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THE MODERN VERTEBRATE FAUNA OF THE VAN HORN COUNTRY

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INTRODUCTION

Within the area of interest, only the Guadalupe Mountains have been biologically investigated in detail. The modern vertebrate faunas of these highlands are summarized in Genoways and Baker (1979) by Mecham (1979) (herptiles), Newman (1979) (breeding birds), and by Genoways and others (1979) (mammals); other Pleistocene to Holocene biological facets of this mountain range also are covered in this work. Schmidly (1977) presents an up-to-date summary of mammals for the entire Trans-Pecos region, including all known published and museum records. Small collections of vertebrates have been made from the Eagle Mountains (Worthington and others, 1972), in the southern portion of the area.

The lists of vertebrates given below are constructed primarily on the basis of the aforementioned works; in addition, a general knowledge of the climate, topography and vegetation allows addition of some forms known to occur in similar habitats outside of the area.

Many of the vertebrates are widespread in semi-arid North America; disregarding these, the vertebrate biota reflects a mingling of forms from the north (limited almost entirely to the Guadalupe Mountains in our region) and from the relatively high portions of the Chihuahuan Desert to the west (despite the nearness of Big

Bend, with its lowland Chihuahuan Desert forms, there are few strictly southern elements). An eastern to southeastern element also is notable.

HERPTILES

A large, varied herpetofauna occurs in the area, drawn from at least seven geographic elements (Mecham, 1979) (Table 1). Lack of good, permanent aquatic habitat bars a number of forms, such as many of the turtles and aquatic amphibians, otherwise apt to occur in the area. The semiarid character of the region likewise prevents the occurrence of salamanders having generally mesic requirements.

Most of the amphibians are inconspicuous except after rains, when breeding choruses often can be heard during the evening hours. A number of kinds of rattlesnakes occur in the area. While some of these are quite commonly seen on paved roads after dark or are encountered more or less routinely in the field, many of the large number of non-poisonous snakes are extremely secretive and seldom found even by professional herpetologists. Unlike most snakes, virtually all the lizards are active by day; collared lizards, earless lizards and various species of whiptails and spiny lizards are commonly seen throughout the area.

Table 1. Amphibians and Reptiles in Van Horn Country.

AMPHIBIANS

Ambystoma tigrinum (Tiger Salamander)
Scaphiopus couchi (Couch's Spadefoot)
Scaphiopus hammondi (Western Spadefoot)
Scaphiopus bombifrons (Plains Spadefoot)

Bufo woodhousei (Woodhouse's Toad)
Bufo punctatus (Red-spotted Toad)
Bufo cognatus (Great Plains Toad)
Bufo speciosus (Texas Toad)

Bufo debilis (Green Toad)
Acris crepitans (Cricket Frog)
Rana berlandieri (Berlandier's Frog)
Rana catesbiana (Bullfrog)

REPTILES

Kinosternon flavescens (Yellow Mud Turtle)
Terrapene ornata (Western Box Turtle)
Coleonyx brevis (Texas Banded Gecko)
Cophosaurus texanus (Greater Earless Lizard)
Crotaphytus collaris (Collared Lizard)
Crotaphytus wislizeni (Leopard Lizard)
Sceloporus poinsetti (Crevice Spiny Lizard)
Sceloporus magister (Desert Spiny Lizard)
Sceloporus undulatus (Eastern Fence Lizard)
Uta stansburiana (Side-blotched Lizard)
Urosaurus ornatus (Tree Lizard)
Phrynosoma cornutum (Texas Horned Lizard)
Phrynosoma douglasi (Short-horned Lizard)
Phrynosoma modestum (Round-tailed Horned Lizard)
Eumeces obsoletus (Great Plains Skink)
Eumeces multivirgatus (Many-lined Skink)
Cnemidophorus inornatus (Little Striped Whiptail)
Cnemidophorus exanguis (Chihuahua Whiptail)
Cnemidophorus gularis (Texas Spotted Whiptail)
Cnemidophorus tigris (Western Whiptail)
Cnemidophorus tesselatus (Checkered Whiptail)
Leptotyphlops humilis (Western Blind Snake)
Leptotyphlops dulcis (Texas Blind Snake)
Diadophis punctatus (Ringneck Snake)

