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TECHNICAL REPORTS

**A CATALOGUE OF LATE QUATERNARY
VERTEBRATES FROM CALIFORNIA:
PART TWO, MAMMALS**

George T. Jefferson



Natural History Museum of Los Angeles County • 900 Exposition Boulevard • Los Angeles, California 90007

**A CATALOGUE OF LATE QUATERNARY VERTEBRATES
FROM CALIFORNIA: PART TWO, MAMMALS**

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CONTENTS

Abstract	1
Introduction	1
Catalogue of Late Quaternary Terrestrial Mammals from California Localities	5
Alameda County	5
Alameda and Contra Costa Counties	11
Amador County	11
Butte County	11
Calaveras County	11
Contra Costa County	13
El Dorado County	19
Fresno County	20
Glenn County	21
Humboldt County	21
Imperial County	22
Inyo County	23
Kern County	25
Kings County	29
Lake County	30
Lassen County	30
Los Angeles County	31
Madera County	50
Marin County	50

Mariposa County	51
Merced County	51
Modoc County	52
Modoc or Siskiyou County	52
Monterey County	52
Nevada County	53
Orange County	53
Placer County	58
Riverside County	59
Sacramento County	61
San Benito County	63
San Bernardino County	63
San Diego County	77
San Francisco County	79
San Joaquin County	80
San Luis Obispo County	81
San Mateo County	83
Santa Barbara County	84
Santa Clara County	87
Santa Cruz County	89
Shasta County	89
Sierra County	92
Siskiyou County	92
Siskiyou or Modoc County	93
Solano County	93
Sonoma County	94

Stanislaus County	95
Sutter County	96
Tehama County	97
Trinity County	97
Tulare County	97
Tuolumne County	98
Ventura County	100
Yolo County	102
Catalogue of Late Quaternary Marine Mammals from California Localities	104
Combined Taxonomic List of Rancholabrean Mammals from California	110
Literature Cited	115

ABSTRACT

Part two of the catalogue of late Quaternary vertebrates from California systematically lists 2,258 records of mammalian taxa. These have been recovered from 677 late Pleistocene (Rancholabrean) through earliest Holocene localities that represent a period of time from about 300 or 400 ka to 10 ka BP. Each entry includes institutional locality numbers, geologic formations, relative and absolute ages, and sources of information. A combined systematic list of late Pleistocene mammals, including 150 taxa, is provided for the state. Marine mammals from 41 localities are catalogued separately.

INTRODUCTION

This catalogue provides a data base that may be used in late Pleistocene regional paleogeographic and paleoenvironmental studies, or for the assessment of paleontologic resources, a critical element in land use planning in California. The period covered ranges from about 300 or 400 ka to 10 ka BP. It has been designated the Rancholabrean North American Land Mammal Age and succeeds the early Pleistocene Irvingtonian Land Mammal Age (Savage 1951; Kurten and Anderson 1980; Lundelius *et al.* 1987). Part one of this catalogue lists Rancholabrean nonmarine lower vertebrate and avian taxa from California (Jefferson 1991a).

The catalogue has been compiled from published records, technical reports, unpublished manuscripts, information from colleagues and inspection of paleontologic collections. Entries are arranged in the following sequence.

Locality Name (locality name synonyms), Local Fauna name, major geographic features (e.g. mountain ranges, city names etc.): collections, institutions and institutional locality number(s)
Geologic formation: formation name
Relative age: land mammal age, glacial/interglacial units, oxygen isotope stage/substage, epoch
Radiometric date(s): uranium-series, radiocarbon
Taxon/Taxa: systematic taxonomic list
Source(s): publications and information sources

Localities are listed alphabetically by county, then by locality name. Where appropriate, city or other major place names are included. Alternative names for a site, either published or used by some institutions, are enclosed in parentheses. Private collections, institutional collections and institutional locality number(s), if known, are then listed. Acronyms are used for all institutional names.

These locality data are succeeded by geologic formation

names when they are known (Swanson et al. 1975). Although the names of some marine units have been informally applied to terrestrial deposits (see the description of the Palos Verdes Sand in Shaw and Quinn 1986, p. 126) this practice is not followed.

Relative age assessments are based on published estimates or personal communications (cited for each locality entry), or the age of the listed geologic formation (Swanson et al. 1975). This information may include (in the following order) North American Land Mammal Ages (Irvingtonian or Rancholabrean), North American glacial/interglacial geologic-climate units (Illinoian, Sangamonian or Wisconsinan stages), marine oxygen isotope stages or substages, and/or Epoch (early Holocene).

Assemblages that may be latest Irvingtonian (latest early Pleistocene) or earliest Rancholabrean (earliest late Pleistocene) (see discussion of problems in distinguishing these ages in Lundelius et al. 1987, p. 223) are so indicated. Rancholabrean assemblages that are in part Holocene or are suspected to fall within the earliest Holocene are indicated. An assemblage that is probably late Pleistocene but lacks age determinate taxa or definitive geologic context is labeled as "uncertain."

Approximate age ranges for glacial/interglacial stages and correlative late Pleistocene marine oxygen isotope stages (Hays et al. 1976) are as follows. The Illinoian glacial stage ranges in age from approximately 500 ka (Kurten and Anderson 1980) to the end of ^{18}O stage 6 about 130 ka BP. Only the late Illinoian falls within Rancholabrean time. The Sangamon interglacial stage correlates with ^{18}O stage 5 and ranges in age from about 130 to 70 ka BP, and the Wisconsinan glacial stage correlates with ^{18}O stages 4 through 2 and ranges in age from about 70 to 10 ka BP. Some near-shore marine deposits that have yielded fossil mammals have been correlated with marine oxygen isotope substages; either substage 5a (85-80 ka BP), or substage 5e (130-120 ka BP). The Palos Verdes Sand, for example, was deposited during substage 5e (G. Kennedy pers. comm. 1989).

Selected uranium series and radiocarbon dates are listed after the relative age assessment. Where numerous radiometric determinations have been made, a range is given. If further information is required, such as complete date lists or laboratory numbers, refer to the cited literature that follows each locality entry. Latest Rancholabrean (earliest Holocene) dates as young as 8 ka BP are included.

Nomenclature and systematic order closely follow the Checklist of Vertebrates of the United States, the U. S. Territories, and Canada (Banks et al. 1987), Hall and Kelson (1974), Simpson (1945), and subsequent published revisions (cited

with each locality entry). The generic name, Panthera Oaken 1816 is here applied to the large pantherine felids instead of Felis Linnaeus 1758 (Corbet et al. 1974; Van Gelder 1975; Tubbs 1985; Wozencraft 1988). Also, the specific name Smilodon fatalis Leidy 1868 is preferred and as used here includes S. californicus Bovard 1907, S. floridanus Leidy 1889 (Kurten and Werdlin 1990), and S. populator Lund 1842. Localities for type specimens are noted.

Principal references (most inclusive and/or most recent), published and unpublished information sources, and communications with colleagues, follow each locality entry. Sources include publications and reports that describe a locality, provide an age, or discuss recovered and identified taxa. Where sources are not listed, the taxonomic data were recovered from inspection of collections and institutional records.

Locality information and taxonomic lists for the University of California Museum of Paleontology (UCMP) collections were compiled from the Taxonomic Information Retrieval (TAXIR) computer data base. Locality and taxonomic data from the Vertebrate Paleontology Section collection at the Natural History Museum of Los Angeles County were recovered from TAXIR and revised following examination of the collection. The note "specimen(s) not listed in TAXIR" refers to described UCMP localities where specimens were not collected or localities with no specimens catalogued and recorded into the TAXIR system. A knowledge of these sites (for which no taxa are listed) is important in the assessment of paleontologic resources and land use planning.

Institutional names are abbreviated as follows: AMNH = American Museum of Natural History, New York City, New York; ANSP = Academy of Natural Sciences of Philadelphia, Pennsylvania; ANSR = Ano Nuevo State Reserve, Montara, California; BYU = Brigham Young University, Provo, Utah; CAS = California Academy of Science, San Francisco; CCSD = Claremont Colleges Joint Science Department, California; CDMG = California Division of Mines and Geology, Sacramento; CITM = Colorado Indian Tribes Museum, Needles, California; CIW = Carnegie Institute of Washington, Washington D. C.; CPVP = California Polytechnic State University, San Luis Obispo, California; CSUS = Anthropology Department, California State University, Sonoma; FMNH = Field Museum of Natural History, Chicago, Illinois; GGMM = Golden Gate Memorial Museum, San Francisco, California; HSU = Humboldt State University, Arcata, California; IMNH = Idaho Museum of Natural History, Pocatello; IVCN = Barker Museum, Imperial Valley College, El Centro, California; KVM = Kern Valley Museum, Tehachapi, California; LACM = Natural History Museum of Los Angeles County, California; LACM(CIT) = LACM California Institute of Technology; LACMIP = LACM Invertebrate Paleontology Section; MAUCB = Museum of Anthropology, University of California,

Berkeley; MC = Anthropology Department, Merced College, California; MCZ = Harvard University, Cambridge, Massachusetts; NHFOC = Natural History Foundation Orange County, California; RCIC LC = Ralph Clark Park Interpretive Center, Los Coyotes, Fullerton, California; RMM = Riverside Municipal Museum, California; SBCC = Santa Barbara City College, California; SBCM = San Bernardino County Museum, Redlands, California; SBMNH = Santa Barbara Museum of Natural History, California; SCGD = Sierra College Geology Department, Rocklin, California; SDSNH = San Diego Society of Natural History, California; SFMM = San Francisco Memorial Museum, California; SM = Southwest Museum, Los Angeles, California; SU = Stanford University Geology Museum, Palo Alto, California; UALP = University of Arizona Laboratory of Paleontology, Tucson; UCBMVZ = University of California Museum of Vertebrate Zoology, Berkeley; UCMP = University of California Museum of Paleontology, Berkeley; UCRARU = Archaeologic Research Unit, University of California, Riverside; UCRV = Geology Museum, University of California, Riverside; UPMP = University of Pennsylvania Museum, Philadelphia; USGS = United States Geological Survey, Denver, Colorado; USNM = United States National Museum, Washington D. C.; VCM = Ventura City Museum, California; WC = Wabash College, Crawfordsville, Indiana; YPM = Yale Peabody Museum, New Haven, Connecticut.

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CATALOGUE OF LATE QUATERNARY TERRESTRIAL MAMMALS
FROM CALIFORNIA LOCALITIES

ALAMEDA COUNTY

Alameda Canal, Alameda: UCMP V69168
Relative age: Rancholabrean
Taxon: Glossotherium sp.

Alameda Creek: YPM
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Hay (1927)

Alameda County: UCMP V67098; USNM
Relative age: Rancholabrean
Taxa: Ursidae
Bison latifrons

Alameda County: WC
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

Alameda County: YPM
Relative age: Rancholabrean
Taxon: Nothrotheriops sp.
Source: Hay (1927)

Alameda Tube Excavation, Alameda: UCMP V62027
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Arctodus sp.
Mammuthus sp.
Camelops sp.
Bison sp.

Aquatic Park, Berkeley: UCMP V40007
Relative age: Rancholabrean
Taxon: Bison sp.
Source: Savage (1951)

Arroyo Agua Fria, Milpitas: UCMP V72003
Relative age: Rancholabrean
Taxon: Equus sp.

Arroyo Las Positas, Livermore: FMNH; UCMP V69167
Relative age: Rancholabrean
Taxa: Canis dirus
Mammut sp. cf. M. americanum
Mammuthus sp.

Equus sp.
Camelops hesternus (type locality)
Bison antiquus

Sources: McDonald (1981), Harris (1985)

"Auchenia", north of Castro Valley: UCMP V66142
(specimen/s not listed in TAXIR)

Taxon: ? Camelidae

Bay Bridge Caisson, Oakland:
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Savage (1951)

Berkeley Municipal Warf: UCMP V36013
Relative age: Rancholabrean
Taxon: Mammuthus sp. cf. M. columbi
Source: Savage (1951)

Bolinas Creek:
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Savage (1951)

Boomer Hill, Newark: UCMP V69199
Relative age: Rancholabrean
Taxon: Mammut americanum

Calaveras Dam, Calaveras Reservoir: UCMP V39037
Relative age: Rancholabrean
Taxon: Mammut sp. cf. M. americanum
Source: Savage (1951)

California Sand and Gravel Company Pit, numbers 1-2, Pleasanton:
UCMP V61011, V75112
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Bison alaskensis
Sources: McDonald (1981), Harris (1985)

Centerville, Newark: (?= UCMP V53070)
Relative age: uncertain
Taxa: ? Proboscidea
Equus pacificus
Source: Hay (1927)

Centerville Gravel Pit, Newark: UCMP V53070
Relative age: Rancholabrean
Taxa: Mammut americanum
Camelops sp.
Odocoileus sp.
Bison sp.

Crow Canyon, Edenvale:
Relative age: Rancholabrean
Taxa: Equus sp.
Camelops sp.
Source: Savage (1951)

Delta Mendota, numbers 10-12, 18, 21-23, 26, (Delta Mendota General), Livermore: UCMP V47027-47028, V48001-48003, V48016-48018, V48060-48062, V69166
Relative age: Rancholabrean (other Delta Mendota localities maybe Irvingtonian)
Taxa: Glossotherium harlani
Thomomys sp.
Microtus sp.
Mammut americanum
Mammuthus sp.
Equus sp.
Camelops sp.
Bison sp. cf. B. antiquus
Source: Jefferson (1989b)

Doolan Canyon (?= Livermore north), Livermore: UCMP V41003
(?= UCMP V10082)
Relative age: Rancholabrean
Taxa: Glossotherium sp. cf. G. harlani
Mammut sp. cf. M. americanum
Equus sp.
Bison antiquus
Sources: Savage (1951), McDonald (1981), Harris (1985)

Harris, T., Ranch: UCMP V81118
(specimen/s not listed in TAXIR)

Harrison Street Tunnel, Oakland: UCMP V28041
Relative age: Rancholabrean
Taxon: Mammuthus sp. cf. M. columbi
Source: Savage (1951)

Hayward Freeway (I-238): UCMP V52058
Relative age: Rancholabrean
Taxon: Bison latifrons

Hayward Gravel Pit: UCMP V59028
Relative age: Rancholabrean
Taxon: Equus sp.

Hayward Motel: UCMP V63004
Relative age: Rancholabrean
Taxon: Equidae

Lafayette:
Relative age: ? Rancholabrean

Taxon: Proboscidea
Source: Savage (1951)

Las Trampas Creek, east of Lafayette:
Relative age: ? Rancholabrean
Taxon: Proboscidea
Source: Savage (1951)

Livermore:
Relative age: Rancholabrean
Taxa: Canis dirus
Panthera atrox
Camelops hesternus
Bison antiquus
Source: Harris (1985)

Livermore North (?= Doolan Canyon): UCMP 10082 (?= UCMP V41003)
(see Doolan Canyon UCMP V41003)
Source: Savage (1951)

Livermore Valley: USNM
Relative age: Rancholabrean
Taxa: Mammuthus columbi
Equus sp.
Hemiauchenia sp.
Cervus sp. or Odocoileus sp.
Bison antiquus
Source: Hay (1927)

Livermore West: UCMP 1077
Relative age: Rancholabrean
Taxa: Equus sp.
Bison bison

Mission San Jose, Fremont: YPM 905
Relative age: Rancholabrean
Taxa: Mammut sp.
Mammuthus columbi
Equus sp.
Camelidae
? Cervus sp.
Bison sp.
Sources: Hay (1927), Lundelius et al. (1983)

Montclair Playground, Oakland: UCMP V39033
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Camelidae
Source: Savage (1951)

Mountain House (Mountain Home): UCMP V38023
Relative age: Rancholabrean

Taxon: Edentata

Newark: UCMP V69195
Relative age: Rancholabrean
Taxon: Camelidae

Niles Community: UCMP V59033
Relative age: Rancholabrean
Taxa: Mammut americanum
Bison sp.

Oak Knoll Hospital View, Oakland: UCMP V58034
Geologic formation: ? San Antonio Formation
Relative age: Rancholabrean
Taxa: Sciuridae
Microtus sp.
Equus sp.
Odocoileus sp.

Oakland Coliseum: UCMP V64020
Relative age: Rancholabrean
Taxon: Glossotherium harlani

P. C. A. Pit: UCMP V70151
Geologic formation: Livermore Gravels
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Positas, Livermore: UCMP V49001
Relative age: Rancholabrean
Taxa: Mammut sp. cf. M. americanum
Mammuthus sp.
Equus sp.
Camelidae
Source: Savage (1951)

Prune Avenue, Livermore: UCMP V53001
Relative age: Rancholabrean
Taxa: Scapanus latimanus
Spermophilus sp.
Thomomys sp.
Reithrodontomys sp.
Peromyscus sp.
Neotoma sp.
Microtus sp.

Reiche number 1, Hayward: UCMP V48004
Relative age: Rancholabrean
Taxon: Equus sp.

Rodeo Pleistocene: (?= UCMP V66042)
Relative age: Rancholabrean

Taxa: Glossotherium sp.
Panthera sp. nr. P. atrox
? Smilodon sp.
Mammuthus columbi
Equus sp.
Camelidae
Bison sp.
Source: Merriam (1915)

Rodeo Station number 2, Rodeo: UCMP V66042
Relative age: Rancholabrean

Taxa: Glossotherium sp.
Peromyscus californicus
Mammuthus columbi
Equus sp.
Camelidae
Odocoileus sp.
Bison sp.

Sources: Hay (1927), Lundelius et al. (1983), Harris (1985)

San Lorenzo Creek (Hayward High School), Hayward:
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Savage (1951)

San Lorenzo Creek, 14th Street, Hayward:
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Savage (1951)

Shattuck Avenue number 1, Berkeley: UCMP V67194
Relative age: Rancholabrean
Taxon: Glossotherium harlani

Sunol, Pleasanton: UCMP V65035
Relative age: Rancholabrean
Taxon: Mammut sp. cf. M. americanum
Source: Hay (1927)

University Avenue, Berkeley: UCMP V66044
Relative age: Rancholabrean
Taxon: Mammut sp. cf. M. americanum

Webster Street, Berkeley: UCMP V69170
(specimen/s not listed in TAXIR)

Yerba Buena Island, Bay bottom:
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Hutchison (1967a)

81st Avenue, Oakland: UCMP V40045
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Savage (1951)

ALAMEDA AND CONTRA COSTA COUNTIES

Burke Ranch, Amador Valley: UCMP V40047
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Bison antiquus
Sources: Savage (1951), McDonald (1981), Harris (1985)

AMADOR COUNTY

Amador County: UCMP V69178
Relative age: Rancholabrean
Taxa: Ursus americanus
U. arctos horribilis
Artiodactyla (not Camelidae)

Drytown, Indian Creek:
Relative age: Rancholabrean
Taxon: Mammut americanum
Source: Hay (1927)

Volcano:
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Hay (1927)

BUTTE COUNTY

Oroville: UCMP V37039
Relative age: Rancholabrean
Taxon: Mammuthus sp.

CALAVERAS COUNTY

Calavaras Cave, Angels Camp: UCMP V40009
Relative age: Rancholabrean
Taxa: cf. Myotis sp.
Sylvilagus sp.
Thomomys sp.
Dipodomys sp.
Perognathus sp.
Peromyscus sp.
Neotoma sp.
Microtus sp.
Equus sp.

Douglas Flat:
Relative age: Rancholabrean
Taxon: Mammut americanum
Source: Hay (1927)

Duck Bar Cave, Arnold: UCMP V66141
Relative age: Rancholabrean
Taxon: cf. Lepus sp.

Hawk Cave, Columbia: UCMP 77091
Relative age: Rancholabrean
Taxa: Equus sp.
Odocoileus sp.
Euceratherium collinum

Lincoln Village, Sonora: UCMP 48022
Relative age: Rancholabrean
Taxon: Equus sp.

