

South Texas: Disturbance Grassland (9187)

MoRAP Code: 9187

Description: A variety of mainly heavily grazed grasslands, including managed exotic pastures, are circumscribed within this type. Common dominant species include *Cynodon dactylon* (bermudagrass), *Dichanthium annulatum* (Kleberg bluestem), *Bothriochloa ischaemum* var. *songarica* (King Ranch bluestem), *Pennisetum ciliare* (buffelgrass), *Panicum coloratum* (kleingrass), *Aristida* spp. (threeawns), and *Urochloa maximum* (guineagrass). Shrubs and small trees such as *Prosopis glandulosa* (honey mesquite), *Acacia farnesiana* (huisache), *Ziziphus obtusifolia* (lotebush), and *Celtis ehrenbergiana* (granjeno) are common components.

South Texas: Clayey Mesquite Mixed Shrubland (7004)

Tamaulipan Clayey Mesquite Mixed Shrubland

Identifier: CES301.983.4 MoRAP Code: 7004

Description: Sites often with a sparse to dense overstory of *Prosopis glandulosa* (honey mesquite). Numerous shrub species occupy the understory, including *Acacia farnesiana* (huisache), *Acacia rigidula* (blackbrush), *Opuntia engelmannii* var. *lindheimeri* (Lindheimer pricklypear), and *Celtis ehrenbergiana* (granjeno).

South Texas: Shallow Shrubland (7204)

Tamaulipan Calcareous Shrubland

Identifier: CES301.986.4 MoRAP Code: 7204

Description: Typical shrublands of ridges and caliche plateaus with moderate shrub cover and sometimes a sparse overstory canopy.

Tamaulipan Calcareous Thornscrub

Identifier: CES301.986

Geology: Ridge or plateau forming hard calcareous substrates such as caliche of the Goliad Formation or Uvalde Gravel.

Landform: Typically ridges high on the landscape, sometimes rolling or relatively level plateaus.

Soils: Shallow, Shallow Ridge or Gravelly Ridge Ecological Sites.

Description: This shrubland typically occupies xeric, rocky uplands on calcareous substrates including limestone, caliche (such as those of the Goliad Formation), calcareous gravels, and calcareous sandstone of south Texas and northeastern Mexico. Soils are usually thin, and sites are most frequently dominated by shrubs between 0.5 and 2 m in height. Shrub canopy can be dense (to about 90%), or sparser where

rocky exposures reduce substrate for rooting. A sparse overstory, usually <4 m in height, may be present and composed of species such as *Prosopis glandulosa* (honey mesquite) and, in the south, *Ebenopsis ebano* (Texas ebony), *Cordia boissieri* (anacahuita), and/or *Helietta parvifolia* (baretta). *Quercus fusiformis* (plateau live oak) may form a relatively open canopy in areas in the northeastern part of the South Texas Plains. The shrub layer may be heavily dominated by *Leucophyllum frutescens* (cenizo), *Acacia berlandieri* (guajillo), and/or *Acacia rigidula* (blackbrush). More commonly, a diverse array of shrubs is present, including these three in addition to several of the following species: *Salvia ballotiflora* (shrubby blue sage), *Eysenhardtia texana* (Texas kidneywood), *Guaiacum angustifolium* (guayacan), *Sophora secundiflora* (Texas mountain-laurel), *Mahonia trifoliolata* (agarito), *Ephedra antisiphilitica* (joint-fir), *Sideroxylon celastrinum* (la coma), *Jatropha dioica* (leatherstem), *Bernardia myricifolia* (oreja de raton), *Karwinskia humboldtiana* (coyotillo), *Aloysia macrostachya* (vara dulce), *Condalia spathulata* (knifeleaf condalia), *Croton incanus* (Torrey croton), *Koeberlinia spinosa* (allthorn), *Acacia schaffneri* (huisachillo), *Forestiera angustifolia* (desert olive), *Celtis ehrenbergiana* (granjeno), *Diospyros texana* (Texas persimmon), *Cylindropuntia leptocaulis* (tasajillo), *Krameria ramosissima* (calderona), *Yucca treculeana* (Spanish dagger), and others. More southerly occurrences may also contain *Lippia graveolens* (redbrush lippia), *Helietta parvifolia* (baretta), *Gochnatia hypoleuca* (chomonque), *Croton humilis* (low croton), *Ebenopsis ebano* (Texas ebony), and/or *Mortonia greggii* (afinador). The herbaceous layer may be somewhat well-developed, but often bare rock is easily visible through the layer. Many sites are now dominated by non-native grasses, particularly *Bothriochloa ischaemum* var. *songarica* (King Ranch bluestem) and/or *Pennisetum ciliare* (buffelgrass). Other grasses are often shortgrasses, with species such as *Bouteloua rigidisetia* (Texas grama), *Bouteloua hirsuta* (hairy grama), *Bouteloua dactyloides* (buffalograss), *Hilaria belangeri* (curlymesquite), *Aristida purpurea* (purple threeawn), *Bouteloua curtipendula* (sideoats grama), and *Setaria leucopila* (plains bristlegrass) present. Forbs and subshrubs are conspicuous in the herbaceous layer and include species such as *Tiquilia canescens* (oreja de perro), *Thamnosma texana* (Texas desert-rue), *Galphimia angustifolia* (narrowleaf thryallis), *Polygala alba* (white milkwort), *Cordia podocephala* (cluster cordial), *Acourtia runcinata* (peonia), *Dalea aurea* (golden dalea), *Calliandra conferta* (Rio Grande stickpea), *Chamaecrista greggii* (Gregg's senna), *Heliotropium torreyi* (Torrey heliotrope), *Melampodium cinereum* (blackfoot daisy), *Hymenopappus scabiosaeus* (old plainsman), *Desmanthus velutinus* (velvet bundleflower), *Calylophus hartwegii* (Hartweg evening primrose), *Simsia calva* (awnless bush sunflower), *Hermannia texana* (Mexican mallow), *Macrosiphonia lanuginosa* var. *macrosiphon* (plateau rocktrumpet), *Viguiera stenoloba* (skeletonleaf goldeneye), *Stenaria nigricans* (prairie bluets), *Thymophylla pentachaeta* (fire-hair dogweed), *Wedelia hispida* (hairy zexmania), and *Meximalva filipes* (violet sida). Down slope from these sites, soil development increases, soils tend to be tight, a more well-developed overstory of *Prosopis glandulosa* (honey mesquite) becomes prominent, and species such as *Castela erecta* (amargosa) and *Ziziphus obtusifolia* (lotebush) increase in cover relative to other species.