

***Appendix E***  
***Detailed Description of***  
***Vegetative Regions and Biotic Provinces***



## **Appendix E**

### **Detailed Description of Vegetative Regions and Biotic Provinces**

#### **Vegetative Regions**

**Rolling Plains.** The original prairie vegetation included tall and mid-grasses such as little bluestem (*Schizachyrium scoparium* var. *frequens*), big bluestem (*Andropogon gerardii*), sand bluestem (*Andropogon halli*), side-oats grama (*Bouteloua curtipendula*), Indian grass (*Sorghastrum nutans*), switchgrass (*Panicum virgatum*), hairy grama (*B. hirsuta*), blue grama (*B. gracilis*), Canada wildrye (*Elymus canadensis*) and western wheat (*Agropyron smithii*).

Mesquite (*Prosopis glandulosa*) is a common invader on all soils, while shinnery oak (*Quercus harvardii*) and sand sage (*Artemisia filifolia*) invade only sandy soils. Juniper (*Juniperus* spp.) clings to steep slopes along rivers.

**Blackland Prairies.** Studies have shown that the native vegetation of the Blackland Prairies should be classified as true prairie with little bluestem being a climax dominant.<sup>1</sup> Big bluestem, Indiangrass, switchgrass, hairy grama, sideoats grama, tall dropseed (*Sporobolus asper* var. *asper*), silver bluestem (*Bothriochloa saccharoides*) and Texas wintergrass (*Stipa leucotricha*) represent other important grasses in the vegetational region. With heavy grazing practices, invading or increasing species such as buffalograss (*Buchloe dactyloides*), Texas grama (*Bouteloua rigidiseta*) and smutgrass (*Sporobolus indicus*), along with other annuals, may become prevalent.<sup>2</sup> Improved pastures with the introduced grass species such as dallisgrass (*Paspalum dilatatum*) and bermudagrass (*Cynodon dactylon*) are common in the area. Asters (*Aster* spp.), prairie bluet (*Hedyotis nigricans* var. *nigricans*), prairie clover (*Dalea* spp.) and late coneflower (*Rudbeckia serotina*) are common forbs of these prairies.<sup>3</sup>

Wooded areas along riparian strips in the Blackland Prairies include such species as black willow (*Salix nigra*), oaks (*Quercus* spp.), pecan (*Carya illinoensis*), osage orange (*Maclura pomifera*), elms (*Ulmus* spp.) and eastern cottonwood (*Populus deltoides*).<sup>4</sup> Woody invasive species that are commonly found in the vegetational area include post oak (*Quercus stellata*),

<sup>1</sup> Gould, 1975.

<sup>2</sup> Gould, 1975 and Correll, S.S. and Johnston, M.C., *Manual of the Vascular Plants of Texas*, University of Texas at Dallas, 1970.

<sup>3</sup> Hatch, S.L., Ghandi, K.N. and Brown, L.E., *Checklist of the Vascular Plants of Texas*, Texas Agricultural Experiment Station, Texas A&M University, College Station, Texas, 1990.

<sup>4</sup> Hatch, et. al., 1990.

blackjack oak (*Q. marilandica*) and cedar elm (*Ulmus crassifolia*) in the north, with honey mesquite (*Prosopis glandulosa*) being a common invader in the southern portion of the region.<sup>5</sup>

**Post Oak Savannah.** Typical native woody vegetation in this area includes post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), eastern juniper (*Juniperus virginiana*) and hackberries (*Celtis* spp.). Yaupon (*Ilex vomitoria*), American beautyberry (*Callicarpa americana*) and greenbriar (*Smilax bona-nox*) are common understory constituents of wooded areas. Common native grasses in this region include little bluestem (*Schizachyrium scoparium*), Indiangrass (*Sorghastrum nutans*), switchgrass (*Panicum virgatum*) and Texas wintergrass (*Stipa leucotricha*). Forbs typical of the prairie portions include indigobush (*Amorpha fruticosa* v. *angustifolia*), senna (*Cassia* sp.), tick-clover (*Desmodium* spp.), prairie-clover (*Petalostemon* spp.), western ragweed (*Ambrosia psilostachya*) and croton (*Croton* spp.).<sup>6</sup>

