

QUATERNARY VERTEBRATES OF NEW MEXICO

ARTHUR H. HARRIS

Laboratory for Environmental Biology, University of Texas at El Paso. El Paso, TX 79968—0519

Abstract—Approximately 346 species of vertebrates are represented in the Quaternary fossil record of New Mexico. These include 4 fishes, 1 salamander, 13 anurans, 5 turtles, 19 lizards, 23 snakes, 119 birds, and 162 mammals. Some 22 taxa are from the vicinity of the Blancan/Irvingtonian transition, 12 most likely are Irvingtonian, and 4 are possibly Illinoian in age. Although many sites are undated with precision, most remaining sites probably are Wisconsinian, with well over 300 taxa.

INTRODUCTION

Although Quaternary vertebrate fossils have long been known from New Mexico, there never has been a comprehensive list for the state. Existence of such a database would greatly simplify research in paleobiology and add depth to studies of modern biogeography and systematics. This paper attempts to establish such a database by bringing together published records for the state and adding unpublished records represented in the collections of the Laboratory for Environmental Biology, University of Texas at El Paso (UTEP), or deposited there by other institutions. Although undoubtedly some published records are

omitted, particularly those from the archaeological literature, this list provides a starting point. Documentation of occurrence necessarily is limited because of the immense number of taxa represented from the state coupled with space limitations for publication. Work in progress eventually should alleviate this situation.

The references include a large proportion of the primary and important secondary literature, but the aim has been to allow entry into the literature rather than to provide an exhaustive bibliography.

Sites (Fig. 1), mostly denoted by an abbreviated name, are given in Appendix I along with: (a) the general time interval represented by

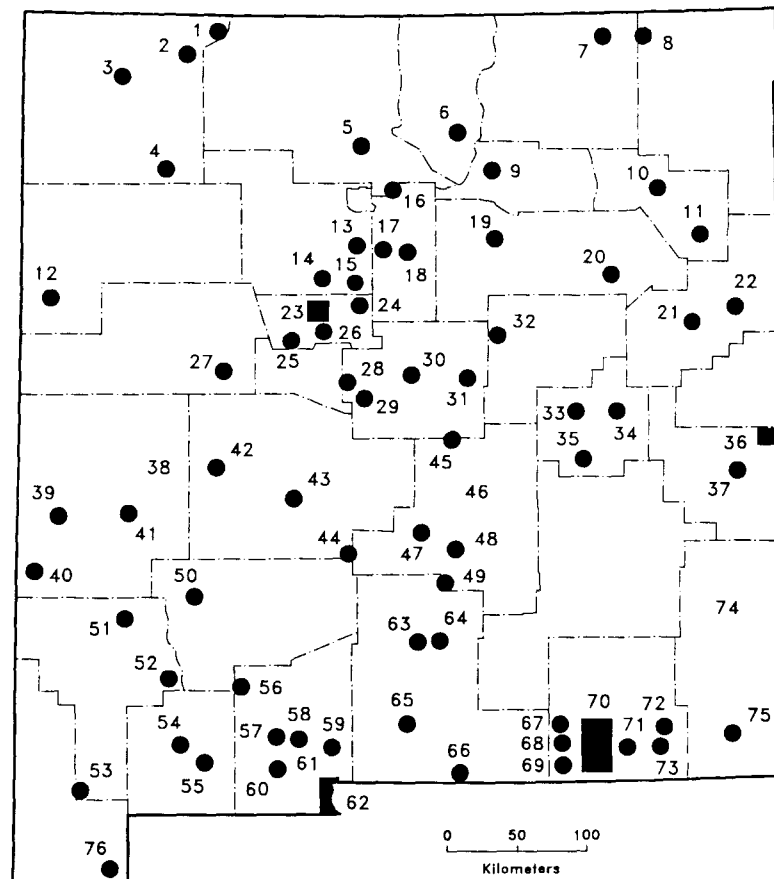


FIGURE 1. Quaternary fossil sites of New Mexico. 1, Oven Site. 2, Bloomfield. 3, NIIP. 4, Atlatl Cave; Chaco Canyon, Sheep Camp Shelter, Una Vida. 5, Abiquiu. 6, Picuris. 7, Raton. 8, Folsom Site. 9, Guadalupita Canyon. 10, Albert. 11, Casados Ranch. 12, Black Rocks. 13, Pena Blanca. 14, Bernalillo. 15, Placitas; Sandia Cave. 16, Santa Cruz; Skull Ridge. 17, New La Bajada Hill. 18, Galisteo. 19, Las Vegas. 20, Rio Conchos. 21, Mesa Redonda. 22, San Jon. 23, Albuquerque; Edith Fm. 24, Tree Springs. 25, Isleta Cave No. 1; Isleta Cave No. 2. 26, Tijeras Arroyo, NMMNH locs. 1452, 1453, 1455. 27, Witch Cave; Whit Cave. 28, Cave in Manzano Mts.; Manzano Cave. 29, Quarai. 30, Estancia Valley; Lucy Site. 31, Encino Blowouts. 32, Milagro. 33, Yeso Arroyo. 34, X-Bar-X Ranch. 35, Dunlap. 36, Anderson Basin No. 1; Anderson Basin No. 2; Blackwater Draw & Loc. No. 1; Brown Sand Wedge; Circus Basin; Gray Sand; Elephant Tusk Basin; McCullum Ranch. 37, Stolle. 38, San Agustin Plains. 39, Tularosa Cave. 40, San Francisco River. 41, Bat Cave. 42, White Lake. 43, San Antonio. 44, Mockingbird Gap. 45, Corona. 46, Lincoln County. 47, Carrizozo. 48, Capitan. 49, Ruidoso. 50, Palomas Creek Cave. 51, Sapillo Creek. 52, Doolittle Cave. 53, Howell's Ridge Cave. 54, Deming. 55, Baldy Peak Cave. 56, Hatch Cemetery. 57, Robledo Cave. 58, Las Cruces; Picacho. 59, Conkling Cavern; Fosberg Cave; Shelter Cave; Wylde Cave. 60, Aden Fumerole, Khulo Site. 61, Mesilla Valley. 62, 3 mi E Anthony; Chamberino; Chamberino to Canutillo; T28S R3E; Vicinity Anapra; Vicinity La Union. 63, Fresnal Canyon. 64, Pumphouse Canyon; Sacramento Mts. 65, Pendejo Cave. 66, Cornudas Mts. 67, Burnet Cave. 68, Hermit's Cave. 69, Omega Cave. 70, Algerita Blossom Cave; Big Manhole Cave; Boyd's Cave; Carlsbad Caverns; Cave NE Dry Cave; Dry Cave sites; Dark Canyon Cave; McKittrick Cave; Muskoxy Cave; New Cave. 71, Black River. 72, Nash Draw. 73, Gatuna Formation. 74, Lea County. 75, San Simon Sink. 76, U-Bar Cave.

each as given in (or interpretable from) the literature, and (b) one or more references giving entry to the literature (or, if unpublished, to the collection holding the specimens). In some cases, where the literature has made only general statements of age, I have chosen a more restricted time frame based on my understanding of climatic and biotic changes during the later Quaternary. For mixed late Wisconsinan–Holocene sites, certain liberties have been taken in assigning taxa to an interval of time. I have assigned all extinct species to the late Wisconsinan because there seems to be no credible evidence of later survival in New Mexico; I also have assigned some extralimital taxa to the late Wisconsinan and some to the Holocene, based on my judgment as to whether such displacements were likely due to Pleistocene conditions or whether conditions suitable for a given taxon may have lingered on into the Holocene. The remainder of such mixed faunas is assigned the general category of late Wisconsinan/Holocene.

For each taxon, presence by chronologic interval is given in Appendix 2, first from sites dated only to relatively long periods of time (e.g., "Pleistocene," "Rancholabrean") and then in chronologic order from earlier to later time spans. The Pleistocene is considered to have ended at 10,000 B.P. Only a few Holocene records of exceptional interest are noted. The order of presentation of taxa within the table follows the scheme used by Banks et al. (1987): taxa are given in taxonomic order down to family (or, where useful, subfamily), while genera, and species within genera, are arranged alphabetically. Taxonomic order is taken from Page and Burr (1991) for fishes, Banks et al. (1987) for extant tetrapod taxa that survive in the United States, and Kurtén and Anderson (1980) for extinct taxa.

I have taken liberties with some published identifications that I find questionable; some specimens have been examined by me and the published identifications deemed unwarranted, while biogeographic considerations make some published identifications untenable. Some such adjustments have been published in earlier works (e.g., Harris, 1985a), while work in progress will document reasons for other such changes.

Throughout, taxonomic names have been upgraded to my judgment of the currently acceptable names. Horses (*Equus*) pose a particular problem; the usage here follows Winans (1989) except that *Equus occidentalis* is recognized in addition to her five groups. Names commonly used in the later literature are subsumed in her groups as follows:

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REFERENCES

- Agenbroad, L. D., 1984, New World mammoth distribution; in Martin, P. S. and Klein, R. G., eds., Quaternary Extinctions: Tucson, University of Arizona Press, p. 90-108.
- Agogino, G. A., 1985, The Stolle mammoth: a probable Clovis kill site: National Geographic Society Research Reports, 1977 Projects, v. 18, p. 89-93.
- Agogino, G. A. and Stephens, D. S., 1972, Tours of archaeological interest in east-central New Mexico: New Mexico Geological Society, Guidebook 23, p. 141-143.
- Allen, J. A., 1913, Ontogenetic and other variations in muskoxen, with a systematic review of the muskox group, Recent and extinct: Memoirs of the American Museum of Natural History, v. 1 (new series), pt. 4, p. 101-226.
- Anderson, E., 1984, Review of the small carnivores of North America during the last 3.5 million years; in Genoways, H. H. and Dawson, M. R., eds., Contributions in Quaternary Vertebrate Paleontology: A Volume In Memorial to John E. Guilday: Carnegie Museum of Natural History, Special Publication, no. 8, p. 257-266.
- Applegarth, J. S., 1979a, Environmental implications of herpetofaunal remains from archeological sites west of Carlsbad, New Mexico; in Genoways, H. H. and Baker, R. J., eds., Biological Investigations in the Guadalupe Mountains National Park: National Park Service Proceedings and Transactions, series 4, p. 159-167.
- Applegarth, J. S., 1979b, Herpetofauna (anurans and lizards) of Eddy County, New Mexico: Quaternary changes and environmental implications [Ph.D. dissertation]: Albuquerque, University of New Mexico, 258 p.
- Bachhuber, F. W., 1989, The occurrence and paleolimnologic significance of cutthroat trout (*Oncorhynchus clarki*) in pluvial lakes of the Estancia Valley, central New Mexico: Geological Society of America, Bulletin, v. 101, p. 1543-1551.
- Baker, J. K., 1963, Fossilization of bat skeletons in the Carlsbad Caverns: National Speleological Society, Bulletin, v. 25, pt. 1, p. 37-44.
- Banks, R. C., McDiarmid, R. W. and Gardner, A. L., 1987, Checklist of vertebrates of the United States, the U.S. territories, and Canada: U.S. Department of the Interior, Fish and Wildlife Service, Resource Publication no. 166, p. 1-179.
- Betancourt, J. L., Martin, P. S. and Van Devender, T. R., 1983, Fossil packrat middens from Chaco Canyon, New Mexico: cultural and ecological significance; in Wells, S. G., Love, D. and Gardner, T. W., eds., Chaco Canyon Country, a Field Guide to the Geomorphology, Quaternary Geology, Paleogeology, and Environmental Geology of Northwestern New Mexico: American Geomorphological Field Group, 1983 Field Trip Guidebook, p. 207-217.
- Brattstrom, B.H., 1961, Some new fossil tortoises from western North America with remarks on the zoogeography and paleoecology of tortoises: Journal of Paleontology, v.35, p. 543-560.
- Brattstrom, B. H., 1964, Amphibians and reptiles from cave deposits in south-central New Mexico: Bulletin of the Southern California Academy of Science, v. 63, p. 93-103.
- Brodtkorb, P., 1964, Catalogue of fossil birds: part 2 (Anseriformes through Galliformes): Bulletin of the Florida State Museum, Biological Sciences, v. 8, p. 195-335.
- Campbell, K. E., Jr. and Tonni, E. P., 1981, Preliminary observations on the paleobiology and evolution of teratorns (Ayes: Teratornithidae): Journal of Vertebrate Paleontology, v. I, p. 265-272.
- Conkling, R.P., 1932, Conkling Cavern: The discoveries in the bone cave at Bishops Cap, New Mexico: West Texas Historical and Science Society, Bulletin, v. 44, p. 39-41.
- Cosgrove, C. B., 1947, Caves of the Upper Gila and Hueco areas in New Mexico and Texas: Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University, v. 24, p. 1-182.
- Crane, H. R. and Griffin, J. B., 1958, University of Michigan radiocarbon dates II: Science, v. 127, p. 1098-1105.
- Davis, L., 1969, Bishop Cap Cave: Transactions of the 5th Regional Archaeological Symposium on Southeastern New Mexico and Western Texas, El Llano Archaeological Society, p. 35-43.
- Disbrow, A. E. and Stoll, W. C., 1957, Geology of the Cerrillos area, Santa Fe County, New Mexico: New Mexico Bureau of Mines & Mineral Resources, Bulletin 48, 73 p.
- Emslie, S. D., 1985, The Late Pleistocene (Rancholabrean) avifauna of Little Box Elder Cave, Wyoming: Contributions to Geology, University of Wyoming, v. 23, p. 63-82.
- Emslie, S. D., 1987, Age and diet of fossil California condors in Grand Canyon, Arizona: Science, v. 237, p. 768-770.
- Findley, J. S., 1965, Shrews from Hermit Cave, Guadalupe Mountains, New Mexico: Journal of Mammalogy, v. 46, p. 206-210.
- Frick, C., 1937, Horned ruminants of North America: American Museum of Natural History, Bulletin, v. 69, p. 1-593.
- Galusha, T. and Blick, J. C., 1971, Stratigraphy of the Santa Fe Group, New Mexico: American Museum of Natural History, Bulletin, v. 144, p. 1-128.
- Gillespie, W. B., 1981, Ecological implications of faunal remains from archaeological sites in Chaco Canyon, New Mexico: Paper for presentation at the 46th annual meeting of the Society of American Archaeology, 24 typescript pages.
- Gillespie, W. B., 1982, Vertebrate remains, macrobotanical remains, pottery and unfired clay from the 1981 test excavation, 29 SJ 178, northwestern New Mexico: Report to Chaco Center, National Park Service, 26 typescript pages.
- Gillespie, W. B., 1984, Late Quaternary small vertebrates from Chaco Canyon, northwest New Mexico: New Mexico Geology, v. 6, p. 16.
- Gillette, D. D., Gillette, J. L. and Murphy, J., 1985a, The Tucumcari mammoths excavated by the Denver Museum of Natural History in 1930: New Mexico Geological Society, Guidebook 36, p. 14-17.
- Gillette, D. D., Haynes, C. V., Saunders, J. J. and Stanford, D., 1985b, Preliminary report on the occurrence of *Mammuthus* sp. in Mora County, New Mexico: New Mexico Geological Society, Guidebook 36, p. 48-50.