Mercer Cave (?= Murphy and or Murpheys), Murphy: UCMP V67108;
USNM
Relative age: Rancholabrean, Wisconsinan, in part early Holocene
Taxa: Scapanus latimanus
Myotis sp. cf. M. yumanensis or Corynorhinus sp.
Homo sapiens
Sylvilagus sp.
Lepus sp.
Aplodontia rufa
Spermophilus sp.
Peromyscus sp. cf. P. maniculatus
Peromyscus sp.
Megalonyx jeffersoni
Euceratherium sp.
Sources: L. Barryessa (pers. comm. 1985), Harris (1985)

Messenger Valley, Valley Springs: UCMP V69177
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Hay (1927)

Murpheys (?= Mercer Cave and or Murphy): (?= UCMP V67108)
Relative age: Rancholabrean
Taxa: Canis latrans
Mammuthus sp.
Equus pacificus
cf. Odocoileus sp.
Source: Harris (1985)

Murphy (?= Mercer Cave and or Murpheys): (?= UCMP V67108)
Relative age: Rancholabrean
Taxa: Mammut sp.
Mammuthus sp.

Source: Hay (1927)

Table Mountain: MCZ
Relative age: early Holocene
Taxon: Homo sapiens ("Calaveras Skull")
Sources: Hrdlicka (1907), Irwin (1975)

Valley Springs (?= Messenger Valley): AMNH; (?= UCMP 69117)
Relative age: Rancholabrean
Taxon: Equus sp. (small-size)
Source: Hay (1927)

CONTRA COSTA COUNTY

Alamo Creek number 2, Amador Valley: UCMP V44004
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Spermophilus sp.
Source: Savage (1951)

Antioch numbers 2-3: UCMP V16004, V40008, V60007
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Taxidea taxus
Mammut sp. cf. M. americanum
Mammuthus sp.
Equus sp.
Camelops sp.
Odocoileus sp.
Bison sp.
Sources: Hay (1927), Savage (1951)

Antioch Dam, Antioch: UCMP V66050
Relative age: Rancholabrean
Taxon: Mammut americanum

Bulls Head Point, Martinez: LACM 4626; MCZ; UCMP 1359, 1363
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Equus pacificus (type locality)
Sources: Hay (1927), Savage (1951)

Byron:
Relative age: Rancholabrean
Taxon: Equus occidentalis
Sources: Hay (1927), Savage (1951)

Cameo Acres: UCMP V51026
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Bison latifrons

Central Channel, Vallejo: UCMP V71001
Geologic formation: ? Montezuma Formation
Relative age: Rancholabrean

Taxa: Sorex sp.
Scapanus latimanus
Sylvilagus sp.
Spermophilus sp.
Thomomys sp.
Dipodomys sp.
Perognathus sp.
Reithrodontomys raviventris
Peromyscus californicus
P. maniculatus
P. truei
Neotoma fuscipes
Microtus californicus
Bison sp.

Charles Hill, Orinda: UCMP V36009
Relative age: Rancholabrean
Taxon: Bison sp.
Source: Savage (1951)

Concord numbers 1-2: UCMP V51016, V65310
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Bison sp.

Dinsmore Used Car Lot, ? Danville: UCMP V61008
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Garretson, ? Oakley: UCMP V63012
Geologic formation: ? Montezuma Formation
Relative age: Rancholabrean
Taxa: Sorex sp.
Scapanus latimanus
Sylvilagus sp.
Lepus sp.
Spermophilus beecheyi
Thomomys sp.
Perognathus sp.
Reithrodontomys raviventris
Peromyscus boylii
P. maniculatus
P. truei
Neotoma sp. cf. N. fuscipes
Microtus californicus
Microtus sp.
Mammuthus sp.
Equus sp.

Camelops sp.
Odocoileus sp.
Antilocapra sp.
Bison sp.

Heidorn, Oakley: UCMP V47019
Relative age: uncertain
Taxon: Equus sp.
Source: Savage (1951)

Hercules number 2, Pinole: UCMP V3002 (0302), V65288
Geologic formation: Montezuma Formation
Relative age: Rancholabrean
Taxa: Edentata
Sylvilagus sp.
Peromyscus sp.
Bison sp.
Source: Savage (1951)

Highway 40 number 1, ? Oakley: UCMP V52025
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Sylvilagus sp.
Spermophilus beecheyi
Thomomys bottae
Perognathus sp.
Reithrodontomys raviventris
Neotoma fuscipes
Microtus californicus
cf. Vulpes vulpes
cf. Mammuthus sp.
Camelops sp.
Cervus sp.
Odocoileus sp.
Bison sp.

Hipparion Point number 2, Pinole: UCMP V52032
Geologic formation: Montezuma Formation
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Mammuthus sp.
Equus sp.

Jersey: SU
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

Jersey Island: SU
Relative age: Rancholabrean
Taxon: Bison latifrons
Source: Hay (1927)

Las Juntas number 1, Concord: UCMP V57005
Relative age: Rancholabrean
Taxon: Glossotherium harlani

Lawlers Boundary, Vallejo: UCMP V71002
Geologic formation: ? Montezuma Formation
Relative age: Rancholabrean
Taxa: Scapanus latimanus
Sylvilagus sp.
Sciurus sp.
Spermophilus beecheyi
Thomomys bottae
Perognathus sp.
Peromyscus sp.
Neotoma fuscipes
Microtus californicus
Bison sp.

Lone Tree Point numbers 1-2 (Rodeo Pecten Point), San Pablo Bay:
UCMP 1355, V12001, V40005
Geologic formation: Montezuma Formation
Relative age: Rancholabrean, ¹⁸O stage 5 (130-70 ka BP)

Taxa: Megalonyx sp.
Leporidae
Rodentia
Mammuthus sp. cf. M. columbi
Equus pacificus
Camelops sp.
Hemiauchenia sp.
Odocoileus sp.
Capromeryx minor
Antilocapra sp.
Bison sp.

Sources: Savage (1951), G. L. Kennedy (pers. comm. 1989)

Martinez Pleistocene: UCMP V71131
(specimen/s not listed in TAXIR)

Mokelumne Aqueduct numbers 1 and 3, Pittsburg: UCMP V60030
Relative age: Rancholabrean
Taxon: Thomomys sp.

Mount Diablo, Diablo Summit Road: UCMP V34006
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Bison latifrons
Source: Savage (1951)

Northern Cove, Vallejo: UCMP V71003
Geologic formation: Montezuma Formation
Relative age: Rancholabrean

Taxa: Scapanus latimanus
Sylvilagus sp.
Spermophilus beecheyi
Thomomys bottae
Perognathus sp.
Reithrodontomys raviventris
Peromyscus sp.
Neotoma fuscipes
Microtus californicus

Oak Springs:
Relative age: uncertain
Taxon: Mammut sp.
Source: Hay (1927)

Pinole, Orleans Drive: UCMP V63013
Geologic formation: Montezuma Formation
Relative age: ? Rancholabrean
Taxa: Edentata
Equus sp.
Sphenophalos sp.

Pacheco numbers 1-2, Concord: UCMP V77117, V78027
Relative age: Rancholabrean
Taxa: Scapanus latimanus
Mammut americanum

Parker: UCMP V51024
Relative age: Rancholabrean
Taxon: Bison sp.

Pinole (?= in part other Pinole localities): (?= UCMP 1361,
1378, V63013, V65660, V67106)
Relative age: Rancholabrean
Taxa: Mammut sp.
Mammuthus sp.
Equus pacificus
Equus sp. (small-size)
Antilocapra americana
Bison sp. aff. B. antiquus
Source: Hay (1927)

Pinole Beach, Pinole: UCMP V65660
Relative age: Rancholabrean
Taxa: Equus pacificus
Camelidae

Pinole R.R. (Pinole RR) numbers 1 and 3, Pinole: UCMP 1361,
1378, V67106
Relative age: Rancholabrean
Taxa: Mammut americanum
Equus sp.

Bison bison

Pleasant Hill: UCMP V47001
Relative age: Rancholabrean
Taxon: Mammut americanum
Source: Savage (1951)

Pleasant Hill High School: UCMP V60006
Relative age: Rancholabrean
Taxon: ? Megalonyx sp.

Reliez Hill: UCMP V50040
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Rodeo Oyster Bed, San Pablo Bay: UCMP 524
Relative age: Rancholabrean, ¹⁸⁰ stage 5 (130-70 ka BP)
Taxon: Mammuthus columbi

Sand Mound Slough, Oakley: UCMP V65254
Relative age: Rancholabrean
Taxon: Mammuthus columbi

San Pablo Bay: UCMP V65168
(specimen/s not listed in TAXIR)

San Ramon Creek: UCMP V39027
Relative age: Rancholabrean
Taxon: Bison sp.

Shell Oil, Concord: UCMP V66028
Relative age: Rancholabrean
Taxon: Bison sp.

Tormey A, Pinole: UCMP V46015, V53002
Geologic formation: Montezuma Formation
Relative age: Rancholabrean
Taxa: Thomomys sp.
Mammuthus sp.
Equus sp.
Camelops sp.

Union Oil Company Island, Oleum: UCMP 1375
Relative age: Rancholabrean
Taxon: Equus pacificus
Source: Savage (1951)

Union Oil Company Tank Farm, Hercules: UCMP V34028
Relative age: Rancholabrean
Taxa: Mammut americanum
Mammuthus sp.
Camelops sp.

Source: Savage (1951)

EL DORADO COUNTY

Cool Quarry, Auburn: UCMP V48005

Relative age: Rancholabrean

Taxa: Antrozous pallidus
Brachylagus idahoensis
Lepus sp.
Spermophilus beecheyi
Tamias sp.
Thomomys sp.
Peromyscus sp.
Neotoma fuscipes
Canis dirus
Mephitis mephitis
Felis concolor
Odocoileus hemionus
Bison alaskensis

Gold Hill, Placerville:

Relative age: Rancholabrean

Taxon: Mammut sp.

Source: Hay (1927)

Grey's Flat, Placerville:

Relative age: Rancholabrean

Taxon: Mammut sp.

Source: Hay (1927)

Hawver Cave, Auburn: UCMP 1069

Relative age: Rancholabrean, Wisconsinan, in part early Holocene

Taxa: Scapanus latimanus
Homo sapiens
Megalonyx sp.
Nothrotheriops shastensis
Glossotherium harlani
Sylvilagus sp.
Lepus californicus
Aplodontia rufa
Spermophilus beecheyi
Thomomys sp.
Peromyscus boylii
Neotoma fuscipes
Microtus sp.
Canis latrans
Canis sp. aff. C. dirus
Ursus sp.
Procyon lotor
Martes sp.
Mephitis mephitis
Smilodon fatalis

Felis concolor
Felis sp.
Mammut sp.
Mammuthus sp.
Equus sp. ? E. occidentalis
Odocoileus sp.
Bison sp.
Euceratherium sp. ? E. collinum

Sources: Stock (1918), Hay (1927), Kurten and Anderson (1980),
Lundelius et al. (1983)

Hawver Cave South Entrance, Auburn: UCMP 1073
Relative age: Rancholabrean, ? in part early Holocene

Taxa: Homo sapiens
Lepus sp.
Spermophilus beecheyi
Thomomys sp.
Mephitis mephitis
Canis latrans

Seacut number 2, Grizzly Flats: UCMP 1384
Relative age: ? Rancholabrean
Taxon: Equus sp.

Shingle Springs, El Dorado: UCMP V69051
Relative age: Rancholabrean
Taxa: Mammut americanum
Bison sp.
Source: Hay (1927)

Walnut Creek number 1, San Miguel Hill, San Miguel: UCMP V49021
Relative age: Rancholabrean
Taxon: Bison sp. cf. B. latifrons
Sources: Savage (1951), McDonald (1981)

FRESNO COUNTY

Kings Canyon number 8a: UALP
Relative age: Rancholabrean, Wisconsinan
Radiometric dates: $^{14}\text{C} \geq 45,000, \geq 30,000$ yr BP
Taxa: Thomomys sp.
Neotoma cinerea
Source: Mead et al. (1985)

Laguna Seca Ranch: UCMP V81121
Relative age: Rancholabrean
Taxon: Equus sp.

Riverdale: UCMP V65100
Relative age: Rancholabrean
Taxon: Camelidae

Tranquillity: MAUCB; UCMP V44001; UPMP
Relative age: Rancholabrean, in part early Holocene
Radiometric dates: uranium series ≥ 112 to 67 ka BP
Taxa: Scapanus latimanus

Lepus sp.
Thomomys sp.
Heteromyidae
Neotoma sp.
Microtus sp.
Canis latrans
Vulpes sp.
Urocyon sp.
Taxidea sp.
Equus sp.
Camelops sp.
Cervus sp.
Odocoileus sp.
Bison sp.

Sources: Hewes (1943), Irwin (1975)

GLENN COUNTY

Willows: CSUS
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Source: R. Hilton (pers. comm. 1989)

HUMBOLDT COUNTY

Buhne's Point (Buhne Point), Humboldt Bay: UCMP V68155
Relative age: Rancholabrean
Taxon: Bison sp. cf. B. latifrons

Bulmis Point, Humboldt Bay:
Relative age: Rancholabrean
Taxon: Bison latifrons
Source: Hutchison (1967a)

Crannell Junction: HSU 745
Relative age: Rancholabrean
Taxon: ? Capromeryx sp.
Sources: Kohl (1974), Lundelius et al. (1983)

Humboldt Bay (Humboldt Day): UCMP V65218
Relative age: Rancholabrean
Taxon: Mammut americanum

Humboldt Point: UCMP V65042
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

IMPERIAL COUNTY

Algodones Dunes, Glamis: SDSNH
Relative age: Rancholabrean
Taxon: Equus sp. (large-size)

Coachella, Niland: UCMP V53003
Relative age: Rancholabrean
Taxon: Camelops sp.

Coachella Canal: IVCN 188, 192, 194, 228-229, 278
Geologic formation: ? Brawley Formation
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Cervidae
Bison sp.

Coachella Canal, Glamis: IVCN 238
Geologic formation: ? Brawley Formation
Relative age: Rancholabrean
Taxa: Proboscidea
Equus sp.
Camelops sp.
Bovidae (small-size)
Bison antiquus

Flowing Wells number 3, East Mesa: SBCM 11.10.7
Geologic formation: Brawley Formation
Relative age: Rancholabrean
Taxa: Lepus californicus
? Ammospermophilus lecurus
? Ondatra zibethica
Source: Reynolds (1989b)

Flowing Wells number 10, East Mesa: SBCM 11.10.37
Geologic formation: Brawley Formation
Relative age: Rancholabrean
Taxa: ? Ammospermophilus leucurus
Ondatra zibethica
Source: Reynolds (1989b)

Frink's Mineral Springs number 3, Bat Cave Buttes: SBCM 5.12.10
Geologic formation: Brawley Formation
Relative age: Rancholabrean
Taxa: Rodentia
Artiodactyla
Source: Reynolds (1989b)

Mount Signal Gravel Pit: LACM 1719
Relative age: Rancholabrean
Taxon: Equus sp.

Picacho Peak (packrat) Midden: UALP 8157A, 8157C
Relative age: Rancholabrean, in part early Holocene
Radiometric dates: ^{14}C 9,590 \pm 190, 8,410 \pm 275 yr BP
Taxa: Perognathus baileyi
Neotoma sp.
Source: Mead et al. (1983)

Salton City South: LACM 1726
Relative age: Rancholabrean
Taxon: Nothrotheriops sp.
Source: McDonald (1985)

San Felipe Hills: LACM 1654
Geologic formation: Brawley Formation
Relative age: ? late Irvingtonian or early Rancholabrean
Taxa: Equus sp.
Camelops sp.

Seeley West: UCMP V59031
(specimen/s not listed in TAXIR)

Siphon Eleven number 3, East Mesa: SBCM 11.10.28
Geologic formation: Brawley Formation
Relative age: Rancholabrean
Taxa: Perognathus sp.
Dipodomys deserti
Peromyscus sp.
Camelops hesternus
Source: Reynolds (1989b)

INYO COUNTY

Bedelle, Inyo Mountains: UCMP V37025
(specimen/s not listed in TAXIR)

Haiwee Reservoir: LACM 3514, 4538
Relative age: uncertain
Taxon: Mammuthus sp.

Lone Pine:
Relative age: Rancholabrean
Taxon: Mammuthus sp. ? M. columbi
Sources: Hay (1927), Jefferson (1989a)

Lone Pine Southeast (Owens Lake): LACM 4691
Relative age: Rancholabrean
Taxa: Felidae (medium-size)
Proboscidea
Equus sp.
Camelidae
Sources: D. P. Whistler (pers. comm. 1981), Jefferson (1989a)

Owens Lake East: SBCM 6.6.3-6.6.4

Relative age: Rancholabrean

Taxa: Equus sp.
Camelops sp.
Bison sp.

Source: Jefferson (1989a)

Panamint Crater, Panamint Valley: UALP 49

Relative age: Rancholabrean

Taxa: Lepus sp.
Neotoma sp.
Rodentia
Canidae
Equus sp. (large-size)
Equus sp. (small-size)
Hemiauchenia sp.
Antilocapridae

Source: Jefferson (1989a)

Panamint Valley Sinkhole (?= Panamint Crater, UALP 49)

Relative age: Rancholabrean

Taxa: Equus sp.
Camelops sp.

Sources: S. Winslow (pers. comm. 1988), Jefferson (1989a)

Shoshone Zoo, west of Tecopa and Tecopa Hot Springs: SBCM 6.1.8

Geologic formation: Tecopa lake beds (informal)

Relative age: early Rancholabrean, Illinoian

Taxa: Lepus sp.
Peromyscus sp.
Rodentia
Mammuthus columbi
Equus sp. (large-size)
Camelops sp.

Sources: Hillhouse (1987), R. E. Reynolds (pers. comm. 1988),
Jefferson (1990a)

Tecopa Basin, west of Tecopa and Tecopa Hot Springs: LACM 1209;
CSUS

Geologic formation: Tecopa lake beds (informal)

Relative age: early Rancholabrean, Illinoian

Taxa: Rodentia
Mammuthus sp. cf. M. columbi
Equus sp. (large-size)
Equus sp. (small-size)
cf. Hemiauchenia sp.
Cervidae

Sources: Feller (1983), James (1983), Hillhouse (1987), R. E.
Reynolds (pers. comm. 1988), Jefferson (1990a)

Zurich numbers 1-2, Big Pine: UCMP 1764-1765
(specimen/s not listed in TAXIR)

KERN COUNTY

Asphalto number 2, McKittrick: UCMP 4096, V78041
Geologic formation: ? Tulare Formation
Relative age: ? Blancan and or in part Irvingtonian and
Rancholabrean

(Irvingtonian taxa included)

Taxa: Borophagus pachydon
Ischyrosmilus sp.
Felis concolor
Mammut americanum
Equus occidentalis
Hemiauchenia sp.

Sources: Kurten and Anderson (1980)

Bakersfield Canal Cutting: UCMP V65247

Relative age: Rancholabrean

Taxon: Equus occidentalis

Bodfish, Lake Isabella: KVM

Relative age: Rancholabrean

Taxon: ? Mammuthus sp.