**Cross Timbers and Prairies.** Upland vegetation within this region may vary from open savannah consisting of such native grasses as little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardi*), Indian grass (*Sorghastrum nutans*), switchgrass (*Panicum virgatum*), Canada wild-rye (*Elymus canadensis*), side-oats grama (*Bouteloua curtipendula*), hairy grama (*B. hirsuta*), tall dropseed (*Sporobolus* sp.) and Texas wintergrass (*Stipa leucotricha*).

Much of this region has been utilized for agriculture, primarily in the form of ranchland. With the advent of overgrazing and land mismanagement, invading grasses such as hairy tridens (*Erioneuron pilosum*), Texas grama (*B. rigidiseta*) and red lovegrass (*Eragrostis secundiflora*) have become common, along with dense brush consisting of post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), mesquite (*Prosopis glandulosa*) and junipers (*Juniperus* sp.). Along streams, riparian vegetation is typically dominated by such hardwood tree species as cedar elm (*Ulmus crassifolia*) and pecan (*Carya illinoensis*) and oaks, but mesquite is also a typical invader in these areas.<sup>7</sup>

**Edwards Plateau.** Grasses that are typical of the Edwards Plateau region include switchgrass (*Panicum virgatum*), Indian grass (*Sorghastrum nutans*), beardgrass (*Bothriochloa* spp.), little bluestem (*Schizachyrium scoparium*), sideoats grama (*Bouteloua curtipendula*), Canada wildrye (*Elymus canadensis*), curly mesquite (*Hilaria belangeri*) and buffalograss (*Buchloe dactyloides*). Other plants commonly found within this vegetational area include ashe

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<sup>5</sup> Gould, 1975.

<sup>6</sup> Correll and Johnston, 1970 and Gould, 1975.

juniper (*Juniperus ashei*), plateau live oak (*Quercus fusiformis*), Texas oak (*Q. texana*), Texas persimmon (*Diospyros texana*), elbowbush (*Forestiera pubescens*), Texas mountain laurel (*Sophora secundiflora*), prickly-pear cactus (*Opuntia* spp.) and pencil cactus (*O. leptocaulis*).<sup>8</sup>

### **Biotic Provinces**

**Kansan.** The mixed-grass plains region is dominated by little bluestem, big bluestem (*Andropogon gerardii*) and western wheatgrass. The mesquite-grass association is dominated by mesquite (*Prosopis grandulosa*), with various species of grama (*Bouteloua* spp.), three-awn (*Aristida* spp.) and broomweed (*Gutierrezia texana*). The short-grass plains are dominated by buffalograss (*Buchloe dactyloides*) with various species of grama grasses.

Characteristic mammals of the Kansan province include: black-footed ferret (*Mustela nigripes*), striped skunk (*Mephitis mephitis*), coyote (*Canis latrans*), northern grasshopper mouse (*Onychomys leucogaster*), southern plains woodrat (*Neotoma micropus*) and Ord's Kangaroo rat (*Dipodomys ordii*).

**Austroriparian.** Common Austroriparian province mammals within Texas include: Virginia opossum (*Didelphis virginiana*), eastern mole (*Scalopus aquaticus*), eastern pipistrelle (*Pipistrellus subflavus*), eastern red bat (*Lasiurus borealis*), eastern gray squirrel (*Sciurus carolinensis*), eastern flying squirrel (*Glaucomys volans*), Baird's pocket gopher (*Geomys breviceps*), white-footed mouse (*Peromyscus leucopus*), hispid cotton rat (*Sigmodon hispidus*), eastern woodrat (*Neotoma floridana*), eastern cottontail (*Sylvilagus floridanus*) and swamp rabbit (*Sylvilagus aquaticus*).

