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ANNOTATED CHECKLIST OF RECENT LAND MAMMALS OF TEXAS, 1998

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Checklists are in demand by biologists, students, researchers, and environmentally concerned individuals. In order for them to be most useful, they must be current. This checklist is an updated version of two previous lists of free-ranging Texas mammals (Jones et al., 1988*a*; Jones and Jones, 1992). This checklist includes a phylogenetic listing of taxa, by order, family, and genus. Within genera, species and recognized subspecies are listed alphabetically. Species marked with an asterisk (*) are exotic species introduced from outside the United States. The approximate known geographic distribution within the state of Texas is reported for each mammal and pertinent comments and/or citations about that taxon may be included. Many accounts are unchanged from earlier editions of the checklist as Jones and Jones (1992) wrote them.

Several taxonomic and nomenclaturial changes have occurred since the last checklist was published; note especially Wilson and Reeder (1993) on world mammals, Jones et al. (1997) on North American mammals, and Davis and Schmidly (1994) on Texas mammals. In addition, other major studies on Texas mammals were completed which provide valuable information. These studies include the following geographic areas: the Llano Estacado (Choate, 1997), the Edwards Plateau (Goetze, 1998, Goetze et al., 1996), Big Bend Ranch State Park (Yancey, 1997), southern Kansan Biotic Province (Choate et al., 1992), the Lake Meredith area (Yancey et al., 1998), and the Justiceburg area (Yancey et al., 1996*b*). Many citations from the earlier lists are repeated here. Our goal was to make this checklist as complete as possible through the end of 1997. For some additional information on the mammals of Texas, visit the homepage (http://www.nsrl.ttu.edu) of the Natural Science Research Laboratory of the Museum of Texas Tech University.

ORDER DIDELPHIMORPHIA— OPOSSUMS

Family Didelphidae
(opossums)

Didelphis virginiana (Virginia opossum).— Occurs throughout most of Texas except in relatively xeric areas in western part of state (parts of Llano Estacado and most of Trans-Pecos). The subspecies are *D. v. virginiana* Kerr, 1792, in northern and central Texas and *D. v. pigra* Bangs, 1898, in the south and southeast. We follow Marshall et al. (1990) in use of the ordinal name Didelphimorphia. Hollander and Hogan (1992) reported a specimen collected in Jeff Davis County, in the Trans-Pecos.

ORDER INSECTIVORA—INSECTIVORES

Family Soricidae
(shrews)

Blarina carolinensis (southern short-tailed shrew).— Known from eastern fourth of state. The subspecies are *B. c. carolinensis* (Bachman, 1837) in the northern part of the range in Texas (south at least to Nacogdoches County) and *B. c. minima* Lowery, 1943, in the south.

Blarina hylophaga (Elliot's short-tailed shrew).— Recorded only from Montague County and from Aransas National Wildlife Refuge, Aransas County. The subspecies are *B. h. hylophaga* Elliot, 1899, and *B. h. plumbea* Davis, 1941, respectively. The systematics of shrews of the genus *Blarina* have not been entirely resolved to date, differences among the three known species having been based primarily on mensural data and karyology. Pending further study, we follow Jones et al. (1984) in referring these apparently isolated populations to *B. hylophaga*. Stangl and Carr (1997) discuss the status of species in northern Texas and southern Oklahoma.

Cryptotis parva (least shrew).— Occurs in eastern and central parts of state, west in northern Panhandle to New Mexico border and to Val Verde County along Rio Grande. The subspecies are *C. p. parva* (Say, 1823) throughout most of the distribution in Texas and *C. p. berlandieri* (Baird, 1858) on the Rio Grande Plain. Dowler and Boyd (1996) reported specimens from Tom Green County, a range extension in west-central Texas.

Notiosorex crawfordi (desert shrew).— Recorded from western two thirds of state, east at least to Archer and Wichita counties in north, and to Gulf Coast southwardly. The subspecies is *N. c. crawfordi* (Coues, 1877).

Family Talpidae
(moles)

Scalopus aquaticus (eastern mole).— Presently known from approximately eastern two-thirds of state, west along Canadian River in Panhandle, possibly to New Mexican border, and to eastern edge of Llano Estacado (Choate, 1990), and southwardly to apparently isolated population in Presidio County. Five subspecies currently are thought to occur in Texas: *S. a. aereus* (Bangs, 1896) in the extreme east and also the Panhandle region; *S. a. alleni* Baker, 1951, in south-central Texas; *S. a. cryptus* Davis, 1942, in the east-central part of the state; *S. a. inflatus* Jackson, 1914, on the southern part of the Rio Grande Plain; and *S. a. texanus* (J. A. Allen, 1891), an enigmatic race known from Presidio County by a single specimen taken in 1887, and far removed from other known populations except for one individual from the Sierra del Carmens, across the Rio Grande in adjacent Coahuila. Yancey et al. (1995*a*:105) collected a mole, "the first from the escarpment breaks of the Rolling Plains in Garza County."

ORDER CHIROPTERA—BATS

Family Mormoopidae
(mormoopid bats)

Mormoops megalophylla (ghost-faced bat).— Known from Apache Mountains, Culberson County, southern Trans-Pecos, southern part of Edwards Plateau, and southern Texas (Cameron and Hidalgo counties); inhabits caves along extreme southern edge of Edwards Plateau in winter and is summer resident of Trans-Pecos. The subspecies is *M. m. megalophylla* (Peters, 1864).

Family Phyllostomidae
(leaf-nosed bats)

Leptonycteris nivalis (Mexican long-nosed bat).— Recorded only from Big Bend area in southern Trans-Pecos region (Brewster and Presidio counties); probably resident there only in warm weather. *Leptonycteris nivalis* (Saussure, 1860) is a monotypic species.

Choeronycteris mexicana (Mexican long-tongued bat).— Known by photographs of a single individual and observations of others from Santa Ana National Wildlife Refuge, Hidalgo County (Schmidly, 1991). No specimens from Texas yet have been preserved. These

records probably represent accidental northward occurrences of this bat. *Choeronycteris mexicana* Tschudi, 1844, is a monotypic species.

Diphylla ecaudata (hairy-legged vampire).— Known only by single extralimital record from Val Verde County. *Diphylla ecaudata* Spix, 1823, is a monotypic species.

Family Vespertilionidae
(vespertilionid bats)

Myotis austroriparius (southeastern myotis).— Known range includes extreme eastern Texas, from Bowie County southward to Harris and Orange counties (Schmidly, 1991). The subspecies is *M. a. austroriparius* (Rhoads, 1897). Walker et al. (1996) reported southeastern myotis from three counties (Leon, Freestone and Walker), all west of the previously known distribution in Texas.

Myotis californicus (California myotis).— Recorded in Texas only from Trans-Pecos region and from one specimen (Choate and Killibrew, 1991) from Canyon, Randall County, near the breaks of Llano Estacado. Other specimens have been reported (Choate et al., 1990) from along the edge of the Llano in adjacent New Mexico. The subspecies is *M. c. californicus* (Audubon and Bachman, 1842).

Myotis ciliolabrum (western small-footed myotis).— Saxicolous species known from western half of Trans-Pecos and from Armstrong and Randall counties in Panhandle (Schmidly, 1991). The subspecies is *M. c. ciliolabrum* (Merriam, 1886).

Myotis lucifugus (little brown myotis).— Reported from Texas on basis of single specimen from Fort Hancock, Hudspeth County. Schmidly (1991) opined that "it is doubtful that a resident population of this bat occurs in Texas." The subspecies is *M. l. occultus* Hollister, 1909.