- Hall, E. R., 1936, Mustelid mammals from the Pleistocene of North America: Carnegie Institution of Washington, Publication 473, p. 41—119.
- Hargrave, L. L. and Emslie, S. D., 1980, Passenger pigeon bones from archaeological sites in New Mexico: Contributions to Science, Natural History Museum of Los Angeles County, no. 330, p. 257-260.
- Harris, A. H., 1970, The Dry Cave mammalian fauna and late pluvial conditions in southeastern New Mexico: Texas Journal of Science, v. 22, p. 3—27.
- Harris, A.H., 1977, Wisconsin age environments in the northern Chihuahuan Desert: evidence from the higher vertebrates; in Wauer, R. H. and Riskind, D. H., eds., Transactions of the Symposium on the Biological Resources of the Chihuahuan Desert Region, United States and Mexico: National Park Service Transactions and Proceedings, series 3, p. 23-52.
- Harris, A. H., 1980, The paleoecology of Dry Cave, New Mexico: National Geographic Society Research Reports, v. 12, p. 331-338.
- Harris, A. H., 1984a, *Neotoma* in the late Pleistocene of New Mexico and Chihuahua; in Genoways, H. H. and Dawson, M. R., eds., Contributions in Quaternary Vertebrate Paleontology: A Volume in Memorial to John E. Guillarday: Carnegie Museum Natural History, Special Publication, no. 8, p. 164—178.
- Harris, A. H., 1984b, Two new species of late Pleistocene woodrats (Cricetidae: *Neotoma*) from New Mexico: Journal of Mammalogy, v. 65, p. 560—566.
- Harris, A. H., 1985a, Late Pleistocene vertebrate paleoecology of the West: Austin, University of Texas Press, 293 p.
- Harris, A. H., 1985b, Preliminary report on the vertebrate fauna of U-Bar Cave, Hidalgo County, New Mexico: New Mexico Geology, v. 7, p. 74—77, 84.
- Harris, A. H., 1987, Reconstruction of Mid-Wisconsin environments in southern New Mexico: National Geographic Research, v.3, p. 142-151.
- Harris, A. H., 1988, Late Pleistocene and Holocene *Microtus* (*Pitymys*) (Rodentia: Cricetidae) in New Mexico: Journal of Vertebrate Paleontology, v. 8, p. 307-313.
- Harris, A. H., 1989, The New Mexican late Wisconsin—east versus west: National Geographic Research, v. 5, p. 205—217.
- Harris, A. H., 1990a, Fossil evidence bearing on southwestern mammalian biogeography: Journal of Mammalogy, v. 71, p. 219—229.
- Harris, A. H., 1990b, Taxonomic status of the Pleistocene ringtail *Bassariscus sonoiensis* (Carnivora): Southwestern Naturalist, v. 35, p. 343—346.
- Harris, A. H., 1991, Preliminary report on the fauna of Pendejo Cave, Otero County, New Mexico: Current Research in the Pleistocene, v. 8, p. 92—93.
- Harris, A. H. and Carraway, L. N., 1993, *Sorex preblei* from the late Pleistocene of New Mexico: Southwestern Naturalist, v. 38, p. 56-58.
- Harris, A. H. and Crews, C. R., 1983, Conkling's roadrunner—a subspecies of the California roadrunner?: Southwestern Naturalist, v. 28, p. 407-412.
- Harris, A. H. and Findley, J. S., 1964, Pleistocene—Recent fauna of the Isleta Caves, Bernalillo County, New Mexico: American Journal of Science, v. 262, p. 114-120.
- Harris, A. H. and Mundel, P., 1974, Size reduction in bighorn sheep (*Ovis canadensis*) at the close of the Pleistocene: Journal of Mammalogy, v. 55, p. 678-680.
- Harris, A. H. and Porter, L. S. W., 1980, Late Pleistocene horses of Dry Cave, Eddy County, New Mexico: Journal of Mammalogy, v. 61, p. 46—65.
- Harris, A. H., Smartt, R. A. and Smartt, W. R., 1973, *Cryptotis parva* from the Pleistocene of New Mexico: Journal of Mammalogy, v. 54, p. 512—513.
- Hay, O. P., 1924, The Pleistocene of the middle region of North America and its vertebrated animals: Carnegie Institution of Washington, Publication 322a, 385 p.
- Hay, O. P., 1927, The Pleistocene of the western region of North America and its vertebrated animals: Carnegie Institution of Washington, Publication 322b, 346 p.
- Hay, O. P. and Cook, H. J., 1930, Fossil vertebrates collected near, or in association with, human artifacts at localities near Colorado, Texas, Frederick, Oklahoma, and Folsom, New Mexico: Proceedings of the Colorado Museum of Natural History, v. 9, p. 1-40.
- Haynes, C. V., Jr. and Agogino, G. A., 1966, Prehistoric springs and geochronology of the Clovis site, New Mexico: American Antiquity, v. 31, p. 812-821.
- Hester, J. J., 1960, Late Pleistocene extinction and radiocarbon dating: American Antiquity, y. 26, p. 58—77.
- Hester, J. J., 1967, The agency of man in animal extinctions; in Martin, P. S. and Wright, H. E., Jr., eds., Pleistocene Extinctions, the Search for a Cause: New Haven, Yale University Press, p. 169—192.
- Hester, J. J., 1972, Blackwater Locality No. 1. A stratified early man site in eastern New Mexico: Fort Burgwin Research. Center Publication no. 8, p. 1-239.
- Hibben, F. C., 1941, Evidences of early occupation in Sandia Cave, New Mexico, and other sites in the Sandia—Manzano region: Smithsonian Miscellaneous Collections, v. 99, no. 23, p. 1—64.
- Hill, C. A. and Gillette, D. D., 1985, Bones of the Pleistocene ground sloth *Nothrotheriops* in Carlsbad Cavern, New Mexico: Annual Report, Cave Research Foundation, p. 27.
- Hill, C. A. and Gillette, D. D., 1987, A uranium series date for the Shasta ground sloth, *Nothrotheriops shastensis*, from Carlsbad Cavern, New Mexico: Journal of Mammalogy, v. 68, p. 718-719.
- Holman, J. A., 1970, A Pleistocene herpetofauna from Eddy County, New Mexico: Texas Journal of Science, v. 22, p. 29—39.
- Howard, H., 1931a, A new species of road-runner from Quaternary cave deposits in New Mexico: Condor, v. 33, p. 206-209.
- Howard, H., 1931b, *Cryptoglaux funerea* in New Mexico: Condor, v. 33, p. 216.
- Howard, H., 1962, Bird remains from a prehistoric cave deposit in Grant County, New Mexico: Condor, v. 64, p. 241—242.
- Howard, H., 1964, A new species of the "pigmy goose," *Anabemicula*, from the Oregon Pleistocene, with a discussion of the genus: American Museum Novitates, no. 2200, p. 1-14.
- Howard, H., 1968, Limb measurements of the extinct vulture, *Coragyps occidentalis*; in Schroeder, A. H., ed., Collected Papers in Honor of Lyndon Lane Hargrave: Papers of the Archaeological Society of New Mexico 1, p. 115—128.
- Howard, H., 1971, Quaternary avian remains from Dark Canyon Cave, New Mexico: Condor, v. 73, p. 237—240.
- Howard, H. and Miller, A. H., 1933, Bird remains from cave deposits in New Mexico: Condor, v. 35, p. 15-18.
- Howell, A.H., 1915, Revision of the American marmots: North American Fauna, no. 37, p. 1—80.
- Johnson, E., 1986, Late Pleistocene and early Holocene vertebrates and paleoenvironments on the Southern High Plains, U.S.A.: Geographie physique et Quaternaire, v. 40, no. 3, p. 249—261.
- Kelley, V. C. and Northrop, S. A., 1975, Geology of Sandia Mountains and vicinity, New Mexico: New Mexico Bureau of Mines & Mineral Resources, Memoir 29, 136 p.
- Kues, B. S., 1982, Fossils of New Mexico: Albuquerque, University of New Mexico Press, 226 p.
- Kues, B. S. and Northrop, S. A., 1981, Bibliography of New Mexico paleontology: Albuquerque, University of New Mexico Press, 150 p.
- Kurten, B., 1975, A new Pleistocene genus of American mountain deer: Journal of Mammalogy, v. 56, p. 507—508.
- Kurten, B. and E. Anderson, 1980, Pleistocene mammals of North America: New York, Columbia University Press, 442 p.
- Lambert, M. F. and Ambler, J. R., 1961, A survey and excavation of caves in Hidalgo County, New Mexico: School of American Research, Monograph, v. 25, p. 1-107.
- Lambert, P. W., 1968, Quaternary stratigraphy of the Albuquerque area, New Mexico [Ph.D. dissertation]: Albuquerque, University of New Mexico, 329 p.
- Lambert, P. W., 1970, Quaternary stratigraphy of the Albuquerque area, New Mexico: New Mexico Geological Society, Guidebook 21, p. 160.
- Lawrence, B., 1960, Fossil *Tadarida* from New Mexico: Journal of Mammalogy, v. 41, p. 320—322.
- Logan, L. E., 1981, The mammalian fossils of Muskoxx Cave, Eddy County, New Mexico; in Beck, B. F., ed., Proceedings of the Eighth International Congress of Speleology, v. I, p. 159-160.
- Logan, T. R., 1984, Early Irvingtonian (early Pleistocene) mammals from the upper part of the Santa Fe Group, Albuquerque—Belen basin, central New Mexico: Geological Society of America, Abstracts with Programs, v. 16, p. 245.
- Logan, T. R., Lucas, S. G. and Sobus, J. C., 1984, Blancan—Irrvingtonian boundary in the Ceja Member of the Santa Fe Formation, Tijeras Arroyo, Albuquerque area, New Mexico: New Mexico Geology, v. 6, p. 14.
- Lucas, S. G., 1988, The "Deming dinosaur" was a mammoth: New Mexico Geological Society, Guidebook 39, p. 12—13.
- Lucas, S. G. and Effinger, J. A., 1991, *Mammuthus* from Lincoln County and a review of the mammoths from the Pleistocene of New Mexico: New Mexico Geological Society, Guidebook 42, p. 277—282.
- Lucas, S. G. and Logan, T. R., 1984, Pleistocene horse from the Albuquerque area, New Mexico: New Mexico Journal of Science, v. 24, p. 29—32.
- Lucas, S. G., Williamson, T. E. and Sobus, J. C., 1988, Late Pleistocene (Rancholabrean) mammals from the Edith Formation, Albuquerque, New Mexico: New Mexico Journal of Science, v. 28, p. 51—58.
- Lull, R. S., 1929, A remarkable ground sloth: Memoir of the Peabody Museum of Yale University, v. 3, pt. 2, p. i-x + 1-39.
- Lundelius, E. L., Jr., 1972, Vertebrate remains from the gray sand; in Hester,

- J. J., ed., Blackwater Locality No. I. A Stratified Early Man Site in Eastern New Mexico: Fort Burgwin Research Center, Publication no. 8, p. 1-238.
- Lyman, R. L., 1983, Prehistoric extralimital records for *Pappogeomys castanops* (Geomyidae), in northwestern New Mexico: Journal of Mammalogy, v. 64, p. 502-505.
- Magish, D. P. and Harris, A. H., 1976, Fossil ravens from the Pleistocene of Dry Cave, Eddy County, New Mexico: Condor, v. 78, p. 399-404.
- Martin, P. S. and Guilday, J. E., 1967, A bestiary for Pleistocene biologists; in Martin, P. S. and Wright, H. E., Jr., eds., Pleistocene Extinctions, the Search for a Cause: New Haven, Yale University Press, p. 1-62.
- McDonald, J. N., 1981, North American bison, their classification and evolution: Berkeley, University of California Press, 316 p.
- McDonald, J. N. and Ray, C. E., 1989, The autochthonous North American musk oxen *Bootherium*, *Symbos*, and *Gidleya* (Mammalia: Artiodactyla: Bovidae): Smithsonian Contributions to Paleobiology, no. 66, 77 p.
- McMullen, T. L. and Zakrzewski, R. J., 1972, A new Late Pleistocene fauna from northeastern New Mexico: New Mexico Geological Society, Guidebook 23, p. 134-136.
- Miller, A. H., 1932, An extinct icterid from Shelter Cave, New Mexico Auk, v. 49, p. 38-41.
- Miller, R. R., 1982, First fossil record (Plio-Pleistocene) of threadfin shad, *Dorosoma petenense*, from the Gatuna Formation of southeastern New Mexico: Journal of Paleontology, v. 56, p. 423-425.
- Moodie, K. B. and Van Devender, T. R., 1979, Extinction and extirpation in the herpetofauna of the Southern High Plains with emphasis on *Geochelone wilsoni* (Testudinidae): Herpetologica, v. 35, p. 198-206.
- Murray, K. F., 1957, Pleistocene climate and the fauna of Burnet Cave, New Mexico: Ecology, v. 38, p. 129-132.
- Needham, C. E., 1936, Vertebrate remains from Cenozoic rocks: Science, v. 84, p. 537.
- Nowak, R. M., 1979, North American Quaternary *Canis*: Monograph of the Museum of Natural History. University of Kansas, no. 9, p. 1-154.
- O'Neill, F. M., 1992, Paleo-Indians in the San Juan Basin: A paleontological perspective: New Mexico Geological Society, Guidebook 43, p. 333-339.
- O'Neill, F. M. and Rigby, J. K., 1982, A rare fossil skeleton of *Camelops* from Pleistocene deposits near Albuquerque: New Mexico Geological Society, Guidebook 33, p. 82-84.
- Page, L. M. and B. M. Burr, 1991, A field guide to freshwater fishes: Boston, Houghton Mifflin Co., 432 p.
- Ratkevich, R. P. and Pope, W. T. S., 1975, Ice age animals of the Rio Grande Valley: Albuquerque, Natural Sales Ltd., 24 p.
- Ray, C. E., Linares, O. J. and Morgan, G. S., 1988, Paleontology; in Greenhall, A. M. and Schmidt, U., eds., Natural History of Vampire Bats: Boca Raton, CRC Press, p. 19-30.
- Rea, A. M., 1973, The scaled quail (*Callipepla squamata*) of the Southwest: systematic and historical consideration: Condor, v. 75, p. 322-329.
- Rea, A. M., 1980, Late Pleistocene and Holocene turkeys in the Southwest: Contributions in Science, Natural History Museum of Los Angeles County, no. 330, p. 209-224.
- Rickart, E. A., 1977, Pleistocene lizards from Burnet and Dark Canyon caves, Guadalupe Mountains, New Mexico: Southwestern Naturalist, v. 21, p. 519-522.
- Riley, R., 1984, Stratigraphic facies analysis of the upper Santa Fe Group, Fort Hancock and Camp Rice formations, Far West Texas and south-central New Mexico [M.S. thesis]: El Paso, University of Texas at El Paso, 109 p.
- Roberts, F. H. H., 1942, Archaeological and geological investigations in the San Jon district, eastern New Mexico: Smithsonian Miscellaneous Collections, v. 103, 30 p.
- Russell, B. D. and Harris, A. H., 1986, A new leporine (Lagomorpha: Leporidae) from Wisconsinan deposits of the Chihuahuan Desert: Journal of Mammalogy, v. 67, p. 632-639.
- Russell, R. J., 1968, Evolution and classification of the pocket gophers of the subfamily Geomyinae: University of Kansas Publications, Museum of Natural History, v. 16, p. 473-579.
- Scarborough, L. L. M., 1986, Zooarchaeological investigation of climatic change at Bat Cave, San Agustin Plains, Catron County, New Mexico [M.S. thesis]: El Paso, University of Texas at El Paso, 149 p.
- Schultz, C. B. and Howard, E. B., 1935, The fauna of Burnet Cave, Guadalupe Mountains, New Mexico: Proceedings of the Academy of Natural Sciences of Philadelphia, v. 87, p. 273-298.
- Simmons, A. H., Betancourt, J. L., Donaldson, M. L., Fredlund, G., Gillespie, W. B. and Weston, T., 1984, Archaic prehistory and paleoenvironments in the San Juan Basin, New Mexico: the Chaco shelters project: University of Kansas Museum of Anthropology, Project Report Series no. 53, 250 p.
- Simpson, G. G., 1963, A new record of *Euceratherium* or *Preptoceras* (extinct Bovidae) in New Mexico: Journal of Mammalogy, v. 44, p. 583-584.
- Slaughter, B. H., 1975, Ecological interpretation of the Brown Sand Wedge local fauna; in Wendorf, F. and Hester J. J., eds., Late Pleistocene Environments of the Southern High Plains: Fort Burgwin Research Center, Publication no. 9, p. 179-192.
- Smartt, R. A., 1977, The ecology of Late Pleistocene and Recent *Microtus* from south-central and southwestern New Mexico: Southwestern Naturalist, v. 22, p. 1-19.
- Smartt, R. A. and Hafner, D. J., 1989, Preliminary report on a late Pleistocene microfauna from Whut Cave, Cibola County, New Mexico: New Mexico Geological Society, Guidebook 40, p. 281-285.
- Smartt, R. A., Hafner, D. J. and Lucas, S. G., 1990, A bighorn sheep, *Ovis canadensis*, from the late Pleistocene of Mesa del Oro, Cibola County, New Mexico: Texas Journal of Science, v. 42, p. 107-109.
- Smartt, R. A., Lucas, S. G. and Hafner, D. J., 1991, The giant bison (*Bison latifrons*) from the Middle Rio Grande Valley of New Mexico: Southwestern Naturalist, v. 36, p. 136-137.
- Steadman, D. W., 1980, A review of the osteology and paleontology of turkeys (Aves: Meleagridinae): Contributions in Science, Natural History Museum of Los Angeles County, no. 330, p. 131-207.
- Stearns, C. E., 1942, A fossil marmot from New Mexico and its climatic significance: American Journal of Science, v. 240, p. 867-878.
- Stock, C., 1930, Quaternary antelope remains from a second cave deposit in the Organ Mountains, New Mexico: Los Angeles Museum, Science series no. 2, Paleontology no. 2, p. 1-18.
- Stock, C., 1932, A further study of the Quaternary antelopes of Shelter Cave, New Mexico: Los Angeles Museum, Science series no. 3, Paleontology no. 3, p. 1-45.
- Stock, C. and Bode, F. D., 1936, The occurrence of flints and extinct animals in pluvial deposits near Clovis, New Mexico. Part III. Geology and vertebrate paleontology of the late Quaternary near Clovis, New Mexico: Proceedings of the Academy of Natural Sciences of Philadelphia, v. 88, p. 219-241.
- Stovall, J. W., 1946, A Pleistocene *Ovis canadensis* from New Mexico: Journal of Paleontology, v. 20, p. 259-260.
- Tedford, R. H., 1981, Mammalian biochronology of the late Cenozoic basins of New Mexico: Geological Society of America, Bulletin, pt. I, v. 92, p. 1008-1022.
- Thompson, R. S., Van Devender, T. R., Martin, P. S., Foppe, T. and Long, A., 1980, Shasta ground sloth (*Nothrotheriops shastense* Hoffstetter) at Shelter Cave, New Mexico: Environment, diet, and extinction: Quaternary Research, v. 14, p. 360-376.
- Van Devender, T. R. and Worthington, R. D., 1977, The herpetofauna of Howell's Ridge Cave and the paleoecology of the northwestern Chihuahuan Desert; in Wauer, R. H. and Riskind, D. H., eds., Transactions of the Symposium on the Biological Resources of the Chihuahuan Desert Region, United States and Mexico: National Park Service Transactions and Proceedings, series 3, p. 85-106.
- Van Devender, T. R., Moodie, K. B. and Harris, A. H., 1976, The desert tortoise (*Gopherus agassizi*) in the Pleistocene of the northern Chihuahuan Desert: Herpetologica, v. 32, p. 298-304.
- Vanderhill, J. B., 1986, Lithostratigraphy, vertebrate paleontology, and magnetostratigraphy of Plio-Pleistocene sediments in the Mesilla Basin, New Mexico [Ph.D. dissertation]: Austin, University of Texas at Austin, 305 p.
- Wendorf, F. and Hester, J. J., eds., 1975, Late Pleistocene environments of the Southern High Plains: Fort Burgwin Research Center, Publication no. 9, p. 1-290.
- Wetmore, A., 1931, The California condor in New Mexico: Condor, v. 33, p. 76-77.
- Wetmore, A., 1932, Additional records of birds from cavern deposits in New Mexico: Condor, v. 34, p. 141-142.
- Wiley, E. O., 1972, The Pleistocene herpetofauna of Dark Canyon Cave, New Mexico: Herpetological Review, v. 4, p. 128.
- Winans, M. C., 1989, A quantitative study of North American fossil species of the genus *Equus*; in Prothero, D. R. and Schoch, R. M., eds., The Evolution of the Perissodactyls: New York, Oxford University Press, p. 262-297.
- Wolberg, D. L., 1980, Pleistocene horse skull discovered: New Mexico Geology, v. 2, p. 29.

APPENDIX 1—SITES

New Mexico Quaternary sites. Literature citations are not meant to be complete but merely to allow entry into the literature; further entries are available in Harris 1977 and 1985, which address most of the sites listed. "UTEP" indicates holding of the Laboratory for Environmental Biology. The numbers in parentheses following the localities correspond to the site numbers in Figure 1.

Locality	Age	References	Locality	Age	References
Anthony, 3 mi E (62)	Blancan/Irvingtonian	UTEP; Vanderhill 1986	Carlsbad Cavern (70)	Late Pleistocene	Baker 1963; Hill & Gillette 1985, 1987
Abiquiu (5)	Pleistocene	Simpson 1963	Carrizozo UTEP 187 (47)	Rancholabrean	UTEP
Aden Fumarole (60)	Wisconsinan/ Holocene	Lull 1929; UTEP	Casados Ranch (I I)	Cf. Illinoian	McMullen & Zakrzewski 1972
Albert (10)	Pleistocene	Hay 1924; Lucas & Effinger 1991	Cave in Manzano Mts. (28)	Pleistocene	Howell 1915
Albuquerque (23)	Pleistocene	Brodkorb 1964	Cave NE Dry Cave UTEP 186 (70)	Wisconsinan	UTEP
Algerita Blossom Cave UTEP 119 (70)	Late Wisconsinan	UTEP	Chamberino UTEP 106 (62)	Blancan/Irvingtonian	Vanderhill 1986; UTEP
Anderson Basin No. 1 (36)	Late Wisconsinan	Stock & Bode 1936	Chamberino to Canutillo (62)	Blancan/Irvingtonian	Frick 1937; Teford 1981; Vanderhill 1986
Anderson Basin No. 2 (36)	Late Wisconsinan	Stock & Bode 1936; Wendorf & Hester 1975	Chaco Canyon (4)	Middle Holocene	Lyman 1983
Animal Fair and Animal Fair 18—20 ka, Dry Cave UTEP 22 (70)	Mid/Late Wisconsinan	Campbell & Tonni 1981; Harris 1989	Charlies Parlor, Dry Cave UTEP 22 (70)	Late Wisconsinan	Harris & Mundel 1974; UTEP
Atlal Cave (4)	Late Wisconsinan	Gillespie 1981, 1982, 1984	Circus Basin (36)	Late Wisconsinan	Stock & Bode 1936
Balcony on Lost Valley, Dry Cave UTEP 2 (70)	Early/Mid Wisconsinan	Harris 1980; UTEP	Circus Route UTEP 123 (70)	Late Wisconsinan	UTEP
Balcony Room, Dry Cave UTEP 12 (70)	Late Wisconsinan/ Holocene	Applegarth 19798; Harris 1970; Holman 1970; UTEP	Clovis area (36)	Late Wisconsinan	McDonald 1981
Baldy Peak Cave UTEP 94 (55)	Late Wisconsinan	Harris 1984a; UTEP	Conkling Cavern (59)	Late Wisconsinan	Brattstrom 1961, 1964; Conkling 1932; Davis 1969; Howard 1968, 1971; Howard & Miller 1933; Smartt 1977; UTEP
Bat Cave (41)	Late Wisconsinan/ Holocene	Scarborough 1986	Cornudas Mts. (66)	Pleistocene	UTEP
Bernalillo, N of (14)	Late Wisconsinan	Smartt et al. 1991	Corona (45)	Pleistocene	Hay 1927; Lucas & Effinger 1991
Beyond Bison Chamber, Dry Cave UTEP 3 (70)	Late Wisconsinan/ Holocene	Harris 1970; Holman 1970	Cueva Las Cruces (58)	Pleistocene	Kurten 1975
Big Manhole Cave UTEP 120 (70)	Wisconsinan	UTEP 120 (70)	Dark Canyon Cave (70)	Mid/Late Wisconsinan	Applegarth 1979a, b; Emslie 1985, 1987; Hargrave & Emslie 1980; Harris & Crews 1983; Harris & Porter 1980; Howard 1971; Rea 1973, 1980; Rickart 1977; Wiley 1972; UTEP
Big Manhole Cave UTEP 120 (70)	Late Wisconsinan	UTEP	Deming (54)	Pleistocene	Hay 1924; Lucas 1988; Lucas & Effinger 1991
Bison Chamber, Dry Cave UTEP 4 (70)	Late Wisconsinan	Applegarth 1979b; Harris 1970, 1984a; Harris et al. 1973; Holman 1970; UTEP	Doolittle Cave (52)	Pleistocene/Holocene	Cosgrove 1947
Black River (71)	Late Wisconsinan/ Holocene	UTEP	Dunlap (35)	Early/Mid Wisconsinan	Hay 1927; Lucas & Effinger 1991
Black Rocks (12)	Pleistocene	Allen 1913; Hay 1924; Lucas & Effinger 1991; McDonald & Ray 1989	Edith Fm., Albuquerque area (23)	Wisconsinan	Kelley & Northrup 1975; Kues 1982; Lambert 1968; Lucas & Effinger 1991; Lucas & Logan 1984; Lucas et al. 1988; O'Neill & Rigby 1982; Ratkevich & Pope 1975
Blackwater Draw & Loc. No. I (36)	Late Wisconsinan	Hester 1967; Johnson 1986; Stock & Bode 1936	Elephant Tusk Basin (36)	Late Wisconsinan	Stock & Bode 1936
Bloomfield (2)	Wisconsinan	Lucas & Effinger 1991; Stovall 1946	Encino Blowouts (31)	Pleistocene	Agogino & Stevens 1972
Boyd's Cave UTEP 105 (70)	Late Wisconsinan/ Holocene	UTEP	Entrance Chamber, Dry Cave UTEP 24 (70)	Holocene	Harris 1984a; UTEP
Brown Sand Wedge (36)	Late Wisconsinan	Slaughter 1975	Estancia Valley (30)	Late Wisconsinan	Bachhuber 1989
Burnet Cave (67)	Late Wisconsinan/ Holocene	Emslie 1987; Harris unpubl; Murray 1957; Rea 1980, Rickart 1977; Russell 1968; Schultz & Howard 1935; Steadman 1980; Wetmore 1931, 1932	Folsom Site (8)	Late Wisconsinan	Hay & Cook 1930; McDonald 1981
Camel Room, Dry Cave UTEP 25 (70)	Late Wisconsinan	Harris & Porter 1980; UTEP	Fosberg Cave (59)	Wisconsinan/ Holocene	Brattstrom 1964
Capitan (48)	Pleistocene	Hay 1924; Lucas & Effinger 1991	Fresnal Canyon UTEP 175 (63)	Illinoian ?	UTEP
			Galisteo, 1 mi SW (18)	Irvingtonian ?	Disbrow & Stoll 1957
			Gatuna Formation (73)	Blancan/Irvingtonian	Miller 1982
			Gray Sand (Blackwater Draw No. 1) (36)	Late Wisconsinan	Harris & Porter 1980; Lundelius 1972

