ehrenbergiana* (granjeno), *Celtis laevigata* (sugar hackberry), *Diospyros texana* (Texas persimmon), *Parkinsonia aculeata* (retama), *Aloysia gratissima* (whitebrush), *Chloracantha spinosa* (spiny aster), and *Condalia hookeri* (brasil).

Distribution Map:



Example:

Not available at this time.

Public Land Occurrence:

Lower Rio Grande Valley National Wildlife Refuge-Abrams West Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Arroyo Ramirez Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Chicharra Banco Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-El Morillo Banco Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Casita East Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Casita West Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Joya Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Las Ruinas Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Los Ebanos Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Los Fresnos Banco Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Los Velas Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Los Velas-West Unit: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-Sam Fordyce-North Unit: US Fish and Wildlife Service

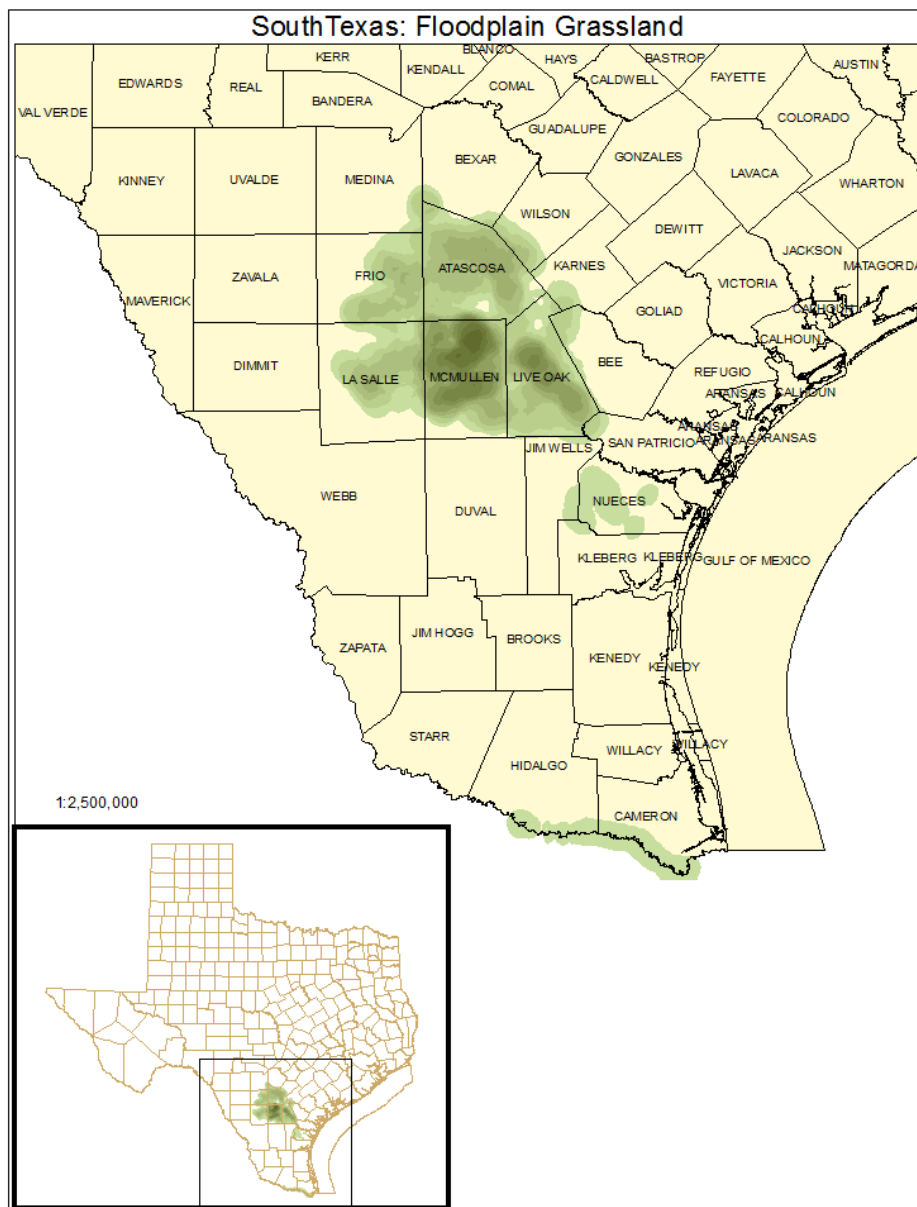
World Birding Center-Bentsen-Rio Grande Valley State Park: Texas Parks & Wildlife Department

SOUTH TEXAS: FLOODPLAIN GRASSLAND

Mapping System ID: 7407

EMS Description: Sites often dominated by non-native graminoids such as *Cynodon dactylon* (bermudagrass), *Urochloa maximum* (guineagrass), *Dichanthium annulatum* (Kleberg bluestem), *Pennisetum ciliare* (buffelgrass), or *Bothriochloa ischaemum* var. *songarica* (King Ranch bluestem). Other species that may be present include *Bothriochloa laguroides* ssp. *torreyana* (silver bluestem), *Panicum hallii* (Hall’s panicum), *Spartina spartinae* (Gulf cordgrass), *Sporobolus airoides* (alkali sacaton), *Bouteloua dactyloides* (buffalograss), and *Trichloris pluriflora* (multiflower false Rhodes grass).