Myotis septentrionalis (northern myotis).— A specimen from Winter Haven, Dimmit County, in the National Museum of Natural History is only known record from state; obtained almost half a century ago, this individual extends known range of northern myotis more than 500 miles southward from southwestern Arkansas and eastern Oklahoma; present status in Texas unknown. *Myotis septentrionalis* (Trouessart, 1897) is a monotypic species.

Myotis thysanodes (fringed myotis).— Reported from much of Trans-Pecos region and from Crosby County at eastern edge of Llano Estacado. The subspecies is *M. t. thysanodes* Miller, 1897.

Myotis velifer (cave myotis).— Occurs over most of western part of state, east at least to Wichita County in the north and to (north to south) McLennan, Bastrop, Kleberg, and Hidalgo counties in central and southern Texas (Schmidly, 1991). The subspecies are *M. v. incautus* (J. A. Allen, 1896) in the south and *M. v. magnamolaris* Choate and Hall, 1967, northwestwardly. Yancey and Jones (1996*a*) reported first county records (for *M. v. incautus*) from Caldwell, Milam, and Nueces counties of southeastern Texas.

Myotis volans (long-legged myotis).— Known from central Trans-Pecos Texas and by enigmatic specimen from Knox County, far to the northeast. The subspecies is *M. v. interior* Miller, 1914.

Myotis yumanensis (Yuma myotis).— Recorded from southern Trans-Pecos region and from just east of Pecos River in Val Verde County; there is also a specimen in the Texas Natural History Collection from Starr County. The subspecies is *M. y. yumanensis* (H. Allen, 1864).

Lasionycteris noctivagans (silver-haired bat).— Occurs statewide as migrant in spring and autumn. *Lasionycteris noctivagans* Le Conte, 1831, is a monotypic species. Bats listed by Davis (1974) and Schmidly (1991) from Medina County actually are from Bandera County.

Pipistrellus hesperus (western pipistrelle).— Widely distributed in suitable rocky habitats in Trans-Pecos region; also occurs eastward to Knox, Haskell, and Uvalde counties and northward along eastern escarpment of Llano Estacado at least to Randall, Briscoe, and Floyd counties. The subspecies is *P. h. maximus* Hatfield, 1936. Dowler et al. (1992) reported specimens of western pipistrelle from Tom Green County, in east-central Texas.

Pipistrellus subflavus (eastern pipistrelle).— Known from much of eastern and central Texas, westward to breaks of Llano Estacado and Val Verde County, and south to Padre Island and Cameron County. The subspecies are *P. s. subflavus* (F. Cuvier, 1832) over much of the range of the species in the state and *P. s. clarus* Baker, 1954, in the extreme southwest. Dowler et al. (1992) reported specimens of eastern pipistrelles from Tom Green and Irion counties. Jones et al. (1993) reported the species from Lubbock County on the Llano Estacado. Yancey et al. (1995*b*) reported an extralimital eastern pipistrelle from Big Bend Ranch State Park in Presidio County.

Eptesicus fuscus (big brown bat).— Widely distributed over most of eastern and western parts of state; curiously, unrecorded from much of central and southern Texas. The subspecies are *E. f. fuscus* (Palisot de Beauvois, 1796) in the east and northwest, and *E. f. pallidus* Young, 1908, in the Trans-Pecos (Jones and Manning, 1990).

Lasiurus blossevillii (western red bat).— Only recently recognized as distinct from *L. borealis* (Baker at al., 1988); known in Texas only from the Sierra Vieja Mountains, Presidio County. The subspecies is *L. b. teliotis* (H. Allen, 1891).

Lasiurus borealis (eastern red bat).— Statewide in suitable wooded habitats, but uncommon westwardly; migratory, but some individuals probably over-winter in Texas. *Lasiurus borealis* (Müller, 1776) is a monotypic species (Baker et al., 1988). Yancey and Jones (1996*a*) report several new county records for this species within the known distribution.

Lasiurus cinereus (hoary bat).— Statewide as migrant in spring and autumn; additionally, it is possible that some females bear and raise young in Texas in late spring and summer. The subspecies is *L. c. cinereus* (Palisot de Beauvois, 1796).

Lasiurus ega (southern yellow bat).— Known in Texas only from Rio Grande Valley in Cameron County northward along Gulf Coast to Nueces County. The subspecies probably is *L. e. panamensis* (Thomas, 1901).

Lasiurus intermedius (northern yellow bat).— Occurs only in southeastern part of state. The subspecies are *L. i. intermedius* H. Allen, 1862, from Victoria County southward and *L. i. floridanus* (Miller, 1902) from Bexar and Travis counties eastward, north at least to Shelby County (Schmidly, 1991). Nedbal et al. (1994) reported this species from Galveston Island and suggest that a resident population might exist there.

Lasiurus seminolus (Seminole bat).— Known in state only from eastern part, west at least to Burleson County. *Lasiurus seminolus* (Rhoads, 1895) is a monotypic species. Yancey and Jones (1996*a*) list a county record for the northern part of the distribution (Harrison County) and a new county record from the western part of the known distribution (Fayette County).

Lasiurus xanthinus (western yellow bat).— Reported recently from the Big Bend region of Texas (Higginbotham et al., in press). *Lasiurus xanthinus* (Thomas, 1897) is a monotypic form.

Nycticeius humeralis (evening bat).— Occupies approximately eastern third of state, westward to a line drawn to include (north to south) Tarrant, San Saba, Bandera, Real, and Kinney counties (Schmidly, 1991). The subspecies is *N. h. humeralis* (Rafinesque, 1818). Dowler et at. (1992) reported the species from Tom Green County, the westernmost record in central Texas.

Euderma maculatum (spotted bat).— Recorded only from Big Bend National Park, but to be looked for elsewhere in Trans-Pecos region. *Euderma maculatum* (J. A. Allen, 1891) is a monotypic species.

Plecotus townsendii (Townsend's big-eared bat).— Cavernicolus species known from approximately western half of state, eastward at least to Foard and Kimble counties. The subspecies is *P. t. pallescens* (Miller, 1897). We follow Jones et al. (1997) in the use of *Plecotus* as the correct genus (however, see Frost and Timm (1992) and Tumlison and Douglas (1992) concerning the use of *Corynorhynus* as the generic name).

Plecotus rafinesquii (Rafinesque's big-eared bat).— Occurs only in extreme eastern Texas, the westernmost records being from Montgomery, Nacogdoches, and Polk counties. The subspecies is *P. r.*

macrotis Le Conte, 1831. We follow Jones et al (1997) in the use of *Plecotus* as the correct generic name. Theis (1994) reported this bat from Walker County, a locality west of its known or documented distribution. Yancey and Jones (1997), likewise, report on a specimen from Shelby County in extreme East Texas.

Antrozous pallidus (pallid bat).— Common resident in western half of state. The subspecies recorded from most of the range in Texas is *A. p. pallidus* (Le Conte, 1856), but *A. p. bunkeri* Hibbard, 1934, occurs in the vicinity of the Red River and in the Panhandle (Manning et al., 1988).

Family Molossidae
(free-tailed bats)

Tadarida brasiliensis (Brazilian free-tailed bat).— Statewide in warm months; most individuals of western and central populations migrate southward in winter, but populations in extreme eastern Texas frequently are resident year round. The currently recognized subspecies are *T. b. cynocephala* (Le Conte, 1831) in the eastern fourth of the state and *T. b. mexicana* (Saussure, 1860) elsewhere. However, the systematics of these two taxa currently are under study and they possibly represent distinct species.