Locality	Age	References	Locality	Age	References
Guadalupita Canyon (9)	Late Pleistocene	Gillette et al. 1985b; Lucas & Effinger 1991	Oven Site (1)	Late Wisconsinan	O'Neill 1992; Simmons et al. 1984
Hampton Court, Dry Cave UTEP 22 (70)	Mid/Late Wisconsinan	UTEP	Palomas Creek Cave UTEP 82 (50)	Rancholabrean	Harris 1985a
Harris' Pocket, Dry Cave UTEP 6 (70)	Late Wisconsinan	Applegarth 1979b; Harris 1970, 1984a; Harris & Porter 1980; Holman 1970; UTEP	Pena Blanca (13)	Pleistocene	Hay 1924; Lucas & Effinger 1991
Hatch Cemetery (56)	Quaternary	UTEP	Pendejo Cave (65)	Mid & Late Wisconsinan, Holocene	Harris 1991; UTEP
Hermit's Cave (68)	Late Wisconsinan	Agenbroad 1984; Findley 1965; Harris & Carraway 1993; Hester 1960, 1972; Lucas & Effinger 1991	Picacho (58)	Pleistocene	UTEP
Howell's Ridge Cave (53)	Late Wisconsinan/Holocene	Emslie 1987; Harris et al. 1973; Howard 1962, 1964, 1968; Rea 1980; Smartt 1977; Steadman 1980; Van Devender & Worthington 1977; UTEP	Picuris Pueblo (6)	Wisconsinan	Hargrave & Emslie 1980; UTEP
Human Corridor, Dry Cave UTEP 31 (71)	Late Wisconsinan	Harris & Porter 1980; UTEP	Pit N&W Animal Fair, Dry Cave UTEP 122 (70)	Mid/Late Wisconsinan	Harris 1984a, 1985a, 1988; UTEP
Isleta Cave No. 1 UTEP 41 (25)	Late Wisconsinan/Holocene	Harris 1984a; Harris & Findley 1964; Hibben 1941; UTEP	Placitas (15)	Rancholabrean	Hay 1924; Lucas & Effinger 1991; UTEP
Isleta Cave No. 2 UTEP 46 (25)	Late Wisconsinan/Holocene	Harris 1984a, Harris & Findley 1964; UTEP	Pumphouse Canyon UTEP 178 (64)	Quaternary	UTEP
Kentucky Club Room, Dry Cave UTEP 177 (70)	Wisconsinan	UTEP	Quarai (29)	Pleistocene	Hibben 1941; Lucas & Effinger 1991
Khulo Site UTEP 21 (60)	Holocene	Harris 1984a; Harris & Crews 1983; Smartt 1977	Raton (7)	Rancholabrean	McDonald 1981
Las Cruces (58)	Irvingtonian	Kurten & Anderson 1980; Lucas & Effinger 1991; Tedford 1981; Vanderhill 1986	Rick's Cenote UTEP 28 (70)	Late Wisconsinan	Harris 1984a; UTEP
Las Vegas (19)	Pleistocene	Hay 1924; Lucas & Effinger 1991	Rio Conchos (20)	Pleistocene	Hay 1924; Lucas & Effinger 1991
Lincoln County (46)	Pleistocene		Rm Vanishing Floor, Dry Cave UTEP 26, 27 (70)	Early/Mid Wisconsinan	Harris 1980, 1984a, 1984b; Harris & Crews 1983; Magish & Harris 1976; Russell & Harris 1986; Van Devender et al. 1976; UTEP
Lost Valley, Dry Cave UTEP 1, 17 (70)	Early/Mid Wisconsinan	Harris 1980, 1984b; Magish & Harris 1976; UTEP	Robledo Cave (57)	Late Wisconsinan/Holocene	Harris 1985a; Van Devender et al. 1976
Lucy Site (30)	Late Wisconsinan	Agenbroad 1984; Crane & Griffin 1958; Lucas & Effinger 1991	Ruidoso UTEP 176 (49)	Rancholabrean	UTEP
Manzano Cave (28)	Pleistocene	Hibben 1941	Sabertooth Camel Maze, Dry Cave UTEP 5 (70)	Early/Mid Wisconsinan	Harris 1980; Moodie & Van Devender 1979; Rea 1980; Russell & Harris 1986; Van Devender et al. 1976
Maze NE Entrance Dry Cave UTEP 117 (70)	Wisconsinan	UTEP	Sacramento Mts. (64)	Pleistocene	Hay 1924; Lucas & Effinger 1991
McCullum Ranch (36)	Late Wisconsinan	Haynes & Agogino 1966	San Agustin Plains (38)	Wisconsinan	Hay 1924; Lucas & Effinger 1991
McKittrick Cave (70)	Wisconsinan/Holocene	UTEP	San Antonio Site (43)	Blancan/Pleistocene	Needham 1936; Rea 1980; Tedford 1981
Mesa Redonda (21)	Mid/Late Rancholabrean	Gillette et al. 1985a	San Francisco River (40)	Irvingtonian	Tedford 1981
Mesilla Basin (61)	Blancan/Irvingtonian	Vanderhill 1986	San Jon (22)	Late Wisconsinan	Lucas & Effinger 1991; Roberts 1942
Milagro (33)	Pleistocene	Lucas & Effinger 1991	San Simon Sink (75)	Wisconsinan	Harris 1985a
Mockingbird Gap (44)	Late Wisconsinan	Lucas & Effinger 1991	Sandia Cave, Folsom Level (15)	Late Wisconsinan	Hibben 1941; Lucas & Effinger 1991
Muskox Cave (70)	Late Wisconsinan	Logan 1981	Sandia Cave, Sandia Level (15)	Late Wisconsinan	Hibben 1941; Lucas & Effinger 1991
Nash Draw UTEP 112 (72)	Quaternary	UTEP	Santa Cruz (16)	Pleistocene	Galusha & Blick 1971
New Area, Dry Cave UTEP 133 (70)	Early/Mid Wisconsinan	UTEP	Sapillo Creek (51)	Pleistocene	Wolberg 1980
New Cave (70)	Wisconsinan	Lawrence 1960	Sheep Camp Shelter (4)	Late Wisconsinan/Holocene	Betancourt et al. 1983; Gillespie 1982, 1984; Harris 1988
New La Bajada Hill (17)	Wisconsinan	Stearns 1942	Shelter Cave (59)	Mid/Late Wisconsinan/Holocene	Brattstrom 1961, 1964; Hall 1936; Harris 1984a; Harris & Crews 1983; Howard & Miller 1933; Howard 1931a, 1931b, 1962, 1964, 1971; Miller 1932; Rea 1973, 1980; Smartt 1977; Stock 1930, 1932; Thompson et al. 1980; UTEP
NIIP (Navajo Indian Irrigation Project) (3)	Middle Holocene	Lyman 1983			
NW Talus Slope, Dry Cave UTEP 22 (70)	Mid/Late Wisconsinan	UTEP			
Omega Cave UTEP 173 (69)	Wisconsinan/Holocene	UTEP			

Locality	Age	References	Locality	Age	References
Skull Ridge (16)	Pleistocene	Galusha & Blick 1971; Lucas & Effinger 1991	U-Bar Cave LA 5689 (76)	Mid Wisconsinan, Late Wisconsinan, Holocene	Emslie 1987; Harris 1985a, 1985b, 1987, 1989, 1990b; Harris & Carraway 1993; Lambert & Ambler 1961; Ray et al. 1988; Russell & Harris 1986; UTEP
South Chimney, Dry Cave UTEP 7 (70)	Wisconsinan	Harris 1985a	Una Vida (4)	Holocene	Hargrave & Emslie 1980
Stalag 17 UTEP 23 (70)	Late Wisconsinan	Harris 1984a; Harris & Porter 1980; UTEP	Vicinity Anapra UTEP 99 (62)	Blancan/Irvingtonian, Irvingtonian	Vanderhill 1986; UTEP
Stolle (37)	Late Wisconsinan	Agogino 1977	Vicinity La Union UTEP 33 (62)	Blancan/Irvingtonian, Irvingtonian	Riley 1984; Tedford 1981; Vanderhill 1986; UTEP
T28S R3E UTEP 97 (62)	Irvingtonian ?	Riley 1984; Vanderhill 1986; UTEP	White Lake, San Agustin Plains (42)	Wisconsinan	UTEP
Tijeras Arroyo NMMNH Loc 1452 (26)	Irvingtonian	Logan 1984; Logan et al. 1984; Lucas & Effinger 1991	Whut Cave (27)	Wisconsinan	Smartt & Hafner 1989
Tijeras Arroyo NMMNH Loc 1453 (26)	Irvingtonian	Logan 1984; Logan et al. 1984; Lucas & Effinger 1991	Witch Cave (27)	Wisconsinan	Smartt et al. 1990
Tijeras Arroyo NMMNH Loc 1455 (26)	Irvingtonian	Logan 1984; Logan et al. 1984; Lucas & Effinger 1991	Wylde Cave (59)	Wisconsinan/ Holocene	Brattstrom 1964
Tree Springs, Sandia Mts. (24)	Pleistocene	Martin & Guilday 1967	X-Bar-X Ranch (34)	Mid Wisconsinan	Lucas & Effinger 1991
TT II, Dry Cave UTEP 54 (70)	Late Wisconsinan	Harris 1984a; Harris & Porter 1980; UTEP	Yeso Arroyo (33)	Pleistocene	Agogino & Stevens 1972
Tularosa Cave (39)	Wisconsinan/ Holocene	Howell 1915			

APPENDIX 2—TAXA

New Mexico fossil sites arranged by taxon.

CLASS OSTEICHTHYES

Osteichthyes—Bony Fish

Early/early—mid Wisconsinan: Lost Valley. **Late Wisconsinan:** Animal Fair 18—20 ka; U-Bar Cave 14—15 ka; U-Bar Cave 15—18 ka. **Late Wisconsinan/Holocene:** Balcony Room.

ORDER CLUPEIFORMES, FAMILY CLUPEIDAE

Dorosoma petenense—Threadfin Shad**Blancan/Irvingtonian:** Gatuna Formation.

ORDER SALMONIFORMES, FAMILY SALMONIDAE

Oncorhynchus clarki—Cutthroat Trout**Late Wisconsinan:** Estancia Valley.

ORDER CYPRINIFORMES, FAMILY CYPRINIDAE

Gila robusta—Roundtail Chub**Late Wisconsinan/Holocene:** Howell's Ridge Cave (cf.).

ORDER SILURIFORMES, FAMILY ICTALURIDAE

Ictalurus sp.—Catfish**Blancan/Irvingtonian:** Vicinity La Union.

CLASS AMPHIBIA, ORDER CAUDATA, FAMILY AMBYSTOMATIDAE

Ambystoma sp.—Mole Salamanders**Illinoian:** Casados Ranch.*Ambystoma tigrinum*—Tiger Salamander

Wisconsinan: White Lake. **Mid Wisconsinan:** Pendejo Cave; U-Bar Cave. **Late Wisconsinan:** Animal Fair 18—20 ka; Bison Chamber; Charlies Parlor; Estancia Valley; Harris' Pocket; Stalag 17; TT II; U-Bar Cave 14—15 ka; U-Bar Cave 15—18 ka. **Late Wisconsinan/Holocene:** Howell's Ridge Cave; Pendejo Cave; Sheep Camp Shelter.

ORDER ANURA

Anura—Frogs and Relatives

Early/early—mid Wisconsinan: Lost Valley.

FAMILY PELOBATIDAE

Scaphiopus sp.—Spadefoot Toads

Wisconsinan: White Lake (cf.). **Mid Wisconsinan:** Pendejo Cave; U-Bar Cave. **Late Wisconsinan:** Harris' Pocket; TT II; U-Bar Cave 15—18 ka.

Scaphiopus bombifrons—Plains Spadefoot

Late Wisconsinan: Bison Chamber; Harris' Pocket. **Late Wisconsinan/Holocene:** Balcony Room; Howell's Ridge Cave.

Scaphiopus couchi—Couch's Spadefoot

Mid Wisconsinan—Holocene: Shelter Cave (cf.). **Mid/late Wisconsinan:** Dark Canyon Cave. **Late Wisconsinan/Holocene:** Howell's Ridge Cave.

Scaphiopus multiplicatus—Mexican Spadefoot

Mid/late Wisconsinan: Dark Canyon Cave. **Late Wisconsinan:** Animal Fair 18—20 ka; Bison Chamber; Sheep Camp Shelter. **Late Wisconsinan/Holocene:** Howell's Ridge Cave.

FAMILY LEPTODACTYLIDAE

Hylactophryne augusti—Barking Frog**Mid/late Wisconsinan:** Dark Canyon Cave.

FAMILY BUFONIDAE

Bufo sp.—Toads

Wisconsinan: White Lake (cf.). **Late Wisconsinan:** Charlies Parlor; U-Bar Cave 13—14 ka.

Bufo alvarius—Colorado River Toad**Late Wisconsinan:** U-Bar Cave 15—18 ka.*Bufo cognatus*—Great Plains Toad**Late Wisconsinan:** Animal Fair 18—20 ka; TT 11 (cf.).*Bufo debilis*—Green Toad

Late Wisconsinan: U-Bar Cave 15—18 ka (cf.). **Late Wisconsinan/Holocene:** Howell's Ridge Cave.

Bufo microscaphus—Southwestern Toad**Late Wisconsinan:** U-Bar Cave 14—15 ka (?).*Bufo punctatus*—Red-spotted Toad

Late Wisconsinan: TT II (cf.); U-Bar Cave (cf.). **Late Wisconsinan/Holocene:** Balcony Room; Howell's Ridge Cave.

Bufo woodhousei—Woodhouse's Toad

Mid/late Wisconsinan: Dark Canyon Cave. **Late Wisconsinan:** Animal Fair 18–20 ka. **Late Wisconsinan/Holocene:** Howell's Ridge Cave; U-Bar Cave (?).

Bufo woodhousei woodhousei—Woodhouse's Toad.

Late Wisconsinan: Bison Chamber; Harris' Pocket.

FAMILY HYLIDAE

Hyla arenicolor—Canyon Treefrog

Late Wisconsinan/Holocene: Howell's Ridge Cave (cf.).

Pseudacris triseriata—Striped Chorus Frog

Late Wisconsinan: Animal Fair 18–20 ka; Harris' Pocket; TT II.

FAMILY RANIDAE

Rana sp.—True Frogs

Wisconsinan: White Lake. **Late Wisconsinan:** Blackwater Loc. No. 1, Clovis age; TT II.

Rana blairi/pipiens—Plains/Northern Leopard Frog

Mid/late Wisconsinan: Dark Canyon Cave. **Late Wisconsinan:** Animal Fair 18–20 ka; Bison Chamber.

Rana pipiens—Northern Leopard Frog

Mid Wisconsinan/Holocene: Shelter Cave (cf.). **Late Wisconsinan:** Brown Sand Wedge. **Late Wisconsinan/Holocene:** Howell's Ridge Cave (cf.).

CLASS REPTILIA, ORDER TESTUDINES

Testudines—Turtles

Mid Wisconsinan: U-Bar Cave. **Late Wisconsinan:** U-Bar Cave 15–18 ka.

FAMILY EMYDIDAE

Trachemys gaigeae/scripta—Big Bend or Common Slider

Irvingtonian: Vicinity La Union.

Terrapene sp.—Box Turtles

Late Wisconsinan: Human Corridor.

Terrapene carolina—Common Box Turtle

Late Wisconsinan/Holocene: Burnet Cave.

±*Terrapene carolina putnami*—Putnam's Box Turtle

Late Wisconsinan: Brown Sand Wedge (cf. spp.); Gray Sand.

Terrapene ornata—Ornate Box Turtle

Late Wisconsinan: Anderson Basin No. 1; U-Bar Cave 13–14 ka (cf.); U-Bar Cave 14–15 ka (cf.). **Late Wisconsinan/Holocene:** Pendejo Cave (cf.).

FAMILY TESTUDINIDAE

Geochelone sp.—Geochelone Tortoises

Blancan/Irvingtonian: T28S R3E (cf.); Vicinity La Union (cf.). **Irvingtonian:** Vicinity Anapra (cf.). **Late Wisconsinan:** Gray Sand (cf.).

Geochelone wilsoni—Wilson's Tortoise

Early/early–mid Wisconsinan: Sabertooth Camel Maze. **Late Wisconsinan:** Brown Sand Wedge (cf.).

Gopherus sp.—Gopher Tortoises

Irvingtonian: Vicinity La Union (cf.). **Late Wisconsinan:** U-Bar Cave 13–14 ka (cf.); U-Bar Cave 14–15 ka; U-Bar Cave 18–20 ka (cf.).

Gopherus agassizi—Gopher Tortoise

Early/early–mid Wisconsinan: Rm Vanishing Floor; Sabertooth Camel Maze. **Mid Wisconsinan:** Pendejo Cave. **Mid Wisconsinan–Holocene:** Shelter Cave. **Late Wisconsinan/Holocene:** Conkling Cavern; Robledo Cave (cf.); Pendejo Cave.

ORDER SQUAMATA, SUBORDER SAURIA, FAMILY IGUANIDAE

Cophosaurus texanus—Greater Earless Lizard

Early/early–mid Wisconsinan: Lost Valley (? gen. et sp.). **Late Wisconsinan/Holocene:** Howell's Ridge Cave.

Crotaphytus collaris—Collared Lizard

Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor. **Mid Wisconsinan:** Pendejo Cave; U-Bar Cave. **Mid Wisconsinan–Holocene:** Shelter Cave. **Mid/late Wisconsinan:** Dark Canyon Cave. **Late Wisconsinan:** Animal Fair 18–20 ka; Bison Chamber; TT II; U-Bar Cave 14–15 ka. **Late Wisconsinan/Holocene:** Balcony Room; Burnet Cave (cf. gen. et sp.); Howell's Ridge Cave; Isleta Caves; Pendejo Cave; Wylde Cave.

Gambelia wislizeni—Long-nosed Leopard Lizard

Late Wisconsinan/Holocene: Howell's Ridge Cave.

Holbrookia maculata—Lesser Earless Lizard

Mid/late Wisconsinan: Animal Fair. **Mid/late Wisconsinan:** Dark Canyon Cave. **Late Wisconsinan/Holocene:** Howell's Ridge Cave.