Land turtles common to this province are ornate box turtle (*Terrapene ornata*) and eastern box turtle (*Terrapene carolina*). Common snake species found in this Texas region include: cottonmouth moccasin (*Agkistrodon piscivorus leucostoma*), copperhead (*Agkistrodon contortrix*), rough green snake (*Ophedrys aestivus*), rat snake (*Elaphe obsoleta*), coachwhip (*Masticophis flagellum*) and speckled kingsnake (*Lampropeltis geluta holbrooki*). Several Austroriparian species apparently reach their western limits in this Texas province, including the eastern harvest mouse (*Reithrodontomys humulis*), cotton mouse (*Peromyscus gossypinus*), spotted salamander (*Ambystoma maculatum*), marbled salamander (*Ambystoma opacum*), mole salamander (*Ambystoma talpoideum*), pig frog (*Rana grylio*) and pickerel frog (*Rana palustris*).

<sup>7</sup> Correll and Johnston, 1970 and Hatch, et. al., 1990.

<sup>8</sup> Hatch, et. al., 1990.

**Balconian.** Fifty-seven species of mammals are known from the Balconian province but no species is restricted to this province. The mammalian fauna of the Balconian contains a strong influence from the Chihuahuan species that range into the province from the west and the Austroriparian province from the east.

Some common mammals are the nine-banded armadillo (*Dasypus novimcinctus*), fox squirrel (*Sciurus niger*), white-footed mouse (*Peromyscus leucopus*), black rat (*Rattus rattus*), house mouse (*Mus musculus*), raccoon (*Procyon lotor*) and white-tailed deer (*Odocoileus virginiana*).

Approximately 400 avian species have been recorded as occurring in the Balconian Biotic Province. Common species include mourning dove (*Zenaida macroura*), yellow-billed cuckoo (*Coccyzus americanus*), chimney swift (*Chaetura pelagica*), black-chinned hummingbird (*Archilochus alexandri*), red-bellied woodpecker (*Melanerpes carolinus*), purple martin (*Progne subis*), cliff swallow (*Hirundo pyrrhonota*), blue jay (*Cyanocitta cristata*), Carolina chickadee (*Parus carolinensis*), tufted titmouse (*Parus bicolor*), Carolina wren (*Thryothorus ludovicianus*), Bewick's wren (*Thryomanes bewickii*), northern mockingbird (*Mimus polyglottos*), white-eyed vireo (*Vireo griseus*), black-and-white warbler (*Mniotilta varia*), northern cardinal (*Cardinalis cardinalis*), rufous-crowned sparrow (*Aimophila ruficeps*), lark sparrow (*Chodestes grammacus*), great-tailed grackle (*Quiscalus mexicanus*) and house sparrow (*Passer domesticus*).

**Texan.** Mammals typical of this province include the Virginia opossum (*Didelphis virginiana*), eastern mole (*Scalopus aquaticus*), fox squirrel (*Sciurus niger*), Louisiana pocket gopher (*Geomys breviceps*), fulvous harvest mouse (*Reithrodontomys fulvescens*), white-footed mouse (*Peromyscus leucopus*), hispid cotton rat (*Sigmodon hispidus*), eastern cottontail (*Sylvilagus floridanus*) and swamp rabbit (*S. aquaticus*). Animals typical of grasslands of this province include the thirteen-lined ground squirrel (*Spermophilus tridecemlineatus*), hispid pocket mouse (*Chaetodipus hispidus*), deer mouse (*Peromyscus maniculatus*) and black-tailed jackrabbit (*Lepus californicus*).

Typical anuran species to this province are the Hurter's spadefoot (*Scaphiopus holbrookii hurteri*), Gulf Coast toad (*Bufo valliceps*), Woodhouse's toad (*Bufo woodhousii*), gray treefrog (*Hyla versicolor/chrysoscelis*), green treefrog (*Hyla cinerea*), bullfrog (*Rana catesbeiana*), southern leopard frog (*Rana sphenoccephala*) and eastern narrowmouth toad (*Microhylla carolinensis*).