Distribution Map:



Example:



Public Land Occurrence:

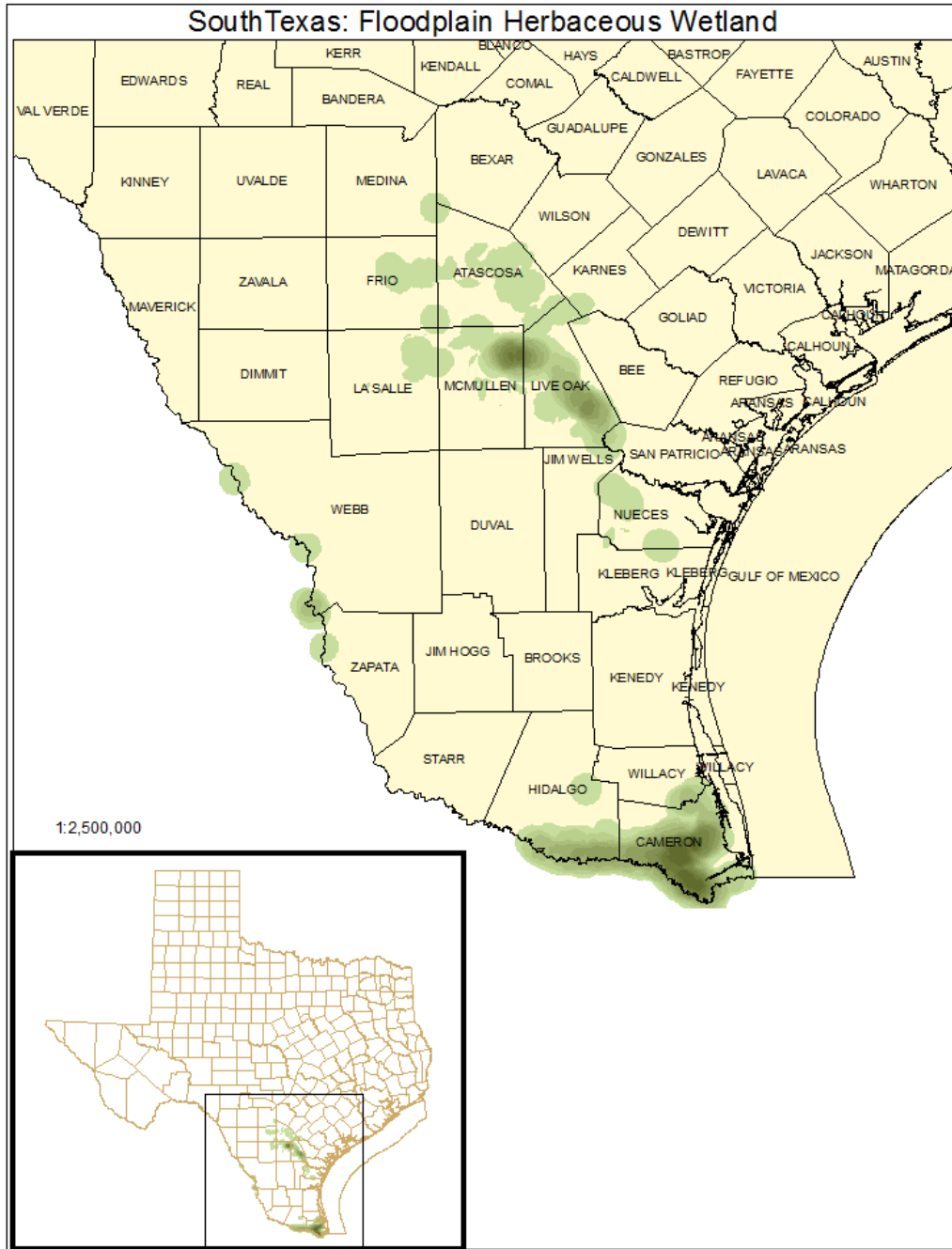
James E. Daughtrey Wildlife Management Area: Texas Parks & Wildlife Department

SOUTH TEXAS: FLOODPLAIN HERBACEOUS WETLAND

Mapping System ID: 7417

EMS Description: Wetlands dominated by herbaceous species such as *Schoenoplectus pungens* (common threesquare), *Cyperus articulatus* (jointed umbrellasedge), *Typha domingensis* (southern cattail), other sedges and forbs such as *Echinodorus berteroi* (common burhead).

Distribution Map:



Example:

Not available at this time.

Public Land Occurrence:

Choke Canyon State Park: Texas Parks & Wildlife Department

James E. Daughtrey Wildlife Management Area: Texas Parks & Wildlife Department

Lower Rio Grande Valley National Wildlife Refuge-Ranchito: US Fish and Wildlife Service

Lower Rio Grande Valley National Wildlife Refuge-La Joya Unit: US Fish and Wildlife Service