Nyctinomops femorosaccus (pocketed free-tailed bat).— Recorded in state only from Big Bend area; to be looked for elsewhere in Trans-Pecos region. *Nyctinomops femorosaccus* (Merriam, 1884) is a monotypic species.

Nyctinomops macrotis (big free-tailed bat).— Known from western part of state only as seasonal migrant, except for breeding population in Big Bend National Park in warm months; migrants also recorded from Brazos, Matagorda, and San Patricio counties. *Nyctinomops macrotis* (Gray, 1839) is a monotypic species.

Eumops perotis (western mastiff bat).— Known as summer resident from Brewster, Presidio, and Val Verde counties; winter range unknown. The subspecies is *E. p. californicus* (Merriam, 1890).

ORDER PRIMATES— PRIMATES

Family Cercopithecidae
(Old World monkeys)

**Macaca fuscata* (Japanese macaque).— Old World monkeys are included here because, "There are reliable reports of free-ranging groups of Japanese macaques in South Texas" (Jones et al., 1997:2). Many records center around or probably originated from near Dilley, in Frio County.

ORDER XENARTHRA— EDENTATES

Family Dasypodidae
(armadillos)

Dasypus novemcinctus (nine-banded armadillo).— Occurs throughout much of state; absent only from most of Trans-Pecos and Panhandle. The subspecies is *D. n. mexicanus* Peters, 1864. See Jones et al. (1993) for records from the Llano Estacado. Roberts, Yancey, and Jones (1997) record a specimen from Hall County in the Texas Panhandle.

ORDER LAGOMORPHA— LAGOMORPHS

Family Leporidae
(hares and rabbits)

Sylvilagus aquaticus (swamp rabbit).— Found in eastern third of state, west to Palo Pinto, Eastland, Brown and Travis counties (Garner et al., 1990). *S. aquaticus* (Bachman, 1837) evidently is a monotypic species. Baccus and Wallace (1997) reviewed the distribution and habitat affinity of the swamp rabbit in Texas. They list several new localities of record (specimens and "sign") for the species along the northern (to Mills County), western (to Kerr County), and southern (to Bexar County) areas of the Edwards Plateau.

Sylvilagus audubonii (desert cottontail).— Occupies upland habitats in western half of Texas. The subspecies are *S. a. minor* (Mearns, 1896) in the southern Trans-Pecos eastward to Val Verde County, *S. a. neomexicanus* Nelson, 1907, in the northern part of the range in the state (south to Reeves and northern Brewster counties), and *S. a. parvulus* (J. A. Allen, 1904) from Llano County southward in south-central Texas to the Rio Grande.

Sylvilagus floridanus (eastern cottontail).— Occurs in eastern three fourths of state and parts of Trans-Pecos region. The subspecies are *S. f. alacer* (Bangs, 1896) in eastern Texas, *S. f. chapmani* (J. A. Allen, 1899) in the central and southern parts of the state, *S. f. llanensis* Blair, 1938, on the Llano Estacado, and *S. f. robustus* (Bailey, 1905) from the mountains of the Trans-Pecos. Some authorities (Davis, 1974; Ruedas, in press) have regarded *robustus* as specifically distinct from *floridanus*.

Lepus californicus (black-tailed jackrabbit).— Found throughout Texas except in extreme southeast. Four subspecies have been recorded from the state, but this species is badly in need of taxonomic review. The races are: *L. c. eremicus* J. A. Allen, 1894, in the El Paso area; *L. c. melanotis* Mearns, 1890, in the north; *L. c. merriami* Mearns, 1896, in the south and southeast; and *L. c. texianus* Waterhouse, 1848, on the western Edwards Plateau and in the eastern Trans-Pecos. The type localities of two of the four subspecies listed above are in Texas *L. c. merriami* (Fort Clark, Kinney County) and *L. c. texianus* (restricted to 10 mi. S. Alpine, Brewster County, by Hoffmeister, 1986). The type localities of the other two are in Arizona (*L. c. eremicus*) and Kansas (*L. c. melanotis*).

ORDER RODENTIA— RODENTS

Family Sciuridae
(squirrels and allies)

Tamias canipes (gray-footed chipmunk).— Known from Guadalupe Mountains and Sierra Diablo in Culberson County. The subspecies is *T .c. canipes* (Bailey, 1902). Except for one species, all New World chipmunks were, for many years, assigned to the genus *Eutamias*. Recent investigators have suggested that all should be grouped into the single genus *Tamias* (Jones et al., 1992), but there is disagreement on this point.

Ammospermophilus interpres (Texas antelope squirrel).— Recorded from western and southern parts of Trans-Pecos region, and eastward at least to Crane and Reagan counties. *Ammospermophilus interpres* (Merriam, 1890) is a monotypic species.

Spermophilus mexicanus (Mexican ground squirrel).— Occurs throughout much of southern and western Texas (west to Culberson, Jeff Davis, and Presidio counties in Trans-Pecos), north almost to Red River just east of Panhandle. The subspecies is *S. m. parvidens* Mearns, 1896. This species may hybridize occasionally with *S. tridecemlineatus* at places where their ranges meet or overlap.

Spermophilus spilosoma (spotted ground squirrel).— Known from approximately western half of Texas and also southward on Rio Grande Plain. The subspecies are *S. s. annectens* Merriam, 1893, in the southern part of the state, *S. s. canescens* Merriam, 1890, in the western Trans-Pecos, and *S. s. marginatus* Bailey, 1890, in the remainder of the range.

Spermophilus tridecemlineatus (thirteen-lined ground squirrel).— Recorded from northwestern part of state and in corridor in east-central Texas southward to Gulf Coast. The subspecies are *S. t. arenicola* (Howell, 1928) in the Panhandle and adjacent areas to the south and *S. t. texensis* Merriam, 1898, elsewhere within the distribution in the state.

Spermophilus variegatus (rock squirrel).— Known from Trans-Pecos and south-central part of state. The subspecies are *S. v. buckleyi* Slack, 1861, in south-central Texas and *S. v. grammurus* (Say, 1823) to the west.

Cynomys ludovicianus (black-tailed prairie dog).— Occurs or once occurred in western half of state north of Rio Grande Plain; easternmost records from Montague County in north and Bexar County in south; now extirpated over parts of former range. The subspe-

cies are *C. l. arizonensis* Mearns, 1890, in the Trans-Pecos and *C. l. ludovicianus* (Ord, 1815) elsewhere.

Sciurus carolinensis (eastern gray squirrel).— Native distribution includes eastern third of state, westward at least to Lavaca, Lee, and McLennan counties; introduced in Lubbock and perhaps other counties west of natural range. The subspecies is *S. c. carolinensis* Gmelin, 1788.

Sciurus niger (eastern fox squirrel).— Occurs in suitable habitats in eastern two-thirds of Texas; introduced at some places outside native range. The subspecies are *S. n. limitis* Baird, 1855, in most of the western part of the range in the state, *S. n. ludovicianus* Custis, 1806, in the east, and *S. n. rufiventer* E. Geoffroy St.-Hilaire, 1803, which occurs in the Canadian River drainage and adjacent areas of northwestern and extreme north-central Texas.

Glaucomys volans (southern flying squirrel).— Known from wooded areas in eastern third of state. The subspecies is *G. v. texensis* Howell, 1915.