Source: R. T. Merriam (pers. comm. 1984)

China Lake, China Lake Local Faunule, Ridgecrest: LACM(CIT) 266,
LACM 1543, 3659, 7013

Relative age: Rancholabrean

Radiometric dates: ¹⁴C 18,600 ± 450, 11,800 ± 800 yr BP

Taxa: Edentata
Microtus californicus
Canis sp.
Smilodon sp.
Felidae (large-size)
Mammuthus sp. cf. M. columbi
Equus sp. cf. E. conversidens
Equus sp. cf. E. occidentalis
Camelops sp. cf. C. hesternus
Hemiauchenia sp.
Odocoileus sp.
Bison antiquus
Bison sp. (large-size)

Sources: Fortsch (1978), Kurten and Anderson (1980), McDonald
(1981), Davis (1982), Agenbroad (1984), Jefferson (1989a)

Dove Springs number 7, Red Rock Canyon: UCMP V67225

(specimen/s not listed in TAXIR)

Dove Springs Wash, Dove Springs Lignites Local Fauna, Red Rock
Canyon: LACM 4708-4709 (including field localities)

Relative age: Rancholabrean, Wisconsinan

Radiometric date: ¹⁴C 10,730 ± 110 yr BP

Taxa: Sorex palustris

Pipistrellus hesperus
Sylvilagus sp.
Ammospermophilus sp.
Tamias minimus
Thomomys monticola
Dipodomys sp. cf. D. merriami
Dipodomys sp. cf. D. panamintinus
Perognathus longimembris
P. penicillatus
Reithrodontomys sp. cf. R. megalotis
Peromyscus maniculatus
Neotoma sp. cf. N. fuscipes or N. cinerea
Microtus californicus
Mammuthus columbi
Equus sp. (large-size)
Camelops sp.
Bison antiquus

Sources: Jefferson (1989a), Whistler and Stewart (1989),
Whistler (1990)

Elk Hills, Tupman: UCMP V68010
(specimen/s not listed in TAXIR)

Goler Gulch, El Paso Mountains: LACM 3721
Relative age: Rancholabrean
Taxon: Equus sp. cf. E. conversidens
Source: Jefferson (1989a)

Maricopa (Pentland): BYU; IMNH 084002; LACMIP, LACM 6731, SBCM
8.8.1

Relative age: Rancholabrean, Wisconsinan, ? in part early
Holocene

Radiometric date: ¹⁴C 13,860 yr BP (error limits not reported)

Taxa: Nothrotheriops sp.
Sylvilagus audubonii
Lepus californicus
Thomomys bottae
Dipodomys agilis
Perognathus californicus
Reithrodontomys megalotis
Peromyscus imperfectus
Microtus sp.
Taxidea taxus
Canis latrans
C. lupus
C. dirus
Vulpes macrotis
Urocyon cinereoargenteus
Arctodus simus
Ursus arctos horribilis
Smilodon fatalis
Panthera atrox

Felis or Panthera sp. (large-size)
Mammut sp.
Equus sp.
Camelops sp.
Hemiauchenia sp.
Capromeryx minor
Antilocapra americana
Bison sp. cf. B. antiquus

Sources: Kurten and Anderson (1980) Muleady (1980), James
(1983b), Harris (1985)

McKittrick (McKittrick General, McKittrick West, Sternberg Pit):
LACMIP 260, LACM(CIT) 138; UCMP 1370, 1386, 7139, V34001

Relative age: Rancholabrean

Radiometric date: ¹⁴C 38,000 ± 2,500 yr BP

Taxa: Sorex ornatus
Sorex sp. cf. S. trowbridgii
Microsorex sp.
Antrozous pallidus
Megalonyx sp.
Glossotherium harlani
Sylvilagus audubonii
S. bachmani
Lepus californicus
Spermophilus sp. cf. S. beecheyi
Ammospermophilus sp. cf. A. nelsoni
Thomomys bottae
Dipodomys sp. aff. D. ingens
Perognathus sp. cf. P. inornatus
? Reithrodontomys sp.
Peromyscus sp. cf. P. californicus
Onychomys sp.
Neotoma lepida
Microtus californicus
Canis latrans
C. lupus
C. dirus
Vulpes macrotis
Arctodus simus
Ursus americanus
Mustela frenata
Taxidea taxus
Spilogale putorius
Mephitis mephitis
Smilodon fatalis
Panthera atrox
Felis concolor
Lynx rufus
Mammut americanum
Mammuthus columbi
Equus occidentalis
Platygonus sp. aff. P. compressus

Camelops hesternus
Hemiauchenia macrocephala
Cervus sp. cf. C. elaphus
Odocoileus sp. cf. O. hemionus
Capromeryx minor
Antilocapra americana
Bison antiquus
Euceratherium sp. cf. E. collinum

Sources: Hay (1927), Schultz (1938), Kurten and Anderson
(1980), McDonald (1981), Harris (1985)

McKittrick-Asphalto (?= in part to Asphalto 2): UCMP V78042 (?=
UCMP 4096, V78041)

Relative age: ? in part Irvingtonian and RanchoLabrean

Taxa: Carnivora
Equus sp.
Camelidae
Bison sp.

McKittrick, Getty Oil Company localities: LACM 4428-4435

Relative age: RanchoLabrean

Taxa: Rodentia
Canis latrans
C. dirus
Felis concolor
Lynx sp.
Equus sp.
Camelops sp.
Hemiauchenia sp.
Capromeryx sp.
Antilocapra sp.
Bison antiquus

Poso Creek: USGS 1088

Relative age: RanchoLabrean

Taxon: Equus sp.

Rodgers Lake, Edwards Airforce Base: SBCM 1.155.8, 1.155.11,
1.155.24-1.155.25, 1.155.51, 1.155.151, 1.155.245-1.155.246,
1.155.251, 1.155.254, 1.155.282 (major localities only)

Relative age: RanchoLabrean, ? in part early Holocene

Taxa: Homo sapiens
Sylvilagus sp.
Lepus sp.
Dipodomys sp.
Neotoma sp.
? Mammuthus sp.
Equus sp.
? Camelops sp.
cf. Hemiauchenia sp.

Sources: Jefferson (1989a), Reynolds (1989a)

Santa Maria Oil Spring: ANSP
Relative age: Rancholabrean
Taxon: Equus occidentalis
Sources: Hay (1927), Harris (1985)

Tehachapi: LACM 3722; UCMP 1041
Relative age: ? Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Camelidae
Source: Hay (1927)

Thurber Cave, Piute Mountains: LACM 1276
Relative age: Rancholabrean, ? in part early Holocene
Taxa: Sylvilagus sp.
Lepus sp.
Sciuridae (large-size)
Sciuridae (small-size)
Thomomys sp.
Dipodomys sp.
? Perognathus sp.
Peromyscus or Onychomys
Neotoma sp.
Microtus sp. (large-size)
Mustela sp.
Mephitis sp.
? Bison sp.

KINGS COUNTY

Corcoran: UCMP V65101
Relative age: Rancholabrean
Taxon: Equidae

Dudley Ridge (?= Witt Site), Tulare Lake: (?= UCMP V75041)
Relative age: Rancholabrean
Taxa: Homo sapiens
Glossotherium sp.
Castor canadensis
Canis latrans
C. dirus
Panthera atrox
Mammuthus columbi
Equus sp. cf. E. occidentalis
Equus sp. (small-size)
Camelops sp.
Odocoileus sp.
Antilocapra sp.
Bison antiquus
Euceratherium sp.
Source: G. Fenenga (pers. comm. 1990)

Tulare Lake: UCMP V69205
Relative age: Rancholabrean
Taxa: Glossotherium sp.
cf. Proboscidea
Equus sp.
Bison sp.

Source: Harris (1985)

Tulare Lake West (?= Dudley Ridge): UCMP 75041
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Witt Site, Tulare Lake: UCMP V82055
(specimen/s not listed in TAXIR)

LAKE COUNTY

Kelseyville, Cash Lake:
Geologic formation: Cache Formation (reported as Cache Creek
beds)
Relative age: uncertain
Taxa: Mammuthus sp.
Equus sp.
Camelidae
Source: Hay (1927)

LASSEN COUNTY

Amedee, Honey Lake: UCMP V69079
Geologic formation: reported as Lake Lahonton beds
Relative age: Rancholabrean
Taxon: Camelops sp.

Bald Mountain Gravel Pit, Janesville, Honey Lake: UCMP V69116
(specimen/s not listed in TAXIR)

Francis, ? Honey Lake: UCMP V65075
Relative age: Rancholabrean
Taxa: Equus sp.
Camelidae
Tayassuidae

Homestead Mine Road numbers 1-6, Janesville, Honey Lake: UCMP
V65060, V65062, V65065-65067, V65124
Relative age: Rancholabrean
Taxa: Canis sp.
Mammut americanum
Equus sp.
Camelidae
Antilocapridae
Tayassuidae
Caprinae

Long Valley number 1, Janesville, Honey Lake: UCMP V65076
Relative age: Rancholabrean
Taxon: Equus sp.
Oreamnos sp.

Long Valley Creek, Honey Lake: LACM 1341; USNM
Relative age: Rancholabrean
Taxa: Taxidea sp.
Equus occidentalis
Camelidae (large-size)
Source: Hay (1927)

Secret Valley, Lichfield: UCMP V50000
Relative age: Rancholabrean
Taxa: Canis sp. cf. C. latrans
Smilodon or Panthera sp. (large-size)
Mammut americanum
Mammuthus sp.
Equus sp.
Camelops sp.
Bison latifrons
Sources: McDonald (1981), Harris (1985)

Susanville: UCMP V52022
Relative age: Rancholabrean
Taxon: Bison latifrons
Source: McDonald (1981)

Ulch Ranch number 1, Susanville: UCMP V79031
(specimen/s not listed in TAXIR)

LOS ANGELES COUNTY

Acton Railroad Station, Soledad Canyon: LACM 6622
Relative age: Rancholabrean
Taxon: Mammuthus columbi

Agua Amarga Canyon, Palos Verdes Hills: LACM 3354
Relative age: Rancholabrean, ? Wisconsinan
Taxon: Bison latifrons

Ainsworth and Athens Streets, Los Angeles: LACM 3266
Relative age: Rancholabrean
Taxon: Mammalia

Alameda Street and Sepulveda Boulevard (Watson), Carson: LACM
1165
Relative age: Rancholabrean
Taxon: Bison sp.
Source: Miller (1971)

Alameda and Workman Streets (Workman Storm Drain), Los Angeles: LACM 1023

Relative age: Rancholabrean

Taxa: Smilodon sp. cf. S. fatalis

Equus sp.

Odocoileus sp. cf. O. hemionus

Source: Miller (1971)

Alameda and 223rd Streets, Long Beach: LACM 4129

Relative age: Rancholabrean

Taxa: Proboscidea

Camelidae

Anaheim Boulevard and Normandy Avenue, Harbor City, Los Angeles: LACM 1158

Geologic formation: Palos Verdes Sand

Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)

Taxa: Equus sp.

Bison sp.

Sources: Miller (1971), Langenwalter (1975)

Anaheim Boulevard and Vermont Avenue, San Pedro:

Relative age: Rancholabrean

Taxon: Tapirus sp. cf. T. californicus

Sources: Stock (1944), Jefferson (1989b)

Anaheim Street and Henery Ford Boulevard, Wilmington, Los Angeles: LACM 1163

Relative age: Rancholabrean

Taxon: Bison sp.

Source: Miller (1971)

Artesia: LACM 1285

Relative age: ? Rancholabrean

Taxon: Equus sp. (small-size)

Source: Miller (1971)

Athens on the Hill: LACM 3365; UCMP V69208

Relative age: Rancholabrean

(specimen/s not listed in UCMP TAXIR)

Taxon: Mammuthus sp.

Ball Sand Pit, WALTERIA: LACM 3265

Geologic formation: ? Palos Verdes Sand

Relative age: uncertain

Taxon: Vertebrata

Ballona Creek Wash, Los Angeles (= in part to Outfall Sewer):

LACM 4250 (= LACM 1159, 3366-3372)

Relative age: Rancholabrean, ? in part early Holocene

Taxa: Homo sapiens

Mammuthus sp.

Equus sp.
Camelops sp.
Source: Hay (1927)

Beacon and Second Streets (Orizaba and Second Streets), San
Pedro: UCLA 1063.12
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Megalonyx jeffersoni
Sources: Miller (1971), Langenwalter (1975)

Bent Spring Canyon, Palos Verdes Hills: LACM 65107
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: cf. Camelops sp.
Source: Miller (1971)

Beverly Boulevard and Kilkea Drive, Los Angeles: LACM 2034, 2361
Relative age: Rancholabrean
Taxa: Mammuthus americanum
Mammuthus sp. cf. M. columbi
Source: Miller (1971)

Beverly Hills:
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Source: J. P. Quinn (pers. comm. 1985)

Bill and Rudy's Sand and Gravel, Walteria: LACM 4319
Geologic formation: ? Palos Verdes Sand
Relative age: uncertain
Taxon: Camelidae

Bixby Road between Atlantic and Orange Avenues, Long Beach: LACM
6802
Relative age: Rancholabrean
Taxon: ? Mammuthus sp. (specimen not in collection)

Bixby Park, Long Beach: LACM 1005
Relative age: Rancholabrean
Taxon: Mammuthus sp. cf. M. columbi
Source: Miller (1971)

Blue Diamond Company, Alameda and 16th Streets, Los Angeles:
LACM 2029
Relative age: Rancholabrean
Taxa: Mammuthus sp. cf. M. columbi
Bison sp. cf. B. antiquus
Source: Miller (1971)

Bluefield, Whittier: LACM 3347
Geologic formation: La Habra Formation

Relative age: Rancholabrean, Wisconsinan
Taxon: Equus sp.

Brickyard, 13633 South Central Avenue, Los Angeles: LACM 4685
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Centinella Park, Los Angeles: LACM 1170
Relative age: Rancholabrean
Taxa: Megalonyx sp.
Mustela sp. cf. M. frenata
Panthera sp. cf. P. atrox
Platygonus sp.
Capromeryx sp.
Source: Miller (1971)

Century Boulevard and Van Ness Avenue, Los Angeles: SBCM 9.3.2
Relative age: Rancholabrean
Taxa: Glossotherium sp.
Thomomys bottae
Mammuthus sp.
Equus sp. (large-size)
Bison latifrons

Century City: LACM 5501
Relative age: Rancholabrean
Taxa: Sylvilagus sp.
Thomomys bottae
Heteromyidae
cf. Peromyscus sp.
Neotoma sp.
Microtus californicus
Canis cf. C. latrans
Equus sp.
Source: J. D. Stewart (pers. comm. 1989)

Cerritos: UCMP 2116
Geologic formation: San Pedro Sand
(specimen/s not listed in TAXIR)

Chandler Oil Field, Puente Hills, Whittier: CDMG
Relative age: Rancholabrean
Taxon: Bison bison
Source: Hay (1927)

Chandler Sand Pit, Rolling Hills Estates: LACM 1087
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxa: Megalonyx sp.
Mammut americanum
Mammuthus sp. cf. M. columbi
Equus sp.

Tapirus sp. cf. T. californicus

Odocoileus sp. cf. O. hemionus

Bison sp.

Sources: Miller (1971), Langenwalter (1975), Jefferson (1989b)

Chatsworth, Plumer and Farralone Avenues: LACM 1817

Relative age: Rancholabrean

Taxon: Equus sp.

Cherry Avenue and Spring Street, Long Beach: LACM 1021, 1932

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Compton: LACM 3382

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Concolidated Rock Company, Alameda Street near 26th Street, Los Angeles: LACM 1157

Relative age: Rancholabrean

Taxon: Mammut americanum

Source: Miller (1971)

Coyote Creek (= La Mirada): (= LACM 6689)

(see La Mirada, Coyote Creek)

Crenshaw Boulevard and 236th Street, Torrance: LACM 1839

Relative age: Rancholabrean

Taxon: Equus sp.

Source: Miller (1971)

Culver City East:

Relative age: Rancholabrean

Taxa: Equus sp.

Camelops sp.

Source: Hay (1927)

Cypress and Slauson Avenues, Hyde Park: LACM 1266; USNM

Relative age: Rancholabrean

Taxa: Mammut americanum

Mammuthus columbi

Equus sp.

Camelops hesternus

Sources: Hay (1927), Miller (1971)

Dacolite Quarry, Walteria: LACM 1833

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Davidson Brick Quarry, Belvedere: LACM 3363

Relative age: Rancholabrean

Taxon: Equus sp.

Decker Road, Malibu: LACM 1682
Relative age: Rancholabrean
Taxa: Bison sp.

Dominguez Hills: LACM 1643
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Source: Miller (1971)

Edinburgh and 3rd Streets, Los Angeles: LACM 1268
Relative age: Rancholabrean
Taxon: Proboscidea
Source: Miller (1971)

Figueroa and Sepulveda Boulevards, Carson: LACM 3823
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Frito-Lay Plant, Westchester: LACM 3789
Relative age: Rancholabrean
Taxon: Mammuthus columbi

Fort Tejon Road, east of Angeles Springs, Palmdale: LACM(CIT)
399
(specimens/s not in collection)

Fourth and Mesa Streets, San Pedro: LACM 7138
Relative age: Rancholabrean
Taxon: Mammut sp.

Gaffey Street and Agajanian Drive, San Pedro: LACM 3268
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Source: Langenwalter (1975)

Gaffey and Tenth Streets, San Pedro: LACM 1727, 2026
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: cf. Glossotherium sp.
Source: Langenwalter (1975)

Gaffey Street Union Oil Refinery, Harbor City, Los Angeles: LACM
4205; UCMP V70004
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Equus sp.

Harbor Boulevard and First Street, San Pedro: LACM 3248
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxon: Equus sp.

Source: Langenwalter (1975)

Harbor Freeway (I-110), Athens, Los Angeles: LACM 1344

Relative age: Rancholabrean

Taxa: Spermophilus sp. cf. S. beecheyi

Mammuthus sp.

Capromeryx sp.

Source: Miller (1971)

Harbor Freeway (I-110) and 99th Street, Los Angeles: LACM 1225

Relative age: Rancholabrean

Taxa: Mammuthus sp.

Equus sp.

Source: Miller (1971)

Harbor Freeway (I-110) and 112-113th Streets, Los Angeles: LACM
1295

Relative age: Rancholabrean

Taxa: Glossotherium sp. cf. G. harlani

Thomomys sp. cf. T. bottae

Canis latrans

Canis sp. cf. C. dirus

Equus sp.

Odocoileus sp. cf. O. hemionus

Bison sp. cf. B. antiquus

Source: Miller (1971)

Hauser and 8th Streets, Los Angeles: LACM 1724
(see Rancho La Brea)

Hawthorne: LACM 2035

Relative age: Rancholabrean

Taxon: Mammuthus sp. cf. M. columbi

Source: Miller (1971)

Hawthorne Avenue and Pacific Coast Highway, WALTERIA: LACM 1713

Relative age: uncertain

Taxon: Camelidae

Hill and 12th Streets, Los Angeles: LACM 1755

Relative age: Rancholabrean

Taxon: Equus sp.

Hilltop Quarry, Cabrillo and Gatun Streets, San Pedro: LACM 1056

Geologic formation: San Pedro Sand

Relative age: Rancholabrean

Taxon: Bison sp.

Sources: Miller (1971), Langenwalter (1975)

Hollywood: LACM 2030

Relative age: Rancholabrean

Taxon: Bison latifrons

Hyde Park, School House: LACM 3252
Relative age: Rancholabrean
Taxon: Bison sp.

Hyperion Tunnel, El Segundo: LACM 1203
Relative age: Rancholabrean
Taxon: Mammalia

Kester Avenue, Van Nuys: LACM 3263
Relative age: Rancholabrean
Taxon: Equus sp.

La Brea Boulevard near Pico Boulevard, Los Angeles: LACM 1226
Relative age: Rancholabrean, ? Wisconsinan
Taxon: Bison sp.

La Brea Boulevard and San Vicente Street, Los Angeles: LACM 1783
Relative age: Rancholabrean, Wisconsinan
Taxa: Glossotherium sp. cf. G. harlani
Equus sp.
Camelops sp.
Bison sp.
Source: Miller (1971)

La Brea Boulevard and Sycamore Avenue, Los Angeles: LACM 1814
(see Rancho La Brea)

La Brea and Venice Boulevards, Los Angeles: LACM 1272
Relative age: Rancholabrean, ? Wisconsinan
Taxon: Mammuthus sp.
Source: Miller (1971)

La Brea Boulevard and 13-14th Streets, Los Angeles: LACM 1276
Relative age: Rancholabrean
Taxon: Bison sp.
Source: Miller (1971)

La Cienega Boulevard, 455 near Colgate Avenue, Los Angeles: LACM
(locality number not assigned)
Relative age: Rancholabrean
Taxon: Mammut americanum
Bison latifrons
Source: E. G. Scott (pers. comm. 1989)

La Mirada, Coyote Creek: LACM 6689
Geologic formation: La Habra Formation
Relative age: Rancholabrean
Radiometric dates: ^{14}C 10,690 \pm 360, 8,550 \pm 100 yr BP
Taxa: Megalonyx sp.
Sylvilagus sp.
Thomomys bottae
Peromyscus sp.

Microtus sp. cf. M. californicus
Canis sp. cf. C. latrans
Canis sp. cf. C. dirus
Urocyon sp. cf. U. cinereoargenteus
Ursus americanus
Lynx sp. cf. L. rufus
Mammut americanum
Equus sp.
Camelops sp. cf. C. hesternus
Odocoileus sp. cf. O. hemionus
Bison sp.