Heterodon nasicus (Western Hognose Snake)
Opheodrys vernalis (Smooth Green Snake)
Masticophis flagellum (Coachwhip)
Masticophis taeniatus (Striped Whipsnake)
Salvadora hexalepis (Western Patch-nosed Snake)
Salvadora grahamiae (Mountain Patch-nosed Snake)
Elaphe guttata (Corn Snake)
Elaphe subocularis (Trans-Pecos Rat Snake)
Arizona elegans (Glossy Snake)
Pituophis melanoleucus (Gopher Snake)
Lampropeltis getulus (Common Kingsnake)
Lampropeltis mexicana (Gray-banded Kingsnake)
Rhinocheilus lecontei (Long-nosed Snake)
Thamnophis cyrtopsis (Black-necked Garter Snake)
Sonora episcopa (Ground Snake)
Gyalopion canum (Western Hook-nosed Snake)
Tantilla atriceps (Mexican Black-headed Snake)
Tantilla nigriceps (Plains Black-headed Snake)
Hypsiglena torquata (Night Snake)
Crotalus atrox (Western Diamondback Rattlesnake)
Crotalus lepidus (Rock Rattlesnake)
Crotalus molossus (Black-tailed Rattlesnake)
Crotalus viridis (Western Rattlesnake)
Crotalus scutulatus (Mojave Rattlesnake)

BIRDS

The bird list (Table 2) is much less complete than those for herptiles and mammals. Although the Guadalupe Mountains Region is well represented in the literature (see Newman, 1979, and references therein), there are few readily available published works for elsewhere in the area. The list is based primarily on data in Newman (1979), with a few additions from Worthington and others (1972), and with the addition of a few other forms apt to be seen by the casual observer. Surely under-represented in the list are the water-associated species that utilize the relatively few aquatic habitats within the region. Also more common than indicated by the list are the buteo hawks and the falcons. Many species of birds move through the area during migration, but are absent or sporadic at other times of the year; most of these are unrepresented below.

As with the other vertebrates, the bird fauna indicates the intermingling of elements from several geographic regions. However, the northern aspect is emphasized because of the bias toward information from the Guadalupe Mountains and, more importantly, because of the number of species that breed in well developed woodland, riparian and forest habitats, all at a premium outside the Guadalupe Mountains.

MAMMALS

The lack of a strong, northern montane element gives a relatively depauperate mammalian fauna compared to those of many areas of comparable size in adjacent New Mexico (Table 3). A montane element occurs only in the Guadalupe and is weak there. A few forms, such as the Mexican vole (*Microtus mexicanus*) and the American elk (*Cervus elaphus*), reach their southernmost limits in this part of North America. (The elk is an introduction into the Guadalupe, replacing the now-extinct Merriam's elk; although originally named as a distinct species, the latter now is considered a subspecies of *C. elaphus*.) Other elements, such as the Mexican wood rat (*Neotoma mexicana*), reappear to the south in other highland areas supporting suitable vegetation. The gray-footed chipmunk (*Eutamias canipes*) may occur somewhat south of the Guadalupe Mountains, but not to the high Davis Mountains nor to the highlands of the Big Bend.

Predominately of eastern to southeastern affinities are such mammals as the black-tailed prairie dog (*Cynomys ludovicianus*), the white-ankled mouse (*Peromyscus pectoralis*) and the hispid pocket mouse (*Perognathus hispidus*).

As expected, considering the climate and vegetation, Chihuahuan Desert forms are well represented (several of these also are

Table 2. Birds of Van Horn Country, mainly Guadalupe Mountains.