Family Geomyidae
(pocket gophers)

Thomomys bottae (Botta's pocket gopher).— Recorded from much of Trans-Pecos Texas, eastward across the Edwards Plateau (Hollander et al., 1987*b*) and immediately adjacent areas at least to Kimble County. Ten subspecies have been recognized in Texas, eight restricted to suitable habitats in the Trans-Pecos region: *T. b. baileyi* Merriam, 1901; *T. b. guadalupensis* Goldman, 1936; *T. b. lachuguilla* Bailey, 1902; *T. b. limpiae* Blair, 1939; *T. b. pervarius* Goldman, 1938; *T. b. scotophilus* Davis, 1940; *T. b. spatiosus* Goldman, 1938; and *T. b. texensis* Bailey, 1902. Additionally, *T. b. limitaris* Goldman, 1936, occurs in the eastern Trans-Pecos and eastward across the Pecos River onto the western part of the Edwards Plateau, and *T. b. confinalis* Goldman, 1936, occupies parts of the Edwards Plateau to the east.

Geomys arenarius (desert pocket gopher).— Known only from El Paso County. The subspecies is *G. a. arenarius* Merriam, 189S. Hafner and Geluso (1983) placed the two known subspecies of *G. arenarius* as races of the earlier-named *G. bursarius*. Accordingly, the status of *arenarius*, which is geographically isolated from other populations of *Geomys* in Texas, remains uncertain (see Qumsiyeh et al., 1988).

Geomys attwateri (Attwater's pocket gopher).— Recorded from south-central part of eastern Texas, from Milam County southward to Matagorda and San Patricio counties, and southwestward to Atascosa County. *Geomys attwateri* Merriam, 1895, is a monotypic species.

Geomys breviceps (Baird's pocket gopher).— Occurs in eastern fourth of state; reported from Delta County southward at least to Falls County, and hence on southward east of Brazos River to Gulf Coast. The subspecies in Texas is *G. b. sagittalis* Merriam, 1895.

Geomys bursarius (plains pocket gopher).— Reported from northwestern and north-central Texas, south to Coke and Midland counties, and eastward to McLennan and Montague counties. Two subspecies currently are thought to occur in the state—*G. b. jugossicularis* Hooper, 1940, in the extreme northwestern part of the Panhandle and *G. b. major* Davis, 1940, over the remainder of the distribution in Texas.

Geomys knoxjonesi (Jones' pocket gopher).— Known in Texas from southwestern part of Llano Estacado and adjacent areas immediately to the south; also known from adjoining southeastern New Mexico. Originally named as a subspecies of *G. bursarius*, *G. knoxjonesi* Baker and Genoways, 1975, is a monotypic species (Baker et al., 1989; Bradley et al., 1991).

Geomys personatus (Texas pocket gopher).— Known in southern part of state, frequently in isolated populations, from Val Verde, Kinney, Atascosa, and Karnes counties southward in east to Rio Grande. Seven subspecies presently are recognized (Williams and Genoways, 1981): *G. p. davisi* Williams and Genoways, 1981, in the Rio Grande Valley in western Webb and Zapata counties; *G. p. fallax* Merriam, 1895, from Nueces Bay northward to Karnes County; *G. p. fuscus* Davis, 1940, which is known only from Kinney and Val Verde counties; *G. p. maritimus* Davis, 1940, in Kleberg and Nueces counties; *G. p. megapotamus* Davis, 1940, from La Salle County southeastward to the south side of Baffin Bay and to the Rio Grande; *G. p. personatus* True, 1889, on Mustang and Padre islands; and *G. p. streckeri* Davis, 1940, which is restricted to Dimmit and eastern Zapata counties.

Geomys texensis (Llano pocket gopher).— Recorded only from Gillespie, Llano, and Mason counties on the northeastern part of the Edwards Plateau. Both *texensis* and a synonym, *llanensis*, formerly were regarded as subspecies of *G. bursarius* (see Block and Zimmerman, 1991). *Geomys texensis* Merriam, 1895, is monotypic.

Cratogeomys castanops (yellow-faced pocket gopher).— Found in western third of state from Panhandle southward to Val Verde County and throughout Trans-Pecos Texas; isolated populations recorded from Cameron and Maverick counties along the Rio Grande. Seven subspecies currently are thought to occur in the state (Hollander, 1990): *C. c. angusticeps* Nelson and Goldman, 1934, known only from the vicinity of Eagle Pass, Maverick County; *C. c. clarkii* (Baird, 1855) from the Big Bend and much of the southern Trans-Pecos area; *C. c. dalquesti* Hollander, 1990, which occurs in west-central Texas to the north of Edwards Plateau but southeast of the Llano Estacado; *C. c. lacrimalis* Nelson and Goldman, 1934, from the New Mexican border south in the Pecos drainage to Reeves, Ward, and Winkler counties; *C. c. parviceps* (Russell, 1968) in the far western Trans-Pecos; *C. c. perplanus* Nelson and Goldman, 1934, from the High Plains of northwestern Texas; and *C. c. tamaulipensis* Nelson and Goldman, 1934, known only from Cameron County.

Family Heteromyidae
(pocket mice and kangaroo rats)

Perognathus flavescens (plains pocket mouse).— Recorded in Texas from El Paso County and from High Plains and adjacent areas in northwestern part of state, east to Wilbarger County and south at least to Midland and Ward counties (Jones et al., 1991). The subspecies are *P. f. copei* Rhoads, 1894, in northwestern Texas and *P. f. melanotis* Osgood, 1900, in the western Trans-Pecos.

Perognathus flavus (silky pocket mouse).— Found in Texas Panhandle and the Trans-Pecos. The subspecies in Texas probably is *P. f. flavus* Baird, 1855. We acknowledge the need for continued systematic and biogeographic work on this species and its congener, *P. merriami*, in Texas and surrounding areas.

Perognathus merriami (Merriam's pocket mouse).— Found in western two-thirds of state. The subspecies in Texas probably are *P. m. gilvus* Osgood, 1900, in the western part of the Panhandle, Trans-Pecos, and western Edwards Plateau and *P. m. merriami* J. A. Allen 1892, in the eastern part of the Panhandle, eastern Edwards Plateau and South Texas. As mentioned in the previous account, the systematic relationship of this taxon and *P. flavus* is not fully resolved.

Chaetodipus hispidus (hispid pocket mouse).— Occurs throughout Texas save for extreme southeastern part. The subspecies are *C. h. hispidus* (Baird, 1858) in the east, *C. h. paradoxus* (Merriam, 1889) in the western one-third of the state, and *C. h. spilotis* in a limited area of north-central Texas (type locality at Gainesville, Cooke County). The systematics of this species is in need of serious review.

Chaetodipus intermedius (rock pocket mouse).— Reported only from western part of the Trans-Pecos. The subspecies is *C. i. intermedius* (Merriam, 1889).

Chaetodipus nelsoni (Nelson's pocket mouse).— Occurs in southern and central Trans-Pecos region, and just east of Pecos River in Upton and Val Verde counties (Hollander et al., 1987b). The subspecies is *C. n. canescens* (Merriam, 1904).

Chaetopidus eremicus (Chihuahuan desert pocket mouse).— Ranges throughout Trans-Pecos Texas, eastward at least to Crane and Val Verde counties (Jones and Manning, 1991). *C. eremicus* (Mearns, 1898) is a monotypic species. We follow Lee et al. (1996) in the use of this name combination.