Sources: Miller (1971), Kurten and Anderson (1980)

La Mirada numbers II-X, Coyote Creek: LACM 4185-4187, 4195-4201
(= in part LACM 6689)

Geologic formation: La Habra Formation
Relative age: Rancholabrean, Wisconsinan
Taxon: Equus sp.

Lomita: LACM 3249
Relative age: uncertain
Taxa: Mammuthus columbi
Equus sp.

Long Beach: LACM 3260
Relative age: Rancholabrean
Taxon: cf. Bison sp.

Long Beach near Belmont Pier: LACM 2031
Relative age: Rancholabrean
Taxa: Tapirus sp.
Bison sp. cf. B. antiquus
Sources: Miller (1971), Jefferson (1989b)

Los Angeles Brick Yard number 3, Mission Road and Daly Street,
Los Angeles: LACM 2032; UCMP 1377
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Mammut americanum
Mammuthus sp. cf. M. columbi
Equus sp.
Camelops sp.
Bison sp.

Sources: Hay (1927), Miller (1971)

Los Angeles Harbor Berth Number 128: LACM 6705
Relative age: Rancholabrean
Taxa: Glossotherium sp.
Equus sp.
Source: Miller (1971)

Los Angeles International Airport: LACM 3264
Relative age: Rancholabrean
Taxon: Proboscidea

Los Angeles Police Station, Wilmington, Los Angeles: LACM 1602
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxa: Proboscidea
Sylvilagus sp.
Thomomys bottae
Peromyscus sp.
Microtus sp.
Canis dirus
Equus sp.
Odocoileus sp.
cf. Capromeryx sp.
Sources: Miller (1971), Langenwalter (1975)

Los Angeles River, Higuera Street and Moynier Lane: LACM 4232
Relative age: Rancholabrean, ? in part early Holocene
Radiometric date: ¹⁴C >23,000 ± 1,100 yr BP
Taxa: Homo sapiens ("Los Angeles Man")
Mammuthus sp.
Sources: Wormington (1957), Berger et al. (1971), Irwin (1975)

Los Angeles River, San Pedro:
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

Madison and Middlebury, Los Angeles: LACM 3250
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Magnolia Avenue and 11th Street (Loma Vista Drive), Long
Beach: LACM 1144
Relative age: Rancholabrean
Taxon: Bison sp.
Source: Miller (1971)

Main and 114th Streets, Los Angeles: LACM 4206
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Malaga Cove School, Palos Verdes Estates: LACM 4928
Relative age: Rancholabrean, ? Wisconsinan
Taxon: Bison sp.

Malaga Cove Wash, Palos Verdes Estates: LACM 4013, 4193
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Smilodon sp.

Malibu: (?= LACM 1275)
Relative age: Rancholabrean
Taxon: Euceratherium sp.
Source: R. L. Reynolds (pers. comm. 1990)

Malibu Creek: LACM 1275
Relative age: Rancholabrean, ? Holocene
Taxon: Equus sp.

Manchester and Airport Boulevards, Los Angeles: LACM 1180, 4942
Relative age: Rancholabrean
Taxa: Lepus sp.
cf. Mammut sp.
Mammuthus sp.
Equus sp.
Bison sp.
Source: Miller (1971)

Manchester and Vermont Boulevards, Los Angeles: LACM 1668
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.

Manning Rock, Irwindale: LACM 1807
Relative age: Rancholabrean
Taxon: Mammut sp.

Melrose Avenue and La Cienega Boulevard, Los Angeles: LACM 2033
Relative age: Rancholabrean
Taxa: Mammuthus sp. cf. M. columbi
Equus sp.
Camelops sp.
Bison sp.
Source: Miller (1971)

Mesa and Third Streets, San Pedro: LACM 3760
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxon: Mammalia
Source: Langenwalter (1975)

Michigan Street, Los Angeles: LACM 5462
Relative age: Rancholabrean
Taxon: Panthera atrox

Miramar Street, Long Beach: LACM 6746
Relative age: Rancholabrean
Taxon: Proboscidea

Mobil Oil Refinery, 190th Street, Torrance: LACM 4444
Relative age: Rancholabrean
Taxon: Equus sp.

Naval Fuel Reserve Quarry, Harbor City, Los Angeles: SDSNH 3246
Geologic formation: San Pedro Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)

Taxa: Sylvilagus sp.
Lepus californicus
Thomomys sp.
Dipodomys sp.
Neotoma sp.
Felis sp. (small-size)
Egus sp.
Odocoileus sp.
Bison sp. (small-size)

Naval Housing Unit, Harbor City, Los Angeles: LACM 5587 (and
numbered field localities)

Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)

Taxa: Notiosorex crawfordi
Glossotherium harlani
Sylvilagus sp.
Thomomys bottae
Microtus californicus
Peromyscus californicus or P. eremicus
Perognathus cf. P. formosus
Dipodomys cf. D. agilis
Egus sp.
Camelops sp.
Bison sp.

Source: J. D. Stewart (pers. comm. 1989)

New Lumber Yard, San Pedro: UCMP V66137

Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
(specimen/s not listed in TAXIR)

Norelle Street, Los Angeles: LACM 1279

Relative age: Rancholabrean, ? Holocene

Taxon: Egus sp.

Olympic Boulevard and Alvira Street, Los Angeles: LACM 1238

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Source: Miller (1971)

Orange Avenue and Spring Street, Long Beach: LACM 1022

(specimen/s not in collection)

Outfall Sewer, Culver City: LACM 3372

Relative age: Rancholabrean

Taxa: Thomomys bottae

Egus sp.

Camelops sp.

Odocoileus sp.
Bison antiquus

Outfall Sewer, Angeles Mesa, Culver City: LACM 1159

Relative age: ? Holocene

Taxon: Homo sapiens ("Haverty Men")

Source: Stock (1924), Wormington (1957)

Outfall Sewer, Limpo and Exposition, Culver City: LACM 3366

Relative age: Rancholabrean

Taxon: Camelops sp.

Outfall Sewer, Rodeo and Kelley, Culver City: LACM 3367

Relative age: Rancholabrean

Taxon: Mammut sp.

Outfall Sewer North, Sabertooth, Culver City: LACM 3370

Relative age: Rancholabrean

Taxon: Smilodon sp. (specimen not in collection)

Outfall Sewer North, Section 10, Culver City: LACM 3369

Relative age: Rancholabrean

Taxon: ? Equidae

Outfall Sewer North, Section 15, Culver City: LACM 3368

Relative age: Rancholabrean

Taxon: Equus sp.

Outfall Sewer North, Trench 19, Culver City: LACM 3371

Relative age: Rancholabrean

Taxon: Bison antiquus

Pacific Avenue and Oliver Street, San Pedro: LACM 186

Geologic formation: Palos Verdes Sand

Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)

Taxa: Canis sp. cf. C. dirus

Equus sp.

Source: Langenwalter (1975)

Pacific Avenue and Second and Third Streets, San Pedro: LACM
3251

Relative age: Rancholabrean

Taxon: Equus sp.

Palos Verdes Hills: LACM 3258

Relative age: Rancholabrean, ? Wisconsinan

Taxa: Mammuthus sp.

Equus sp.

Bison sp.

Palos Verdes Hills, Green Hills Memorial Park: LACM 1228

Geologic formation: Palos Verdes Sand

Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: cf. Camelops sp.
Source: Miller (1971)

Palos Verdes Hills, Green Hills Memorial Park: LACM 3200
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxa: Glossotherium sp.
Bison sp.
Source: Langenwalter 1975)

Paseo Del Mar Street, Palos Verdes Estates: LACM 1876
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Bison antiquus
Source: Miller (1971)

Pine Avenue and 12th Streets, Long Beach: LACM 3550 (?= LACM
1144, same locality name)
Relative age: Rancholabrean, Wisconsinan
Taxon: Camelidae
Source: Langenwalter (1975)

Pixie Avenue and Cover Street, Lakewood: LACM 3660
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Rancho La Brea: LACM 1724 (Hauser and 8th Streets), 1814 (La
Brea Boulevard and Sycamore Avenue), 1870 and 7247 (Wilshire
Boulevard and Curson Avenue), 1933 and 6909 (Hancock Park),
4204 and 6910 (Wilshire Boulevard, Mutual Benefit Building),
4590 (Stanley and 8th Streets), 6911 and 7027 (Wilshire
Boulevard, Prudential Building); UCMP 1058-1061, 2050-2053,
3874

Relative age: Rancholabrean, Wisconsinan, in part early Holocene
Radiometric dates: numerous determinations, uranium series and
¹⁴C ≥40 to 9 ka BP

Taxa: Sorex ornatus
Notiosorex crawfordi
Scapanus latimanus
Lasiurus cinereus
Antrozous pallidus (N. Czaplewski pers. comm. 1990)
Homo sapiens ("La Brea Woman")
Megalonyx jeffersonii
Nothrotheriops shastensis
Glossotherium harlani
Sylvilagus audubonii
S. bachmani
Lepus californicus
Spermophilus beecheyi
Tamias sp.
Thomomys bottae

Dipodomys agilis
Perognathus californicus
Reithrodontomys megalotis
Peromyscus imperfectus (type locality)
Onychomys torridus
Neotoma sp.
Microtus californicus
Canis latrans
C. lupus
C. dirus
C. familiaris
Urocyon cinereoargenteus
Arctodus simus
Ursus americanus
U. arctos horribilis
Procyon lotor
Bassariscus astutus
Mustela frenata
Taxidea taxus
Spilogale putorius
Mephitis mephitis
Smilodon brevipes (type locality)
S. fatalis
Homotherium sp. (A. Tejada-Flores pers. comm. 1987; S.
M. Cox pers. comm. 1989, R. L. Reynolds pers.
comm. 1990)
Panthera atrox
P. onca agusta
Felis concolor
F. daggetti (type locality)
F. sp. (small-size)
Lynx rufus
Mammut americanum
Mammuthus columbi
Equus occidentalis
E. conversidens
Tapirus californicus
Platygonus sp. cf. P. compressus
Camelops hesternus
Hemiauchenia macrocephala
Odocoileus sp. cf. O. hemionus
Cervus sp. cf. C. elaphus (human artifact)
Capromeryx minor (type locality)
Antilocapra americana
Bison latifrons
B. antiquus
Bos sp. (? historic)
Bovidae (historic, African) (A. Tejada-Flores pers.
comm. 1985)
Euceratherium sp. ? E. collinum
Ovis aries (historic)
? O. canadensis

Sources: Bovard (1907), Merriam (1909, 1910, 1911a, 1911b, 1912a, 1912b, 1913a, 1913b, 1913c, 1918a, 1918b), Taylor (1911), Kellogg (1912), Stock (1913, 1917, 1918, 1925, 1938), Chandler (1914, 1916a, 1916b), Dice (1925), Merriam and Stock (1921, 1925, 1932), Compton (1937), Furlong (1941, 1946), Savage (1951), Kurten (1960), Marcus (1960), Irwin (1975), Miller (1968), Cox (1979), Akersten et al. (1979), Bromage and Shermis (1981), Jefferson (1983a, 1986a, 1989b), Marcus and Berger (1984), Reynolds (1985), Whistler (1989), Scott (1990)

Redondo Steam Generating Plant, Redondo Beach: LACM 1254
Relative age: Rancholabrean
Taxon: Hemiauchenia sp.
Source: Miller (1971)

San Jose Hills, Pearblossom: UCMP V72102
Relative age: ? Rancholabrean
Taxon: Megalonychidae

San Fernando Dam: USGS 1224
Relative age: Rancholabrean
Taxon: Glossotherium sp.

San Pedro:
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

San Pedro Lumber Company (?= San Pedro Lumber Yard), Hill 48, San Pedro: LACM 187 (= ? LACM 1026, 1057); UCMP 2047

Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)

Taxa: Nothrotheriops sp. cf. N. shastensis
Megalonyx sp.
Sylvilagus sp. cf. S. bachmani
Lepus sp.
Spermophilus beecheyi
Thomomys bottae
Microtus sp. cf. M. californicus
Neotoma sp. cf. N. fuscipes
Canis sp. ? C. dirus
Smilodon fatalis
Panthera sp. cf. P. atrox
Felis sp. cf. F. concolor
Mammuthus sp.
Equus sp.
Camelops sp.
Odocoileus sp. cf. O. hemionus
Capromeryx sp.
Bison sp. cf. B. latifrons
Bison sp.

Sources: Miller (1971), Langenwalter (1975), Kurten and Anderson (1980)

San Pedro Lumber Yard (?= San Pedro Lumber, Hill 48) San Pedro:
LACM 1026, 1057 (= LACM 187; UCMP 2047)

Geologic formation: San Pedro Sand

Relative age: Rancholabrean

Taxa: Megalonyx sp.
Leporidae
? Smilodon sp.
Felis sp.
Mammuthus sp.
Equus sp.
Camelidae
Bison sp.

Sources: Miller (1971), Kurten and Anderson (1980)

San Pedro, Upper San Pedro: UCMP 1371

Geologic formation: San Pedro Sand

Relative age: Rancholabrean

Taxon: Equus sp.

Santa Monica Freeway (I-10) near Gramercy Street, Los Angeles:
LACM 1893

Relative age: Rancholabrean

Taxa: cf. Mammuthus sp.
Bison sp. cf. B. antiquus

Source: Miller (1971)

Santa Susana Pass, north of Chatsworth: LACM 1406

Relative age: ? Rancholabrean

Taxon: Mammut sp.

Signal Hill, Long Beach: UCMP V65109

Relative age: Rancholabrean

Taxon: Equus sp.

Signal Hill North, Long Beach: UCMP V69207
(specimen/s not listed in TAXIR)

Sparklets Mammoth (Eagle Rock Mammoth), Lincoln Boulevard and
45th Street, Pasadena: LACM(CIT) 342, LACM 2027

Relative age: Rancholabrean

Taxa: Mammuthus sp.
Bison sp.

Source: Miller (1971)

Stanley and 8th Street, Los Angeles: LACM 4590
(see Rancho La Brea)

Sylmar: LACM 5745

Relative age: Rancholabrean

Taxa: Mammuthus sp.
Equus sp.

Terminal Island, San Pedro: LACM 4587
Relative age: Rancholabrean
Taxa: Edentata
Carnivora

Tremaine and 8th Streets, Los Angeles: LACM 1198
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Miller (1971)

Torrance Recharge Basin, Torrance: LACM 1893
Relative age: Rancholabrean
Taxon: Equus sp.

Torrance Sand and Gravel Company, Rolling Hills Estates: LACM
1271
Relative age: Rancholabrean
Taxon: Proboscidea

U. S. Veterans Hospital, Long Beach: LACM 3757
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxa: Thomomys sp.
Canis sp. cf. C. latrans
Equus sp.
Hemiauchenia sp.
Source: Langenwalter (1975)

Union Oil 76 Refinery number 2, Los Angeles Harbor Yard, San
Pedro: LACM 3262, LACMIP 1210; UCMP V70027
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
(specimen/s not listed in UCMP TAXIR)
Taxa: Thomomys sp.
Camelops sp.
Source: Langenwalter (1975)

Van Norman Reservoir, Lower: LACM 7152
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Van Norman Reservoir, Upper: LACM 3397
Relative age: Rancholabrean
Taxon: Bison sp.

Van Nuys Clay Pit: LACM 3822
Relative age: Rancholabrean
Taxon: Bison sp.

Venice Boulevard and Vineyard Avenue, Los Angeles: LACM 7137

Relative age: Rancholabrean
Taxon: Bison sp.

Wicks Street, Arrow Rock (Sun Valley), Los Angeles: LACM 1146
Relative age: Rancholabrean
Taxon: Eguus sp.

Wilmington Boulevard and San Pedro Road, San Pedro: LACM 1012
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxon: Rodentia
Source: Langenwalter (1975)

Wilmington Avenue, Dominguez Hills: LACM 1919
Relative age: Rancholabrean
Taxon: cf. Mammuthus sp.
Source: Miller (1971)

Wilshire Boulevard and Bedford, Los Angeles: LACM 3355 (= LACM
3821)
Relative age: Rancholabrean
Taxon: Eguus sp.

Wilshire Boulevard and Curson Avenue, Los Angeles: LACM 1870,
7247
(see Rancho La Brea)

Wilshire Boulevard and La Cienega, Los Angeles: LACM 1679, 3176
Relative age: Rancholabrean, in part Holocene
Taxa: Bison sp.
Bos sp. (historic)

Wilshire Boulevard, Mutual Benefit Building, Los Angeles: LACM
4204, 6910
(see Rancho La Brea)

Wilshire Boulevard and Orange Grove Drive, Los Angeles: LACM
1604
Relative age: Rancholabrean
Taxon: Bison sp. cf. B. antiquus
Source: Miller (1971)

Wilshire Boulevard Prudential Building, Los Angeles: LACM 6911,
7027
(see Rancho La Brea)

Wilshire Boulevard, 10580 The Wilshire, Los Angeles: LACM 5833
Relative age: Rancholabrean
Taxa: Thomomys sp.
Dipodomys sp.
Neotoma sp.
Microtus sp.

Equus sp.

Woodland Hills, Canoga Park: LACM 1213
Relative age: Rancholabrean
Taxon: Glossotherium sp.

Zuma Creek, Point Dume: LACM 1754
Relative age: Rancholabrean, Wisconsinan
Taxa: Scapanus sp.
Leporidae
Geomyidae
Cricetidae
Microtine
Equus sp.
Tapirus sp. cf. T. californicus
Odocoileus sp.

Sources: Kurten and Anderson (1980), Lundelius et al.
(1983), Jefferson (1989b)

MADERA COUNTY

Ash Slough, Chowchilla: LACM 7254
Relative age: uncertain
Taxon: Proboscidea

Chowchilla: MC
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Source: L. Harville (pers. comm. 1989)

Madera, Millerton:
Relative age: Rancholabrean
Taxa: Mammut sp.
Mammuthus sp.
Bison latifrons
Source: Hay (1927)

MARIN COUNTY

Hamlet Station: UCMP V65147
Relative age: Rancholabrean
Taxon: Glossotherium harlani

San Antonio Creek: UCMP V28042
Relative age: Rancholabrean
Taxa: Mammut americanum
Mammuthus columbi
Bison sp.

Weisman Locality: UCMP V51006
Relative age: Rancholabrean
Taxon: Equus sp.

MARIPOSA COUNTY

Hornitos: UCMP 1368
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Source: Hay (1927)

Hornitos North: UCMP V65036, V69181
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Horseshoe Bend, Merced River:
Relative age: Rancholabrean
Taxon: Mammut americanum
Source: Hay (1927)

MERCED COUNTY

Bear Creek, Indian Creek:
Relative age: Rancholabrean
Taxa: ? Equus sp. (small-size)
Camelops sp.
cf. Odocoileus sp.
Source: Hay (1927)

Cistern, Planada: UCMP V67224
Geologic formation: Riverbank Formation
(specimen/s not listed in TAXIR)

Dry Creek:
Relative age: uncertain
Taxa: Equus sp.
Camelops sp.
Cervidae
Source: Hay (1927)

Halimar: UCMP V69194
(specimen/s not listed in TAXIR)

Merced County: UCMP 2049
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Merced Falls: UCMP V69172
Relative age: Rancholabrean
Taxon: Mammut americanum

Merced River number 1, south of Halimar: UCMP V68006
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Equus sp.

Camelops sp.
Bison sp.

Planada: MC
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Camelops sp.
Source: M. Arguelles and L. Harville (pers. comm. 1989)

Thompson, near Gustine: UCMP V37020
Relative age: Rancholabrean
Taxon: Bison sp.

MODOC COUNTY

B+K Ranch: UCMP V50037
Relative age: ? Rancholabrean
Taxon: Bison sp.

Cedarville: UCMP V66029
Relative age: Rancholabrean
Taxon: Bison sp.

John Street Gravel Pit: UCMP V60037
Relative age: Rancholabrean
Taxon: Symbos sp.