<i>Cathartes aura</i> (Turkey Vulture)	<i>Eremophila alpestris</i> (Horned Lark)	<i>Helmitheros vermivorus</i> (Worm-eating Warbler)
<i>Accipiter cooperi</i> (Cooper's hawk)	<i>Tachycineta thalassina</i> (Violet-green Swallow)	<i>Vermivora celata</i> (Orange-crowned Warbler)
<i>Buteo jamaicensis</i> (Red-tailed Hawk)	<i>Hirundo rustica</i> (Barn Swallow)	<i>Vermivora virginiae</i> (Virginia's Warbler)
<i>Aquila chrysaetos</i> (Golden Eagle)	<i>Petrochelidon pyrrhonota</i> (Cliff Swallow)	<i>Dendroica coronata</i> (Yellow-rumped Warbler)
<i>Circus cyaneus</i> (Marsh Hawk)	<i>Cyanocitta stelleri</i> (Steller's Jay)	<i>Dendroica nigrescens</i> (Black-throated Gray Warbler)
<i>Callipepla squamata</i> (Scaled Quail)	<i>Aphelocoma coerulescens</i> (Scrub Jay)	<i>Dendroica graciae</i> (Grace's Warbler)
<i>Actitis macularia</i> (Spotted Sandpiper)	<i>Corvus corax</i> (Common Raven)	<i>Dendroica pennsylvanica</i> (Chestnut-sided Warbler)
<i>Columba fasciata</i> (Band-tailed Pigeon)	<i>Corvus cryptoleucus</i> (White-necked Raven)	<i>Oporornis tolmiei</i> (MacGillivray's Warbler)
<i>Zenaida asiatica</i> (White-winged Dove)	<i>Nucifraga columbiana</i> (Clark's Nutcracker)	<i>Wilsonia pusilla</i> (Wilson's Warbler)
<i>Zenaida macroura</i> (Mourning Dove)	<i>Parus gambeli</i> (Mountain Chickadee)	<i>Setophaga ruticilla</i> (American Redstart)
<i>Geococcyx californianus</i> (Roadrunner)	<i>Parus inornatus</i> (Plain Titmouse)	<i>Passer domesticus</i> (House Sparrow)
<i>Otus flammeolus</i> (Flammulated Owl)	<i>Psaltriparus minimus</i> (Common Bushtit)	<i>Icterus cucullatus</i> (Hooded Oriole)
<i>Bubo virginianus</i> (Great Horned Owl)	<i>Sitta carolinensis</i> (White-breasted Nuthatch)	<i>Icterus parisorum</i> (Scott's Oriole)
<i>Micrathene whitneyi</i> (Elf Owl)	<i>Sitta canadensis</i> (Red-breasted Nuthatch)	<i>Molothrus ater</i> (Brown-headed Cowbird)
<i>Speotyto cunicularia</i> (Burrowing Owl)	<i>Sitta pygmaea</i> (Pigmy Nuthatch)	<i>Piranga ludoviciana</i> (Western Tanager)
<i>Strix occidentalis</i> (Spotted Owl)	<i>Certhia familiaris</i> (Brown Creeper)	<i>Piranga olivacea</i> (Scarlet Tanager)
<i>Aegolius acadicus</i> (Saw-whet Owl)	<i>Troglodytes aedon</i> (House Wren)	<i>Piranga rubra</i> (Summer Tanager)
<i>Caprimulgus vociferus</i> (Whip-poor-will)	<i>Thryomanes bewicki</i> (Bewick's Wren)	<i>Piranga flava</i> (Hepatic Tanager)
<i>Phalaenoptilus nuttalli</i> (Poor-will)	<i>Campylorhynchus brunneicapillum</i> (Cactus Wren)	<i>Pyrrhuloxia sinuata</i> (Pyrrhuloxia)
<i>Chordeiles minor</i> (Common Nighthawk)	<i>Catherpes mexicanus</i> (Canyon Wren)	<i>Pheucticus melanocephalus</i> (Black-headed Grosbeak)