Dipodomys compactus (Gulf Coast kangaroo rat).— Recorded from eastern two-thirds of South Texas mainland and from Mustang and Padre islands. The two recognized subspecies are *D. c. compactus* True, 1889, on the barrier islands and *D. c. sennetti* (J. A. Allen, 1891) on the mainland.

Dipodomys elator (Texas kangaroo rat).— Occurs in north-central Texas, from Cottle and Motley counties in west to Montague County in east. *Dipodomys elator* Merriam, 1894, is a monotypic species.

Dipodomys merriami (Merriam's kangaroo rat).— Ranges throughout Trans-Pecos region; known east of Pecos River from Crockett, Gaines, Ector, Martin, Midland, Reagan, and Winkler counties. The subspecies is *D. m. ambiguus* Merriam, 1890.

Dipodomys ordii (Ord's kangaroo rat).— Known from western and southern parts of state. The subspecies in Texas are: *D. o. medius* Setzer, 1949, from the central Llano Estacado southward east of the Pecos River to Crane, Crockett, and Upton counties, and east to Jones County; *D. o. obscurus* (J. A. Allen, 1903) in the western, central, and southern parts of the Rio Grande Plain and in the southern Big Bend area; *D. o. ordii* Woodhouse, 1853, in most of the Trans-Pecos region; and *D. o. richardsoni* (J. A. Allen, 1891) from the Panhandle and adjacent areas southward at least to Floyd County and east to Montague County.

Dipodomys spectabilis (banner-tailed kangaroo rat).— Occurs in western and central Trans-Pecos region; reported east of Pecos River from Andrews, Dawson, Ector, Gaines, Martin, Ward, and Winkler counties. The subspecies is *D. s. baileyi* Goldman, 1923.

Liomys irroratus (Mexican spiny pocket mouse).— Known only from extreme southern Texas (Cameron, Hidalgo, and Willacy counties). The subspecies is *L. i. texensis* Merriam, 1902.

Family Castoridae
(beavers)

Castor canadensis (American beaver).— Found over most of state where suitable aquatic habitat prevails; absent from Llano Estacado and some adjacent areas and from much of Trans-Pecos region. The subspecies are *C. c. mexicanus* Bailey, 1913, along the Rio Grande and its immediate tributaries and *C. c. texensis* Bailey, 1905, to the north. Thorton and Lee (1996) report a specimen from Taylor County, in central Texas.

Family Muridae
(mice and rats)

Oryzomys couesi (Coues' rice rat).— Known in state only from Cameron and Hidalgo counties; probably occurs also in immediately adjacent areas. The subspecies is *O. c. aquaticus* J. A. Allen, 1891.

Oryzomys palustris (marsh rice rat).— Distributed in eastern part of Texas, west to Hunt and Lee counties and hence southward at least to Willacy County. The subspecies is *O. p. texensis* J. A. Allen, 1894. Stangl and McDonough (1997:260) report a specimen from Fannin County which they say "represent a northwestern marginal record of the marsh rice rat in the state."

Reithrodontomys fulvescens (fulvous harvest mouse).— Occurs in eastern and central Texas (west to Armstrong, Childress, and Wheeler counties in north) and in parts of Trans-Pecos region. The subspecies are *R. f. aurantius* J. A. Allen, 1895, in the eastern part of the state, *R. f. canus* Benson, 1939, in the eastern and southern Trans-Pecos, *R. f. intermedius* J. A. Allen, 1895, on the Rio Grande Plain and in adjacent areas of southern Texas, and *R. f. laceyi* J. A. Allen, 1896, in the central part of the state.

Reithrodontomys humulis (eastern harvest mouse).— Known from eastern part of state, west to Fort Bend, Hunt, and McLennan counties. The subspecies is *R. h. merriami* J. A. Allen, 1895.

Reithrodontomys megalotis (western harvest mouse).— Occurs in western Texas, from Panhandle southward to Trans-Pecos region. The subspecies are *R. m. aztecus* J. A. Allen, 1893, in the northern part of the range and *R. m. megalotis* (Baird, 1858) to the south.

Reithrodontomys montanus (plains harvest mouse).— Found in western and central parts of state, east and southeast at least to Madison and Bexar counties, respectively. The subspecies are *R. m. griseus* Bailey, 1905, throughout most of the range in Texas and *R. m. montanus* (Baird, 1855) in the Trans-Pecos region. Jones, et al. (1993) reported the species from near Big Bend National Park, in Brewster County. Goetze et al. (1993) listed several records from the Edwards Plateau.

Peromyscus attwateri (Texas mouse).— Known only from central part of state, south to Crockett, Edwards, and Travis counties, and west to eastern edge of Llano Estacado. *Peromyscus attwateri* (J. A. Allen, 1893) is a monotypic species.

Peromyscus boylii (brush mouse).— Occurs in Texas only in Trans-Pecos region and not along scarp of

Llano Estacado as once claimed (Choate, 1997). The subspecies is *P. b. rowleyi* (J. A. Allen, 1893).

Peromyscus nasutus (northern rock mouse).— Known only from mountainous parts of western and southern Trans-Pecos Texas. We employ the specific name *nasutus* (instead of *difficilis*) for this mouse following Carleton (1989). The subspecies are *P. n. nasutus* (J. A. Allen, 1891) from the Guadalupe Mountains in Culberson County and *P. n. penicillatus* Mearns, 1896, from Brewster, El Paso, and Presidio counties. The subspecies *nasutus* also has been taken along the breaks of the Llano Estacado in eastern New Mexico, but a few miles west of the Texas border (Choate et al., 1991).

Peromyscus eremicus (cactus mouse).— Recorded from Trans-Pecos region southeastward along Rio Grande to Webb County. The subspecies is *P. e. eremicus* (Baird, 1858).

Peromyscus gossypinus (cotton mouse).— Found in woodlands in eastern fourth of state, west at least (north to south) to Hunt, Kaufman, Freestone, Leon, and Grimes counties. The subspecies is *P. g. megacephalus* (Rhoads, 1894). Stangl and McDonough (1997:260) report on specimens from Fannin County that "represent a marginal record from along the western boundary of the species in Texas."

Peromyscus leucopus (white-footed mouse).— State-wide in distribution. The subspecies, which are in need of systematic review, are *P. l. leucopus* (Rafinesque, 1818) in the eastern third of the state, *P. l. texanus* (Woodhouse, 1853) in central Texas (west to Brewster, Terrell, and Val Verde counties), and *P. l. tornillo* Mearns, 1896, in the Panhandle and much of the Trans-Pecos.

Peromyscus maniculatus (deer mouse).— Known from all but eastern part of state. The subspecies are as follows: *P. m. blandus* Osgood, 1904, in the Trans-Pecos and areas immediately to the east; *P. m. luteus* Osgood, 1905, in the Panhandle, probably south to Winkler County; *P. m. ozarkiarum* Black, 1935, which occurs sympatrically with the following race in Cooke, Denton, and Grayson counties; and *P. m. pallescens* J. A. Allen, 1896, in the eastern part of the range in Texas.

Peromyscus pectoralis (white-ankled mouse).— Recorded from most of Trans-Pecos region (west to Culberson and Hudspeth counties) and northeastward through central part of state to Oklahoma (eastern limits of range along Balcones Escarpment from Bexar County northward to McLennan County). The subspecies in Texas is *P. p. laceianus* Bailey, 1906.