MODOC or SISKIYOU COUNTY

Tule Lake, south: UCMP V61009
Relative age: Rancholabrean
Taxon: Proboscidea

MONTEREY COUNTY

Harlem Siding: UCMP V40002
Relative age: Rancholabrean
Taxon: Equus sp.

Lake Heinz: UCMP V55076
Relative age: Rancholabrean
Taxon: Bison latifrons

Moss Landing: UCMP V49015
Relative age: Rancholabrean
Taxon: Camelops sp.

Soledad Crossing: UCMP V48056
Relative age: Rancholabrean
Taxon: Camelidae

NEVADA COUNTY

Penn Valley: SCGD
Relative age: Rancholabrean
Taxon: Bison latifrons
Source: R. Hilton (pers. comm. 1989)

ORANGE COUNTY

Anaheim Boulevard and 19th Street, Costa Mesa: LACM 3267
Relative age: Rancholabrean
Taxon: Proboscidea

Bonita Creek, Costa Mesa: LACM 1068
Geologic formation: Palos Verdes Sand
Relative age: ¹⁸O substage 5e (130-120 ka BP)
Taxa: Sylvilagus sp.
Equus sp.
Tapirus sp. cf. T. californicus
Camelops sp.
Odocoileus sp. cf. O. hemionus
Bison sp.
Sources: Miller (1971), Jefferson (1989b)

Brea Canyon Wash: LACM 1270
Relative age: ? Rancholabrean or Holocene
Taxon: Bos sp. (historic)
Ovis sp. or Capra sp. (? historic)

Costa Mesa: LACM 1339
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Costeau Pit, Laguna Hills, El Toro: LACM 65129
Relative age: Rancholabrean, Wisconsinan
Radiometric date: ¹⁴C ≥40,000 yr BP
Taxa: Notiosorex crawfordi
Glossotherium sp. cf. G. harlani
Sylvilagus sp. cf. S. bachmani
S. audubonii
Lepus sp. cf. L. californicus
Spermophilus beecheyi
Thomomys bottae
Dipodomys sp.
Perognathus sp. cf. P. californicus
Reithrodontomys sp. cf. R. humulus
Peromyscus maniculatus
Neotoma sp.
Microtus sp.
Ondatra sp.
Canis sp. cf. C. latrans
Canis sp. cf. C. dirus

Mustela frenata
Smilodon sp. cf. S. fatalis
Mammuthus columbi
Equus sp. (large-size)
cf. Equus sp. (small-size)
Camelops sp. cf. C. hesternus
Hemiauchenia sp.
Cervidae
Capromeryx sp.
Bison latifrons
B. antiquus

Sources: Miller (1971), Kurten and Anderson (1980), McDonald (1981), Langenwaller (1986)

Dana Point: LACM 4535, USGS 1426
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Bison sp.

Emery Borrow Pit, Ralph Clark Regional Park, Fullerton: LACM 3536-3537, 4178, 7053-7054, 7088-7089; RCIC 47
Geologic formation: La Habra Formation
Relative age: ? late Irvingtonian through Rancholabrean (Irvingtonian taxa included)

Taxa: Scapanus sp. cf. S. latimanus
Megalonyx sp.
Sylvilagus bachmani
Lepus sp.
Spermophilus beecheyi
Thomomys bottae
Peromyscus sp.
Sigmodon sp.
Neotoma lepida
Microtus californicus
Canis sp. cf. C. latrans
cf. Urocyon sp.
Bassariscus sp. cf. B. astutus
Mephitis sp.
Lynx sp.
Mammut americanum
Mammuthus sp. cf. M. imperator
Equus sp. cf. E. occidentalis
Tapirus merriami
cf. Tayassuidae
Camelops hesternus
Palaeolama sp. aff. P. mirifica
Odocoileus hemionus
Cervus elaphus
Antilocapridae ? Antilocapra sp.
Bovidae ? Bootherium sp. or Bison sp.

Sources: Kurten and Anderson (1980), S. W. Conkling (pers. comm. 1988), Jefferson (1989b)

Fullerton: LACM 3356, 6472
Geologic formation: La Habra Formation
Relative age: Rancholabrean, Wisconsinan
Taxon: Equus sp.
Source: Miller (1971)

Galivan: USGS 1209
Relative age: Rancholabrean
Taxon: Bison sp.

General McArthur Boulevard, Newport Bay Mesa, Newport Beach:
LACM 3407, 4254
Geologic formation: ? San Pedro Sand
Relative age: Rancholabrean
Taxon: Mammuthus sp.

General McArthur Boulevard Bridge, Newport Bay Mesa, Newport
Beach: LACM 1089, LACMIP 160
Relative age: Rancholabrean
Taxon: Edentata

Glasell and Fletcher, Orange: LACM 4943
Relative age: Rancholabrean
Taxon: Equus sp.

Huntington Beach: LACM 65113
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Bison sp.
Source: Miller (1971)

Imperial Highway, La Habra: LACM 1052
Geologic formation: La Habra Formation
Relative age: Rancholabrean, Wisconsinan
Taxa: Glossotherium sp. cf. G. harlani
Mammut sp. cf. M. americanum
Mammuthus columbi
Equus sp.
cf. Camelops sp.
Odocoileus sp.
Antilocapra sp.
Source: Miller (1971)

Imperial Highway, La Habra: LACM 3538
Geologic formation: La Habra Formation
Relative age: Rancholabrean, Wisconsinan
Taxon: Mammuthus sp.

Irvine Company Dam: LACM 1069, LACMIP 69
Relative age: ? Rancholabrean
Taxon: Mammalia (specimen not in collection)

Kelly Pits, Palisades Road, Newport Beach: LACM 6475
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxa: Thomomys sp.
Dipodomys sp.
Carnivora
Equus sp.

Laguna Beach: W. H. Wilson private collection, Laguna Beach,
California
Relative age: ? early Holocene
Radiometric date: ¹⁴C 17,150 ± 1,470 yr BP
Taxon: Homo sapiens
Source: Irwin (1975)

Laguna Hills, Morland Tract: LACM 4849
Relative age: Rancholabrean
Taxa: Equus sp.
Camelops sp.
Bison sp.

Laguna Niguel: LACM 4628-4629
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Tapirus sp. cf. T. californicus
Bison sp.
Source: Jefferson (1989b)

Malvern Avenue, Fullerton: LACM 3524
Geologic formation: La Habra Formation
Relative age: Rancholabrean, Wisconsinan
Taxon: Ungulata

Mateo Siding, La Habra: UCMP V70005
(specimen/s not listed in TAXIR)

Newport Bay Mesa, Newport Beach: LACM 1066-1067, 1100, 1240,
3877
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxa: Sorex ornatus
Notiosorex crawfordi
Scapanus latimanus
Antrozous pallidus
Megalonyx sp. cf. M. jeffersonii
Nothrotheriops shastensis
Sylvilagus sp. cf. S. audubonii
S. bachmani
Spermophilus sp. cf. S. beecheyi
Thomomys bottae
Dipodomys sp. cf. D. agilis

Perognathus californicus
Reithrodontomys megalotis
Peromyscus sp. cf. P. crinitus
P. maniculatus
Neotoma fuscipes
Microtus californicus
Canis sp. cf. C. dirus
cf. Spilogale sp.
Mammut americanum
Mammutidae and/or Elephantidae
Equus sp. (large-size)
Equus sp. (small-size)
Tapirus merriami
Tapirus sp. cf. T. californicus
Camelops sp.
Hemiauchenia sp.
Odocoileus sp. cf. O. hemionus
Antilocapra americana
Bison sp. cf. B. antiquus
Bison sp. cf. B. latifrons

Sources: Miller (1971), Reynolds (1976), Kurten and Anderson (1980), Jefferson (1989b)

Newport Beach: LACM 6801
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Tapirus merriami
Source: Jefferson (1989b)

Newport Beach: UCMP V72104 (B-5462)
(specimen/s not listed in TAXIR)

Oceanview High School, Seal Beach: LACM 4018
Relative age: Rancholabrean
Taxon: Odocoileus sp.

Oso Creek, Mission Viejo: LACM 1215, 4119
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Miller (1971)

Rio Vista Avenue, Anaheim: LACM 1652
Relative age: ? Holocene
Taxon: Ovis sp.

Salt Creek, Laguna Niguel: NHFOC, RCIC LC
Relative age: Rancholabrean
Taxa: Glossotherium sp.
Mammut sp.
Mammuthus sp.
? Tapirus sp.
Equus sp. (large-size)

Source: Jefferson (1989b)

Salt Creek, San Joaquin Hills: LACM 1115; NHFOC

Relative age: Rancholabrean

Taxa: Edentata
Rodentia
Mammuthus sp. cf. M. columbi

Source: Miller (1971)

San Clemente, Forster Ranch tract 12895

Relative age: Rancholabrean

Taxa: Glossotherium sp.
Mammuthus sp.
Equus sp.
Camelops sp.

Source: S. W. Conkling (pers. comm. 1989)

Seal Beach Offshore: LACM 1121

Relative age: Rancholabrean

Taxa: Mammuthus sp. cf. M. columbi
Bison sp. cf. B. latifrons

Source: Miller (1971)

Seal Beach near 15th Street: LACM 1409

Relative age: Rancholabrean

Taxon: Mammuthus sp. cf. M. columbi

Source: Miller (1971)

Shea Homes Tract 12544, Golden Lantern and Third Street, Laguna

Niguel: NHFOC

Relative age: Rancholabrean

Taxon: Equus sp. (large-size)

Shea Homes Tract 12544 Lot 401, Laguna Niguel: NHFOC

Relative age: Rancholabrean

Taxon: Odocoileus hemionus

Sulphur Creek Reservoir: LACM 4543

Relative age: Rancholabrean

Taxon: Bison sp.

Sunset Beach, Anderson Street and Pacific Coast Highway: LACM

3291

Relative age: Rancholabrean

Taxon: Camelops hesternus

PLACER COUNTY

Michigan Bluff, Forest Hill:

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Source: Hay (1927)

Rattlesnake Mine, Deadwood:
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Hay (1927)

Rocklin: UCMP V69052
Relative age: Rancholabrean
Taxon: Mammut americanum

Roseville: SCGD
Relative age: Rancholabrean
Taxon: Equus sp.
Source: R. Hilton (pers. comm. 1989)

RIVERSIDE COUNTY

Auld Valley, Bachelor Mountain: LACM 7261
Geologic formation: Pauba Formation
Relative age: late Irvingtonian or early Rancholabrean
Taxon: Proboscidea

Bastenchury Ranch, Granite Mountains: UCMP V70007
(specimen/s not listed in TAXIR)

Beaumont: AMNH
Relative age: Rancholabrean
Taxon: Bison antiquus
Sources: McDonald (1981), Harris (1985), Jefferson (1986b)

Bedford Properties: SBCM 5.6.229-5.6.246, 5.6.250-5.6.258
Geologic formation: Pauba Formation
Relative age: ? Rancholabrean
Taxa: Sylvilagus sp. S. audubonii
Thomomys bottae
Dipodomys sp.
Perognathus sp.
Reithrodontomys sp.
Peromyscus sp.
Neotoma sp.
Microtus californicus
cf. Vulpes sp.
Carnivora (medium-size)
Mammut americanum
Mammuthus sp.
Camelops sp.
Artiodactyla (medium-size)

Blythe: UCMP V60004
(specimen/s not listed in TAXIR)

Corona: LACM 1207
Relative age: ? Rancholabrean

Taxon: Odocoileus sp.

Corona, Santa Ana River: UCRV 8601

Relative age: Rancholabrean

Taxa: Lagomorpha
Microtus sp.
Mammut sp.
Equus sp.
cf. Camelops sp.
Bison sp.

Source: M. O. Woodburne (pers. comm. 1986)

Costain Homes: LACM 5904

Relative age: Rancholabrean

Geologic formation: Pauba formation

Taxa: Leporidae
Thomomys sp.

Jack Rabbit Trail Gravel Pit, San Jacinto Valley: LACM 4540

Relative age: Rancholabrean

Taxon: Equus sp.
Source: Jefferson (1986b)

Lake View Hot Springs: SBCM

Relative age: Rancholabrean

Taxa: Rodentia
Mammut sp. or Mammuthus sp.
Equus sp. (large-size)
Artiodactyla (medium-size)
Artiodactyla (small-size)

Pinto Basin, Joshua Tree National Monument: UCRARU CaRiv
521-522; LACM(CIT) 208, LACM 3414

Geologic formation: Pinto formation (informal)

Relative age: Rancholabrean

Taxa: Equus sp. (large-size)
Equus sp. (small-size)
Camelops sp.
Hemiauchenia sp.

Sources: Campbell and Campbell (1935), Jefferson (1986b, 1991b)

Rancho California, Corporate Park V (?= Santa Gertrudis Creek):
LACM 5447

Geologic formation: Pauba Formation

Relative age: late Irvingtonian or early Rancholabrean

Taxon: Equus sp. (large-size)
Camelops sp.
cf. Hemiauchenia macrocephala

Source: Raschke (1986)

Rancho California, Margarita Village tracts 20735, 20802, 21082:
LACM 5464

Geologic formation: Pauba Formation
Relative age: late Irvingtonian or early Rancholabrean
Taxon: Rodentia
? Mammuthus sp.
Equus sp.
Camelops sp.
Cervidae or Antilocapridae
Bison sp.
Source: Raschke (1987)

Rancho California, Mesa Homes tracts 21672-21673: LACM (locality
number not assigned)
Geologic formation: Pauba Formation
Relative age: late Irvingtonian or early Rancholabrean
Taxa: Equus sp.
Source: Morgan and Raschke (1988a)

Rancho California, Warmington Homes tracts 20735, 20737-20739,
20881: LACM (locality number not assigned)
Geologic formation: Pauba Formation
Relative age: late Irvingtonian or early Rancholabrean
Taxon: Equus sp.
Camelops sp.
Source: Morgan and Raschke (1988b)

Riverside: UCMP V65248
Relative age: uncertain
Taxon: Mammuthus sp.

Santa Ana River: RMM; R. Kirkby private collection, Rubidoux,
California
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Mammut sp.
Mammuthus columbi
Equus sp.
Source: R. Kirkby (pers. comm. 1965)

Santa Gertrudis Creek, Rancho California (?= Rancho California,
Corporate Park V: (?= LACM 5447)
Geologic formation: Pauba Formation
Relative age: Irvingtonian or Rancholabrean
Taxa: Tapirus sp.
Equus sp.
Sources: Mann (1955), Raschke (1986), Jefferson (1989a)

SACRAMENTO COUNTY

Chicken Ranch Slough numbers 1-2, Sacramento: UCMP V68046,
V68141
Relative age: Rancholabrean
Taxon: Mammuthus columbi

Equus sp.

Davis Gravel Pit, Sacramento: UCMP V67047
Geologic formation: Riverbank Formation
Relative age: Rancholabrean
Radiometric dates: uranium series 186 to 45 ka BP
Taxa: Proboscidea
Equus sp.
Camelops hesternus
Source: Hansen and Begg (1970)

Ehrhardt Avenue, Sacramento: UCMP V74086
Geologic formation: Riverbank Formation
(specimen/s not listed in TAXIR)

Sacramento: SDSNH 0663
Relative age: Rancholabrean
Taxa: Equus sp. (small-size)
Equus sp.
cf. Camelops sp.
Cervidae

Sacramento Sports Stadium: SCGD
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Canidae (small-size)
? Equus sp.
cf. Camelops sp.
Bison antiquus
Source: R. Hamilton (pers. comm. 1989)

Teichart Gravel Pit numbers 1-2, Sacramento: UCMP V69129,
V75126
Geologic formation: Riverbank Formation
Relative age: Rancholabrean
Radiometric dates: uranium series 112 to 67 ka BP
Taxa: Scapanus latimanus
Glossotherium harlani
Sylvilagus sp.
Spermophilus sp. cf. S. beecheyi
Thomomys bottae
Perognathus sp.
Reithrodontomys sp.
Neotoma sp.
Microtus sp.
Canis latrans
C. dirus
Mammuthus sp.
Equus sp.
Camelops hesternus
Odocoileus sp.
Bison sp. cf. B. antiquus

Sources: Hansen and Begg (1970), Harris (1985)

SAN BENITO COUNTY

Abbe Ranch, San Benito River Valley: UCMP V69064
Geologic formation: San Benito Gravels
Relative age: Rancholabrean
Taxon: Equus sp.

Bengard Ranch, north of King City: UCMP V69003
Relative age: Rancholabrean
Taxon: Mammut americanum

Bird Creek, San Benito River Valley: UCMP 69068
Geologic formation: San Benito Gravels
Relative age: Rancholabrean
Taxon: Mammuthus columbi

Hollister Gravel Pit, Hollister: UCMP V69065
Geologic formation: San Benito Gravels
Relative age: Rancholabrean
Taxon: ? Mammuthus sp.

Sallee Ranch, San Benito River Valley: UCMP V69063
Geologic formation: San Benito Gravels
Relative age: Rancholabrean
Taxon: Mammuthus columbi

SAN BERNARDINO COUNTY

Antelope Cave, Ivanpah Mountains: SBCM 1.10.10
Relative age: Rancholabrean
Radiometric date: ^{14}C 10,080 \pm 160 yr BP
Taxa: Chiroptera
Sorex sp.
Notiosorex crawfordi
Ochotona princeps
Sylvilagus sp. cf. S. audubonii
Sylvilagus sp. ? S. bachmani
Lepus californicus
Marmota sp. cf. M. flaviventris
Spermophilus variegatus
Spermophilus sp. (A)
Spermophilus sp. (B)
Ammospermophilus sp. cf. A. leucurus
Tamias panamintinus
Tamias sp. (large size)
Thomomys bottae
Dipodomys sp.
Perognathus (Perognathus) sp.
Perognathus (Chaetodippus) sp.
Peromyscus (Peromyscus) sp.

Peromyscus (Haplomylomys) sp.
Neotoma lepida
Neotoma sp. (small-size)
Neotoma sp. (large-size)
Microtus californicus
Lagurus curtatus
Canis latrans
Ursus americanus
Mustela frenata
Spilogale putorius
Equus conversidens
Camelops sp. cf. C. hesternus
Cervidae ? Navajoceros sp.
Antilocapra americana
Ovis canadensis

Sources: Pitzer (1985), R. E. Reynolds et al. (1991), Jefferson (1991b)

Archer Cadiz Dry Lake: SBCM 1.24.2-1.24.5

Relative age: Irvingtonian or early Rancholabrean

Taxa: Lepus sp.
Dipodomys ordii
Perognathus sp.
Peromyscus sp.

Source: Jefferson (1991b), Reynolds (1991)

Awl Site, Drinkwater Basin:

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Sources: M. G. Cottrell (pers. comm. 1988), Jefferson (1989a)

Bedford Road, Harvard Hill: SBCM 1.76.17

Relative age: Rancholabrean

Taxon: Equus sp.

Source: Jefferson (1989a)

Big Bear Cutoff and Mojave River, Hesperia: LACM (locality number not assigned)

Relative age: uncertain

Taxon: Mammuthus sp. (specimen not in collection)

Source: Jefferson (1986b)

Bitter Springs Playa, Rodgers Ridge, Fort Irwin: SBCM 1.72.10

Relative age: Rancholabrean

Taxa: Lepus sp.
Canis sp. (large-size)
Mammuthus sp.
Equus sp. cf. E. conversidens
Equus sp. (large-size)
? Camelops sp.
Hemiauchenia sp.

Sources: Reynolds and Woodburne (1987), Jefferson (1990a)

Black Butte, Newberry: SBCM 37, 1.76.14

Relative age: ? Rancholabrean

Taxa: ? Mammut sp.

Mammuthus sp.

Camelops sp. (large-size)

Artiodactyla (small-size)

Source: Jefferson (1989a)

Broadwell Lake East: SBCM 01.053.006

Relative age: Rancholabrean

Taxon: cf. Vulpes sp.

Broadwell Lake West: SBCM 01.053.033, 01.053.035,
01.053.038-01.053.041

Relative age: Rancholabrean

Taxa: Mammalia (small-size)

Lepus sp.

Antilocapra sp. or Stockoceros sp.