**Table E-1.  
Federal and State-Listed Threatened and Endangered Species  
of Potential Occurrence in the BGRWPA**

<b>Common Name</b>	<b>Scientific Name</b>	<b>USFWS/State</b>	<b>County of Occurrence</b>
<b>Amphibians</b>			
Georgetown Salamander	<i>Eurycea naufragia</i>	C/--	Wi
Houston Toad	<i>Bufo houstonensis</i>	LE/E	Br, Bu, Le, Mi, Ro, Wa
Jollyville Plateau Salamander	<i>Eurycea tonkawae</i>	C/--	Be, Wi
Salado Springs Salamander	<i>Eurycea chisholmensis</i>	C/--	Be, Wi
<b>Crustaceans</b>			
An amphipod	<i>Stygobromus russelii</i>	--/--	WI
Bifurcated cave amphipod	<i>Stygobromus bifurcates</i>	--/--	Wi
Ezell's cave amphipod	<i>Stygobromus flagellates</i>	--/--	Wi
<b>Reptiles</b>			
Alligator Snapping Turtle	<i>Macrolemys temminckii</i>	--/T	Br, Bu, Fa, Gr, Mi, Ro, Wa,
Brazos Water Snake	<i>Nerodia harteri</i>	--/T	Bo, Er, Hs, Hi, Ho,, Jn, Jo, Kn,, Li, Pa, Sh,, Sn, So, St, Th, Yo
Concho Water Snake	<i>Nerodia paucimaculata</i>	--/T	La
Louisiana Pine Snake	<i>Pituophis melanoleucus ruthveni</i>	C/T	Gr,
Spot-tailed Earless Lizard	<i>Holbrookia lacerata</i>	--/--	No, Ta, Wi
Texas Garter Snake	<i>Thamnophis sirtalis annectens</i>	--/--	Be, Bo, Cr, Fa, Hi, Ho, Jo, Le, Li, Mc, Mi, So, Wi
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	--/T	Be, Bo, Br, Bu, Ca, Co, Cr, Ea, Er, Fa, Fi, Gr, Ha, Hs, Hi, Ho, Jo, Jn, Ke, Kn, La, Le, Li, Mc, Mi, No, Pa, Ro, Sh, Sn, So, St, Th, Wa,, Wi, Yo
Timber/ Canebrake Rattlesnake	<i>Crotalus horridus</i>	--/T	Bo, Br, Bu, Cr, Ea, Fa, Gr, Hi, Ho, Jo, Le, Li, Mc, Mi, Ro, So, Wa, Wi
<b>Arachnids</b>			
Bandit Cave Spider	<i>Cicurina bandida</i>	--/--	WI
Bone Cave Harvestman	<i>Texella reyesi</i>	LE/--	Wi
<b>Insects</b>			
A mayfly	<i>Procloeon distinctum</i>	--/--	Wi
A mayfly	<i>Pseudocentropiloides morihari</i>	--/--	Wi
A mayfly	<i>Procloeon texanum</i>	--/--	Br
Coffin Cave Mold Beetle	<i>Batrisodes texanus</i>	LE/--	Wi
Gulf coast clubtail	<i>Gomphus modestus</i>	--/--	Br,
Leon River Winter Stonefly	<i>Taeniopteryx starki</i>	--/--	Cr, Ha
Leonora's dancer damselfly	<i>Argia leonorae</i>	--/--	Wi
Smoky shadowfly	<i>Neurocordulia molesta</i>	--/--	Br
Tooth Cave Ground Beetle	<i>Rhandine peresphone</i>	LE/--	Wi