Peromyscus truei (piñon mouse).— Recorded in state only from breaks of Llano Estacado and from Guadalupe Mountains. The subspecies are *P. t. comanche* Blair, 1943, from the breaks of the Llano in Armstrong, Briscoe, and Randall counties, and *P. t. truei* (Schufeldt, 1885) from the Guadalupes and the Llano breaks in Deaf Smith County just to the east of the New Mexican border (Choate et al., 1991). The distribution and status of the endemic Palo Duro mouse recently was reviewed by Yancey et al. (1996*a*).

Ochrotomys nuttalli (golden mouse).— Occurs in woodlands of extreme eastern Texas, west at least to Anderson and Houston counties. The subspecies is *O. n. lisae* Packard, 1969.

Baiomys taylori (northern pygmy mouse).— Distributed over eastern half to two-thirds of state, depending on latitude, except in extreme northeastern part, west at least to (north to south) Carson, Armstrong, Swisher, Lubbock, and Yoakum counties (see Choate et al., 1990, 1991); has expanded range substantially northward and westward in past few decades. The subspecies are *B. t. taylori* (Thomas, 1897) over most of the range in Texas and *B. t. subater* (Bailey, 1905) in the southeast.

Onychomys arenicola (Mearns' grasshopper mouse).— Ranges throughout all but southeastern part of Trans-Pecos Texas; recorded east of Pecos River from Crockett, Ward, and Winkler counties. The subspecies is *O. a. arenicola* Mearns, 1896. This mouse was regarded for many years as representing the species *O. torridus*.

Onychomys leucogaster (northern grasshopper mouse).— Known from western Trans-Pecos region and throughout central Texas south to Gulf Coast and Rio Grande. The subspecies are *O. l. albescens* Merriam,

1904, in El Paso and Hudspeth counties, *O. l. arcticeps* Rhoads, 1898, in the Panhandle and adjacent areas to the east, south to Crockett and Pecos counties, and *O. l. longipes* Merriam, 1899, from Tom Green and Terrell counties southward to the Rio Grande and southeastward to Nueces County. Thornton and Lee (1996) reported a Taylor County record for the Rolling Plains of north-central Texas.

Sigmodon fulviventer (tawny-bellied cotton rat).— Known from but a single locality in Davis Mountains of Jeff Davis County (Stangl, 1992). The subspecies is *S. f. dalquesti* Stangl, 1992.

Sigmodon hispidus (hispid cotton rat).— This murid is known to occur statewide. The subspecies are *S. h. berlandieri* Baird, 1855, from the Panhandle southward to the Trans-Pecos and the Rio Grande Plain and *S. h. texianus* (Audubon and Bachman, 1853) in the eastern and central parts of the state. Southwestern races of this species are in need of critical systematic review.

Sigmodon ochrognathus (yellow-nosed cotton rat).— Reported only from higher elevations in southern Trans-Pecos region. *S. ochrognathus* Bailey, 1902, is a monotypic species. Yancey and Jones (1996: 249) report a specimen taken from "a non-montane" habitat, in Presidio County. This cotton rat recently was taken at Elephant Mountain Wildlife Managment Area in Brewster County, Texas, in desert habitat (Heaney et al., in press).

Neotoma albigula (white-throated woodrat).— Found in Panhandle and broken country south of Red River, southeastward to Kerr and Llano counties, thence westward throughout much of southwestern part of state. The subspecies thought to occur in Texas are *N. a. albigula* Hartley, 1894, which occurs over most of the range in the state, *N. a. robusta* Blair, 1939, from the mountains of the southern Trans-Pecos, and *N. a. warreni* Merriam, 1908, from north of the Canadian River in the northern Panhandle. Rogers and Schmidly (1981) included *robusta* as a form of *N.a.albigula*.

Neotoma floridana (eastern woodrat).— Recorded from eastern part of Texas, south to Victoria County and westward to Edwards and Kerr counties. The subspecies are *N. f. attwateri* Mearns, 1897, which occupies the northern and western parts of the range in the state, and *N. f. rubida* Bangs, 1898, in the southeast. Additionally, *N. f. illinoensis* Howell, 1910, may be found in extreme northeastern Texas.

Neotoma mexicana (Mexican woodrat).— Known in Texas only from mountainous areas in Brewster, Culberson, Jeff Davis, and Presidio counties of Trans-Pecos region. The subspecies is *N. m. mexicana* Baird, 1855.

Neotoma micropus (southern plains woodrat).— Found in western two thirds of Texas, eastward to Johnson County in north and Gulf Coast in south. The subspecies are *N. m. canescens* J. A. Allen, 1891, in the western part of the range in the state and *N. m. micropus* Baird, 1855, in the east. Populations of this woodrat are in need of taxonomic review.

**Rattus norvegicus* (Norway rat).— Widespread in Texas in and near human habitations, but not so common as *R. rattus* in urban settings.

**Rattus rattus* (roof rat).— Common in urban environs throughout much of Texas, and sometimes found in or around human habitations in rural areas.

**Mus musculus* (house mouse).— State-wide in distribution, usually in close association with humans, but feral populations also are known. Some authors have argued recently that *Mus domesticus*, rather than *M. musculus*, was the house mouse introduced into North America, but most regard the former as no more than a subspecies of the latter (Bonhomme, 1986).

Microtus mexicanus (Mexican vole).— Recorded only from higher elevations in Guadalupe Mountains of Culberson County. The subspecies is *M. m. guadalupensis* Bailey, 1902.

Microtus ochrogaster (prairie vole).— Known only from single individual taken in Hardin County, in the southeast, in 1902, and by eight specimens recently reported from two counties (Hansford and Lipscomb) in northern Panhandle (Jones et al., 1988*b*; Choate and Killebrew, 1991), far to the northwest. According to Schmidly (1983), "this species is probably now extinct in eastern Texas." The subspecies there was *M. o. ludovicianus* Bailey, 1902. The subspecies in northwest-

ern Texas probably is *M. o. taylori* Hibbard and Rinker, 1943.

Microtus pinetorum (woodland vole).— Found in eastern and central parts of state west to Montague County and south at least to Kerr and Newton counties. The subspecies are *M. p. auricularis* Bailey, 1898, in the southern part of the range in Texas and *M. p. nemoralis* Bailey, 1898, to the north.

Ondatra zibethicus (common muskrat).— Occurs only in suitable aquatic habitats in northern, southeastern, and southwestern parts of state. The subspecies are *O. z. cinnamominus* (Hollister, 1910) in the north (Canadian River drainage southeastward to Falls and Trinity counties), *O. z. ripensis* (Bailey, 1902) along the Rio Grande and its immediate tributaries in the Trans-Pecos region, and *O. z. rivalicius* (Bangs, 1895) on the Gulf Coastal Plain as far west as Brazoria County.

Family Erethizontidae
(New World porcupines)

Erethizon dorsatum (porcupine).— Known from western half of state, east at least to Clay and Kerr counties. According to Stangl et al. (1991), the one subspecies in Texas is *E. d. epixanthum* Brandt, 1835.

Family Myocastoridae
(myocastorids)

**Myocastor coypus* (nutria).— Found in aquatic habitats in eastern two-thirds of state, west at least to Pecos River. Hollander et al. (1992) report specimens from Terrell and Val Verde counties of the Trans-Pecos.