Calico Early Man Site, Calico Mountains: SBCM 1.128.5

Geologic formation: Yermo Gravels

Relative age: Rancholabrean

Radiometric dates: uranium series 200 ± 20 ka BP

Taxon: Proboscidea

Sources: Bischoff et al. (1981), Budinger (1983), Jefferson
(1989a)

Daggett Calico Lakes Project: SBCM 1.76.35, 1.76.35a-1.76.37

Relative age: Rancholabrean, in part early Holocene

Radiometric dates: ^{14}C $12,800 \pm 900$, $9,050 \pm 350$ yr BP

Taxa: Scapanus latimanus

Sylvilagus sp.

Lepus sp. cf. L. californicus

Spermophilus mohavensis

Thomomys bottae

Dipodomys sp.

Perognathus sp.

Peromyscus sp.

Neotoma lepida

Microtus sp. cf. M. californicus

Equus sp. cf. E. occidentalis

Camelops sp. cf. C. hesternus

Hemiauchenia macrocephala

Ovis canadensis

Sources: Reynolds and Reynolds (1985), Jefferson (1989a)

Calico Road, Calico Mountains: SBCM 1.76.18-1.76.28

Relative age: Rancholabrean

Taxa: Lepus sp.

Equus sp.

Camelops sp.

Source: Jefferson (1989a)

Campbell Hill and Twentynine Palms Gravel Pit, Twentynine Palms:

LACM 4281-4283; SBCM 1.86.4, 1.86.9

Relative age: Rancholabrean, ? Illinoian

Taxa: Megalonyx sp.
Nothrotheriops sp.
Thomomys sp.
Taxidea taxus
Smilodon sp. cf. S. fatalis
Felis concolor
Mammuthus sp.
Equus sp. (large-size)
Equus sp. (small-size)
Camelops sp.
Hemiauchenia sp.
Odocoileus sp. cf. O. virginianus
Capromeryx sp.
Bison sp. cf. B. antiquus
Ovis sp. cf. O. canadensis

Source: Jefferson (1986b, 1989a, 1991b)

Camp Cady Bluffs numbers 1-3, Camp Cady Local Fauna, east of

Yermo: SBCM 1.76.7-1.76.9

Relative age: Rancholabrean

Taxon: Mammalia

Source: Jefferson (1989a)

Carbon Canyon, Waste Water: SBCM 5.1.9-5.1.10

Relative age: Rancholabrean

Taxon: Glossotherium sp.

Equus sp.

Camelops sp.

Chino: LACM 1728

Relative age: Rancholabrean

Taxa: cf. Equus sp.

cf. Camelops sp.

Cool Water Coal Gasification Site, Daggett: SBCM 1.76.31-1.76.32

Relative age: Rancholabrean

Taxa: Sylvilagus sp.

Lepus sp. cf. L. californicus

Mammuthus sp.

Equus sp. cf. E. occidentalis

Sources: Reynolds and Reynolds (1985), Jefferson (1989a)

Cool Water Coal Gasification Solid Waste Site, Daggett: SBCM

1.76.33

Relative age: Rancholabrean, in part early Holocene

Radiometric date: ^{14}C 12,210 \pm 430 yr BP

Taxa: Sorex ornatus

Sorex sp.

Notiosorex crawfordi

Scapanus latimanus
Antrozous pallidus
Sylvilagus audubonii
S. bachmani
Lepus sp.
Spermophilus mohavensis
Spermophilus sp. (small-size)
Tamias sp. cf. T. minimus
Thomomys sp.
Dipodomys sp.
Perognathus sp.
Peromyscus sp.
Neotoma lepida
Microtus sp.
Vulpes macrotis
Proboscidea
Equus sp. (large-size)
Hemiauchenia macrocephala

Sources: Reynolds and Reynolds (1985), Goodwin (1989b), Goodwin and Reynolds (1989b), Jefferson (1989a)

Crestview Wash Spring, Sacramento Mountains: SBCM 1.30.11; SM
Relative age: Rancholabrean
Taxon: Edentata
Source: Jefferson (1991b)

Danby Lake: SBCM 1.41.1
Relative age: Rancholabrean
Taxon: Equus sp. (large-size)

Earp: CITM
Relative age: Rancholabrean
Radiometric date: amino acid racemization ≥ 250 ka BP
Taxon: Mammuthus sp.
Source: R. E. Reynolds (pers. comm. 1986), Jefferson (1991b)

El Evado Edison Road, Victorville: SBCM 1.114.29
Geologic formation: Noble's Old Alluvium or Shoemaker Gravels
Relative age: latest Irvingtonian or earliest Rancholabrean
Taxa: Rodentia
Equus sp.
Camelidae

Sources: Bowen (1954), Noble (1954), Jefferson (1986B), Reynolds (1989A)

Eureka Street, Victorville: SBCM 1.114.7
Geologic formation: Noble's Old Alluvium or Shoemaker Gravels
Relative age: latest Irvingtonian or earliest Rancholabrean
Taxon: Mammuthus sp.
Sources: Bowen (1954), Noble (1954), Jefferson (1986b), Reynolds (1989a)

Falling Arches (packrat) Midden, Whipple Mountains: UALP 7449
Relative age: Rancholabrean
Radiometric date: ^{14}C 11,650 \pm 190 yr BP
Taxa: Sylvilagus sp.
Dipodomys sp.
Perognathus sp.
Neotoma sp.
Sources: Lundelius et al. (1983), Mead et al. (1983), Jefferson
(1991b)

Fort Irwin, Artillery Range Number 10: SBCM 1.153.2
Relative age: Irvingtonian or Rancholabrean
Taxa: Nothrotheriops sp.
Canis sp. (large-size)
Panthera sp. cf. P. onca agusta
Felidae (large-size)
Equus sp.
Artiodactyla (large-size)
Source: Jefferson (1990a)

Harper Valley: LACM 1345
Relative age: ? Holocene
Taxon: Lepus sp.
Source: Jefferson (1989a)

Helendale Marl Quarry, Vitrlite Marl: LACM 1184
Relative age: Rancholabrean
Taxa: Sylvilagus sp. (small-size)
Lepus sp.
Perognathus sp.
Dipodomys sp.
Thomomys sp.
Neotoma sp.
Source: Jefferson (1989a)

Kingston Wash Lacustrine Sediments, north Cima Road: SBCM 1.6.5
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Camelidae

Kokoweef Cave, Kokoweef Peak, Ivanpah Mountains: SBCM 1.11.13
Relative age: Rancholabrean, late Wisconsinan, ? in part early
Holocene
Radiometric date: ^{14}C 9,850 \pm 160 yr BP
Taxa: Notiosorex crawfordi
Myotis leibii
M. thysanodes
Plecotus sp. cf. P. townsendii
Antrozous pallidus
Ochotona princeps
Sylvilagus sp. cf. S. audubonii

Lepus sp. cf. L. californicus
Tamias minimus
Tamias sp. (intermediate-size)
Tamias sp. (large-size)
Marmota flaviventris
Spermophilus townsendii
S. lateralis
S. variegatus
Spermophilus sp. ? S. mojavensis
Ammospermophilus sp. cf. A. leucurus
Thomomys bottae
Dipodomys sp.
Perognathus (Perognathus) sp.
Perognathus (Chaetodippus) sp.
Reithrodontomys megalotis
Peromyscus (Peromyscus) sp.
Peromyscus (haplomyomys) sp.
Neotoma albigula
N. stevensi
N. cinerea
N. lepida
Neotoma sp. N. cinerea or N. mexicana
Microtus californicus
Lagurus curtatus
Canis latrans
Vulpes macrotis
Urocyon cinereoargenteus
Bassariscus astutus
Mustela frenata
Taxidea taxus
Spilogale putorius
Lynx rufus
Equus conversidens
Camelops sp. cf. C. hesternus
Odocoileus sp.
Antilocapra americana
Ovis canadensis

Sources: Lundelius et al. (1983), Kurten and Anderson (1980),
Harris (1985), Goodwin and Reynolds (1989a), Roth and
Reynolds (1990), Force (1991), Jefferson (1991b), Reynolds
et al. (1991)

Kramer, SEGS numbers III-VII: SBCM 1.137.3-1137.9

Relative age: Rancholabrean

Taxa: ? Sylvilagus sp.

Lepus sp.

Equus sp.

Hemiauchenia sp.

Antilocapra sp.

Source: Jefferson (1989a)

Lake Manix, Camp Cady Local Fauna, east of Yermo: LACM(CIT)
540-542, 582, LACM 1093, 3496, 4032-4039, 4054-4061; SBCM
528, 1.59.2-1.59.23, 1.59.30; UCMP 676, 791; UCRV 6709-6764,
6767, 6769, 6852, 69100-69124, 7019-7024, 7049-7065,
7101-7115, 7129-7146; USGS (field locality numbers)

Geologic formation: Manix Formation

Relative age: latest Irvingtonian through Rancholabrean, ¹⁸O
stages 14 through 2, late Illinoian through Wisconsinan

Radiometric dates: numerous determinations, uranium series
and ¹⁴C, >350 to 14 ka BP

Taxa: Megalonyx sp.
Nothrotheriops sp. cf. N. shastensis
Glossotherium sp.
Lepus sp.
Cricetidae
Canis latrans
Canis cf. C. dirus
Arctodus sp.
cf. Ursus sp.
Homotherium sp.
Felis sp.
Mammuthus sp.
Equus sp. cf. E. conversidens
Equus sp. (large-size)
Camelops sp. cf. C. hesternus
Camelops sp. aff. C. minidokae
Lamini sp. ? sp. nov.
Hemiauchenia macrocephala
Antilocapra sp.
Bison sp. cf. B. antiquus
Ovis canadensis

Sources: Kurten and Anderson (1980), Harris (1985), Jefferson
(1985a, 1985b, 1987, 1989a), Meek (1989)

Leon, Victorville: SBCM 1.114.3

Geologic formation: Noble's Old Alluvium or Shoemaker Gravels

Relative age: latest Irvingtonian or earliest Rancholabrean

Taxon: Equus sp.

Sources: Bowen (1954), Noble (1954), Jefferson (1986b), Reynolds
(1989a)

Los Serranos Creek, Aspen Lane, Chino: SBCM 1.116.1

Relative age: Rancholabrean

Taxa: Equus sp.
Odocoileus sp.
Bison sp. cf. B. antiquus

Ludlow Cave (Two Raven Cave), Ludlow: SBCM CaSBR-1887; Reeves
private collection, Ludlow, California

Relative age: Rancholabrean

Taxa: Nothrotheriops shastensis
Canis latrans

cf. Capromeryx sp.
Hemiauchenia macrocephala

Sources: P. Reeves (pers. comm. 1988), Jefferson (1989a), R. H. Osborne (pers. comm. 1990)

Luz Foundation, Daggett: SBCM 1.76.34

Relative age: Rancholabrean

Taxa: Notiosorex crawfordi
Sylvilagus sp.
Thomomys bottae
Dipodomys sp.
Perognathus sp.
Peromyscus sp.
Neotoma lepida
Microtus sp. cf. M. californicus

Sources: Reynolds and Reynolds (1985), Jefferson (1989a)

Luz Solar Trough Site, Daggett: SBCM 1.76.34

Relative age: Rancholabrean

Radiometric date: ¹⁴C 10,910 ± 425 yr BP

Taxa: Sylvilagus sp.
Lepus sp. cf. L. californicus
Ammospermophilus leucurus
Spermophilus mohavensis
S. tereticaudus
Thomomys bottae
Dipodomys sp.
Perognathus sp.
Peromyscus sp.
Neotoma lepida
Microtus sp. cf. M. californicus
Vulpes sp. cf. V. macrotis
Equus sp. cf. E. occidentalis

Sources: Reynolds and Reynolds (1985), Goodwin and Reynolds 1989b), Jefferson (1989a)

Mescal Cave, Mescal Range: SBCM 1.10.12, UCMP V38064

Relative age: Rancholabrean

Taxa: Ochotona princeps
Marmota sp. cf. M. flaviventris
Spermophilus lateralis
Perognathus sp.
Microtus sp.
Neotoma sp. ? N. cinerea
Bassariscus astutus
Spilogale sp.
Equus sp.

Sources: Lundelius et al. (1983), Harris (1985), Jefferson (1991b)

Minneola Road, Yermo: SBCM 1.76.30

Relative age: uncertain

Taxon: Mammalia
Source: Jefferson (1989a)

Mitchell Cavern (Mitchell's Caverns), Providence Mountains:

LACM 3497; MAUCB; SBCM 1.18.9; UCRV

Relative age: Rancholabrean, ? in part early Holocene

Taxa: Nothrotheriops sp.
Sylvilagus sp. cf. S. audubonii
Lepus californicus
Lepus sp.
Marmota sp. ? M. flaviventris
Sciuridae
Spermophilus sp.
Dipodomys sp. aff. D. merriami
Peromyscus sp.
Neotoma sp. cf. N. lepida
? Urocyon sp.
Bassariscus astutus
Felis sp. (small-size)
Lynx rufus
Equus sp. (large-size)
Camelops sp.
Ovis sp. cf. O. canadensis

Source: Jefferson (1991b)

Mojave River Bluffs, Camp Cady Local Fauna, east of Yermo: SDSNH
(locality number not assigned)

Geologic formation: Manix Formation

Relative age: Rancholabrean

Taxon: Equus sp. (small-size)

Source: Jefferson (1989a)

Morongo Grade, Morongo Valley: SBCM 1.95.1

Relative age: uncertain

Taxon: Equus sp.

Source: Jefferson (1991b)

Newberry Condor Road, Newberry: SBCM 1.76.15

Relative age: uncertain

Taxon: Mammalia

Source: Jefferson (1989a)

Newberry Cave, Newberry Mountains: SBCM 102

Relative age: Rancholabrean, in part early Holocene

Radiometric date: ^{14}C 11,600 \pm 500 yr BP

Taxa: Nothrotheriops shastensis
Sylvilagus audubonii
Lepus californicus
Marmota flaviventris
Spermophilus spp.
Ammospermophilus leucurus
Thomomys bottae

Dipodomys sp.
Neotoma lepida
Microtus californicus
Canis latrans
Urocyon cinereoargenteus
Taxidea taxus
Felis concolor
Equus caballus
Ovis canadensis nelsoni

Sources: Davis and Smith (1981), Jefferson (1989a), Goodwin (1989)

Old Spring, Needles: UCMP V36025

Relative age: Rancholabrean

Taxa: Equus sp.
Camelops sp.

Source: Jefferson (1991b)

Piute Valley Lacustrine Sediments numbers 1-6, southwest of Searchlight, Nevada: SBCM 1.28.1-1.28.6

Relative age: Rancholabrean

Taxa: Sylvilagus sp.
Lepus sp. (large-size)
Lepus sp. (small-size)
Spermophilus townsendii
Thomomys sp.
Dipodomys sp.
Neotoma sp.
Microtus sp. cf. M. californicus
Panthera atrox
Equus sp. cf. E. conversidens
Camelops sp.
Bison sp. cf. B. antiquus
Bison sp. cf. B. latifrons

Sources: Jefferson (1971), Goodwin and Reynolds (1989b), Jefferson (1991b)

Rabbit Springs, Lucerne Dry Lake: SBCM 1.107.1

Relative age: Rancholabrean

Taxa: Equus sp.
? Camelidae

Source: Jefferson (1989a)

Red Tail Peak (packrat) Midden (Redtail Peak Midden), Whipple Mountains: UALP 75114, 75116, 76148

Relative age: Rancholabrean

Radiometric dates: ^{14}C 13,810 \pm 270, 11,520 \pm 160, 10,030 \pm 160 yr BP

Taxa: Lepus sp.
Dipodomys sp.
Peromyscus sp.
Neotoma sp.

Sources: Lundelius et al. (1983), Mead et al. (1983), Jefferson (1991b)

Saltmarsh, Danby Lake, east of Amboy: SBCM 1.41.2a, 1.41.3-1.41.8

Relative age: Rancholabrean

Taxa: Lepus sp.
Dipodomys deserti
D. merriami
Carnivora (small-size)
Equus sp. (small-size)
Artiodactyla (small-size)
Camelops sp.

Source: Jefferson (1991b), Reynolds (1991)

Salt Springs, southern Death Valley: SBCM 1.67.1, 1.67.3

Relative age: Rancholabrean

Taxa: Mammuthus sp.
Camelidae

Source: Jefferson (1990a)

Sands Lacustrine Sediments, Devils Playground, south of Baker: SBCM 1.62.1-1.62.2; UCRV 7001-7004, 7009-7010

Relative age: Rancholabrean

Taxa: Mammuthus sp.
Equus sp. (large-size)
Equus sp. (small-size)
Camelops sp.

Source: Jefferson (1971, 1990a)

Schuiling Cave, Newberry Mountains: LACM 1123; SBCM 1.77.1

Relative age: Rancholabrean, Wisconsinan, in part early Holocene

Radiometric date: ¹⁴C 12,500 ± 150 yr BP

Taxa: Homo sapiens
Sylvilagus sp.
Lepus sp.
Spermophilus sp.
Thomomys sp.
Dipodomys sp.
Perognathus sp.
Neotoma sp.
Canis sp. cf. C. lupus
Urocyon sp.
Procyon sp.
Taxidea sp. cf. T. taxus
Felis sp. cf. F. concolor
Lynx sp.
Equus sp. (large-size)
Equus sp. (small-size)
Camelidae ? Camelops hesternus
Hemiauchenia sp.
Capromeryx minor

Ovis sp.

Sources: Downs et al. (1959), Kurten and Anderson (1980),
Jefferson (1983b, 1989a), Harris (1985), Jefferson et al.
(1987)

Silver Creek Canyon, Lucerne Valley: UCMP V59030
(specimen/s not listed in TAXIR)

Silver Lake, north of Baker: SBCM 1.65.1-1.65.5

Relative age: Rancholabrean

Taxa: Sylvilagus sp.

Lepus sp.

Dipodomys sp.

Source: Jefferson (1990a)

Silver Shadow Cavern: USGS 1192

Relative age: ? Holocene

Taxon: Lepus californicus

Source: Jefferson (1991b)

Solar One Generation Station, Daggett: SBCM 1.76.11-1.76.13

Relative age: Rancholabrean, in part early Holocene

Taxa: Homo sapiens

Sylvilagus sp.

Lepus sp. cf. L. californicus

Spermophilus tereticaudus

Ammospermophilus sp. cf. A. leucurus

Thomomys bottae

Dipodomys sp.

Perognathus sp.

Neotoma lepida

Mammuthus sp.

Equus sp. cf. E. occidentalis

Camelops sp. cf. C. hesternus

Sources: Reynolds and Reynolds (1985), Jefferson (1989a)

Stevens Lake, Camp Cady Local Fauna, east of Yermo: SBCM 830

Geologic formation: Manix Formation

Relative age: Rancholabrean

Taxa: Edentata

Mammuthus sp.

Equus conversidens

Camelops sp. (large-size)

Source: Jefferson (1989a)

Superior Dry Lake, north of Barstow: SBCM 1.134.1; UCRV

Relative age: Rancholabrean, ? in part Holocene

Taxa: Leporidae

Camelidae

Source: Jefferson (1971, 1989a)

Suprise Springs, Dead Man Lake, north of Twentynine Palms: LACM
3350

Relative age: Rancholabrean

Taxa: Eguus sp.
Camelops sp.
Hemiauchenia sp.
Bison sp.

Source: Jefferson (1986b, 1991b)

Thorn, Victorville: SBCM 1.114.6-1.114.24

Geologic formation: Noble's Old Alluvium or Shoemaker Gravels

Relative age: latest Irvingtonian or earliest Rancholabrean

Taxa: Mammuthus sp.
Dipodomys sp.
Eguus sp.
Camelops sp.
Hemiauchenia sp.

Sources: Noble (1954), Jefferson (1986b), Reynolds (1989a)

Tonner Canyon, Chino Hills: SBCM 1.116.2

Relative age: Rancholabrean

Taxon: Bison sp. cf. B. antiquus

Tunnel Ridge (packrat) Midden, Whipple Mountains: UALP 7343,
7525

Relative age: Rancholabrean

Radiometric dates: ^{14}C 12,670 \pm 260, 10,330 \pm 300 yr BP

Taxa: Sylvilagus sp.
Dipodomys sp.
Perognathus sp. or Neotoma sp.