Phrynosoma cornutum—Texas Horned Lizard

Early/early–mid Wisconsinan: Lost Valley. **Mid Wisconsinan:** U-Bar Cave.

Mid Wisconsinan–Holocene: Shelter Cave. **Mid/late Wisconsinan:** Dark Canyon Cave. **Late Wisconsinan:** Bison Chamber; TT II; U-Bar Cave 14–15 ka (cf.). **Late Wisconsinan/Holocene:** Burnet Cave; Howell's Ridge Cave; Pendejo Cave.

Phrynosoma douglassi—Short-horned Lizard

Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor. **Mid Wisconsinan:** Pendejo Cave; U-Bar Cave. **Mid/late Wisconsinan:** Dark Canyon Cave; NW Talus Slope. **Late Wisconsinan:** Algerita Blossom Cave; Animal Fair 18–20 ka; Bison Chamber; Charlies Parlor; Harris' Pocket; Sheep Camp Shelter; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka (cf.); U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. **Late Wisconsinan/Holocene:** Balcony Room; Beyond Bison Chamber; Burnet Cave; Howell's Ridge Cave; Pendejo Cave.

Phrynosoma modestum—Round-tailed Horned Lizard

Early/early–mid Wisconsinan: Lost Valley. **Mid Wisconsinan:** Pendejo Cave; U-Bar Cave. **Mid/late Wisconsinan:** Dark Canyon Cave. **Late Wisconsinan:** TT II. **Late Wisconsinan/Holocene:** Howell's Ridge Cave; Pendejo Cave.

Sceloporus sp.—Spiny Lizards

Late Wisconsinan/Holocene: Burnet Cave.

Sceloporus sp. (small)—Small Spiny Lizard

Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor.

Sceloporus sp. (large)—Large Spiny Lizard

Mid Wisconsinan: U-Bar Cave. **Early/late Wisconsinan:** Animal Fair. **Late Wisconsinan:** Charlies Parlor (cf.); U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka (cf.).

Sceloporus clarki—Clark's Spiny Lizard

Late Wisconsinan/Holocene: Howell's Ridge Cave (cf.).

Sceloporus jarrovi—Yarrow's Spiny Lizard

Late Wisconsinan: U-Bar Cave 15–18 ka (cf.); U-Bar Cave 18–20 ka (cf.).

Late Wisconsinan/Holocene: Howell's Ridge Cave (cf.).

Sceloporus magister—Desert Spiny Lizard

Late Wisconsinan/Holocene: Howell's Ridge Cave (cf.).

Sceloporus undulatus—Eastern Fence Lizard

Mid/late Wisconsinan: Pendejo Cave (cf. gen. et sp.). **Mid/late Wisconsinan:** Dark Canyon Cave. **Late Wisconsinan:** Animal Fair 18–20 ka; Bison Chamber; Harris' Pocket; TT II. **Late Wisconsinan/Holocene:** Balcony Room; Howell's Ridge Cave (cf.).

Urosaurus ornatus—Tree Lizard

Mid Wisconsinan: U-Bar Cave (cf. gen. et sp.). **Late Wisconsinan/Holocene:** Howell's Ridge Cave.

Uta stansburiana—Side-blotched Lizard

Late Wisconsinan/Holocene: Howell's Ridge Cave.

FAMILY TEIIDAE

Cnemidophorus sp. (smaller)—Small Whiptail Lizard

Late Wisconsinan/Holocene: Howell's Ridge Cave.

Cnemidophorus sp. (large)—Large Whiptail Lizard

Mid Wisconsinan: U-Bar Cave. **Mid/late Wisconsinan:** Dark Canyon Cave.

Cnemidophorus sp. (*C. tigris* size)—Whiptail Lizard (Western Whiptail Size)

Late Wisconsinan: TT II.

Cnemidophorus neomexicanus—New Mexican Whiptail

Late Wisconsinan/Holocene: Isleta Caves.

Cnemidophorus tigris—Western Whiptail Lizard

Late Wisconsinan/Holocene: Howell's Ridge Cave.

FAMILY SCINCIDAE

Eumeces obsoletus—Great Plains Skink

Mid Wisconsinan–Holocene: Shelter Cave. **Late Wisconsinan/Holocene:** Howell's Ridge Cave; Wylde Cave.

Eumeces (*E. multivirgatus* size)—Skink (Many-lined Skink Size)

Mid/late Wisconsinan: Dark Canyon Cave.

Eumeces multivirgatus—Many-lined Skink

Late Wisconsinan: Animal Fair 18–20 ka.

FAMILY ANGUIDAE

Gerrhonotus kingi—Arizona Alligator Lizard

Late Wisconsinan/Holocene: Howell's Ridge Cave.

FAMILY HELODERMATIDAE

Heloderma suspectum—Gila Monster

Mid Wisconsinan: U-Bar Cave.

FAMILY LEPTOTYPHLOPIDAE

Leptotyphlops sp.—Slender Blind Snake

Late Wisconsinan/Holocene: Howell's Ridge Cave.

SUBORDER SERPENTES, FAMILY COLUBRIDAE

- Arizona elegans*—Glossy Snake
Late Wisconsin/Holocene: Conkling Cavern; Howells Ridge Cave.
- Coluber constrictor* Racer
Mid Wisconsin/Holocene: Shelter Cave. Late Wisconsin/Holocene: Conkling Cavern.
- Diadophis punctatus*— Ring-necked Snake
Late Wisconsin/Holocene: Howells Ridge Cave.
- Elaphe guttata* Corn Snake
Late Wisconsin: Bison Chamber.
- Elaphe subocularis* Trans-Pecos Rat Snake
Mid Wisconsin/Holocene: Shelter Cave. Late Wisconsin/Holocene: Conkling Cavern; Wylde Cave.
- Gyalopion canum*—Chihuahuan Hook-nosed Snake
Late Wisconsin/Holocene: Howells Ridge Cave.
- Heterodon nasicus*—Western Hog-nosed Snake
Late Wisconsin: Brown Sand Wedge (cf.). Late Wisconsin/Holocene: Howells Ridge Cave.
- Hypsiglena torquata* Night Snake
Late Wisconsin/Holocene: Howells Ridge Cave.
- Lampropeltis getulus* Common Kingsnake
Mid Wisconsin: Pendejo Cave (cf. gen. et sp.). Mid Wisconsin-Holocene: Shelter Cave. Late Wisconsin/Holocene: Howells Ridge Cave.
- Lampropeltis pyromelana* Sonoran Mountain Kingsnake
Late Wisconsin/Holocene: Howells Ridge Cave (cf.).
- Lampropeltis triangulum* Milk Snake
Late Wisconsin: Brown Sand Wedge (cf.).
- Masticophis* sp.—Coachwhip Snakes
Late Wisconsin: TT II; U-Bar Cave 1518 ka. Late Wisconsin/Holocene: Conkling Cavern; Howells Ridge Cave.
- Masticophis flagellum*—Coachwhip
Mid Wisconsin/Holocene: Shelter Cave.
- Pituophis* sp.—Pine Snakes
Mid Wisconsin: U-Bar Cave (?).
- Pituophis melanoleucus* Pine Snake
Mid Wisconsin: Pendejo Cave (cf. gen. et sp.). Mid Wisconsin-Holocene: Shelter Cave. Late Wisconsin/Holocene: Conkling Cavern; Howells Ridge Cave.
- Rhinocheilus lecontei* Long-nosed Snake
Late Wisconsin/Holocene: Conkling Cavern; Howells Ridge Cave.
- Salvadora* sp.—Patch-nosed Snakes
Mid Wisconsin: U-Bar Cave (cf.). Mid/late Wisconsin: Animal Fair.
Late Wisconsin: Charlies Parlor (cf.); Bison Chamber; Harris Pocket.
Late Wisconsin/Holocene: Howells Ridge Cave.
- Sonora* sp.—Ground Snakes
Late Wisconsin: U-Bar Cave 15-18 ka (?).
- Sonora semiannulata* Ground Snake
Late Wisconsin/Holocene: Howells Ridge Cave.
- Tantilla* sp.—Black-headed Snakes
Late Wisconsin/Holocene: Howells Ridge Cave.
- Thamnophis* sp.—Garter Snakes
Mid Wisconsin: Pendejo Cave. Late Wisconsin: Animal Fair 1820 ka; Harris Pocket; TT II; U-Bar Cave 1315 ka (?). Late Wisconsin/Holocene: Balcony Room.
- Thamnophis cyrtopsis*—Black-necked Garter Snake
Late Wisconsin/Holocene: Howells Ridge Cave (cf.).
- Thamnophis proximus* Western Ribbon Snake
Late Wisconsin: Bison Chamber; Brown Sand Wedge.
- Thamnophis sirtalis*: Common Garter Snake
Late Wisconsin: Brown Sand Wedge.
- Trimorphodon biscutatus* Western Lyre Snake
Mid Wisconsin/Holocene: Shelter Cave. Late Wisconsin/Holocene: Howells Ridge Cave.

SUBORDER SERPENTES, FAMILY VIPERIDAE, SUBFAMILY CROTALIDAE

- Crotalus* sp.—Rattlesnakes
Early/earlymid Wisconsin: Rm Vanishing Floor. Mid Wisconsin: Pendejo Cave; U-Bar Cave. Late Wisconsin: Algerita Blossom Cave; Animal Fair 1820 ka; Camel Room; Charlies Parlor; Harris Pocket; Pendejo Cave; TT II; U-Bar Cave 1314 ka; U-Bar Cave 1415 ka; U-Bar Cave 1518 ka; U-Bar Cave 1820 ka. Late Wisconsin/Holocene: Beyond Bison Chamber; Howells Ridge Cave; Isleta Caves (?).
- Crotalus atrox*—Western Diamondback Rattlesnake
Mid Wisconsin/Holocene: Shelter Cave. Late Wisconsin: Bison Chamber. Late Wisconsin/Holocene: Balcony Room; Conkling Cavern; Fosberg Cave.

CLASS AVES, ORDER PODICIPEDIFORMES, FAMILY PODICIPEDIDAE

- Aechmophorus occidentalis* Western Grebe
Late Wisconsin/Holocene: Burnet Cave.
- Podiceps/Podilymbus* Typical or Pied-billed Grebes
Wisconsin: White Lake.
- Podiceps nigricollis* Eared Grebe
Mid/late Wisconsin: Dark Canyon Cave.

ORDER PELECANIFORMES, FAMILY PHALACROCORACIDAE

- Phalacrocorax auritus*—Double-crested Cormorant
Mid/late Wisconsin: Dark Canyon Cave.

ORDER ANSERIFORMES, FAMILY ANATIDAE

- Aix sponsa*—Wood Duck
Mid/late Wisconsin: Dark Canyon Cave.
- †*Anabernicula* sp.—Pygmy Geese
Mid Wisconsin: U-Bar Cave (cf.). Late Wisconsin/Holocene: Pendejo Cave (?).
- †*Anabernicula gracilentia* Graceful Pygmy Goose
Mid/late Wisconsin: Shelter Cave. Late Wisconsin: Howells Ridge Cave.
- †*Anabernicula oregonensis* Oregon Pygmy Goose
Mid/late Wisconsin: Dark Canyon Cave (cf.).
- Anas* sp.—Dabbling Ducks
Late Wisconsin/Holocene: Balcony Room.
- Anas*, size *A. acuta*—Dabbling Duck (Northern Pintail Size)
Wisconsin: White Lake (cf.). Late Wisconsin: Stalag 17.
- Anas acuta*—Northern Pintail
Mid Wisconsin/Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin/Holocene: Howells Ridge Cave (cf.).
- Anas americana* American Wigeon
Early/earlymid Wisconsin: Rm Vanishing Floor (?). Late Wisconsin/Holocene: Howells Ridge Cave (cf.).
- Anas crecca carolinensis* Green-winged Teal
Mid Wisconsin/Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave (?). Late Wisconsin/Holocene: Howells Ridge Cave (cf.).
- Anas cyanoptera*—Cinnamon Teal
Mid/late Wisconsin: U-Bar Cave (?). Late Wisconsin: Animal Fair 1820 ka (?).
- Anas discors*—Blue-winged Teal
Late Wisconsin: Stalag 17 (?).
- Anas platyrhynchos* Mallard
Mid Wisconsin: U-Bar Cave. Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: U-Bar Cave 1415 ka (cf.). Late Wisconsin/Holocene: Pendejo Cave (cf.).
- Anser albifrons*Greater White-fronted Goose
Mid Wisconsin/Holocene: Shelter Cave (?).
- Aythya affinis/collaris* Lesser Scaup or Ring-necked Duck
Late Wisconsin/Holocene: Howells Ridge Cave (cf.).
- Aythya valisineria*—Canvasback
Mid/late Wisconsin: Dark Canyon Cave.
- Branta* sp.—Brent Geese
Wisconsin: White Lake (?).
- Branta canadensis* Canada Goose
Late Wisconsin: Blackwater Loc. No. 1, Clovis age. Late Wisconsin/Holocene: Conkling Cavern.
- Mergus merganser*—Common Merganser
Mid/late Wisconsin: Dark Canyon Cave (cf.).

ORDER FALCONIFORMES, FAMILY CATHARTIDAE

- †*Breagyps clarki*—Clarks Condor
Early/earlymid Wisconsin: Lost Valley; Sabertooth Camel Maze. Mid/late Wisconsin: Shelter Cave; U-Bar Cave. Late Wisconsin: Howells Ridge Cave (? gen. et sp.).
- Cathartes aura*—Turkey Vulture
Mid Wisconsin: U-Bar Cave. Mid Wisconsin/Holocene: Shelter Cave. Late Wisconsin: Blackwater Loc. No. 1, Clovis age; U-Bar Cave 1415 ka. Late Wisconsin/Holocene: Balcony Room; Burnet Cave; Boyds Cave; Conkling Cavern; Pendejo Cave; Stalag 17.
- Coragyps atratus*—Black Vulture
Pleistocene: Albuquerque.
- Coragyps atratus/occidentalis*—Black Vulture or Western Vulture
Mid Wisconsin/Holocene: U-Bar Cave. Late Wisconsin/Holocene: Burnet Cave.

- †*Coragyps occidentalis*—Western Vulture
Early/early-mid Wisconsin: Balcony on Lost Valley; Lost Valley; Sabertooth Camel Maze; Rm Vanishing Floor. Mid Wisconsin: Pendejo Cave; U-Bar Cave. Mid/late Wisconsin: Dark Canyon Cave; Hampton Court; NW Talus Slope; Pit N&W Animal Fair. Late Wisconsin: Animal Fair 18–20 ka; Charlies Parlor; Howell's Ridge Cave; Human Corridor; Isleta Cave No. 1; Rick's Cenote; Stalag 17; TT II; U-Bar Cave 14–15 ka. Late Wisconsin/Holocene: Balcony Room; Conkling Cavern; Pendejo Cave.
- Gymnogyps californianus*—California Condor
Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: Howell's Ridge Cave; U-Bar Cave 13–14 ka. Late Wisconsin/Holocene: Burnet Cave; Conkling Cavern.
- †*Teratornis merriami*—Merriam's Teratorn
Late Wisconsin: Animal Fair 18–20 ka.

FAMILY ACCIPITRIDAE

- Accipiter* sp.—Bird Hawks
Late Wisconsin: Charlies Parlor.
- Accipiter cooperi*—Cooper's Hawk
Mid/late Wisconsin: Dark Canyon Cave; Pit N&W Animal Fair; U-Bar Cave. Late Wisconsin: Animal Fair 18–20 ka; Camel Room. Late Wisconsin/Holocene: Burnet Cave.
- Accipiter striatus*—Sharp-shinned Hawk
Early/early-mid Wisconsin: Rm Vanishing Floor (cf.). Mid Wisconsin: Pendejo Cave. Mid Wisconsin-Holocene: Shelter Cave.
- Aquila* sp.—Golden Eagles
Early/early-mid Wisconsin: Lost Valley (cf.).
- Aquila chrysaetos*—Golden Eagle
Early/Early-mid Wisconsin: Rm Vanishing Floor (?). Mid Wisconsin: U-Bar Cave. Mid Wisconsin-Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave; Hampton Court. Late Wisconsin: Animal Fair 18–20 ka. Late Wisconsin/Holocene: Balcony Room; Conkling Cavern; Howell's Ridge Cave; Isleta Cave No. 1.
- Buteo* sp.—Buteonine Hawks
Early/early-mid Wisconsin: Rm Vanishing Floor (cf.) Late Wisconsin: Charlies Parlor; TT II; U-Bar Cave 13–14 ka (?).
- Buteo albonotatus*—Zone-tailed Hawk
Mid Wisconsin-Holocene: Shelter Cave (?).
- Buteo jamaicensis*—Red-tailed Hawk
Mid Wisconsin-Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave; NW Talus Slope (cf.). Late Wisconsin: Animal Fair 18–20 ka (cf.). Late Wisconsin/Holocene: Conkling Cavern; Howell's Ridge Cave (cf.).
- Buteo lagopus*—Rough-legged Hawk
Mid/late Wisconsin: Dark Canyon Cave.
- Buteo nitidus*—Gray Hawk
Mid/late Wisconsin: Dark Canyon Cave.
- Buteo regalis*—Ferruginous Hawk
Late Wisconsin: Blackwater Loc. No. 1, Clovis age.
- Buteo swainsoni*—Swainson's Hawk
Mid Wisconsin: Pendejo Cave (cf.). Mid Wisconsin/Holocene: Shelter Cave. Mid/late Wisconsin: Pit N&W Animal Fair. Late Wisconsin: Camel Room (cf.). Late Wisconsin/Holocene: Burnet Cave; Conkling Cavern; Pendejo Cave (cf.).
- Buteogallus anthracinus*—Common Black-hawk
Mid/late Wisconsin: Animal Fair (? gen. et sp.).
- †*Buteogallus fragilis*—Fragile Eagle
Mid/late Wisconsin: Shelter Cave.
- Circus cyaneus*—Northern Harrier
Mid Wisconsin: Pendejo Cave (?). Mid/late Wisconsin: Dark Canyon Cave (cf. gen. et sp.). Late Wisconsin: Charlies Parlor.
- Haliaeetus* sp.—Bald Eagle
Late Wisconsin: Blackwater Loc. No. 1, Clovis age (cf.).
- Haliaeetus leucocephalus*—Bald Eagle
Late Wisconsin/Holocene: Conkling Cavern.
- †*Neophrontops americanus*—American Neophrontops
Mid/late Wisconsin: Dark Canyon Cave.
- †*Spizaetus willetti*—Willet's Hawk-eagle
Late Wisconsin: Howell's Ridge Cave.

FAMILY FALCONIDAE

- Falco* sp.—Falcons
Late Wisconsin: Camel Room.
- Falco columbarius*—Merlin
Late Wisconsin: Blackwater Loc. No. 1, Clovis age.

- Falco mexicanus*—Prairie Falcon
Mid Wisconsin: Pendejo Cave. Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: Charlies Parlor. Late Wisconsin/Holocene: Burnet Cave; Howell's Ridge Cave.
- Falco peregrinus*—Peregrine Falcon
Early/early-mid Wisconsin: Rm Vanishing Floor (?). Mid Wisconsin-Holocene: Shelter Cave. Late Wisconsin/Holocene: Howell's Ridge Cave.
- Falco rusticolus*—Gyr Falcon
Mid/late Wisconsin: Dark Canyon Cave.
- Falco sparverius*—American Kestrel
Mid Wisconsin: Pendejo Cave; U-Bar Cave. Mid Wisconsin-Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave; Hampton Court. Late Wisconsin: U-Bar Cave 14–15 ka. Late Wisconsin/Holocene: Burnet Cave; Conkling Cavern.
- †*Polyborus plancus prelotus*—Extinct Crested Caracara
Mid/late Wisconsin: Dark Canyon Cave; Hampton Court; Pit N&W Animal Fair; Shelter Cave. Late Wisconsin: Animal Fair 18–20 ka; Camel Room; Charlies Parlor; Harris' Pocket; Human Corridor; Stalag 17; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka. Late Wisconsin/Holocene: Balcony Room; Conkling Cavern.