ORDER CARNIVORA— CARNIVORES

Family Canidae
(canids)

**Canis familiaris* (feral dog).— Feral animals common in many parts of Texas, especially eastwardly.

Canis latrans (coyote).— Known from variety of habitats throughout state; has moved into parts of eastern Texas since elimination of red wolves from much of that region. The subspecies are *C. l. latrans* Say, 1823, in the Panhandle, *C. l. texensis* Bailey, 1905, in the western half of the state south of the Panhandle, and *C. l. frustror* Woodhouse, 1851, in the eastern half of Texas.

Canis lupus (gray wolf).— Once ranged throughout western part of state at least as far east as McLennan County; no resident gray wolves remain in Texas, but individuals occasionally may cross into Trans-Pecos region from Mexico. The subspecies were *C. l. nubilus* Say, 1823, in the Panhandle and eastward to Montague County, *C. l. monstrabilis* Goldman, 1937, throughout west-central and southern Texas, and *C. l. baileyi* Nelson and Goldman, 1929, in extreme western Texas west of the Big Bend.

Canis rufus (red wolf).— Original range included most of area east of Balcones Fault Zone and west to Wichita County; endangered species that still may exist in Liberty, Chambers, and Jefferson counties. Subspecies included *C. r. gregoryi* Goldman, 1937, along the eastern border of the state and *C. r. rufus* Audubon and Bachman, 1851, in the remainder of the original range.

Vulpes velox (swift fox).— Known from grassland habitats of the Llano Estacado and the Panhandle (Davis and Schmidly, 1994; Choate, 1997). The subspecies in Texas is *V. v. velox* (Say, 1823). See comments in Jones et al. (1997) about specific status.

Vulpes macrotis (kit fox).— Known from arid and semi-arid regions of the Trans-Pecos and southwestern part of Edwards Plateau (Davis and Schmidly, 1994; Goetze, 1995). Subspecies in Texas is *V. m. neomexicana* Merriam, 1902. See comments in Jones et al. (1997) about specific status.

Vulpes vulpes (red fox).— Introduced in eastern and central Texas from elsewhere in North America beginning in about 1891, possibly to replace previously decimated populations; in any event, species recorded from late Pleistocene cave deposits and now ranges across central Texas from eastern part of state to lower Pecos River and probably to New Mexico state line. The subspecies is *V. v. fulva* (Desmarest, 1820).

Urocyon cinereoargenteus (common gray fox).— Occurs throughout state except possibly in northeastern part of Panhandle; especially common in eastern Texas. The subspecies are *U. c. floridanus* Rhoads, 1895, east of the Balcones Fault Zone and *U. c. scottii* Mearns, 1891, in the western two-thirds of the state.

Family Ursidae
(bears)

Ursus americanus (black bear).— Once ranged across state, except in the southernmost counties; in recent years, sighted only infrequently in extreme western Texas and in wooded regions of the east—probably animals that wandered into state, although small population of four to seven animals now present in Chisos Mountains, Big Bend National Park. The subspecies included *U. a. amblyceps* Baird, 1859, in the Trans-Pecos area and northward along the New Mexican border, *U. a. americanus* Pallas, 1780, in the central part of the state, and *U. a. luteolus* Griffith, 1821, in the east adjacent to Louisiana.

Ursus arctos (grizzly or brown bear).— Known by single specimen obtained in Davis Mountains in 1890; now extirpated in state. The subspecies was *U. a. horribilis* Ord, 1815.

Family Procyonidae
(procyonids)

Bassariscus astutus (ringtail).— Recorded from throughout state except in extreme lower Rio Grande and Coastal plains of southern Texas; usually associated with rocky and wooded habitats. The subspecies is *B. a. flavus* Rhoads, 1894. Gehrt (1993) reported the species from San Patricio County, and Anderson and Holzem (1992) document the species occurrence in Refugio County, both from the southeastern part of the state.

Procyon lotor (common raccoon).— Ubiquitous throughout state, especially in mesic areas and near human habitations. The subspecies are *P. l. hirtus* Nelson and Goldman, 1930, in the Panhandle north of the Canadian River, *P. l. mexicanus* Baird, 1858, in the western part of the Trans-Pecos, and *P. l. fuscipes* Mearns, 1914, throughout the remainder of the state.

Nasua narica (white-nosed coati).— Limited to southwestern and extreme southern parts of state. We follow Decker (1991) in treating the white-nosed coati as specifically distinct from *N. nasua* of South America. The subspecies in Texas is *N. n. molaris* Merriam, 1902.

Family Mustelidae
(mustelids)

Mustela frenata (long-tailed weasel).— Probably occurs state-wide, but scarce in most areas, especially in western and northern Texas. The subspecies include: *M. f. neomexicana* (Barber and Cockerell, 1898) mostly west of the 100th meridian; *M. f. texensis* Hall, 1936, in the central part of the state; *M. f. primulina* Jackson, 1913, in the extreme northeastern part of Texas; *M. f. arthuri* Hall, 1927, east of the Balcones Fault Zone in east-central and southeastern areas; and *M. f. frenata* Lichtenstein, 1831, in the southern part of the state along the Gulf Coast and adjacent to Mexico.

Mustela nigripes (black-footed ferret).— Ranged in northern and western parts of state as far as Cooke County in east and Pecos County in south. *Mustela nigripes* (Audubon and Bachman, 1851), which is a monotypic species, has been extirpated from Texas and from most other parts of its former geographic range.

Mustela vison (mink).— Known from approximately eastern half of state, westward to northern Panhandle, in habitats near permanent water. The subspecies is *M. v. mink* Peale and Palisot de Beauvois, 1796.

Taxidea taxus (American badger).— Found across state except in extreme eastern part; there is some evidence this species is extending its geographic range eastward in connection with changing land-use practices (Schmidly, 1983, 1984). The subspecies is *T. t. berlandieri* Baird, 1858.

Lontra canadensis (northern river otter).— Presently known only from about eastern fouth of state in major watersheds; probably extirpated from the Panhandle, north-central, and southern Texas (Schmidly, 1984). The subspecies is *L. c. lataxina* (F. Cuvier, 1823). See Jones et al. (1997:4) concerning the use of *Lontra* as the correct genus.

Family Mephitidae
(mephitids)

Spilogale gracilis (western spotted skunk).— Recorded from southwestern part of state, north as far as Garza and Howard counties and eastward to Duval County. The subspecies is *S. g. leucoparia* Merriam, 1890.

Spilogale putorius (eastern spotted skunk).— Occurs in Panhandle and north-central Texas as far south as Garza County, and in eastern part of state east of Balcones Escarpment. The subspecies is *S. p. interrupta* (Rafinesque, 1820). Although this species is widespread in Central America and Mexico, there is some chromosomal evidence that the population in Texas may be unique (Owen et al., 1996).

Mephitis macroura (hooded skunk).— Known only from Big Bend area and adjacent parts of central Trans-Pecos, northward to Reeves and Ward counties. *Mephitis. m. milleri* Mearns, 1897, is the recognized subspecies.

Mephitis mephitis (striped skunk).— Common throughout much of state, although somewhat less numerous in northern part of Trans-Pecos region than elsewhere; especially abundant in agricultural areas and near human habitations. *Mephitis. m. varians* Gray, 1837, occurs in the western part of Texas, whereas *M. m. mesomelas* Lichtenstein, 1832, is found east of the 100th meridian.

Conepatus leuconotus (eastern hog-nosed skunk).— Recorded from southern part of state from Aransas, San Patricio, and Webb counties southward. The subspecies is *C. l. texensis* Merriam, 1902.