Sources: Lundelius et al. (1983), Mead et al. (1983), Jefferson
(1991b)

Turner Springs, Victorville: SBCM 1.114.25-1.114.26

Geologic formation: Noble's Old Alluvium or Shoemaker Gravels

Relative age: latest Irvingtonian or earliest Rancholabrean

Taxon: Lepus sp.

Sources: Noble (1954), Jefferson (1986b), Reynolds (1989a)

United Energy Solar Ponds, Daggett: SBCM 1.76.38

Relative age: Rancholabrean

Taxon: Eguus sp. cf. E. conversidens

Sources: Reynolds and Reynolds (1985), Jefferson (1989a)

Valley Wells Lacustrine Sediments, Valley Wells: SBCM
1.1.1a-1.1.1c, 1.1.10-1.1.14

Relative age: Irvingtonian through Rancholabrean
(Irvingtonian taxa not included)

Taxa: Lepus sp.
Canis sp. cf. C. latrans
? Felidae (large-size)
Mammuthus columbi

Equus sp. cf. E. conversidens

Camelops sp.

Hemiauchenia sp.

Antilocapridae

Source: Reynolds and Jefferson (1971, 1988, 1991), Jefferson (1991a)

Village Drive, Victorville: SBCM 1.114.27-1.114.28

Geologic formation: Noble's Old Alluvium or Shoemaker Gravels

Relative age: latest Irvingtonian or earliest Rancholabrean

Taxa: Mammuthus sp.

Equus sp.

Camelidae

Sources: Bowen (1954), Noble (1954), Jefferson (1986b), Reynolds (1989a)

Whipple Mountains (packrat) Midden: UALP 7447, 75123

Relative age: Rancholabrean, in part early Holocene

Radiometric dates: ^{14}C 10,430 \pm 170, 9,980 \pm 180 yr BP

Taxa: Perognathus sp.

Peromyscus sp.

Sources: Lundelius et al. (1983), Mead et al. (1983), Jefferson (1991b)

SAN DIEGO COUNTY

Ballast Point, San Diego: SDSNH 3195

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Coronado Beach, San Diego: AMNH

Relative age: Rancholabrean

Taxon: Equus occidentalis

Source: Hay (1927)

El Cajon, Cypress Street: SDSNH

Relative age: Rancholabrean

Taxon: Proboscidea

Imperial Beach, Palm City: SDSNH

Geologic formation: Nestor Terrace

Relative age: Rancholabrean

Taxon: Equus sp. (large-size)

Glen Abbey, Bonita: SDSNH 3131

Relative age: Rancholabrean

Taxa: Scapanus sp.

Sorex sp.

Notiosorex sp.

Lasiurus sp.

Tadarida sp.

Sylvilagus sp.

Lepus sp.
Spermophilus sp.
Thomomys sp.
Dipodomys sp.
Perognathus sp.
Peromyscus sp.
Neotoma sp.
Microtus sp.
Equus sp.

Source: Majors (1985)

Goldfish Point, La Jolla: LACM 6469
Geologic formation: Nestor Terrace
Relative age: Rancholabrean
Taxon: Equus sp.

La Jolla Shores: LACM 1410
Relative age: Rancholabrean
Taxon: Bison sp.

Midway Drive-In, Point Loma, San Diego: SDSNH
Relative age: Rancholabrean
Taxon: Equus sp. (large-size)

Morena Boulevard, Mission Bay, San Diego: LACM 3817
Geologic formation: Nestor Terrace
Relative age: Rancholabrean
Taxa: Leporidae
Thomomys sp.
Perognathus sp.
Peromyscus sp.
Neotoma sp.

National City: LACM(CIT) 594
Geologic formation: Nestor Terrace
Taxon: Tapirus sp. cf. T. californicus
Sources: Stock (1944), Jefferson (1989b)

Pala: LACM(CIT) 599
Relative age: ? Rancholabrean
Taxon: Equus sp.

Pendleton (Camp Pendleton), U. S. Marine Corps Base: SDSNH
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Oceanside: SDSNH (locality number not assigned)
Relative age: Rancholabrean
Taxon: Bison sp.

Point Loma, San Diego: LACM(CIT) 575
Relative age: Rancholabrean

Taxon: Camelidae
Source: Carter (1957)

Scripps Institute (Scripps Institution of Oceanogeography), La
Jolla: UCMP V52023
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Carter (1957)

Solana Beach: UCMP V63073
Relative age: Rancholabrean
Taxa: Mammut americanum
Mammuthus sp.

Tijuana River Valley: SDSNH
Relative age: Rancholabrean
Taxa: Mammut sp.
Mammuthus sp.

Torrey Pines Beach State Park: SDSNH
Relative age: Rancholabrean or ? Holocene
Taxon: Equus sp.

Vallecito Creek, Anza Borrego Desert: LACM 4937
Geologic formation: Mesa Formation
Relative age: Rancholabrean
Taxon: Mammuthus sp.

17th Street between Broadway and C Streets, San Diego: SDSNH
0685
Relative age: Rancholabrean or ? Holocene
Taxon: cf. Bison sp.

SAN FRANCISCO COUNTY

Bay Bridge, San Francisco:
Relative age: Rancholabrean
Taxon: Bison sp.
Source: Savage (1951)

Bay Bridge numbers 1-2 (?= Bay Bridge), San Francisco: UCMP
V34011, V69186
Relative age: Rancholabrean
Taxa: Mammuthus columbi
Equus sp.
Source: Savage (1951)

Bay Shore Southern Pacific Tunnel number 4 north, Bay Park or
Roman: UCMP 1076
Relative age: Rancholabrean
Taxon: Mammut sp. cf. M. americanum
Sources: Hay (1927), Savage (1951)

Cliff House Beach: GGMM
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

Fleishhacker Beach, San Francisco: UCMP V39001
Relative age: Rancholabrean
Taxa: Mammut sp. cf. M. americanum
Mammuthus sp.
Equus sp.
Bison sp.
Source: Savage (1951)

Ocean Beach:
Relative age: Rancholabrean
Taxon: Mammut sp. cf. M. americanum
Source: Savage (1951)

Pacific Street, San Francisco:
Relative age: Rancholabrean
Taxon: Glossotherium sp.
Sources: Hay (1927), Stock (1925)

San Francisco: ANSP
Relative age: Rancholabrean
Taxa: Odocoileus sp.
Bison antiquus
Source: McDonald (1981)

Treasure Island, San Francisco Bay:
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Source: Savage (1951)

Twin Peaks Tunnel, San Francisco: UCMP V65243
Relative age: Rancholabrean
Taxon: Glossotherium harlani
Sources: Hay (1927), Stock (1925)

SAN JOAQUIN COUNTY

Comita Road, Valley Home: UCMP V50039
Relative age: Rancholabrean
Taxon: Equus sp.

Lincoln Village: UCMP V48022
Relative age: Rancholabrean
Taxon: Equus sp.

Livermore Lab, H-E Test Site, Tracy: UCMP V74136
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Mormon Slough, north of Manteca: UCMP V51007
Relative age: Rancholabrean
Taxa: Carnivora
Mammuthus sp. cf. M. columbi
Equus sp.

Reiche numbers 1-2, southwest of Tracy: UCMP V48004, V48067
Relative age: Rancholabrean
Taxa: Mammut sp.
Equidae

Romoser Bayshore, Manteca: UCMP V70073
Relative age: Rancholabrean
Taxa: Equus sp.
? Bison sp.

Stockton: SU
Relative age: Rancholabrean
Taxa: Mammuthus columbi
Equus sp.
Camelidae
Source: Hay (1927)

Tracy Gravel Pit, Tracy: UCMP V66150
Relative age: Rancholabrean
Taxon: Megalonyx sp. cf. M. jeffersoni

SAN LUIS OBISPO COUNTY

Arbogast Ranch, Salinas River: LACM 5791 (= CPVP 6901)
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus cf. E. occidentalis
Bison sp. cf. B. antiquus
Source: Jefferson et al. (in press)

Carrisa Plains School, Carrizo Plains: LACM 5659 (= CPVP 7803)
Relative age: Rancholabrean
Taxa: Mammut americanum
Mammuthus sp.
Camelops sp.
Bison latifrons
Source: Jefferson et al. (in press)

Cayucos, South 5th Street: LACM 1720
Relative age: Rancholabrean
Taxon: Sciuridae
Source: Jefferson et al. (in press)

Chorro Creek, Morro Bay: LACM 5903 (= CPVP 7001)
Relative age: ? Rancholabrean
Taxon: Mammut americanum

Source: Jefferson et al. (in press)

Creston Mammoth Site, Creston: LACM (= CPVP 7802)

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Source: Jefferson et al. (in press)

Crowbar Canyon (Montana del Oro State Park, Cañada Los Osos):

LACM 4523, 4984; LACMIP 5640; USGS 7280

Relative age: Rancholabrean

Taxon: Mammalia

Source: Jefferson et al. (in press)

Diablo Canyon, Diablo Creek, north of Point San Luis:

Relative age: early Holocene

Radiometric date: ^{14}C 9,320 \pm 140 yr BP

Taxon: Homo sapiens

Sources: Greenwood (1972), Irwin (1975)

Irish Canyon, north of Point San Luis: LACM 5800-5801

Relative age: Rancholabrean

Radiometric dates: uranium series 61.5 \pm 2.0, 50.6 \pm 1.7 ka
BP

Taxa: Equus sp. cf. E. occidentalis

Bison antiquus

Source: Jefferson et al. (in press)

Mankin, Ranchita Cattle Company: LACM 5790 (= CPVP 6903)

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Source: Jefferson et al. (in press)

Nipomo: LACM 4089

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Source: Jefferson et al. (in press)

Pecho Creek, north of Point San Luis: LACM 5802

Relative age: Rancholabrean

Radiometric date: uranium series 82.8 \pm 3.4 ka BP

Taxa: Glossotherium harlani

? Equus sp.

Camelops sp. cf. C. hesternus

Source: Jefferson et al. (in press)

Salinas River Sand Site: CPVP 7801

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Sources: Bare (1978), Jefferson et al. (in press)

San Miguel: CPVP 6902

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Source: Jefferson et al. (in press)

San Miguel number 2: UCMP V65046
Relative age: Rancholabrean
Taxon: Camelidae
Source: Jefferson et al. (in press)

SAN MATEO COUNTY

Año Nuevo State Reserve: ANSR
Relative age: Rancholabrean
Radiometric date: ¹⁴C >27,900 ± 400 yr BP
Taxa: Mammuthus columbi
Equus sp.
Camelops sp.
Source: L. Motz (1983, pers. comm. 1990)

Halfmoon Bay, Arroyo de Leon: GGMM
Relative age: Rancholabrean
Taxa: Mammut sp.
Mammuthus sp.
Source: Hay (1927)

Laguna Alta, Pacifica: UCBMVZ; USGS 1230
Relative age: ? Holocene
Taxa: Equus sp.
Cervus nannoides

Menlo Park Station:
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Savage (1951)

Middlefield Road, Redwood City: UCMP V74164; USGS 1302
Relative age: Rancholabrean
Taxon: Camelops hesternus

Millbrae (Milbrae): YPM
Relative age: Rancholabrean
Taxa: Mammut americanum
Mammuthus sp. cf. M. columbi
Equus sp.
Source: Hay (1927), Savage (1951)

Montara Beach: USGS 1483
Relative age: Rancholabrean
Taxa: Smilodon sp.
Mammuthus sp.

Mussel Rock number 2: UCMP V40018
Relative age: Rancholabrean
Taxa: Glossotherium sp.

Mammuthus sp.
Equus sp.
Camelops hesternus
Bison sp.

Sources: Savage (1951), Lundelius et al. (1983)

Mussel Rock, South San Francisco: UCMP V35005
Relative age: Rancholabrean
Taxa: Proboscidea
Bison sp.
Source: Savage (1951)

Pilarcitos Lake (Pilarcitos Valley):
Relative age: Rancholabrean
Taxon: Bison antiquus
Source: Hay (1927)

San Francisquito Creek, Menlo Park: USGS 1206
Relative age: ? Holocene
Taxa: Homo sapiens
Spermophilus beecheyi
Geomysidae

San Francisquito Creek Northwest, Menlo Park: USGS
Relative age: Rancholabrean
Taxon: Mammut sp.

San Mateo:
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Hay (1927)

Seven Mile Beach, South San Francisco: UCMP V36006
Relative age: Rancholabrean
Taxon: Bison sp.
Source: Savage (1951)

Skyline Drive, South San Francisco: UCMP V62003
Relative age: Rancholabrean
Taxon: Alces sp.

South San Francisco: UCMP V63019
Relative age: Rancholabrean
Taxon: Equus sp.

SANTA BARBARA COUNTY

Arlington Canyon, Santa Rosa Island: CAS; LACM(CIT) 106, LACM
1757, 1763-1764, 4252, 4317; SBMNH
Geologic formation: Santa Rosa Island Formation
Relative age: Rancholabrean
Radiometric dates: ¹⁴C ≥37,000, 29,700 ± 3000, 16,700 ± 1500,

15,820 ± 280 yr BP

Taxa: Peromyscus nesodytes (type locality)
Mammuthus columbi
M. exilis (type locality)

Sources: Hay (1927), Wilson (1936), Hester (1967), Orr (1968),
Madden (1976), Berger (1982), Agenbroad (1984)

Carpinteria: LACM(CIT) 139, LACM 1017, 4249, LACMIP 5102; SBMNH
132-136; UCMP V32013
(see Higgen's Tar Beds)

Conception Station, Point Conception: UCMP 1078

Relative age: Rancholabrean

Taxa: Glossotherium sp.
Camelops sp.

Corralitos Canyon, Point Sal: UCMP V71018 (?= LACM 4938)

Relative age: Rancholabrean

Taxa: ? Proboscidea
Camelidae
Bison sp.

Corralitos Canyon, Point Sal: UCMP V65099

Relative age: Rancholabrean

Taxon: Tapirus sp. cf. T. californicus
Sources: Stirton and Weddle (1929), Jefferson (1989b)

Garanon Canyon, Santa Rosa Island: UCMP V50009

Geologic formation: Santa Rosa Island Formation

Relative age: Rancholabrean

Radiometric dates: numerous determinations ¹⁴C 30,000 to 9,000
yr BP

Taxon: Mammuthus exilis

Sources: Orr (1967, 1968), Madden (1976), Agenbroad (1984)

Gaviota Pass:

Relative age: Rancholabrean

Taxon: Mammut sp.

Source: Hay (1927)

Goleta: SBMNH

Relative age: Rancholabrean

Taxon: Mammut sp.

Source: R. S. Gray (pers. comm. 1987)

Higgen's Tar Beds (Higgen's Tar Ranch), Carpinteria: LACM(CIT)
139, LACM 1017, 4249, LACMIP 5102; SBMNH 132-136; UCMP
V32013

Geologic formation: Carpinteria Formation

Relative age: Rancholabrean, ? Wisconsinan

Taxa: Sorex sp. cf. S. ornatus
Sorex sp. cf. S. trowbridgii

Sylvilagus audubonii
S. bachmani
Lepus sp.
Sciurus sp.
Tamias sp.
Thomomys bottae
Dipodomys sp.
Perognathus sp.
Peromyscus sp.
Onychomys sp.
Neotoma sp.
Microtus californicus
Canis latrans
C. dirus
Urocyon cinereoargenteus
Mustela sp.
Taxidea taxus
Spilogale putorius
Mephitis mephitis
Smilodon sp.
Panthera sp. ? P. atrox
Lynx sp.
Mammuthus columbi
Equus sp. cf. E. occidentalis
Camelops sp. cf. C. hesternus
Odocoileus sp.
Bison sp.

Sources: Wilson (1933), Kurten and Anderson (1980)

Hope Ranch, Santa Barbara:
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Source: Hay (1927)

Isla Vista: LACM 5018
Relative age: Rancholabrean
Taxon: Equus sp.

Jalama State Park, south of Vandenberg Air Force Base: SBCC; T.
Wills Private Collection, Culver City, California
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Equus sp.
Source: R. S. Gray (pers. comm. 1987), T. Wills (pers. comm. 1991)

Los Alamos and West Los Alamos: LACM 3517-3518; UCMP V65030
Relative age: Rancholabrean
Taxa: Glossotherium sp.
Equus sp.

Point Sal: LACM 4938; SBCC; SBMNH (?= UCMP V71018)

Relative age: Rancholabrean

Taxa: Glossotherium sp. cf. G. harlani

Mammut sp.

Equus sp.

Source: R. S. Gray (pers. comm. 1987)

San Miguel Island: CCSD SMI-V-1 through SMI-V-12

Relative age: Rancholabrean

Radiometric dates: numerous determinations ^{14}C 32,143 \pm 787 to
11,890 \pm 95 yr BP

Taxa: Microtus n. sp.

Urocyon littoralis

Mammuthus exilis

Source: Guthrie (1980, in press)

San Miguel Island: LACM(CIT) 168A-B, 4169, 6737; UCMP V65187

Relative age: Rancholabrean

Taxa: Mammuthus columbi

M. exilis

Source: Hay (1927)

San Miguel Island Northwest: SBMNH

Relative age: Rancholabrean

Taxa: Rodentia

Mammuthus exilis

Santa Barbara Coast:

Relative age: Rancholabrean

Taxon: Mammut sp.

Source: Hay (1927)

Santa Cruz Island West: LACM 4248; SBMNH

Relative age: Rancholabrean

Taxa: Mammuthus columbi

M. exilis

Source: Cushing et al. (1984)

SANTA CLARA COUNTY

Alma Street Underpass at Page Mill Road: USGS 1203

Relative age: Rancholabrean

Taxa: Mammuthus sp.

Equus sp.

Camelops sp.

Source: C. A. Repenning (pers. comm. 1989)

Long Point, northeast of Palo Alto: UCMP V79134

(specimen/s not listed in TAXIR)

Milpitas: UCMP V49016

Relative age: Rancholabrean

Taxon: Bison sp.

Mountain View:

Relative age: Rancholabrean

Taxon: Mammut sp.

Source: Hay (1927)

Mountain View Dump, Mountain View: USGS 1227

Relative age: Rancholabrean, Wisconsinan

Taxa: Glossotherium harlani

Dipodomys sp.

Neotoma fuscipes

Mammuthus columbi

Equus sp.

Camelops sp.

Odocoileus sp.

Bison sp. cf. B. latifrons

Source: C. A. Repenning (pers. comm. 1989)

Rose Trombley's Back Yard, ? San Jose:

Relative age: Rancholabrean

Taxon: Camelops sp.

Source: C. A. Repenning (pers. comm. 1989)

San Felipe, east of Gilroy: UCMP V65061

Relative age: Rancholabrean

Taxon: Platygonus sp.

Santa Clara Valley: SU

Relative age: Rancholabrean

Taxon: Equus sp.

Stanford University, Corte de Madera Creek:

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Source: Hay (1927)

Sunnyvale Sewer, Sunnyvale: USGS 1218

Relative age: Rancholabrean, Wisconsinan

Taxa: Spermophilus beldingi

Thomomys bottae

Ursus sp.

Mammuthus columbi

Equus sp.

Camelops sp.

Bison sp.

Source: C. A. Repenning (pers. comm. 1989)

Veterans Hospital, Matadero Creek: USGS 1001, 1202

Relative age: Rancholabrean

Taxa: Glossotherium harlani

Sylvilagus sp.

Reithrodontomys sp.
Neotoma fuscipes
Mammuthus sp.
Equus sp.
Capromeryx sp.

SANTA CRUZ COUNTY

Aptos: SU
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

Santa Cruz:
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

SHASTA COUNTY

Cave Bear Cave: USNM
Relative age: Rancholabrean
Taxa: Procyon lotor
Arctodus sp.
Sources: Gidley (1906), Harris (1985)

Cave 1011, Squaw River: UCMP 1011
(specimen/s not listed in TAXIR)

Dekkas Cave, Squaw River: UCMP V35022
Relative age: Rancholabrean
Taxa: Sylvilagus sp.
Lepus sp.
Erethizon sp.
Lutra canadensis
Odocoileus sp.