ORDER GALLIFORMES, FAMILY PHASIANIDAE, SUBFAMILY TETRAONINAE

- Grouse (2 spp.)
Mid/late Wisconsin: Dark Canyon Cave.
- Centrocercus urophasianus*—Sage Grouse
Mid/late Wisconsin: Shelter Cave. Late Wisconsin: Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka. Late Wisconsin/Holocene: Conkling Cavern; Sheep Camp Shelter.
- Tympanuchus* sp.—Prairie Chickens
Late Wisconsin: Harris' Pocket (cf.).
- Tympanuchus pallidicinctus*—Lesser Prairie Chicken
Mid Wisconsin: Pendejo Cave. Mid/late Wisconsin: Dark Canyon Cave (?); Hampton Court; NW Talus Slope (cf.). Late Wisconsin: Algerita Blossom Cave; Animal Fair 18–20 ka (cf.); Big Manhole Cave; Charlies Parlor (cf.); Stalag 17; TT II. Late Wisconsin/Holocene: Burnet Cave.

SUBFAMILY MELEAGRINAE

- Meleagris* sp.—Turkeys
Mid Wisconsin: Pendejo Cave. Late Wisconsin: U-Bar Cave 15–18 ka (cf.); U-Bar Cave 18–20 ka (cf.).
- †*Meleagris crassipes*—Bigfoot Turkey
Blancan/Irvingtonian: San Antonio Site. Early/early-mid Wisconsin: Sabertooth Camel Maze. Mid/late Wisconsin: Dark Canyon Cave; Shelter Cave; U-Bar Cave. Late Wisconsin: Burnet Cave. Late Wisconsin/Holocene: Howell's Ridge Cave.
- Meleagris gallopavo*—Wild Turkey
Late Wisconsin/Holocene: Burnet Cave; Conkling Cavern.

SUBFAMILY ODONTOPHORINAE

- Callipepla* sp.—Crested Quails
Early/early-mid Wisconsin: Sabertooth Camel Maze (cf.). Mid Wisconsin-Holocene: Shelter Cave. Late Wisconsin: Camel Room (cf.); Stalag 17 (cf.). Late Wisconsin/Holocene: Conkling Cavern; Pendejo Cave.
- Callipepla gambeli*—Gambel's Quail
Late Wisconsin/Holocene: Conkling Cavern (?).
- Callipepla squamata*—Scaled Quail
Mid Wisconsin-Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave.
- Colinus virginianus*—Northern Bobwhite
Mid Wisconsin: U-Bar Cave (? gen. et sp.).
- Cyrtonyx montezumae*—Montezuma Quail
Early/early-mid Wisconsin: Rm Vanishing Floor (cf. gen. et sp.).
- Oreortyx pictus*—Mountain Quail
Mid/late Wisconsin: Shelter Cave. Late Wisconsin: Burnet Cave; Howell's Ridge Cave (cf. gen. et sp.).

ORDER GRUIFORMES, FAMILY RALLIDAE

- Fulica* sp.—Coots
Late Wisconsin: U-Bar Cave 18–20 ka (?).
- Fulica americana*—American Coot
Early/early-mid Wisconsin: Rm Vanishing Floor. Mid Wisconsin-Holocene: Shelter Cave. Late Wisconsin: Charlies Parlor. Late Wisconsin/Holocene: Pendejo Cave.

Porzana carolina—Sora
Mid Wisconsin–Holocene: Shelter Cave.

FAMILY GRUIDAE

Grus canadensis—Sandhill Crane
Late Wisconsin/Holocene: Burnet Cave.

ORDER CHARADRIIFORMES, FAMILY BURHINIDAE

Burhinus sp.—Thick-knees
Mid/late Wisconsin: Dark Canyon Cave.

†*Burhinus* sp. (small, extinct)—Extinct Thick-knee
Mid/late Wisconsin: Dark Canyon Cave.

FAMILY CHARADRIIDAE

Charadrius montanus—Mountain Plover
Mid/late Wisconsin: Dark Canyon Cave.

Charadrius vociferus—Killdeer
Late Wisconsin: Harris' Pocket.

FAMILY RECURVIROSTRIDAE

Recurvirostridae—Avocets and Stilts
Late Wisconsin: Camel Room (?).

FAMILY SCOLOPACIDAE

Actitis sp.—Spotted Sandpipers
Late Wisconsin: Stalag 17 (?).

Catoptrophorus semipalmatus—Willet
Mid/late Wisconsin: Animal Fair (? gen. et sp.).

Limnodromus scolopaceus—Long-billed Dowitcher
Late Wisconsin: Animal Fair 18–20 ka (cf.).

Numenius americanus—Long-billed Curlew
Late Wisconsin: Charlies Parlor; Harris' Pocket. Late Wisconsin/
Holocene: Howell's Ridge Cave.

Tringa melanoleucus—Greater Yellowlegs
Late Wisconsin: Animal Fair 18–20 ka.

FAMILY LARIDAE

Larus sp.—Gulls
Mid Wisconsin–Holocene: Shelter Cave.

ORDER COLUMBIFORMES, FAMILY COLUMBIDAE

†*Ectopistes migratorius*—Passenger Pigeon
Mid/late Wisconsin: Dark Canyon Cave. Holocene: Picuris; Una Vida.

Zenaidura macroura—Zenaidura Doves
Early/early–mid Wisconsin: Sabertooth Camel Maze (cf.).

Zenaidura macroura—Mourning Dove
Early/early–mid Wisconsin: Rm Vanishing Floor. Mid Wisconsin: U-
Bar Cave. Mid Wisconsin–Holocene: Shelter Cave. Mid/late Wisconsin:
Dark Canyon Cave; Hampton Court. Late Wisconsin/Holocene:
Howell's Ridge Cave; Pendejo Cave.

ORDER CUCULIFORMES, FAMILY CUCULIDAE

Geococcyx californianus californianus—Greater Roadrunner
Early/early–mid Wisconsin: Rm Vanishing Floor. Mid Wisconsin:
Pendejo Cave. Mid Wisconsin–Holocene: Shelter Cave.

†*Geococcyx californianus conklingi*—Conkling's Greater Roadrunner
Mid Wisconsin: Pendejo Cave. Mid Wisconsin–Holocene: Shelter Cave.
Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: U-Bar Cave
14–15 ka. Late Wisconsin/Holocene: Conkling Cavern.

ORDER STRIGIFORMES, FAMILY TYTONIDAE

Tyto alba—Common Barn-owl
Mid Wisconsin–Holocene: Shelter Cave. Mid/late Wisconsin: Dark
Canyon Cave. Late Wisconsin: Human Corridor. Late Wisconsin/Ho-
locene: Conkling Cavern; Howell's Ridge Cave.

FAMILY STRIGIDAE

Aegolius acadicus—Northern Saw-whet Owl
Mid Wisconsin–Holocene: Shelter Cave.

Aegolius funereus—Boreal Owl
Mid Wisconsin–Holocene: Shelter Cave.

Asio sp.—Eared Owls
Late Wisconsin: U-Bar Cave (?).

Asio flammeus—Short-eared Owl
Mid Wisconsin: Pendejo Cave. Mid/late Wisconsin: Dark Canyon Cave

(?). Late Wisconsin: Animal Fair 18–24 ka; Camel Room (cf.); Charlies
Parlor (cf.); TT II. Late Wisconsin/Holocene: Burnet Cave; Balcony Room;
Isleta Cave No. 1 (? gen. et sp.).

Asio otus—Long-eared Owl
Late Wisconsin/Holocene: Conkling Cavern (?); Howell's Ridge Cave.

Athene cunicularia—Burrowing Owl
Mid Wisconsin: Pendejo Cave (cf. gen. et sp.) Mid Wisconsin/Ho-
locene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave. Late Wis-
consin: Stalag 17; U-Bar Cave. Late Wisconsin/Holocene: Conkling
Cavern.

Bubo virginianus—Great Horned Owl
Early/early–mid Wisconsin: Lost Valley; Rm Vanishing Floor. Mid Wis-
consin: Pendejo Cave. Mid Wisconsin–Holocene: Shelter Cave. Mid/
late Wisconsin: Dark Canyon Cave; NW Talus Slope. Late Wisconsin:
Charlies Parlor; Circus Route; Han-is' Pocket. Late Wisconsin/Holocene:
Burnet Cave; Howell's Ridge Cave; Pendejo Cave.

Otus sp.—Scops-Owls
Mid/late Wisconsin: Animal Fair (?). Late Wisconsin: Camel Room (?)

Otus kennicotti—Western Screech-Owl
Early/early–mid Wisconsin: Rm Vanishing Floor (cf. gen. et sp.) Mid
Wisconsin–Holocene: Shelter Cave. Late Wisconsin: U-Bar Cave 13–
14 ka (cf.); U-Bar Cave 14–15 ka (cf.); U-Bar Cave 15–18 ka.

†*Strix brea*—Tar-pit Owl
Early/early–mid Wisconsin: Rm Vanishing Floor (cf. gen. et sp.).

Strix occidentalis—Spotted Owl
Mid Wisconsin: U-Bar Cave (cf.).

ORDER CAPRIMULGIFORMES, FAMILY CAPRIMULGIDAE

Phalaenoptilus nuttalli—Common Poorwill
Mid/late Wisconsin: Dark Canyon Cave.

ORDER APODIFORMES, FAMILY APODIDAE

Aeronautes saxatilis—White-throated Swift
Mid Wisconsin–Holocene: Shelter Cave.

ORDER PICIFORMES, FAMILY PICIDAE

Picidae—Woodpeckers
Early/early–mid Wisconsin: Lost Valley.

Colaptes auratus—Northern Flicker
Early/early–mid Wisconsin: Rm Vanishing Floor (cf.). Mid Wisconsin:
Pendejo Cave; U-Bar Cave. Mid Wisconsin–Holocene: Shelter Cave.
Mid/late Wisconsin: Hampton Court. Late Wisconsin: TT II. Late
Wisconsin/Holocene: Burnet Cave; Conkling Cavern; Stalag 17.

Melanerpes formicivorus—Acorn Woodpecker
Mid Wisconsin–Holocene: Shelter Cave.

ORDER PASSERIFORMES, FAMILY TYRANNIDAE

Sayornis saya—Say's Phoebe
Mid Wisconsin–Holocene: Shelter Cave.

FAMILY ALAUDIDAE

Eremophila alpestris—Horned Lark
Mid Wisconsin–Holocene: Shelter Cave. Late Wisconsin: Bison
Chamber; Harris' Pocket. Late Wisconsin/Holocene: Balcony Room;
Conkling Cavern; Isleta Cave No. 1 (cf. gen. et sp.).

FAMILY HIRUNDINIDAE

Hirundo fulva pyrrhonota—Cave Swallow or Cliff Swallow
Late Wisconsin: Charlies Parlor (cf.); TT II.

FAMILY CORVIDAE

Aphelocoma coerulescens—Scrub Jay
Early/early–mid Wisconsin: Lost Valley (cf. gen. et sp.); Rm Vanishing
Floor.

Corvus corax—Common Raven
Early/early–mid Wisconsin: Lost Valley; Rm Vanishing Floor. Mid Wis-
consin–Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave;
Hampton Court; NW Talus Slope; Pit N&W Animal Fair: Late Wisconsin:
Animal Fair 18–20 ka; Camel Room; Charlies Parlor; Circus Route; Human
Corridor; Stalag 17; TT II; U-Bar Cave 14–15 ka. Late Wisconsin/Ho-
locene: Balcony Room; Conkling Cavern; Howell's Ridge Cave; Isleta Cave
No. 1; Isleta Cave No. 2; Pendejo Cave.

Corvus cryptoleucus—Chihuahuan Raven
Late Wisconsin/Holocene: Pendejo Cave.

- †*Corvus neomexicanus*—New Mexican Raven
Early/early-mid Wisconsinan: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze.
- Cyanocitta* sp.—Blue Jays
Early/early-mid Wisconsinan: Lost Valley (?); Rm Vanishing Floor. Mid/late Wisconsinan: U-Bar Cave (?).
- Gymnorhinus cyanocephalus*—Pinyon Jay
Mid Wisconsinan: Pendejo Cave (? gen. et sp.). Mid Wisconsinan-Holocene: Shelter Cave. Late Wisconsinan/Holocene: Conkling Cavern.
- Pica pica*—Black-billed Magpie
Mid Wisconsinan: Pendejo Cave. Mid Wisconsinan-Holocene: Shelter Cave. Late Wisconsinan: Animal Fair 18–20 ka; U-Bar Cave.

FAMILY TROGLODYTIDAE

- Catherpes mexicanus*—Canyon Wren
Mid Wisconsinan-Holocene: Shelter Cave.
- Salpinctes obsoletus*—Rock Wren
Mid Wisconsinan: U-Bar Cave (cf. gen. et sp.). Mid Wisconsinan-Holocene: Shelter Cave.

FAMILY MUSCICAPIDAE

- Catharus ustulatus*—Swainson's Thrush
Late Wisconsinan: Harris' Pocket.
- Sialia* sp.—Bluebirds
Mid Wisconsinan-Holocene: Shelter Cave. Late Wisconsinan: Bison Chamber; Harris' Pocket. Late Wisconsinan/Holocene: Balcony Room; Conkling Cavern.
- Turdus migratorius*—American Robin
Mid Wisconsinan-Holocene: Shelter Cave. Early/early-mid Wisconsinan: Rm Vanishing Floor (cf. gen. et sp.). Late Wisconsinan/Holocene: Conkling Cavern.

FAMILY MIMIDAE

- Mimus polyglottis*—Northern Mockingbird
Early/early-mid Wisconsinan: Rm Vanishing Floor (cf. gen. et sp.).
- Oreoscoptes montanus*—Sage Thrasher
Mid Wisconsinan-Holocene: Shelter Cave.
- Toxostoma* sp.—American Thrashers
Mid Wisconsinan-Holocene: Shelter Cave.

FAMILY LANIIDAE

- Lanius ludovicianus*—Loggerhead Shrike
Mid Wisconsinan-Holocene: Shelter Cave. Late Wisconsinan: Harris' Pocket.

FAMILY EMBERIZIDAE, SUBFAMILY CARDINALINAE

- Cardinalis*—Northern Cardinal
Late Wisconsinan: Harris' Pocket.
- Passerina* sp.—Varied Buntings
Mid/late Wisconsinan: Dark Canyon Cave (?).
- Spiza* sp.—Dickcissels
Mid/late Wisconsinan: Dark Canyon Cave (?).

SUBFAMILY EMBERIZINAE

- Aimophila* sp.—Aimophila Sparrows
Early/early-mid Wisconsinan: Rm Vanishing Floor (cf.).
- Calamospiza melanocorys*—Lark Bunting
Mid Wisconsinan-Holocene: Shelter Cave. Late Wisconsinan: Bison Chamber; Harris' Pocket.
- Pipilo erythrophthalmus*—Rufous-sided Towhee
Mid Wisconsinan-Holocene: Shelter Cave. Mid/late Wisconsinan: Dark Canyon Cave (? gen. et sp.). Late Wisconsinan: Stalag 17 (cf.). Late Wisconsinan/Holocene: Conkling Cavern.
- Pipilo fuscus*—Brown Towhee
Mid Wisconsinan-Holocene: Shelter Cave.

SUBFAMILY ICTERINAE

- Agelaius phoeniceus*—Red-winged Blackbird
Mid/late Wisconsinan: Dark Canyon Cave (? gen. et sp.). Late Wisconsinan: Harris' Pocket. Late Wisconsinan/Holocene: Conkling Cavern (?).
- Euphagus/Sturnella*—American Blackbirds or Meadowlarks
Mid/late Wisconsinan: Dark Canyon Cave (?).
- Icterus* sp.—American Orioles
Mid/late Wisconsinan: Dark Canyon Cave (?). Late Wisconsinan: Harris' Pocket.

- Molothrus ater*—Brown-headed Cowbird
Mid Wisconsinan-Holocene: Shelter Cave.
- †*Pyelorrhamphus molothroides*—Thick-billed Cowbird
Mid Wisconsinan-Holocene: Shelter Cave.
- Quiscalus* sp.—Grackles
Late Wisconsinan: Harris' Pocket. Late Wisconsinan/Holocene: Balcony Room.
- Sturnella* sp.—Meadow Larks
Mid Wisconsinan: Pendejo Cave (cf.). Late Wisconsinan: Harris' Pocket.
- Xanthocephalus xanthocephalus*—Yellow-headed Blackbird
Mid Wisconsinan: U-Bar Cave (? gen. et sp.). Mid/late Wisconsinan: Dark Canyon Cave (? gen. et sp.). Late Wisconsinan: Camel Room (? gen. et sp.). Late Wisconsinan/Holocene: Burnet Cave.

FAMILY FRINGILLIDAE, SUBFAMILY CARDUELINAE

- Carpodacus* sp.—Purple Finches
Late Wisconsinan: Bison Chamber; Camel Room (?); Harris' Pocket.
- Carpodacus mexicanus*—House Finch
Mid Wisconsinan-Holocene: Shelter Cave. Late Wisconsinan/Holocene: Conkling Cavern.
- Loxia curvirostra*—Red Crossbill
Late Wisconsinan: Burnet Cave.

CLASS MAMMALIA, ORDER DIDELPHIMORPHIA, FAMILY DIDELPHIDAE

- Didelphis virginianus*—Virginia Opossum
Late Wisconsinan: Brown Sand Wedge.

ORDER XENARTHRA

- †Sloth—Ground Sloth
Pleistocene: Yeso Arroyo. Mid/late Rancholabrean: Mesa Redonda. Late Wisconsinan: McCullum Ranch.

FAMILY DASYPODIDAE

- †*Dasyopus bellus*—Beautiful Armadillo
Late Wisconsinan: Brown Sand Wedge.

FAMILY GLYPTODONTIDAE

- †*Glyptotherium* sp.—Glyptodonts
Blancan/Irvingtonian: Vicinity La Union.
- †*Glyptotherium arizonae*—Gidley's Glyptodont
Blancan/Irvingtonian: T28S R3E (cf.); Vicinity Anapra (cf.). Irvingtonian: Tijeras Arroyo NMMNH 1452 (cf.).

FAMILY MEGALONYCHIDAE

- †*Megalonyx* sp.—Megalonyx Ground Sloths
Late Wisconsinan: Conkling Cavern (?).
- †*Megalonyx wheatleyi*—Wheatley's Ground Sloth
Blancan/Irvingtonian: Vicinity La Union.

FAMILY MEGATHERIIDAE

- †*Nothrotheriops* sp.—Nothrotheriops Ground Sloths
Pleistocene: Manzano Cave.
- †*Nothrotheriops shastensis*—Shasta Ground Sloth
Rancholabrean: Carlsbad Caverns. Early/early-mid Wisconsinan: Rm Vanishing Floor. Mid Wisconsinan: U-Bar Cave. Mid/late Wisconsinan: Animal Fair; Shelter Cave. Late Wisconsinan: Aden Fumerole; Algerita Blossom Cave; Conkling Cavern; Sandia Cave, Folsom Level; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka.

FAMILY MYLODONTIDAE

- †*Glossotherium* sp.—Glossotherium Ground Sloth
Late Wisconsinan: Conkling Cavern (?).
- †*Glossotherium Harlani*—Harlan's Ground Sloth
Blancan/Irvingtonian: Vicinity La Union (cf.). Wisconsinan: Edith Fm. Late Wisconsinan: Blackwater Loc. No. 1, Clovis age.