<b>Common Name</b>	<b>Scientific Name</b>	<b>USFWS/State</b>	<b>County of Occurrence</b>
<b>Birds</b>			
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	DL/T	Be, Bo, Br, Bu, Ca, Co, Cr, Ea, Er, Fa, Fi, Gr, Ha, Hs, Hi, Ho, Jo, Jn, Ke, Kn, La, Le, Li, Mc, Mi, No, Pa, Ro, So, St, Sh, St, Sn, Ta, Th, Wa, Wi, Yo
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	DL/--	Be, Bo, Br, Bu, Ca, Co, Cr, Ea, Er, Fa, Fi, Gr, Ha, Hs, Hi, Ho, Jo, Jn, Ke, Kn, La, Le, Li, Mc, Mi, No, Pa, Ro, Sh, So, St, Sn, Ta, Th, Wa, Wi, Yo
Baird's Sparrow	<i>Ammodramus bairdii</i>	--/--	Ca, Co, Ea, Fi, Hs, Ho,, Jn,, Ke, Kn, No, Ta Sh, St, Ta, Th, Yo
Bald Eagle	<i>Haliaeetus leucocephalus</i>	DL/T	Be, Bo, Br, Bu, Ca, Cr, Ea, Er, Fa, Fi, Gr, Ha, Hs, Hi, Ho, Jo, Jn, Ke, Kn, La, Le, Li, Mc, Mi, No, Pa, Ro, Sh, So, St, Sn, Ta, Th, Wa, Wi, , Yo
Black-capped Vireo	<i>Vireo atricapillus</i>	LE/E	Be, Bo, Ca, Co, Cr, Er, Ha, Ho,, Jo, La, No, Pa, So, St, Sn, Ta, Wi
Ferruginous Hawk	<i>Buteo regalis</i>	--/--	Fi, Hs,, Jn,, Ke, Kn,, No,, Sn, Ta
Golden-cheeked Warbler	<i>Dendroica chrysoparia</i>	LE/E	Be, Bo, Co, Cr, Er, Ha, Hi, Ho, Jo, La, Mc, Pa, So, St, Sn, Wi, Yo
Henslow's Sparrow	<i>Ammodramus henslowii</i>	--/--	Be, Br, Bu, Fa, Gr, Hi, Ho, Jo, Le, Li, Mc, Mi, Ro, Wa, Wi, Yo
Interior Least Tern	<i>Sterna antillarum athalassos</i>	LE/E	Be, Bo, Br, Bu, Co, Fa, Gr, Hs, Hi, Ho, Jo, Kn, La, Le, Li, Mc, Pa, So, St, Sn, Yo
Mountain Plover	<i>Charadrius montanus</i>	--/--	Be, Bo, Ca, Co, Cr, Ea, Er, Fi, Ha, Hs, Ho, Jn, Ke, Kn, La, No, Pa, Sh, St, Sn, Ta, Th, Wa, Wi, Yo
Piping Plover	<i>Charadrius melodus</i>	LE/T	Th
Red-cockaded Woodpecker	<i>Picoides borealis</i>	LE/E	Gr,
Snowy Plover	<i>Charadrius alexandrinus</i>	--/--	Fi, Hs,, Jn,, Ke,, Kn,, No, Sn Ta
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	--/--	Be, Bo, Bu, Ca, Co, Cr, Ea, Er, Fa, Fi, Ha, Hs Hi, Ho, Jo, Ke,, Kn,, La, Le Li, Mc, Mi, No, Pa, Sh, So, St, Sn, Ta, Th, Wa, Wi, Yo
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	--/--	Fi, Hs, Ke, Kn, No, Sn, Ta
White-faced Ibis	<i>Plegadis chihi</i>	--/T	Gr,, Hi, Jo, Li, Mc, Wa
Whooping Crane	<i>Grus americana</i>	LE/E	Ba, Bo, Br, Bu, Ca, Co, Cr, Ea, Er, Fa, Fi, Gr, Ha, Hs, Hi, Ho, Jo, Jn, Ke, Kn, La, Le, Li, Mc, Mi, No, Pa, Ro, Sh, Sn, So, St, Ta, Th, Wa, Wi, Yo
Wood Stork	<i>Mycteria americana</i>	--/T	Br, Bu, Fa, Gr, Hi, Le, Li, Mc, Mi, Ro,, Wa
<b>Fishes</b>			
Blue Sucker	<i>Cycleptus elongatus</i>	--/T	Br, Bu, Gr, Mi, Ro, Wa,
Guadalupe Bass	<i>Micropterus treculi</i>	--/--	Be, Bo, Cr, La, Mc, Mi, Pa, Wi
Sharpnose Shiner	<i>Notropis oxyrhynchus</i>	C/--	Bo, Br, Bu, Fa, Fi, Gr, Hs, Hi, Ho, Jo, Jn, Ke, Kn,, Mc, Mi, Pa, Ro, Sn, So, Th, Wa, Wi, Yo
Smalleye Shiner	<i>Notropis buccula</i>	C/--	Be, Bo, Br, Bu, Co, Cr, Ea, Er, Fa,, Fi, Ha, Hs, Hi, Ho, Jo, Jn, Ke, Kn,, La, Li, Mc, Mi, Pa, Ro, Sh, Sn, So, St, Th, Wa, Wi, Yo
<b>Mammals</b>			
Black Bear	<i>Ursus americanus</i>	T-SA/T	Ho, Wa
Black-footed Ferret	<i>Mustela nigripes</i>	LE/E	Fi, Hs, Jn, Ke, Kn, No, Sn,
Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>	C/R	Ca, Fi, Ha, Hs, Jo, Jn, Ke Kn,, No, Sh, Sn, Ta, Th, Yo