<i>Aeronautes saxatalis</i> (White-throated Swift)	<i>Salpinctes obsoletus</i> (Rock Wren)	<i>Guiraca caerulea</i> (Blue Grosbeak)
<i>Archilochus alexandri</i> (Black-chinned Hummingbird)	<i>Mimus polyglottos</i> (Mockingbird)	<i>Passerina cyanea</i> (Indigo Bunting)
<i>Selasphorus platycercus</i> (Broad-tailed Hummingbird)	<i>Toxostoma curvirostre</i> (Curve-billed Thrasher)	<i>Carpodacus mexicanus</i> (House Finch)
<i>Eugenes fulgens</i> (Rivoli's Hummingbird)	<i>Oreoscoptes montanus</i> (Sage Thrasher)	<i>Spinus pinus</i> (Pine Siskin)
<i>Lampornis clemenciae</i> (Blue-throated Hummingbird)	<i>Turdus migratorius</i> (Robin)	<i>Spinus psaltria</i> (Lesser Goldfinch)
<i>Colaptes auratus</i> (Common Flicker)	<i>Catharus guttatus</i> (Hermit Thrush)	<i>Loxia curvirostra</i> (Red Crossbill)
<i>Melanerpes formicivorus</i> (Acorn Woodpecker)	<i>Catharus ustulata</i> (Swainson's Thrush)	<i>Chlorura chlorura</i> (Green-tailed Towhee)
<i>Sphyrapicus varius</i> (Yellow-bellied Sapsucker)	<i>Sialia mexicana</i> (Western Bluebird)	<i>Pipilo erythrophthalmus</i> (Rufous-sided Towhee)
<i>Dendrocopos villosus</i> (Hairy Woodpecker)	<i>Myadestes townsendi</i> (Townsend's Solitaire)	<i>Pipilo fuscus</i> (Brown Towhee)
<i>Dendrocopos scalaris</i> (Ladder-backed Woodpecker)	<i>Poliotilta caerulea</i> (Blue-gray Gnatcatcher)	<i>Aimophila ruficeps</i> (Rufous-crowned Sparrow)
<i>Tyrannus verticalis</i> (Western Kingbird)	<i>Regulus calendula</i> (Ruby-crowned Kinglet)	<i>Amphispiza bilineata</i> (Black-throated Sparrow)
<i>Tyrannus vociferans</i> (Cassin's Kingbird)	<i>Anthus spinoletta</i> (Water Pipit)	<i>Junco hyemalis</i> (Dark-eyed Junco)
<i>Myiarchus cinerascens</i> (Ash-throated Flycatcher)	<i>Phainopepla nitens</i> (Phainopepla)	<i>Junco caniceps</i> (Gray-headed Junco)
<i>Sayornis nigricans</i> (Black Phoebe)	<i>Bombycilla cedrorum</i> (Cedar Waxwing)	<i>Spizella passerina</i> (Chipping Sparrow)
<i>Sayornis saya</i> (Say's Phoebe)	<i>Lanius ludovicianus</i> (Loggerhead Shrike)	<i>Spizella atrogularis</i> (Black-chinned Sparrow)
<i>Empidonax oberholseri</i> (Dusky Flycatcher)	<i>Vireo solitarius</i> (Solitary Vireo)	<i>Zonotrichia leucophrys</i> (White-crowned Sparrow)
<i>Empidonax difficilis</i> (Western Flycatcher)	<i>Vireo olivaceus</i> (Red-eyed Vireo)	<i>Zonotrichia albicollis</i> (White-throated Sparrow)
<i>Contopus sordidulus</i> (Western Wood Pewee)	<i>Vireo gilvus</i> (Warbling Vireo)	<i>Melospiza lincolni</i> (Lincoln's Sparrow)
<i>Nuttallornis borealis</i> (Olive-sided Flycatcher)	<i>Vireo vicinior</i> (Gray Vireo)	