ORDER INSECTIVORA, FAMILY SORICIDAE

- Cryptotis parva*—Least Shrew
Mid/late Wisconsinan: Animal Fair. Late Wisconsinan: Bison Chamber; Muskox Cave; TT II. Late Wisconsinan/Holocene: Balcony Room; Howell's Ridge Cave.
- Notiosorex crawfordi*—Desert Shrew
Wisconsinan: Big Manhole Cave. Mid Wisconsinan: Pendejo Cave; U-Bar

- Cave. Mid Wisconsin—Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: Algerita Blossom Cave; Animal Fair 18–20 ka; Bison Chamber; Harris' Pocket; Hermit's Cave; Muskox Cave; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsin/Holocene: Balcony Room; Baldy Peak Cave; Beyond Bison Chamber; Howell's Ridge Cave; Pendejo Cave.
- Sorex* sp.—Long-tailed Shrews
Late Wisconsin: Algerita Blossom Cave; Burnet Cave; U-Bar Cave 13–14 ka; U-Bar Cave 15–18 ka. Late Wisconsin/Holocene: Pendejo Cave. *Sorex cinereus*—Masked Shrew
Late Wisconsin: Brown Sand Wedge; Muskox Cave.
- Sorex merriami*—Merriam's Shrew
Wisconsin: Big Manhole Cave. Early/early–mid Wisconsin: Lost Valley. Mid Wisconsin: Pendejo Cave; U-Bar Cave. Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: Animal Fair 18–20 ka; Bison Chamber; Charlies Parlor; Harris' Pocket; Muskox Cave; Stalag 17; TT II; U-Bar Cave 14–15 ka (cf.). Late Wisconsin/Holocene: Balcony Room.
- Sorex monticolus*—Montane Shrew
Mid Wisconsin: U-Bar Cave (cf.). Late Wisconsin: Animal Fair 18–20 ka; Bat Cave; Harris' Pocket; Hermit's Cave; Muskox Cave; TT II. Late Wisconsin/Holocene: Balcony Room; Baldy Peak Cave.
- Sorex nanus*—Dwarf Shrew
Wisconsin: Big Manhole Cave. Late Wisconsin: Hermit's Cave.
- Sorex palustris*—Water Shrew
Late Wisconsin: Muskox Cave.
- Sorex preblei*—Preble's Shrew
Mid Wisconsin: U-Bar Cave. Late Wisconsin: Animal Fair 18–20 ka.
- ORDER CHIROPTERA, FAMILY PHYLLOSTOMIDAE**
- †*Desmodus stocki*—Stock's Vampire Bat
Mid Wisconsin: U-Bar Cave.
- FAMILY VESPERTILIONIDAE**
- Antrozous pallidus*—Pallid Bat
Early/early–mid Wisconsin: Lost Valley. Mid Wisconsin: Pendejo Cave; U-Bar Cave. Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: Muskox Cave; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 18–20 ka. Late Wisconsin/Holocene: Howell's Ridge Cave; Isleta Cave No. 1; Pendejo Cave.
- Eptesicus fuscus*—Big Brown Bat
Mid Wisconsin: U-Bar Cave. Late Wisconsin: Animal Fair 18–20 ka; Bison Chamber; Harris' Pocket; Muskox Cave; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka. Late Wisconsin/Holocene: Balcony Room; Carlsbad Cavern; Howell's Ridge Cave.
- Lasiurus* sp.—Hairy-tailed Bats
Late Wisconsin/Holocene: Balcony Room.
- Lasiurus borealis*—Red Bat
Late Wisconsin/Holocene: Carlsbad Cavern.
- Lasiurus cinereus*—Hoary Bat
Mid Wisconsin: Pendejo Cave. Late Wisconsin: Harris' Pocket. Late Wisconsin/Holocene: Carlsbad Cavern.
- Myotis* sp.—Mouse-eared Bats
Mid Wisconsin: Pendejo Cave. Late Wisconsin: Algerita Blossom Cave (cf.). Late Wisconsin/Holocene: Carlsbad Caverns.
- Myotis* sp. (small)—Small Mouse-eared Bat
Late Wisconsin: Animal Fair 18–20 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka.
- Myotis californicus*—California Myotis
Late Wisconsin: Dry Cave 14–15 ka (?).
- Myotis ciliolabrum*—Western Small-footed Bat
Mid Wisconsin: U-Bar Cave.
- Myotis evotis*—Long-eared Myotis
Late Wisconsin: Harris' Pocket.
- Myotis lucifugus*—Little Brown Bat
Mid Wisconsin: U-Bar Cave. Late Wisconsin: Bison Chamber; Harris' Pocket.
- †*Myotis rectidentis*—Straight-toothed Myotis
Late Wisconsin: Bison Chamber (cf.); Harris' Pocket (cf.). Late Wisconsin/Holocene: Beyond Bison Chamber (cf.).
- Myotis thysanodes*—Fringed Myotis
Early/early–mid Wisconsin: Rm Vanishing Floor (?). Late Wisconsin: Muskox Cave. Late Wisconsin/Holocene: Isleta Cave No. 1.
- Myotis velifer*—Cave Myotis
Early/early–mid Wisconsin: Lost Valley; Rm Vanishing Floor. Mid Wisconsin: U-Bar Cave. Late Wisconsin: Animal Fair 18–20 ka; Bison Chamber; Harris' Pocket; Muskox Cave; TT II (cf.); U-Bar Cave 13–14 ka (cf.); U-Bar Cave 14–15 ka (cf.); U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka (cf.). Late Wisconsin/Holocene: Balcony Room; Beyond Bison Chamber.
- Plecotus* sp.—Big-eared Bats
Early/early–mid Wisconsin: Lost Valley; Rm Vanishing Floor. Mid/late Wisconsin: Animal Fair. Late Wisconsin: Bison Chamber; U-Bar Cave 13–14 ka; U-Bar Cave 18–20 ka. Late Wisconsin/Holocene: Balcony Room.
- Plecotus townsendi*—Townsend's Big-eared Bat
Mid Wisconsin: U-Bar Cave. Late Wisconsin: Animal Fair 18–20 ka; Harris' Pocket; Muskox Cave; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka.
- FAMILY MOLOSSIDAE**
- Nyctinomops macrotis*—Big Free-tailed Bat
Early/early–mid Wisconsin: Lost Valley; Sabertooth Camel Maze.
- Tadarida* sp.—Guano Bats
Late Wisconsin: Muskox Cave.
- Tadarida brasiliensis*—Brazilian Free-tailed Bat
Early/early–mid Wisconsin: Lost Valley (cf.). Mid Wisconsin: U-Bar Cave. Late Wisconsin: TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsin/Holocene: Balcony Room; Carlsbad Caverns.
- Tadarida constantinei*—Constantine's Free-tailed Bat
Wisconsin: Carlsbad Caverns; New Cave.
- ORDER PRIMATES, FAMILY HOMINIDAE**
- Homo sapiens*—Man
Late Wisconsin: Human Corridor. Late Wisconsin/Holocene: Burnet Cave; Conkling Cavern; Isleta Cave No. 2; Omega Cave; U-Bar Cave.
- ORDER CARNIVORA, FAMILY CANIDAE**
- Canis* sp.—Dogs
Late Wisconsin: Bison Chamber (cf.). Late Wisconsin/Holocene: McKittrick Cave.
- Canis* sp. (wolf)—Wolf
Late Wisconsin: Muskox Cave.
- †*Canis armbrusteri*—Armbruster's Wolf
Irvingtonian: T28S R3E.
- †*Canis dirus*—Dire Wolf
Pleistocene: Santa Cruz. Early/early–mid Wisconsin: Sabertooth Camel Maze. Mid/late Wisconsin: Dark Canyon Cave (cf.). Late Wisconsin: Blackwater Loc. No. 1, Clovis age; Conkling Cavern; Gray Sand; Hermit's Cave; Muskox Cave; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka (cf.).
- Canis latrans*—Coyote
Early/early–mid Wisconsin: Lost Valley; Rm Vanishing Floor (cf.). Mid Wisconsin: Pendejo Cave. Mid Wisconsin–Holocene: Shelter Cave. Mid/late Wisconsin: Dark Canyon Cave; NW Talus Slope. Late Wisconsin: Algerita Blossom Cave; Animal Fair 18–20 ka; Big Manhole Cave; Blackwater Loc. No. 1, Clovis age; Blackwater Loc. No. 1, Folsom age; Charlies Parlor; Gray Sand; Hams' Pocket; Pendejo Cave (cf.); Stalag 17; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka. Late Wisconsin/Holocene: Burnet Cave; Conkling Cavern; Isleta Cave No. 1; Isleta Cave No. 2; Pendejo Cave.
- Canis latrans/lephagus*—Coyote or Johnson's Coyote
Blancan/Irvingtonian: Chamberino to Canutillo (cf.).
- Canis lupus*—Gray Wolf
Early/early–mid Wisconsin: Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsin: Pendejo Cave. Mid/late Wisconsin: Dark Canyon Cave; Hampton Court (?); Pit N&W Animal Fair. Late Wisconsin: Animal Fair 18–20 ka; Blackwater Loc. No. 1, Clovis age; Brown Sand Wedge; Gray Sand; Hermit's Cave; Sandia Cave, Folsom Level (cf.); Stalag 17. Late Wisconsin/Holocene: Burnet Cave; Isleta Cave No. 1; Isleta Cave No. 2; Pendejo Cave (cf.).
- Urocyon* sp.—Gray Foxes
Early/early–mid Wisconsin: Balcony on Lost Valley (cf.). Late Wisconsin: U-Bar Cave 18–20 (cf.). Late Wisconsin/Holocene: Conkling Cavern.
- Urocyon cinereoargenteus*—Gray Fox
Early/early–mid Wisconsin: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsin: Pendejo Cave; U-Bar Cave. Late Wisconsin: Blackwater Loc. No. 1, Clovis age; Camel Room; U-Bar Cave 15–18 ka. Late Wisconsin/Holocene: Howell's Ridge Cave; Isleta Cave No. 2; Pendejo Cave.
- Urocyon/Vulpes*—Gray Foxes or Red Foxes
Mid Wisconsin–Holocene: Shelter Cave.

Vulpes sp.—Red Foxes

Mid/late Wisconsinan: Pit N&W Animal Fair. Late Wisconsinan/Holocene: Howell's Ridge Cave.

Vulpes macrotis/velox—Kit Fox or Swift Fox

Mid Wisconsinan: Pendejo Cave (cf. gen. et sp.).

Vulpes macrotis—Kit Fox

Mid/late Wisconsinan: NW Talus Slope. Late Wisconsinan/Holocene: Isleta Cave No. 1; Isleta Cave No. 2.

Vulpes velox—Swift Fox

Rancholabrean: Palomas Creek Cave (cf.). Early/early-mid Wisconsinan: Rm Vanishing Floor (cf. gen. et sp.); Sabertooth Camel Maze (cf.). Mid/late Wisconsinan: Dark Canyon Cave (cf.); Hampton Court; NW Talus Slope. Late Wisconsinan: Algerita Blossom Cave; Animal Fair 18–20 ka; Big Manhole Cave; Bison Chamber; Blackwater Loc. No. 1, Clovis age; Camel Room (cf.); Charlies Parlor; Gray Sand; Harris' Pocket; Human Corridor; Stalag 17; TT II. Late Wisconsinan/Holocene: Balcony Room; Burnet Cave; Conkling Cavern; Isleta Cave No. 1; Isleta Cave No. 2.

Vulpes vulpes—Red Fox

Late Wisconsinan: Brown Sand Wedge (cf.); Camel Room (cf. gen. et sp.). Late Wisconsinan/Holocene: Burnet Cave; Isleta Cave No. 1; Isleta Cave No. 2.

FAMILY URSIDAE

†*Arctodus* sp.—Short-faced Bears

Late Wisconsinan: Conkling Cavern.

†*Arctodus simus*—Giant Short-faced Bear

Mid Wisconsinan: U-Bar Cave. Late Wisconsinan: Burnet Cave; Isleta Cave No. 1; Isleta Cave No. 2.

Ursus sp.—Bears

Early/early-mid Wisconsinan: Rm Vanishing Floor (cf.); Sabertooth Camel Maze (?). Mid/late Wisconsinan: Animal Fair (cf.). Late Wisconsinan/Holocene: Balcony Room (?); Pendejo Cave (cf.).

Ursus americanus—Black Bear

Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Late Wisconsinan: Brown Sand Wedge; Human Corridor; U-Bar Cave 13–14 ka. Late Wisconsinan/Holocene: Aden Fumerole; Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2.

FAMILY PROCYONIDAE

Bassariscus astutus—Ringtail

Wisconsinan: Big Manhole Cave. Early/early-mid Wisconsinan: Saber-tooth Camel Maze. Mid Wisconsinan: Pendejo Cave (cf. gen. et sp.); U-Bar Cave. Late Wisconsinan: Animal Fair 18–20 ka; Harris' Pocket; Muskox Cave; Pendejo Cave; U-Bar Cave 14–15 ka. Late Wisconsinan/Holocene: Baldy Peak Cave; Burnet Cave; Conkling Cavern; Pendejo Cave.

Procyon lotor—Raccoon

Late Wisconsinan: Brown Sand Wedge.

FAMILY MUSTELIDAE, SUBFAMILY MUSTELINAE

Mustela sp.—Weasels

Late Wisconsinan/Holocene: Conkling Cavern.

Mustela erminea—Ermine

Late Wisconsinan/Holocene: Balcony Room.

Mustela frenata—Long-tailed Weasel

Early/early-mid Wisconsinan: Lost Valley. Mid Wisconsinan: Pendejo Cave. Late Wisconsinan: Animal Fair 18–20 ka; Big Manhole Cave; Camel Room (cf.); Harris' Pocket; Human Corridor; Muskox Cave; Sheep Camp Shelter; TT II; U-Bar Cave 14–15; U-Bar Cave 15–18. Late Wisconsinan/Holocene: Pendejo Cave.

Mustela nigripes—Black-footed Ferret

Wisconsinan: Big Manhole Cave. Late Wisconsinan/Holocene: Burnet Cave; Isleta Cave No. 1; Isleta Cave No. 2.

Mustela vison—Mink

Late Wisconsinan/Holocene: Isleta Cave No. 2 (cf.).

SUBFAMILY MELINAE

Taxidea sp.—American Badgers

Early/early-mid Wisconsinan: Rm Vanishing Floor (cf.).

Taxidea taxus—Badger

Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid Wisconsinan–Holocene: Shelter Cave. Mid/late Wisconsinan: Animal Fair; Dark Canyon Cave. Late Wisconsinan: Big Manhole Cave; Circus Route; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka. Late Wisconsinan/Holocene: Burnet Cave; Conkling Cavern; Isleta Cave No. 2.

SUBFAMILY MEPHITINAE

Skunk (small)—Small Skunk

Late Wisconsinan: Brown Sand Wedge.

Conepatus sp.—Hog-nosed Skunks

Late Wisconsinan: Muskox Cave.

Conepatus mesoleucus—Hog-nosed Skunk

Mid/late Wisconsinan: Pit N&W Animal Fair. Late Wisconsinan/Holocene: Burnet Cave (cf.).

Mephitis mephitis—Striped Skunk

Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid Wisconsinan/Holocene: Shelter Cave. Mid/late Wisconsinan: Animal Fair. Late Wisconsinan: Algerita Blossom Cave; Anderson Basin No. 1; Big Manhole Cave; Camel Room; Charlies Parlor; Human Corridor; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Balcony Room; Baldy Peak Cave; Conkling Cavern (cf.); Isleta Cave No. 1; Isleta Cave No. 2; Robledo Cave (cf.).

Spilogale sp.—Spotted Skunks

Early/early-mid Wisconsinan: Lost Valley. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid Wisconsinan–Holocene: Shelter Cave. Mid/late Wisconsinan: Animal Fair; Dark Canyon Cave; Hampton Court; Pit N&W Animal Fair. Late Wisconsinan: Big Manhole Cave; Muskox Cave; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka. Late Wisconsinan/Holocene: Conkling Cavern; Howell's Ridge Cave; Pendejo Cave.

FAMILY FELIDAE/FAMILY URSIDAE

Felidae/Ursidae—Large Cat or Large Bear

Mid Wisconsinan: Pendejo Cave.

FAMILY FELIDAE, SUBFAMILY MACHAIRODONTINAE

†*Smilodon fatalis*—Sabertooth

Late Wisconsinan: Blackwater Loc. No. 1, Clovis age; Gray Sand.

†*Smilodon gracilis*—Gracile Sabertooth

Blancan/Irvingtonian: T28S R3E.

SUBFAMILY FELINAE

†*Acinonyx trumani*—American Cheetah

Late Wisconsinan: Muskox Cave.

Felis concolor—Mountain Lion

Early/early-mid Wisconsinan: Lost Valley (cf.); Rm Vanishing Floor (cf.); Sabertooth Camel Maze. Mid/late Wisconsinan: Hampton Court. Late Wisconsinan: Muskox Cave; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka. Late Wisconsinan/Holocene: Burnet Cave; Conkling Cavern; Howell's Ridge Cave; Isleta Caves.

Lynx sp.—Lynxes

Early/early-mid Wisconsinan: Sabertooth Camel Maze (?).

Lynx rufus—Bobcat

Blancan/Irvingtonian: Vicinity La Union (?). Irvingtonian: T28S R3E. Early/early-mid Wisconsinan: Lost Valley; Rm Vanishing Floor. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid Wisconsinan–Holocene: Shelter Cave. Mid/late Wisconsinan: Hampton Court; NW Talus Slope; Pendejo Cave. Late Wisconsinan: Algerita Blossom Cave; Big Manhole Cave; Human Corridor; Kentucky Club Room; Muskox Cave; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Balcony Room; Burnet Cave; Conkling Cavern (cf.); Isleta Cave No. 1; Isleta Cave No. 2.

Panthera sp.—Roaring Cats

Late Wisconsinan: Algerita Blossom Cave (?).

†*Panthera leo atrox*—Lion

Late Wisconsinan: Isleta Cave No. 1; Muskox Cave.

Panthera onca—Jaguar

Wisconsinan: South Chimney, Dry Cave. Early/early-mid Wisconsinan: Rm Vanishing Floor. Mid/late Wisconsinan: Pit N&W Animal Fair (cf.).

ORDER PROBOSCIDEA, FAMILY MAMMUTIDAE

†*Mammut americanum*—American Mastodont

Pleistocene: Tree Spring, Sandia Mts. Late Wisconsinan: Sandia Cave, Sandia Level.

FAMILY GOMPHOTHERIIDAE

†*Gomphotheriidae*—Gomphotheres

Blancan/Irvingtonian: Vicinity La Union.

†*Cuvieronius* sp.—Cuvier's Gomphotheres

Blancan/Irvingtonian: T28S R3E. Irvingtonian: Las Cruces.

†*Stegomastodon* sp.—Stegomastodont

Irvingtonian: Las Cruces.

FAMILY ELEPHANTIDAE

Elephantidae

Illinoian: Casados Ranch (?).

†*Mammuthus* sp.—Mammoths

Pleistocene: Deming; Encino Blowouts; Milagro; Quarai; Skull Ridge; Yeso Arroyo. Irvingtonian: Las Cruces; San Francisco River; Tijeras Arroyo NMMNH 1453. Wisconsinan: Chavez Quarry; San Agustín Plains; Springer Quarry; Picuris. Late Wisconsinan: Howell's Ridge Cave; Isleta Cave No. 1; Lucy Site; McCullum Ranch; San Jon; Sandia Cave, Folsom Level; Sandia Cave, Sandia Level; Stolle.

†*Mammuthus columbi*—Columbian Mammoth

Pleistocene: Albert; Black Rocks; Corona (cf.); Las Vegas; Pena Blanca; Rio Conchas; Sacramento Mts. Rancholabrean: Carrizozo (cf.); Guadalupe Canyon; Placitas. Mid/late Rancholabrean: Mesa Redonda. Wisconsinan: Bloomfield; Edith Fm. Late Wisconsinan: Anderson Basin No. 2 (cf.); Blackwater Loc. No. 1, Clovis age; Brown Sand wedge; Circus Basin (cf.); Gray Sand; Hermit's Cave; Mockingbird Gap.

†*Mammuthus imperator*—Imperial Mammoth

Pleistocene: Capitan; Galisteo. Irvingtonian: Galisteo; Tijeras Arroyo NMMNH 1455. Mid/late Rancholabrean: X-Bar-X Ranch. Early/early-mid Wisconsinan: Dunlap.

†*Mammuthus meridionalis*—Southern Mammoth

Irvingtonian: Tijeras Arroyo NMMNH 1452; Vicinity La Union (cf.).

ORDER PERISSODACTYLA, FAMILY TAPIRIDAE

Tapirus sp.—Tapirs

Pleistocene: Cornudas Mts. Early/early-mid Wisconsinan: Lost Valley.

†*Tapirus haysii*—Hay's Tapir

Blancan/Irvingtonian: Vicinity La Union.

FAMILY EQUIDAE

Equus sp.—Horses

Pleistocene: Black Rocks: Encino Blowouts; Skull Ridge; Yeso Arroyo. Blancan/Irvingtonian: Chamberino; San Antonio. Irvingtonian: Las Cruces. Rancholabrean: Guadalupe Canyon; Palomas Creek Cave; Placitas. Mid/late Rancholabrean: Mesa Redonda. Illinoian: Fresno Canyon. Early/early-mid Wisconsinan: Lost Valley. Late Wisconsinan: Conkling Cavern; Hermit's Cave; Lucy Site; McCullum Ranch; Muskox Cave; Sheep Camp Shelter; U-Bar Cave 15–18 ka.