Conepatus mesoleucus (common hog-nosed skunk).— Ranges across southwestern, central, and southern Texas (perhaps extirpated in Big Thicket— Schmidly, 1983), north at least to Collin and Lubbock counties. The subspecies are *C. m. mearnsi* Merriam, 1902, throughout most of the range in the state (east to Harris County) and *C. m. telmalestes* Bailey, 1905, from the Big Thicket area.

Family Felidae
(cats)

**Felis catus* (feral cat).— Feral animals fairly common in eastern Texas and probably in some other areas.

Leopardus pardalis (ocelot).— Recorded from Donley and McLennan counties in north, Brewster County in west, and Jefferson County in east; probably limited at present to favored habitats in three or four counties of southern Rio Grande Plain. The subspecies is *L. p. albescens* (Pucheran, 1855). See Jones et al. (1997) concerning the use of this name combination.

Leopardus wiedii (margay).— Known only from specimen taken in Maverick County in 1850s; probably now extinct in state. The subspecies was *L. w. cooperi* (Goldman, 1943). See Jones et al. (1997) concerning the use of this name combination.

Herpailurus yagouaroundi (jaguarundi).— Recorded in Texas only from Cameron, Hidalgo, Starr, and Willacy counties; current status unknown, but still may exist in three southernmost counties of state. *Herpailurus. y. cacomitli* (Berlandier, 1859), is the recognized subspecies. See Jones et al. (1997) concerning the use of this name combination.

Puma concolor (mountain lion).— Once ranged throughout state; now known certainly, except for occasional occurrences northward, only in desert mountain ranges of Trans-Pecos region, especially in Big Bend National Park, on parts of Edwards Plateau, and in dense brushlands of Rio Grande Plain. The subspecies is *P. c. stanleyana* (Goldman, 1938). We follow Hemmer (1978) and Kratochvil (1982) in the use of *Puma* as the correct genus.

Panthera onca (jaguar).— Once ranged northward into central Texas as far as Mills County and along Gulf Coast. The subspecies was *P. o. veraecrucis* (Nelson and Goldman, 1933).

Lynx rufus (bobcat).— Occurs in variety of habitats throughout state. According to Schmidly and Read (1986), only one subspecies, *L. r. texensis* J. A. Allen, 1895, is found in Texas.

ORDER ARTIODACTYLA— EVEN-TOED UNGUALTES

Family Suidae
(pigs)

**Sus scrofa* (feral pig).— Sizeable populations of pigs, derived from domestic animals that became feral and from animals introduced for hunting, occur in various places on Rio Grande and Coastal plains and in wooded country of eastern Texas.

Family Tayassuidae
(peccaries)

Pecari tajacu (collared peccary).— Once distributed over much of state; now restricted to southwestern and south-central Texas, and brush country south of San Antonio; an introduced population has survived about 40 years along Red River in Wilbarger County. The subspecies is *P. t. angulatus* (Cope, 1889). We follow Miller and Kellogg (1955) in the use of *Pecari* as the correct genus. Also, see Jones et al. (1997) concerning the use of this name combination.

Family Cervidae
(cervids)

**Cervus axis* (axis deer).— Native of India; introduced into Texas in approximately 1932, and now occurs in a number of counties in central and southern parts of state. More than 15,000 individuals are thought to be free-living (Traweek, 1985).

**Cervus dama* (fallow deer).— Native of western Palaearctic Region, east to Iran and south to North Africa. According to the most recent survey of exotic ungulates (Traweek, 1985), more than 10,000 now occur in Texas, about one-third outside confinement, mostly on the eastern Edwards Plateau and in adjacent areas.

Cervus elaphus (wapiti or elk).— Native to Guadalupe Mountains prior to extirpation by 1900; reintroduced into Guadalupes in 1928, and more recently in the Davis Mountains, and viable population still extant there. The native subspecies was *C. e. merriami* Nelson, 1902; the reintroduced animals are *C. e. nelsoni* Bailey, 1935.

**Cervus nippon* (sika deer).— Native of Orient that occurs in Texas primarily in central part of state; about 2500 free-ranging animals of a total of some 5560 individuals in the mid-1980s.

Odocoileus hemionus (mule deer).— Occurs over most of Trans-Pecos and Panhandle regions of Texas and in some areas immediately east thereof, partly as a result of reintroductions. The subspecies is *O. h. crooki* (Mearns, 1897).

Odocoileus virginianus (white-tailed deer).— Distributed in suitable wooded and brushy habitats throughout state. Originally, the subspecies included *O. v. carminis* (Goldman and Kellogg, 1940) known only from the Big Bend area, *O. v. macroura* (Rafinesque, 1817) in the extreme northeastern corner of the state, *O. v. mcilhennyi* (F. W. Miller, 1928) along the Gulf Coast, and *O. v. texana* (Mearns, 1898) throughout the central part of Texas. Native animals of the subspecies *O. v. mcilhennyi* and *O. v. macroura* were eliminated in eastern Texas; the area was restocked with individuals of *O. v. texana* (see Schmidly, 1983). Hybridization between white-tailed and mule deer has been reported from the eastern Trans-Pecos, and probably occurs also in adjacent areas.

Family Antilocapridae
(pronghorn)

Antilocapra americana (pronghorn).— Formerly known in western twothirds of Texas as far east as McLennan and Robertson counties; currently found only in scattered herds in north-central and western parts ofstate, especially in Trans-Pecos region and western part of Edwards Plateau. The subspecies are *A. a. americana* (Ord, 1815) in the Panhandle and *A. a. mexicana* Merriam, 1901, in western and central Texas, although reintroductions, beginning in the late 1930s, to augment a declining population may have altered this situation.

Family Bovidae
(bovids)

**Boselaphus tragocamelus* (nilgai).— Native of India and Pakistan; more than 15,000 now free-living in south-central and southern Texas.

Bos bison (bison).— Before extirpation, ranged throughout state except in dense woods of Big Thicket area; now present in Texas only in private herds on some ranches. The subspecies is *B. b. bison* (Linnaeus, 1758).

Ovis canadensis (mountain sheep).— Extirpated from desert mountain ranges in Trans-Pecos Texas; reintroduced, however, into this area where there now is an extant population. The native subspecies was *O. c. mexicana* Merriam, 1901, but some introductions of other subspecies have been made.

**Ammotragus lervia* (Barbary sheep or aoudad).— Native of North Africa; first introduced into Panhandle of Texas in 1957. Herds now exist on caprock along much of eastern edge of Llano Estacado, in rough country of Trans-Pecos, and on parts of Edwards Plateau. The total population in the wild exceeds 5000 (Traweek, 1985).

**Antilope cervicapra* (blackbuck).— Native to India and Pakistan; approximately 20,000 individuals now occur in Texas, but relatively few are found outside controlled areas.

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It was through the efforts of Horn Professor J Knox Jones, as director of Academic Publications, that Texas Tech University initiated several publications series including the Occasional Papers of the Museum. This and future editions in the series are a memorial to his dedication to excellence in academic publications. Professor Jones enjoyed editing scientific publications and served the scientific community as an editor for the Journal of Mammalogy, Evolution, The Texas Journal of Science, Occasional Papers of the Museum, and Special Publications of the Museum. It is with special fondness that we remember Dr. J Knox Jones.

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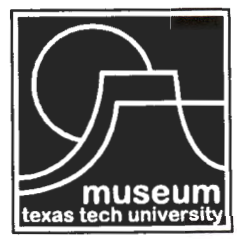

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