Table 3. Mammals of Van Horn Country.

<i>Notiosorex crawfordi</i> (Desert Shrew)	<i>Peromyscus boylii</i> (Brush Mouse)
<i>Myotis velifer</i> (Cave Myotis)	<i>Peromyscus pectoralis</i> (White-ankled Mouse)
<i>Myotis thysanodes</i> (Fringed Myotis)	<i>Peromyscus truei</i> (Pinyon Mouse)
<i>Myotis volans</i> (Long-legged Myotis)	<i>Peromyscus difficilis</i> (Rock Mouse)
<i>Myotis californicus</i> (California Myotis)	<i>Onychomys leucogaster</i> (Northern Grasshopper Mouse)
<i>Myotis leibii</i> (Small-footed Myotis)	<i>Onychomys arenicola</i> ("Southern" Grasshopper Mouse)
<i>Lasionycteris noctivagans</i> (Silver-haired Bat)	<i>Sigmodon hispidus</i> (Hispid Cotton Rat)
<i>Pipistrellus hesperus</i> (Western Pipistrelle)	<i>Neotoma micropus</i> (Southern Plains Wood Rat)
<i>Eptesicus fuscus</i> (Big Brown Bat)	<i>Neotoma albigula</i> (White-throated Wood Rat)
<i>Lasiurus cinereus</i> (Hoary Bat)	<i>Neotoma mexicana</i> (Mexican Wood Rat)
<i>Plecotus townsendi</i> (Townsend's Big-eared Bat)	<i>Microtus mexicanus</i> (Mexican Vole)
<i>Antrozous pallidus</i> (Pallid Bat)	<i>Mus musculus</i> (House Mouse)
<i>Tadarida brasiliensis</i> (Brazilian Free-tailed Bat)	<i>Erethizon dorsatum</i> (Porcupine)
<i>Tadarida macrotis</i> (Big Free-tailed Bat)	<i>Canis latrans</i> (Coyote)
<i>Sylvilagus floridanus</i> (Eastern Cottontail)	<i>Canis lupus</i> (Gray Wolf)
<i>Sylvilagus auduboni</i> (Desert Cottontail)	<i>Vulpes macrotis</i> (Kit Fox)
<i>Lepus californicus</i> (Black-tailed Jack Rabbit)	<i>Urocyon cinereoargenteus</i> (Gray Fox)
<i>Eutamias canipes</i> (Gray-footed Chipmunk)	<i>Ursus americanus</i> (Black Bear)
<i>Ammospermophilus interpres</i> (Texas Antelope Squirrel)	<i>Ursus arctos</i> (Grizzly Bear)
<i>Spermophilus spilosoma</i> (Spotted Ground Squirrel)	<i>Bassariscus astutus</i> (Ringtail)
<i>Spermophilus variegatus</i> (Rock Squirrel)	<i>Procyon lotor</i> (Raccoon)
<i>Cynomys ludovicianus</i> (Black-tailed Prairie Dog)	<i>Mustela frenata</i> (Long-tailed Weasel)
<i>Thomomys bottae</i> (Botta's Pocket Gopher)	<i>Taxidea taxus</i> (Badger)
<i>Pappogeomys castanops</i> (Yellow-faced Pocket Gopher)	<i>Spilogale putorius</i> (Spotted Skunk)
<i>Perognathus flavus</i> (Silky Pocket Mouse)	<i>Mephitis mephitis</i> (Striped Skunk)
<i>Perognathus hispidus</i> (Hispid Pocket Mouse)	<i>Conepatus mesoleucus</i> (Hog-nosed Skunk)
<i>Perognathus intermedius</i> (Rock Pocket Mouse)	<i>Felis concolor</i> (Mountain Lion)
<i>Perognathus penicillatus</i> (Desert Pocket Mouse)	<i>Lynx rufus</i> (Bobcat)
<i>Dipodomys ordi</i> (Ord's Kangaroo Rat)	<i>Cervus elaphus</i> (Elk)
<i>Dipodomys spectabilis</i> (Banner-tailed Kangaroo Rat)	<i>Odocoileus hemionus</i> (Mule Deer)
<i>Dipodomys merriami</i> (Merriam's Kangaroo Rat)	<i>Odocoileus virginianus</i> (White-tailed Deer)
<i>Reithrodontomys megalotis</i> (Western Harvest Mouse)	<i>Antilocapra americana</i> (Pronghorn)
<i>Peromyscus eremicus</i> (Cactus Mouse)	<i>Bison bison</i> (Bison)
<i>Peromyscus maniculatus</i> (Deer Mouse)	<i>Ovis canadensis</i> (Mountain Sheep)
<i>Peromyscus leucopus</i> (White-footed Mouse)	

typical of the Sonoran Desert). These include the Texas antelope squirrel (*Ammospermophilus interpres*), the desert pocket mouse (*Perognathus penicillatus*), the rock pocket mouse (*Perognathus intermedius*), Merriam's kangaroo rat (*Dipodomys merriami*), the cactus mouse (*Peromyscus eremicus*) and a grasshopper mouse (*Onychomys arenicola*). The latter generally has been considered as the species *O. torridus*, but those in our area presumably are of a population recently recognized as a separate species (Hinesley, 1979).

Several unlisted species may occur, including the red bat (*Lasiurus borealis*) and the rare spotted bat (*Euderma maculatum*). The endangered black-footed ferret (*Mustela nigripes*) may once have inhabited the area.

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