†*Equus* sp. (small)—Small Horse

Mid/late Wisconsinan: Shelter Cave.

†*Equus* sp. (large)—Large Horse

Mid/Late Wisconsinan: Shelter Cave.

I†*Equus alaskae*—Mexican Horse

Quaternary: Nash Draw (?). Pleistocene: Sapillo Creek. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid/late Wisconsinan: Dark Canyon Cave; Hampton Court; NW Talus Slope; Pit N&W Animal Fair. Late Wisconsinan: Algerita Blossom Cave; Animal Fair 18–20 ka; Balcony Room; Big Manhole Cave; Bison Chamber (cf.); Burnet Cave; Camel Room (cf.); Charlies Parlor; Gray Sand; Harris' Pocket; Howell's Ridge Cave (cf.); Human Corridor; Isleta Cave No. 2 (cf.); Omega Cave; Pendejo Cave; Stalag 17; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka (cf.).

†*Equus francisci*—Stilt-legged Onager

Blancan/Irvingtonian: Chamberino to Canutillo (cf.); T28S R3E (cf.). Late Wisconsinan: Balcony Room; Burnet Cave (cf.); Blackwater Loc. No. 1, Clovis age.

†*Equus laurentius*—Niobrara Horse

Quaternary: Nash Draw (cf.). Illinoian: Casados Ranch. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid/late Wisconsinan: Dark Canyon Cave; Pit N&W Animal Fair. Late Wisconsinan: Anderson Basin (cf.); Animal Fair 18–20 ka; Balcony Room; Big Manhole Cave; Beyond Bison Chamber (cf.); Bison Chamber; Blackwater Loc. No. 1, Clovis age; Brown Sand Wedge; Burnet Cave; Camel Room; Charlies Parlor; Circus Basin (cf.); Elephant Tusk Basin (cf.); Gray Sand; Harris' Pocket; Human Corridor (?); Isleta Cave No. 1; Isleta Cave No. 2 (cf.); Sandia Cave, Sandia Level (?); Stalag 17; TT II; U-Bar Cave 14–15 (cf.).

†*Equus occidentalis*—Western Horse

Wisconsinan: Edith Fm (cf.). Early/early-mid Wisconsinan: Rm Vanishing Floor. Mid Wisconsinan: U-Bar Cave (cf.). Late Wisconsinan: Animal Fair 18–20 ka (cf.); Balcony Room (?); Charlies Parlor; Human Corridor; Sandia Cave, Folsom Level (cf.).

†*Equus* Species A—Unnamed Horse

Late Wisconsinan: Camel Room.

†*Equus scotti*—Scott's Horse

Blancan/Irvingtonian: Chamberino to Canutillo; T28S R3E; Vicinity La Union; 3 mi E Anthony. Irvingtonian: Tijeras Arroyo NMMNH 1452 (cf.).

ORDER ARTIODACTYLA, FAMILY TAYASSUIDAE

†*Platygonus* sp.—Flat-headed Peccaries

Early/early-mid Wisconsinan: Rm Vanishing Floor (cf.). Late Wisconsinan: Blackwater Loc. No. 1, Clovis age; Gray Sand; Oven Site; Sheep Camp Shelter (cf.).

Tayassu tajacu—Collared Peccary

Mid/late Wisconsinan: Dark Canyon Cave (cf. gen. et sp.).

FAMILY CAMELIDAE

†Camel—New World Camel

Pleistocene: Black Rocks. Late Wisconsinan: McCullum Ranch.

†*Blancocamelus meadi*—Mead's Camel

Blancan/Irvingtonian: T28S R3E.

†*Camelops* sp.—American Camel

Pleistocene: Manzano Cave; Skull Ridge (?). Quaternary: Nash Draw (cf.). Blancan/Irvingtonian: San Antonio; Vicinity La Union. Irvingtonian: Tijeras Arroyo NMMNH 1452 (cf. gen. et sp.). Early/early-mid Wisconsinan: New Area, Dry Cave; Rm Vanishing Floor. Mid Wisconsinan: Pendejo Cave; U-Bar Cave (cf.). Mid/late Wisconsinan: Animal Fair (cf.); Shelter Cave. Late Wisconsinan: Anderson Basin No. 1; Anderson Basin No. 2; Big Man-hole Cave; Brown Sand Wedge; Burnet Cave; Gray Sand; Howell's Ridge Cave (?); Muskox Cave (cf.); Sandia Cave, Folsom Level; Sandia Cave, Sandia Level.

†*Camelops hesternus*—Yesterday's Camel

Blancan/Irvingtonian: Chamberino to Canutillo (cf.) Wisconsinan: Edith Fm. Early/early-mid Wisconsinan: Lost Valley (cf.); Sabertooth Camel Maze (cf.). Late Wisconsinan: Blackwater Loc. No. 1, Clovis age; Camel Room (?); Conkling Cavern; Human Corridor; Isleta Cave No. 1 (cf.); Stalag 17.

†*Gigantocamelus* sp.—Giant Camels

Blancan/Irvingtonian: T28S R3E.

†*Hemiauchenia* sp.—American Llamas

Blancan/Irvingtonian: Vicinity Anapra; Vicinity La Union. Early/early-mid Wisconsinan: Sabertooth Camel Maze. Late Wisconsinan: Bison Chamber; Conkling Cavern; Human Corridor.

†*Hemiauchenia blancoensis*—Blanco Llama

Blancan/Irvingtonian: T28S R3E.

†*Hemiauchenia macrocephala*—Big-headed Llama

Wisconsinan: Big Manhole Cave. Mid Wisconsinan: Pendejo Cave (cf.). Late Wisconsinan: Algerita Blossom Cave; Animal Fair 18–20 ka; Blackwater Loc. No. 1, Clovis age; Camel Room; Charlies Parlor; Gray Sand; Isleta Cave No. 2 (cf.); Pendejo Cave (cf.); TT II.

FAMILY CERVIDAE

Cervidae (large)

Late Wisconsinan: Sheep Camp Shelter.

†*Navahoceros* sp.—Mountain Deer

Wisconsinan: Big Manhole Cave (cf.). Late Wisconsinan: Howell's Ridge Cave (?).

†*Navahoceros fricki*—Mountain Deer

Pleistocene: Cueva Las Cruces (or Chamberino to Canutillo). Mid Wisconsinan: U-Bar Cave. Late Wisconsinan: Burnet Cave; Hermit's Cave.

Odocoileus sp.—Deer

Blancan/Irvingtonian: Chamberino to Canutillo; T28S R4E. Wisconsinan: San Simon Sink (cf.). Early/early-mid Wisconsinan: Rm Vanishing Floor (?); Sabertooth Camel Maze (cf.). Mid Wisconsinan: U-Bar Cave. Mid Wisconsinan-Holocene: Shelter Cave. Late Wisconsinan: Animal Fair 18–20 ka; Big Manhole Cave; Charlies Parlor; Pendejo Cave; U-Bar Cave 15–18 ka. Late Wisconsinan/Holocene: Baldy Peak Cave.

Odocoileus hemionus—Mule Deer

Wisconsinan: Pumphouse Canyon. Mid Wisconsinan: Pendejo Cave (cf.). Mid Wisconsinan-Holocene: U-Bar Cave (cf.). Mid/late Wisconsinan: Animal Fair (cf.). Late Wisconsinan: Brown Sand Wedge; Folsom Site (?); Stalag 17 (?). Late Wisconsinan/Holocene: Aden Fumerole; Burnet Cave.

Odocoileus virginianus—White-tailed Deer

Late Wisconsinan: Blackwater Loc. No. 1, Clovis age; U-Bar Cave 14–15 ka (cf.). Late Wisconsinan/Holocene: Burnet Cave.

FAMILY ANTILOCAPRIDAE

Antilocapridae—Pronghorns

Late Wisconsinan: Gray Sand.

Antilocapra/Stockoceros—Pronghorn or Stock's Pronghorns

Late Wisconsinan: Harris' Pocket.

Antilocapra sp.—Pronghorn

Late Wisconsinan: Algerita Blossom Cave (?); Animal Fair 18–20 ka (cf.); Human Corridor; Muskox Cave (cf.); Stalag 17 (cf.). Late Wisconsinan/

Holocene: Conkling Cavern (cf.); Isleta Cave No. 2 (cf.).

Antilocapra americana—Pronghorn

Early/early–mid Wisconsinan: Lost Valley. Late Wisconsinan: Bison Chamber; Blackwater Loc. No. 1, Clovis age; Charlies Parlor. Late Wisconsinan/Holocene: Beyond Bison Chamber; Burnet Cave (cf.); Isleta Cave No. 1; Pendejo Cave; U-Bar Cave.

†*Capromeryx* sp.—Miniature Pronghorns

Pleistocene: Doolittle Cave. Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid/late Wisconsinan: Animal Fair; Dark Canyon Cave; Hampton Court; Pit N&W Animal Fair; Shelter Cave. Late Wisconsinan: Algerita Blossom Cave; Balcony Room (cf.); Blackwater Loc. No. 1, Clovis age; Brown Sand Wedge; Conkling Cavern; Human Corridor; Pendejo Cave; Stalag 17 (cf.); TT II (cf.); U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka (?); U-Bar Cave 18–20 ka.

†*Capromeryx minor*—Diminutive Pronghorn

Late Wisconsinan: Pendejo Cave.

†*Stockoceros* sp.—Stock's Pronghorns

Wisconsinan: Big Manhole Cave (cf.). Mid Wisconsinan: Pendejo Cave. Late Wisconsinan: Conkling Cavern; Pendejo Cave; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. (cf.).

†*Stockoceros conklingi*—Conkling's Pronghorn

Mid/late Wisconsinan: Dark Canyon Cave (? gen. et sp.); Shelter Cave. Late Wisconsinan: Muskox Cave.

†*Stockoceros onusrosagris*—Quentin's Pronghorn

Mid Wisconsinan: U-Bar Cave. Late Wisconsinan: Burnet Cave; Muskox Cave.

FAMILY BOVIDAE

Bison sp.—Bison

Pleistocene: Encino Blowouts; Lincoln Co.; Skull Ridge. Rancholabrean: Ruidoso. Wisconsinan: Edith Fm. Mid/late Wisconsinan: U-Bar Cave. Late Wisconsinan: Anderson Basin No. 2; Big Manhole Cave; Camel Room; Harris' Pocket; McCullum Ranch; U-Bar Cave 18–20 ka (cf.). Late Wisconsinan/Holocene: Black River; Conkling Cavern; Howell's Ridge Cave (cf.); Lucy Site.

†*Bison antiquus*—Ancient Bison

Late Pleistocene: Yeso Arroyo. Late Wisconsinan: Blackwater Loc. No. 1, Clovis age; Blackwater Loc. No. 1, Folsom age.

†*Bison antiquus antiquus*—Ancient Bison

Rancholabrean: Clovis area; Lea Co. Late Wisconsinan: Bison Chamber (cf.); Brown Sand Wedge; Burnet Cave; Gray Sand; Sandia Cave, Folsom Level; Sandia Cave, Sandia Level; IT II (cf.).

†*Bison antiquus occidentalis*—Western Bison

Late Wisconsinan/Holocene: Clovis area; Folsom Site.

Bison—American Bison

Wisconsinan: New La Bajada Hill (cf.).

†*Bison latifrons*—Giant Bison

Rancholabrean: Raton. Late Wisconsinan: Bernalillo.

†*Bison priscus*—Steppe Bison

Rancholabrean: Clovis area.

Bison/Bos—Bison or Cattle

Late Wisconsinan/Holocene: Isleta Caves.

†*Bootherium bombifrons*—Woodland Muskox

Pleistocene: Black Rocks.

†*Euceratherium* sp.—Shrub-oxen

Mid Wisconsinan: U-Bar Cave (cf.). Late Wisconsinan: U-Bar Cave 18–20 ka (cf.).

†*Euceratherium collinum*—Shrub-ox

Pleistocene: Abiquiu. Late Wisconsinan: Burnet Cave; Muskox Cave; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka.

†*Oreamnos*-like bovid—Mountain-goat-like Bovid

Mid/late Wisconsinan: Dark Canyon Cave. Late Wisconsinan: Muskox Cave.

†*Oreamnos harringtoni*—Harrington's Mountain Goat

Mid Wisconsinan: U-Bar Cave.

Ovis sp.—Sheep

Late Wisconsinan/Holocene: Isleta Caves.

Ovis canadensis—Bighorn Sheep

Rancholabrean: Palomas Creek Cave. Wisconsinan: Bloomfield; Witch Cave. Mid Wisconsinan: Pendejo Cave (?). Mid Wisconsinan–Holocene: Shelter Cave. Late Wisconsinan: Muskox Cave; Charlies Parlor. Late Wisconsinan/Holocene: Burnet Cave; Pendejo Cave.

ORDER RODENTIA, FAMILY SCIURIDAE

Squirrel, size *Tamiasciurus*—Red-squirrel-sized Squirrel

Wisconsinan: New La Bajada Hill.

Ammospermophilus sp.—Antelope Squirrels

Early/early–mid Wisconsinan: Lost Valley.

Ammospermophilus interpres—Texas Antelope Squirrel

Late Wisconsinan/Holocene: Pendejo Cave (cf.).

Cynomys sp.—Prairie Dogs

Early/early–mid Wisconsinan: Rm Vanishing Floor. Late Wisconsinan: Pendejo Cave; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka.

Cynomys (Leucocrossuromys) sp.—White-tailed Prairie Dogs

Late Wisconsinan: Harris' Pocket.

Cynomys gunnisoni—Gunnison's Prairie Dog

Quaternary: Hatch Cemetery (?). Mid Wisconsinan: Pendejo Cave; U-Bar Cave (cf.). Late Wisconsinan: Animal Fair 18–20 ka. Late Wisconsinan/Holocene: Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2.

Cynomys ludovicianus—Black-tailed Prairie Dog

Mid/late Wisconsinan: Dark Canyon Cave; Pit N&W Animal Fair. Late Wisconsinan: Blackwater Loc. No. 1, Clovis age; Brown Sand Wedge; Folsom Site (?). Late Wisconsinan/Holocene: Burnet Cave; Conkling Cavern (cf.); Howell's Ridge Cave; Pendejo Cave.

Cynomys mexicanus—Mexican Prairie Dog

Early/early–mid Wisconsinan: Lost Valley (cf.).

Marmota sp.—Marmots

Late Wisconsinan: Hermit's Cave.

Marmota flaviventris—Yellow-bellied Marmot

Pleistocene: Cave in Manzano Mts. Wisconsinan: New La Bajada Hill. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid/late Wisconsinan: Dark Canyon Cave. Late Wisconsinan: Animal Fair 18–20 ka; Big Manhole Cave; Harris' Pocket; Muskox Cave; U-Bar Cave 14–15 ka. Late Wisconsinan/Holocene: Balcony Room; Baldy Peak Cave; Burnet Cave; Isleta Cave No. 2; Sheep Camp Shelter; Tularosa Cave.

Sciurus carolinensis—Gray Squirrel

Late Wisconsinan: Brown Sand Wedge (?).

Spermophilus sp.—Ground Squirrels

Mid/late Wisconsinan: Dark Canyon Cave. Late Wisconsinan: Folsom Site. Late Wisconsinan/Holocene: Conkling Cavern.

Spermophilus sp. (*S. elegans* size)—Ground Squirrel (size *S. elegans*)

Mid Wisconsinan: Pendejo Cave.

Spermophilus elegans—Wyoming Ground Squirrel

Late Wisconsinan: Animal Fair 18–20 ka; Charlies Parlor (cf.); Harris' Pocket.

Spermophilus lateralis—Golden-mantled Ground Squirrel

Late Wisconsinan: Sheep Camp Shelter (cf.).

Spermophilus (Ictidomys) sp.—Ictidomys Ground Squirrels

Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Late Wisconsinan: Algerita Blossom Cave; Charlies Parlor; Ti' II. Late Wisconsinan/Holocene: Howell's Ridge Cave.

Spermophilus spilosoma—Spotted Ground Squirrel

Mid/late Wisconsinan: Animal Fair; Pit N&W Animal Fair (cf.). Late Wisconsinan: Pendejo Cave (cf.); U-Bar Cave 14–15 ka (cf.); U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Isleta Cave No. 1

Spermophilus tridecemlineatus—Thirteen-lined Ground Squirrel

Mid/late Wisconsinan: Dark Canyon Cave (cf.). Late Wisconsinan: Animal Fair 18–20 ka (cf.); Bison Chamber; Harris' Pocket.

Spermophilus variegatus—Rock Squirrel

Early/early–mid Wisconsinan: Rm Vanishing Floor. Mid Wisconsinan: Pendejo Cave (cf.); U-Bar Cave. Late Wisconsinan: Muskox Cave; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Burnet Cave; Pendejo Cave.

Tamias sp.—Chipmunks

Mid/late Wisconsinan: Lost Valley. Late Wisconsinan: Big Manhole Cave; Muskox Cave; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Conkling Cavern; Sheep Camp Shelter.

Tamias cinereicollis—Gray-collared Chipmunk

Late Wisconsinan/Holocene: Baldy Peak Cave (?).

Tamias dorsalis—Cliff Chipmunk

Mid Wisconsinan: U-Bar Cave (?).

Tamias minimus—Least Chipmunk

- Mid Wisconsinan: Pendejo Cave. Late Wisconsinan: Bat Cave.
Tamias quadrivittatus—Colorado Chipmunk
 Mid Wisconsinan: Pendejo Cave (?). Late Wisconsinan/Holocene:
 Pendejo Cave (cf.).
Tamiasciurus hudsonicus—Red Squirrel
 Late Wisconsinan: Muskox Cave.

FAMILY GEOMYIDAE

- Geomyidae—Pocket Gophers
 Blancan/Irvingtonian: T28 R3E. Mid Wisconsinan–Holocene: Shelter Cave (?).
Cratogeomys castanops—Yellow-faced Pocket Gopher
 Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsinan: Pendejo Cave. Mid/late Wisconsinan: Dark Canyon Cave; Hampton Court; NW Talus Slope; Pit N&W Animal Fair. Late Wisconsinan: Algerita Blossom Cave; Animal Fair 18–20 ka; Charlies Parlor; Harris' Pocket; Human Corridor; Pendejo Cave; Stalag 17; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka. Late Wisconsinan/Holocene: Burnet Cave; Pendejo Cave. Middle Holocene: NIIP. Late Holocene: NIIP.
Geomys sp.—Eastern Pocket Gophers
 Late Wisconsinan/Holocene: Conkling Cavern; Pendejo Cave.
Geomys arenarius/bursarius—Desert or Plains Pocket Gopher
 Mid Wisconsinan: Pendejo Cave.
Geomys bursarius—Plains Pocket Gopher
 Late Wisconsinan: Blackwater Loc.No. 1, Folsom age; Brown Sand Wedge (cf.).

- Thomomys* sp.—Western Pocket Gophers
 Wisconsinan: New La Bajada Hill. Late Wisconsinan: U-Bar Cave 13–14 ka.
Thomomys bottae—Botta's Pocket Gopher
 Rancholabrean: Palomas Creek Cave. Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid/late Wisconsinan: Dark Canyon Cave; NW Talus Slope; Pit N&W Animal Fair. Late Wisconsinan: Algerita Blossom Cave; Animal Fair 18–20 ka; Bat Cave; Big Manhole Cave; Bison Chamber; Camel Room; Charlies Parlor; Folsom Site; Harris' Pocket; Human Corridor; Muskox Cave (cf.); Pendejo Cave; Stalag 17 (cf.); TT II; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka (cf.); U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Balcony Room; Baldy Peak Cave; Burnet Cave (cf.); Conkling Cavern; Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2.
Thomomys talpoides—Northern Pocket Gopher
 Mid Wisconsinan: Pendejo Cave. Mid/late Wisconsinan: Dark Canyon Cave. Late Wisconsinan: Algerita Blossom Cave; Animal Fair 18–20 ka; Bison Chamber; Camel Room; Harris' Pocket; Human Corridor; Pendejo Cave; TT II. Late Wisconsinan/Holocene: Sheep Camp Shelter.