<b>Common Name</b>	<b>Scientific Name</b>	<b>USFWS/State</b>	<b>County of Occurrence</b>
Cave Myotis Bat	<i>Myotis velifer</i>	--/--	Be, Bo, Bu, Ca, Co, Cr, Ea, Fa, Fi, Ha, Hs, Hi, Jn, Ke, Kn, La, Le, Mc, Mi, No, Sh, Sn, St, Ta, Th, Wi, Yo
Gray Wolf	<i>Canis lupus</i>	LE/E	Extirpated, Formerly in Ca, Co, Ea, Er, Ha, Hs, Ho, Jo, Jn, Kn, La, No, Pa, Sh, Sn, So, St, Ta, Th, Yo
Llano pocket gopher	<i>Geomys texensis texensis</i>	--/--	La,
Louisiana Black Bear	<i>Ursus americanus luteolus</i>	LT/T	Br, Bu, Gr, Ro, Wa,
Pale Townsend's Big-eared bat	<i>Corynorhinus townsendii pallescens</i>	--/--	Fi, Hs, Ke, Kn, Sn,
Plains Spotted Skunk	<i>Spilogale putorius interrupta</i>	--/--	Be, Bo, Br, Bu, Ca, Co, Cr, Ea, Er, Fa, Fi, Gr, Ha, Hs, Ho, Hi, Jo, Jn, Ke, Kn, Le, Li, Mc, Mi, No, Pa, Ro, Sh, Sn, So, St, Ta, Th, Wa, Wi, Yo
Red Wolf	<i>Canis rufus</i>	LE/E	Extirpated, Formerly in Be, Bo, Br, Bu, Ca, Co, Cr, Ea, Er, Fa, Gr, Ha, Hs, Hi, Ho, Jn, Kn, La, Le, Li, Mc, Mi, Pa, Ro, Sh, So, St, Ta, Th, Wa, Wi, Yo
Southeastern Myotis Bat	<i>Myotis austroriparius</i>	--/--	Gr,
Texas Kangaroo Rat	<i>Dipodomys elato</i>	--/T	Kn, Yo
<b>Mussels</b>			
Creepers (squawfoot)	<i>Strophitus undulates</i>	--/--	La, Wi
False spike mussel	<i>Quadrula mitchelli</i>	--/T	Be, Bo, Br, Bu, Co, Cr, Fa, Gr, Ha, Le, Mc, Mi, Ro, Wa, Wi,
Pistolgrip	<i>Tritogonia verrucosa</i>	--/--	Be, Bo, Br, Bu, Ca, Co, Cr, Ea, Er, Fa, Gr, Ha, Hs, Hi, Ho, Jn, Kn, La, Le, Mc, Mi, No, Pa, Ro, Sh, So, St, Ta, Th, Wa, Wi, Yo
Rock pocketbook	<i>Arcidens confragosts</i>	--/--	Be, Bo, Br, Bu, Cr, Fa, Gr, Ha, Hi, Ho, La, Le, Mc, Mi, Pa, Ro, So, Wa, Wi
Smooth pimpleback	<i>Quadrula houstonensis</i>	--/T	Be, Bo, Br, Bu, Co, Cr, Fa, Gr, Ha, Hi, La, Le, Mc, Mi, Ro, Sh, Wa, Wi
Texas fatmucket	<i>Lampsilis bracteata</i>	--/T	La,
Texas fawnsfoot	<i>Truncilla macrodon</i>	--/T	Be, Bo, Br, Bu, Ca, Co, Cr, Ea, Er, Fa, Gr, Ha, Hs, Hi, Ho, Jo, Jn, La, Le, Mc, Mi, Pa, Ro, Sh, So, St, Ta, Th, Wa, Wi, Yo
Texas pimpleback	<i>Quadrula petrina</i>	--/T	La, Wi
<b>Plants</b>			
Branched gayfeather	<i>Liatris cymosa</i>	--/--	Br, Bu, Gr, Le, Wa
Comanche Peak prairie-clove	<i>Dalea reverchonii</i>	--/--	Ho
Dwarf broomspurge	<i>Chamaesyce jejuna</i>	--/--	No
Elmendorf's onion	<i>Allium elmendorfii</i>	--/--	WI
Glen Rose yucca	<i>Yucca necopina</i>	--/--	Ho, So, Yo
Large-fruited sand verbena	<i>Abronia macrocarpa</i>	LE/E	Ro
Navasota false foxglove	<i>Agalinis navasotensis</i>	--/--	Gr
Navasota ladies tresses	<i>Spiranthes parksii</i>	LE/E	Br, Bu, Gr, Li, Mi, Ro, Wa
Parks' jointweed	<i>Polygonella parksii</i>	--/--	Bu, Mi, Ro,