FAMILY HETEROMYIDAE

- Dipodomys* sp.—Kangaroo Rats
 Late Wisconsinan/Holocene: Conkling Cavern.
Dipodomys (small)—Small Kangaroo Rat
 Pleistocene: Picacho (cf.). Early/early–mid Wisconsinan: Rm Vanishing Floor; Sabertooth Camel Maze.
Dipodomys merriami—Merriam's Kangaroo Rat
 Late Wisconsinan/Holocene: Howell's Ridge Cave; Isleta Caves; Pendejo Cave.
Dipodomys merriami/ordi—Merriam's or Ord's Kangaroo Rat
 Late Wisconsinan: Algerita Blossom Cave; Dry Cave <13 ka; Pendejo Cave.
Dipodomys ordi—Ord's Kangaroo Rat
 Early/early–mid Wisconsinan: Lost Valley. Mid Wisconsinan: Pendejo Cave. Late Wisconsinan: Charlies Parlors (cf.); Human Corridor (cf.); U-Bar Cave (cf.). Late Wisconsinan/Holocene: Burnet Cave; Howell's Ridge Cave; Isleta Cave No. 1; Pendejo Cave; Sheep Camp Shelter.
Dipodomys spectabilis—Banner-tailed Kangaroo Rat
 Early/early–mid Wisconsinan: Lost Valley. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid/late Wisconsinan: Animal Fair; Dark Canyon Cave (cf.). Late Wisconsinan: Algerita Blossom Cave; Bison Chamber; Human Corridor; Pendejo Cave; TT II; U-Bar Cave 13–14 ka (cf.); U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka (cf.); U-Bar Cave 18–20 ka (cf.). Late Wisconsinan/Holocene: Beyond Bison Chamber; Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2.
Perognathus sp.—Pocket Mouse
 Early/early–mid Wisconsinan: Lost Valley. Mid/late Wisconsinan: Dark Canyon Cave. Late Wisconsinan: Bat Cave.

- Perognathus (Perognathus)* sp.—Silky Pocket Mice
 Early/early–mid Wisconsinan: Rm Vanishing Floor. Mid/late Wisconsinan: Animal Fair. Late Wisconsinan: Algerita Blossom Cave; Bison Chamber; Charlies Parlor; Pendejo Cave; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Beyond Bison Chamber.
Perognathus Species A—Unknown Pocket Mouse
 Mid/late Wisconsinan: Animal Fair.
Perognathus flavus/flavescens—Silky Pocket Mouse/Plains Pocket Mouse
 Mid Wisconsinan: Pendejo Cave.
Perognathus flavus—Silky Pocket Mouse
 Mid Wisconsinan: U-Bar Cave (cf.). Late Wisconsinan: Muskox Cave. Late Wisconsinan/Holocene: Howell's Ridge Cave; Isleta Cave No. 1 (cf.); Isleta Cave No. 2.
Perognathus (Chaetodipus) sp.—Spiny Pocket Mice
 Early/early–mid Wisconsinan: Rm Vanishing Floor. Mid Wisconsinan: U-Bar Cave. Late Wisconsinan: U-Bar Cave 14–15 ka.
Perognathus baileyi—Bailey's Pocket Mouse
 Late Wisconsinan/Holocene: Howell's Ridge Cave (cf.); U-Bar Cave.
Perognathus hispidus—Hispid Pocket Mouse
 Late Wisconsinan: TT II. Late Wisconsinan/Holocene: Beyond Bison Chamber.
Perognathus intermedius—Rock Pocket Mouse
 Late Wisconsinan/Holocene: Isleta Cave No. 1 (cf.); Isleta Cave No. 2.

FAMILY CASTORIDAE

- Castor canadensis*—Beaver
 Irvingtonian: Vicinity La Union.

FAMILY MURIDAE, SUBFAMILY SIGMODONTINAE

- Neotoma* sp.—Woodrats
 Late Wisconsinan: Bat Cave; Blackwater Loc. No. 1, Folsom age; Brown Sand Wedge.
Neotoma albigula—White-throated Woodrat
 Wisconsinan: Big Manhole Cave. Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid/late Wisconsinan: Animal Fair; Dark Canyon Cave; Pit N&W Animal Fair (cf.). Late Wisconsinan: Algerita Blossom Cave; Hams' Pocket; Muskox Cave; Pendejo Cave; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Baldy Peak Cave (cf.); Beyond Bison Chamber; Conkling Cavern; Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2; Pendejo Cave.
Neotoma cinerea—Bushy-tailed Woodrat
 Rancholabrean: Palomas Creek Cave. Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid Wisconsinan–Holocene: Shelter Cave. Mid/late Wisconsinan: Dark Canyon Cave; Hampton Court; Pit N&W Animal Fair. Late Wisconsinan: Algerita Blossom Cave; Animal Fair 18–20 ka; Big Manhole Cave; Bison Chamber; Camel Room; Charlies Parlor; Harris' Pocket; Human Corridor; Muskox Cave; Pendejo Cave; Stalag 17; TT II; U-Bar Cave 13–14 ka (cf.); U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Baldy Peak Cave; Burnet Cave (cf.); Conkling Cavern; Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2; Sheep Camp Shelter.
 †*Neotoma findleyi*—Findley's Woodrat
 Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor. Mid Wisconsinan: U-Bar Cave.
Neotoma floridana—Eastern Woodrat
 Mid Wisconsinan: Pendejo Cave (?). Late Wisconsinan: Algerita Blossom Cave; Rick's Cenote (cf.); Stalag 17; TT II (?); U-Bar Cave 14–15 (cf.); U-Bar Cave 15–18 (cf.); U-Bar Cave 18–20 (cf.). Late Wisconsinan/Holocene: Pendejo Cave (cf.).
Neotoma goldmani—Goldman's Woodrat
 Mid/late Wisconsinan: Animal Fair (?).
Neotoma mexicana—Mexican Woodrat
 Mid Wisconsinan: U-Bar Cave. Late Wisconsinan: Muskox Cave; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Baldy Peak Cave; Burnet Cave (cf.); Howell's Ridge Cave; Pendejo Cave.
Neotoma micropus—Southern Plains Woodrat
 Early/early–mid Wisconsinan: Lost Valley. Late Wisconsinan: Bison Chamber (?); Big Manhole Cave; Harris' Pocket (cf.); Muskox Cave; TT II. Late Wisconsinan/Holocene: Isleta Cave No. 1 (?); Isleta Cave No. 2 (?).

- †*Neotoma pygmaea*—Pygmy Woodrat
Early/early–mid Wisconsin: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze (cf.).
- Neotoma stephensi*—Stephen's Woodrat
Mid Wisconsin: U-Bar Cave. Late Wisconsin: U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka.
- Onychomys arenicola*—Mearn's Grasshopper Mouse
Late Wisconsin/Holocene: Pendejo Cave.
- Onychomys leucogaster*—Northern Grasshopper Mouse
Wisconsin: Big Manhole Cave. Early/early–mid Wisconsin: Lost Valley. Mid Wisconsin: Pendejo Cave. Mid/late Wisconsin: Dark Canyon Cave; Pit N&W Animal Fair. Late Wisconsin: Animal Fair 18–20 ka; Harris' Pocket; Muskox Cave; Stalag 17; TT II; U-Bar Cave 14–15 ka. Late Wisconsin/Holocene: Balcony Room; Isleta Cave No. 1; Isleta Cave No. 2; Pendejo Cave; Sheep Camp Shelter.
- Onychomys torridus*—Southern Grasshopper Mouse
Mid/late Wisconsin: Muskox Cave. Late Wisconsin/Holocene: Isleta Cave No. 1; Isleta Cave No. 2.
- Onychomys torridus*-type—Southern Grasshopper Mouse-type
Mid/late Wisconsin: U-Bar Cave. Late Wisconsin/Holocene: Howells Ridge Cave.
- Peromyscus* sp.—Deer Mice
Wisconsin: Big Manhole Cave; New La Bajada Hill; White Lake. Mid Wisconsin: Pendejo Cave. Mid/late Wisconsin: Dark Canyon Cave; Pit N&W Animal Fair. Late Wisconsin: Algerita Blossom Cave; Bat Cave; Camel Room; Charlies Parlor; Human Corridor; Muskox Cave; Stalag 17; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsin/Holocene: Conkling Cavern; Isleta Cave No. 1; Pendejo Cave; Sheep Camp Shelter.
- Peromyscus boylii*—Brush Mouse
Early/early–mid Wisconsin: Lost Valley. Mid Wisconsin: U-Bar Cave (?). Late Wisconsin: Bison Chamber (?).
- Peromyscus eremicus*—Cactus Mouse
Mid Wisconsin: U-Bar Cave.
- Peromyscus leucopus*—White-footed Mouse
Late Wisconsin: Brown Sand Wedge (cf.); Harris' Pocket. Late Wisconsin/Holocene: Balcony Room; Beyond Bison Chamber; Bison Chamber.
- Peromyscus maniculatus*—Deer Mouse
Early/early–mid Wisconsin: Rm Vanishing Floor (?). Mid Wisconsin: U-Bar Cave. Mid/late Wisconsin: Animal Fair (cf.). Late Wisconsin: Animal Fair 18–20 ka (?); Bison Chamber (cf.); Harris' Pocket (cf.). Late Wisconsin/Holocene: Balcony Room (cf.); Beyond Bison Chamber (cf.); Burnet Cave (cf.).
- Peromyscus nasutus*—Northern Rock Mouse
Early/early–mid Wisconsin: Rm Vanishing Floor (?). Mid Wisconsin: U-Bar Cave. Late Wisconsin: Harris' Pocket.
- Peromyscus pectoralis*—White-ankled Mouse
Late Wisconsin/Holocene: Beyond Bison Chamber (?).
- Peromyscus truei*—Piñon Mouse
Early/early–mid Wisconsin: Rm Vanishing Floor (cf.). Mid Wisconsin: U-Bar Cave. Late Wisconsin: Bison Chamber (cf.); Brown Sand Wedge (cf.).
- Reithrodontomys* sp.—Harvest Mice
Early/early–mid Wisconsin: Rm Vanishing Floor. Mid Wisconsin: Pendejo Cave. Mid/late Wisconsin: Animal Fair; Dark Canyon Cave. Late Wisconsin: Algerita Blossom Cave; Bison Chamber; Human Corridor; U-Bar Cave 14–15 ka. Late Wisconsin/Holocene: Balcony Room; Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2; Pendejo Cave.
- Reithrodontomys fulvescens*—Fulvous Harvest Mouse
Late Wisconsin: Muskox Cave (cf. gen. et sp.).
- Reithrodontomys megalotis*—Western Harvest Mouse
Mid Wisconsin: U-Bar Cave (cf.). Late Wisconsin: Brown Sand Wedge (cf.); TT II (cf.). Late Wisconsin/Holocene: Sheep Camp Shelter (cf.).
- Sigmodon* sp.—Cotton Rats
Early/early–mid Wisconsin: Lost Valley. Mid Wisconsin: Pendejo Cave; U-Bar Cave. Late Wisconsin: Algerita Blossom Cave; Human Corridor; Pendejo Cave; U-Bar Cave 14–15 ka. Late Wisconsin/Holocene: Howell's Ridge Cave.
- Sigmodon hispidus*—Hispid Cotton Rat
Late Wisconsin: Brown Sand Wedge; TT II (cf.). Late Wisconsin/Holocene: Balcony Room; U-Bar Cave. Middle Holocene: Atlatl Cave.
- Sigmodon ochrognathus*—Yellow-nosed Cotton Rat
Late Wisconsin: U-Bar Cave 15–18 ka.

SUBFAMILY ARVICOLINAE

- Lemmiscus curtatus*—Sagebrush Vole
Wisconsin: Big Manhole Cave; Whut Cave. Mid Wisconsin: Pendejo Cave; U-Bar Cave. Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: Algerita Blossom Cave; Animal Fair 18–20 ka; Bison Chamber; Boyd's Cave; Burnet Cave; Camel Room; Charlies Parlor; Harris' Pocket; Howell's Ridge Cave; Human Corridor; Isleta Cave No. 1; Isleta Cave No. 2; Sheep Camp Shelter; Stalag 17; TT II; U-Bar Cave 13–14 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsin/Holocene: Atlatl Cave; Balcony Room; Pendejo Cave.
- Microtus* sp.—Voles
Late Wisconsin: U-Bar Cave 13–14 ka. Late Wisconsin/Holocene: Baldy Peak Cave.
- Microtus longicaudus*—Long-tailed Vole
Rancholabrean: Palomas Creek Cave (?). Mid/late Wisconsin: Dark Canyon Cave. Late Wisconsin: Algerita Blossom Cave; Animal Fair 18–20 ka; Bison Chamber; Burnet Cave (cf.); Harris' Pocket; Sheep Camp Shelter; Stalag 17; TT II.
- Microtus mexicanus*—Mexican Vole
Mid Wisconsin: Pendejo Cave; U-Bar Cave. Mid/late Wisconsin: Dark Canyon Cave; Pit N&W Animal Fair. Late Wisconsin: Algerita Blossom Cave; Animal Fair 18–20 ka; Bat Cave; Big Manhole Cave; Bison Chamber; Brown Sand Wedge (cf.); Camel Room; Charlies Parlor; Harris' Pocket; Human Corridor; Muskox Cave; Stalag 17; TT II; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsin/Holocene: Beyond Bison Chamber; Burnet Cave; Conkling Cavern; Howell's Ridge Cave; Pendejo Cave.
- Microtus montanus*—Montane Vole
Wisconsin: Whut Cave. Mid/late Wisconsin: Shelter Cave. Late Wisconsin: Howell's Ridge Cave.
- Microtus ochrogaster*—Prairie Vole
Early/early–mid Wisconsin: Lost Valley. Mid/late Wisconsin: Dark Canyon Cave; Hampton Court; Pit N&W Animal Fair. Late Wisconsin: Algerita Blossom Cave; Animal Fair 18–20 ka; Bison Chamber; Brown Sand Wedge; Harris' Pocket; Muskox Cave; Stalag 17; TT II; U-Bar Cave 15–18 ka (?). Late Wisconsin/Holocene: Balcony Room. Middle Holocene: Atlatl Cave.
- Microtus pennsylvanicus*—Meadow Vole
Wisconsin: White Lake. Mid Wisconsin: Pendejo Cave (?); U-Bar Cave. Late Wisconsin: Algerita Blossom Cave; Animal Fair 18–20 ka; Bat Cave; Blackwater Loc. No. 1, Clovis age; Brown Sand Wedge; Harris' Pocket; Hermit's Cave; Human Corridor; Muskox Cave; TT II; U-Bar Cave 14–15 ka. Late Wisconsin/Holocene: Burnet Cave; Howell's Ridge Cave; Isleta Cave No. 1 (cf.).
- Ondatra zibethicus*—Common Muskrat
Wisconsin: White Lake. Late Wisconsin: Animal Fair 18–20 ka; Blackwater Loc. No. 1, Clovis age; Blackwater Loc. No. 1, Folsom age; Brown Sand Wedge; Gray Sand; Harris' Pocket; Muskox Cave. Late Wisconsin/Holocene: Baldy Peak Cave.
- Phenacomys intermedius*—Heather Vole
Late Wisconsin: Sheep Camp Shelter.

FAMILY ERETHIZONTIDAE

- Erethizon dorsatum*—Common Porcupine
Wisconsin: Cave NE Dry Cave. Early/early–mid Wisconsin: Rm Vanishing Floor (cf. gen. et sp.). Mid/late Wisconsin: U-Bar Cave. Late Wisconsin: Animal Fair 18–20 ka; Big Manhole Cave; Charlies Parlor; Harris' Pocket; Human Corridor; Muskox Cave; Rick's Cenote. Late Wisconsin/Holocene: Isleta Cave No. 1; Pendejo Cave; Sheep Camp Shelter.

ORDER LAGOMORPHA, FAMILY LEPORIDAE

- †*Aluralagus virginiae*—Virginia Rabbit
Blancan/Irvingtonian: T28S R3E; Vicinity La Union.
- †*Aztlanolagus agilis*—Aztlan Rabbit
Early/early–mid Wisconsin: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsin: Pendejo Cave; U-Bar Cave. Late Wisconsin: U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka.
- Brachylagus idahoensis*—Pygmy Rabbit
Late Wisconsin: Isleta Cave No. 2; Sheep Camp Shelter.
- Lepus* sp.—Jack Rabbits
Mid Wisconsin: U-Bar Cave. Late Wisconsin: Bat Cave; Bison Cham-

ber; Brown Sand Wedge; Folsom Site; Human Corridor; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Baldy Peak Cave; Beyond Bison Chamber; Burnet Cave; Conkling Cave; Sheep Camp Shelter.

Lepus californicus—Black-tailed Jack Rabbit

Early/early–mid Wisconsinan: Balcony on Lost Valley; Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsinan: Pendejo Cave. Mid Wisconsinan/Holocene: Shelter Cave. Mid/late Wisconsinan: Hampton Court; Pit N&W Animal Fair. Late Wisconsinan: Algerita Blossom Cave (cf.); Big Manhole Cave; Blackwater Loc. No. 1, Clovis age; TT II; U-Bar Cave 13–14 ka (?); U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka. Late Wisconsinan/Holocene: Aden Fumerole; Isleta Cave No. 2; Pendejo Cave.

Lepus townsendi—White-tailed Jack Rabbit

Wisconsinan: Maze NE Entrance Dry Cave. Mid Wisconsinan: Pendejo Cave (cf.). Mid/late Wisconsinan: Dark Canyon Cave; Hampton Court; Pit N&W Animal Fair. Late Wisconsinan: Algerita Blossom Cave (cf.); Animal Fair 18–20 ka; Camel Room; Charlies Parlor; Harris' Pocket; Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2; Rick's Cenote; Stalag 17; U-Bar Cave (cf.). Late Wisconsinan/Holocene: Balcony Room (cf.).

Lepus/Sylvilagus—Jack Rabbit or Cottontail

Blancan/Irvingtonian: T28S R3E (cf.).

Sylvilagus sp.—Cottontails

Early/early–mid Wisconsinan: New Area, Dry Cave. Late Wisconsinan: Bat Cave. Late Wisconsinan/Holocene: Baldy Peak Cave; Beyond Bison Chamber; Sheep Camp Shelter.

Sylvilagus auduboni—Desert Cottontail

Wisconsinan: Big Manhole Cave. Early/early–mid Wisconsinan: Lost Valley (cf.); Rm Vanishing Floor; Sabertooth Camel Maze. Mid Wisconsinan:

Pendejo Cave. Mid/late Wisconsinan: Pit N&W Animal Fair. Late Wisconsinan: Algerita Blossom Cave; Stalag 17; Pendejo Cave; TT II (cf.); U-Bar Cave 13–14 ka; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Balcony Room; Burnet Cave (?); Conkling Cavern; Isleta Cave No. 1; Isleta Cave No. 2; Howell's Ridge Cave.

Sylvilagus auduboni/floridanus—Desert or Eastern Cottontail
Mid Wisconsinan: U-Bar Cave.

Sylvilagus floridanus—Eastern Cottontail

Rancholabrean: Palomas Creek Cave (cf.). Early/early–mid Wisconsinan: Lost Valley (cf.). Mid Wisconsinan: Pendejo Cave. Late Wisconsinan: Camel Room (?); Muskox Cave (cf.); Stalag 17 (?). Late Wisconsinan/Holocene: Isleta Cave No. 1; Isleta Cave No. 2; Pendejo Cave; U-Bar Cave (?).

Sylvilagus floridanus/nuttalli—Eastern or Nuttall's Cottontail

Late Wisconsinan: U-Bar Cave 13–14 ka; U-Bar Cave 18–20 ka. Late Wisconsinan/Holocene: Burnet Cave.

Sylvilagus nuttalli—Nuttall's Cottontail

Early/early–mid Wisconsinan: Lost Valley; Rm Vanishing Floor; Sabertooth Camel Maze (cf.). Mid Wisconsinan: Pendejo Cave; U-Bar Cave. Mid/late Wisconsinan: Dark Canyon Cave; Hampton Court; Pit N&W Animal Fair. Late Wisconsinan: Algerita Blossom Cave; Animal Fair 18–20 ka; Big Manhole Cave; Bison Chamber; Camel Room; Charlies Parlor; Circus Route; Harris' Pocket; Human Corridor; Muskox Cave (cf.); Stalag 17; TT II; U-Bar Cave 14–15 ka; U-Bar Cave 15–18 ka. Late Wisconsinan/Holocene: Boyd's Cave; Burnet Cave; Conkling Cavern; Howell's Ridge Cave; Isleta Cave No. 1; Isleta Cave No. 2; Pendejo Cave (cf.).