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Sandhill woollywhite	<i>Hymenopappus carrizoanus</i>	--/--	Ro,
Shinner's sunflower	<i>Helianthus occidentalis ssp.</i>	--/--	Le, Wa,
Texabama croton	<i>Croton alabamensis var. texensis</i>	--/--	Be, Cr
Texas meadow rue	<i>Thalictrum texanum</i>	--/--	Br, Gr, Wa,
Texas windmill-grass	<i>Chloris texensis</i>	--/--	Br
Warnock's coral root	<i>Hexalectris warnockii</i>	--/--	Ta

**United States Fish and Wildlife Service Listing Abbreviations (USFWS):**

LE: Endangered (in danger of extinction throughout all or a significant portion of its range)  
 LT: Threatened (likely to become endangered within the foreseeable future)  
 PE, PT: Proposed endangered/threatened  
 LE/SA,LT S/A: Endangered/threatened by similarity of appearance  
 DL, PDL: Delisted, proposed delisted  
 C: Candidate for listing, with biological vulnerability and threats to support listing  
 LT w/CH: Threatened with Critical Habitat in Texas  
 -- Not Federally Listed

**Texas Parks and Wildlife Department (TPWD) Listing Abbreviations:**

E: Listed as Endangered by the State of Texas  
 T: Listed as Threatened by the State of Texas  
 --: Rare, but with no regulatory listing status

**County Name Abbreviations**

Be: Bell	Hs: Haskell	No: Nolan
Bo: Bosque	Hi: Hill	Pa: Palo Pinto
Br: Brazos	Ho: Hood	Ro: Robertson
Bu: Burleson	Jo: Johnson	Sh: Shackelford
Ca: Callahan	Jn: Jones	So: Somervell
Co: Comanche	Ke: Kent	St: Stephens
Cr: Coryell	Kn: Knox	Sn: Stonewall
Ea: Eastland	La: Lampasas	Ta: Taylor
Er: Erath	Le: Lee	Th: Throckmorton
Fa: Falls	Li: Limestone	Wa: Washington
Fi: Fisher	Mc: McLennan	Wi: Williamson
Gr: Grimes	Mi: Milam	Yo: Young
Ha: Hamilton		

Data obtained from the Texas Parks and Wildlife Department and U.S. Fish and Wildlife Service February 9, 2010.