Galen's Pit, Squaw River: UCMP V75068
Relative age: Rancholabrean
Taxon: Scapanus latimanus

Holden Cave, McCloud River: UCMP V4001 (0401)
Relative age: Rancholabrean
Taxa: Lepus sp.
Aplodontia sp.
Spermophilus sp.
Glaucomys sabrinus
Thomomys sp.
Neotoma sp.
Ursus americanus
Spilogale putorius
Odocoileus sp.

MacArthur, Fall River Valley: UCMP V33017
Relative age: Rancholabrean
Taxon: Bison latifrons
Sources: Vanderhoof (1942), McDonald (1981)

Potter Creek Cave, Baird: LACM 5357; UCMP 1055
Relative age: Rancholabrean, Wisconsinan
Taxa:

Scapanus latimanus
Antrozous pallidus
Desmodus stocki
Megalonyx jeffersoni
Nothrotheriops shastensis
Sylvilagus audubonii
S. bachmani
Lepus californicus
Aplodontia rufa
Marmota flaviventris
Spermophilus beecheyi
S. lateralis
Tamias sp.
Tamiasciurus douglasi
Glaucomys sabrinus
Thomomys bottae
T. microdon (type locality)
Neotoma cinerea
Microtus californicus
Erethizon sp.
Canis latrans
C. lupus
C. dirus
Vulpes vulpes
Urocyon cinereoargenteus
Arctodus simus
Ursus americanus
Procyon lotor
Bassariscus astutus
Mustela frenata
Martes nobilis
Taxidea taxus
Spilogale sp.
Mephitis mephitis
Panthera atrox
Felis concolor
Lynx rufus
Mammut americanum
Mammuthus columbi
Equus occidentalis
E. pacificus
Platygonus sp.
Camelidae
Odocoileus sp. (A)
Odocoileus sp. (B)

Bison sp.
Oreamnos americanus
Euceratherium collinum
Ovis sp.

Sources: Sinclair (1903, 1904, 1905), Kellogg (1912), Stock (1918), Hay (1927), Hutchison (1967b), Kurten and Anderson (1980), Lundelius et al. (1983), Harris (1985)

Samwell Cave numbers 1-3, McCloud River: UCMP 1008-1009, 1057, V65217

Relative age: Rancholabrean, late Wisconsinan

Radiometric dates: ¹⁴C 17,880 ± 900, 15,360 ± 500 yr BP

Taxa: Scapanus latimanus
Homo sapiens
Megalonyx sp.
Nothrotheriops shastensis
Sylvilagus audubonii
S. bachmani
Lepus californicus
Aplodontia rufa
Marmota sp.
Sciurus griseus
Spermophilus beecheyi
S. lateralis
Tamias sp.
Tamiasciurus douglasi
Glaucomys sabrinus
Thomomys bottae
T. microdon
T. monticola
Castor canadensis
Peromyscus maniculatus
Neotoma cinerea
N. fuscipes
Microtus californicus
Erethizon dorsatum
Canis latrans
C. lupus
C. dirus
Vulpes sp.
Urocyon cinereoargenteus
Arctodus sp.
Ursus americanus
U. arctos horribilis
Procyon lotor
Mustela frenata
Mustela sp.
Martes nobilis
Mephitis mephitis
Spilogale putorius
Lutra canadensis
Felis sp. cf. F. concolor

Mammuthus sp.
Equus occidentalis
Cervus sp.
Odocoileus sp. (A)
Odocoileus sp. (B)
Oreamnos americanus
Euceratherium collinum

Sources: Stock (1918), Hay (1927), Paynen et al. (1978), Kurten and Anderson (1980), Lundelius et al. (1983), Harris (1985)

Shasta County: SFMM
Relative age: Rancholabrean
Taxon: Mammut americanum

Stone Man Cave, McCloud River: LACM(CIT) 414; UCMP 1010
Relative age: Rancholabrean
Taxa: Rodentia
Arctodus sp.
Equus sp.
Odocoileus sp.
Sources: Furlong (1941), Lundelius et al. (1983)

SIERRA COUNTY

Brandy City: MCZ
Relative age: uncertain
Taxon: Equus sp.
Source: Hay (1927)

SISKIYOU COUNTY

Fossil Cave, Lava Beds National Monument: UCMP V34024
Relative age: Rancholabrean
Taxa: Mammut americanum
Camelops sp.

Gottville Centennial Mine (Honolulu Centennial Mine): CAS; UCMP V69175
Relative age: Rancholabrean
Taxa: Bison antiquus
Euceratherium sp.
Sources: Hay (1927), McDonald (1981), Harris (1985)

Hornbrook: UCMP V36028
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Klamath River, Gottville:
Relative age: Rancholabrean
Taxon: Euceratherium collinum
Source: Stock and Furlong (1927)

Oakbar (Oak Bar): USNM
Relative age: Rancholabrean
Taxon: Bison antiquus
Sources: Hay (1927), McDonald (1981)

Walker:
Relative age: Rancholabrean
Taxon: Mammut americanum
Source: Hay (1927)

Yreka, Klamath River:
Relative age: Rancholabrean
Taxon: Glossotherium sp.
Source: Hay (1927)

SISKIYOU OR MODOC COUNTY

Tule Lake, south: UCMP V61009
Relative age: Rancholabrean
Taxon: Proboscidea

SOLANO COUNTY

Benicia RR Yard: UCMP V68038
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Bottle Hill, Benicia:
Relative age: Rancholabrean
Taxa: Mammut sp.
Mammuthus columbi
Equus sp.
Sources: Hay (1927), Savage (1951)

Carquinez Strait north shore:
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Savage (1951)

Collinsville: UCMP V37019
Relative age: Rancholabrean
Taxa: Mammuthus sp. cf. M. columbi
Equus sp.
Source: Savage (1951)

Mare Island:
Relative age: uncertain
Taxa: Mammuthus sp.
Equus sp.
Source: Hay (1927)

Montezuma Hills number 1, north of Antioch: UCMP V55010
Geologic formation: Montezuma Formation
Relative age: Rancholabrean
Taxa: Equus sp.
Camelops sp.
Cervus sp.

Powder Works, Benicia: UCMP 527
Relative age: Rancholabrean
Taxon: Bison sp.

Rio Vista number 2: UCMP V65617; USNM
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

Suisun Creek, Suisun: UCMP 65183
Relative age: Rancholabrean
Taxon: Equus pacificus

Suisun Slough (listed under Contra Costa County by Hay, 1927),
Suisun: UCMP 27003
Relative age: Rancholabrean
Taxa: Glossotherium sp.
Nothrotheriops sp.
Mammuthus sp.
Equus sp.
Sources: Hay (1927), Savage (1951)

SONOMA COUNTY

Agua Rico Ranch, Sonoma: UCMP 1380
Relative age: Rancholabrean
Taxa: Equus sp.
Odocoileus sp.

Cardinaux, east of Petaluma: UCMP V80005
Relative age: ? early Holocene
Taxon: Bison bison

Crandall, ? Santa Rosa: UCMP V36050
Relative age: Rancholabrean
Taxon: Glossotherium sp.

Ducker Ranch, Petaluma: UCMP V65017
Relative age: Rancholabrean
Taxon: Mammut americanum

Ebibias Creek, Sebastopol: UCMP V72107
Relative age: Rancholabrean
Taxa: Equus sp.
Bovidae

Eureka School, Petaluma: UCMP V36046
Relative age: Rancholabrean
Taxa: Equus sp.
Bison sp.
Source: Savage (1951)

Five Oaks Ranch, Cloverdale: UCMP V52013
Relative age: Rancholabrean
Taxon: Mammut americanum

Griffeth Park, Santa Rosa:
Relative age: uncertain
Taxon: Proboscidia
Source: Savage (1951)

McGrew's Ranch, Petaluma: UCMP 3023
Relative age: Rancholabrean
Taxon: Glossotherium sp. cf. G. harlani
Source: Savage (1951)

Petaluma: UCMP V67075:
Relative age: uncertain
Taxon: Mammut sp.
Source: Hay (1927)

STANISLAUS COUNTY

Brant Ranch: UCMP V72008
Geologic formation: Riverbank Formation
Relative age: Rancholabrean
Taxon: Glossotherium harlani

Del Puerto Creek: UCMP V31007
Relative age: Rancholabrean
Taxon: Equus sp.

Delta Mendota numbers 13-17, 19, La Grange: UCMP V48007-48011,
V48019
Relative age: Rancholabrean
Taxa: Thomomys sp.
Mammuthus sp.
Equus sp.
Bison antiquus

Dry Creek: UCMP V65259
Relative age: Rancholabrean
Taxon: Mammuthus columbi

Garber Farm: UCMP V72007
Geologic formation: Modesto Formation
Relative age: Rancholabrean
Taxa: Megalonyx jeffersoni

Mammuthus columbi

Harpster Cow Pond: UCMP V75065
Relative age: Rancholabrean
Taxon: Bison sp.

Hetch Hetchy Tunnel (Hetchei Hetchie Tunnel), Knights Ferry:
UCMP V33015
Relative age: Rancholabrean
Taxon: Camelops sp. cf. C. hesternus

Longo: UCMP V54034
Relative age: Rancholabrean
Taxa: Camelidae
Bison sp.

McMannis Ranch: UCMP V72186
Geologic formation: Modesto Formation
Relative age: Rancholabrean
Taxon: Bison sp.

Modesto: UCMP V39059
Relative age: Rancholabrean
Taxon: Equus sp.

Modesto Sanitary Landfill, Modesto:
Relative age: Rancholabrean
Taxon: Mammuthus sp. (specimen not collected)
Source: R. Hilton (pers. comm. 1989)

North Avenue, Modesto: UCMP V81120
Relative age: Rancholabrean
Taxon: Bison sp.

Patterson Ranch Well: UCMP V68008
Relative age: Rancholabrean
Taxon: Equus sp.

Woodland Avenue, Modesto: UCMP V81119
Relative age: Rancholabrean
Taxon: Camelops hesternus

SUTTER COUNTY

Marysville Buttes (Sutter Buttes): UCMP V40043
Relative age: Rancholabrean
Taxon: Equidae

Oswald Road, Yuba City: UCMP V39015
Relative age: Rancholabrean
Taxon: Bison latifrons

TEHAMA COUNTY

Digger Creek: USNM
Relative age: Rancholabrean
Taxon: Eguus occidentalis
Source: Hay (1927)

Red Bluff: SDSNH
Relative age: uncertain
Taxon: Eguus sp.

TRINITY COUNTY

Douglas City: USNM
Relative age: Rancholabrean
Taxa: Megalonyx sp.
Mammuthus sp.
Odocoileus sp.
Source: Hay (1927)

TULARE COUNTY

Delano: LACM 1156
Relative age: Rancholabrean
Taxon: Eguus sp.

Denton's Farm, Badger: UCMP V78124
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Earlimart (Earlimont): UCMP V69173
Relative age: Rancholabrean
Taxon: Eguus sp.

Exeter numbers 1-2: UCMP V39031, V68037
Relative age: Rancholabrean
Taxon: Eguus sp.

Flynn Ranch, Fountain Springs: LACM 6701
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Friant-Kern Canal number 1, Exeter: UCMP V49003
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Gordon Gulch, east of Lindsay: UCMP V69174
Relative age: Rancholabrean
Taxa: Mammut americanum
Mammuthus columbi

Kaweah South Fork (Kaweah River South Fork), Three Rivers: UCMP
V56034

Relative age: Rancholabrean
Taxon: Equus sp.

Strathmore: UCMP V65309
Relative age: Rancholabrean
Taxon: Camelops sp.

Tipton: UCMP V55068
Relative age: Rancholabrean
Taxa: Proboscidea
Equus sp.
Camelops sp.

Tulare County: LACM(CIT) 117; UCMP V65040
Relative age: uncertain
Taxon: Equus sp.

White River: LACM 4088
Relative age: Rancholabrean
Taxa: Mammuthus columbi
Bison antiquus
Sources: Hay (1927), McDonald (1981), Harris (1985)

TUOLUMNE COUNTY

Columbia: UCMP V65647
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus occidentalis
Source: Hay (1927)

Gold Springs Gulch, Columbia: UCMP V65516
Relative age: Rancholabrean
Taxon: Mammut americanum

Gordon Gulch (?= Gordon Gulch, Tulare County): (?= UCMP 69174)
Relative age: Rancholabrean
Taxon: Equus pacificus
Source: Hay (1927)

Jamestown: YPM
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Hay (1927)

Kincaid Flat, west of Groveland: UCMP V65041
Relative age: Rancholabrean
Taxa: Mammut americanum
Mammuthus sp.
Equus sp.

Camelidae

Bison latifrons

Source: Hay (1927)

Matlock Gulch:

Relative age: Rancholabrean

Taxon: Equus occidentalis

Source: Hay (1927)

Mclean's Cave, Columbia: UCMP V77090

Relative age: Rancholabrean

Taxon: Euceratherium collinum

Mojave Valley (location uncertain):

Relative age: uncertain

Taxon: Equus sp.

Source: Hay (1927)

Mormon Flat:

Relative age: Rancholabrean

Taxon: Mammut americanum

Source: Hay (1927)

Saw-mill Flat:

Relative age: Rancholabrean

Taxon: Bison sp.

Source: Hay (1927)

Shaw's Flat, Sonora:

Relative age: Rancholabrean

Taxon: Mammuthus sp.

Source: Hay (1927)

Sonora (Stent): SCGD

Relative age: Rancholabrean

Taxa: Mammut americanum

Mammuthus sp.

Tapirus sp.

Equus occidentalis

Camelops sp.

Bison antiquus

Sources: Hay (1927), R. Hilton (pers. comm. 1989), Jefferson (1989b)

Soulsbyville:

Relative age: Rancholabrean

Taxon: Equus sp.

Source: Hay (1927)

Stony Gulch Cave: UCMP V57060

Relative age: Rancholabrean

Taxon: Tapirus sp.

Source: Jefferson (1989b)

Table Mountain: UCMP V69180
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Hay (1927)

Texas Flat:
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Source: Hay (1927)

Tuolumne County: MCZ; UCMP V65038
Geologic formation: Auriferous gravels (informal)
Relative age: Rancholabrean
Taxa: Mammut sp.
Equus occidentalis (type locality)
Source: Hay (1927)

Tuttletown:
Relative age: Rancholabrean
Taxon: Mammut sp.
Source: Hay (1927)

Woods Creek, Columbia: UCMP V65033
Relative age: Rancholabrean
Taxon: Tapirus californicus (type locality)
Sources: Merriam (1913a), Jefferson (1989b)

Yorktown Gulch, Columbia: UCMP V69179
Relative age: Rancholabrean
Taxon: Mammut americanum
Source: Hay (1927)

VENTURA COUNTY

Anacapa Island: LACM 1642, 1928
Relative age: Rancholabrean
Taxon: Peromyscus anacapahensis (type locality)
Source: White (1966)

Beardsley Wash, Camarillo: UCMP V56097
Geologic formation: Las Posas Formation
Relative age: Rancholabrean
Taxon: Proboscidea

Bolsa Chica State Park: LACM 6912
Relative age: Rancholabrean
Taxa: Glossotherium sp.
Mammuthus sp.
Bison sp.

Brea Canyon, Simi Valley: LACM(CIT) 153, LACM 65114
Relative age: Rancholabrean
Taxa: Glossotherium sp.
Equus sp.
Artiodactyla (large-size)

Camarillo: LACM(CIT) 586
Relative age: Rancholabrean
Taxon: Mammut sp.

Camarillo Hills:
Geologic formation: Las Posas Formation
Relative age: Rancholabrean
Taxon: Equus sp. cf. E. occidentalis
Source: Pressler (1924)

Camarillo, Las Posas Estates: B. Benson private collection,
Ojai, California
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Equus sp.
Source: B. Benson (pers. comm. 1986)

Conejo Valley, New Park: LACM 1680
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Equus sp.

Las Posas Hills:
Geologic formation: Las Posas Formation
Relative age: Rancholabrean
Taxon: Equus sp.
Source: Pressler (1924)

Long Canyon (Wiggins Canyon), east of Harmon Canyon, Santa Clara
Valley: LACM 6470
Geologic formation: ? Saugus Formation
Relative age: uncertain
Taxon: Equus sp.

Moorepark: LACM(CIT) 560
Relative age: Rancholabrean
Taxon: Equus sp.

Pierpoint Bay, Ventura: UCMP V58009
Relative age: Rancholabrean
Taxa: Equus sp.
cf. Bison sp.

San Buenaventura:
Relative age: Rancholabrean
Taxa: Mammut sp.

Equus occidentalis
Camelops sp.

Source: Hay (1927)

San Nicolas Island: UCMP V41007
Relative age: Rancholabrean
Taxon: Mammuthus sp.

Santa Paula:
Relative age: Rancholabrean
Taxon: Equus occidentalis
Source: Hay (1927)

Triunfo Corner and Potrero Poad, Thousand Oaks: LACM 3213
Relative age: ? Rancholabrean
Taxon: Edentata

Ventura (locality uncertain, in part included with San
Buenaventura and Santa Paula) (?= Ventura below): (?= UCMP
65287)
Relative age: Rancholabrean
Taxa: Mammut sp.
Camelops sp.
Source: Hay (1927)

Ventura (?= San Buenaventura and/or Ventura): UCMP V65287
Relative age: Rancholabrean
Taxa: Mammuthus sp.
Camelops sp.

Ventura, Foothills Street: VCM
Relative age: Rancholabrean
Taxon: Mammuthus sp.
Source: B. Benson (pers. comm. 1986)

YOLO COUNTY

Black's Station: USNM
Relative age: Rancholabrean
Taxon: Mammuthus columbi
Source: Hay (1927)

Putah Creek Nursery, Davis: UCMP V69011
Relative age: Rancholabrean
Geologic formation: Montezuma Formation
Taxon: Proboscidea

Putah Creek number 1-4, Davis: UCMP V54030, V69182-69184
Geologic formation: Montezuma Formation
Relative age: Rancholabrean
Taxon: Smilodon sp.

Stevens Creek Bridge, Davis: UCMP V76199
Relative age: Rancholabrean
Taxa: Glossotherium harlani
Mammuthus sp.

Tule Canal, Dixon: UCMP V65241
Relative age: Rancholabrean
Taxon: Cervus sp.

Woodland: UCMP 34002
Relative age: Rancholabrean
Geologic formation: ? Red Bluff Formation
Taxon: Equus sp.

CATALOGUE OF LATE QUATERNARY
MARINE MAMMALS FROM CALIFORNIA LOCALITIES

CONTRA COSTA

Garretson, ? Oakley: UCMP 63012
Geologic formation: ? Montezuma Formation
Relative age: Rancholabrean
Taxon: Enhydra lutris

HUMBOLDT COUNTY

Crannell Junction: HSU 745
Relative age: Rancholabrean
Taxa: Enhydra macrodonta (type locality)
Enhydra sp.
Eumetopias jubata
Sources: Kilmer (1972), Kohl (1974), Lundelius et al. (1983)

LOS ANGELES COUNTY

Chandler's Sand Pit, Rolling Hills Estates: LACM 1087
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Cetacea
Sources: Miller (1971), Langenwalter (1975)

Gaffey Street and Harbor Freeway (I-110), San Pedro: LACM 3270
(?= UCMP V7004)
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxon: Eschrichtius sp. cf. E. robustus
Sources: Barnes and McLeod (1984)

Gaffey Street and Harbor Freeway (I-110), San Pedro: UCMP V7004
(?= LACM 3270)
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxon: Phoca sp. cf. P. vitulina
Sources: Barnes and Mitchell (1975)

Hilltop Quarry, Cabrillo and Gatun Streets, San Pedro: LACM 1056
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxon: Cetacea
Sources: Miller (1971), Langenwalter (1975)

La Mirada, Coyote Creek: LACM 6689
Geologic formation: La Habra Formation
Relative age: Rancholabrean
Radiometric dates: ¹⁴C 10,690 ± 360, 8,550 ± 100 yr BP

Taxon: Phocidae
Sources: Miller (1971), Kurten and Anderson (1980)

Lincoln Avenue (Lincoln Boulevard) (Del Rey Hills), Playa del
Rey: LACM 1024
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka PB)
Taxon: Phoca sp. cf. P. vitulina
Source: Barnes and Mitchell (1975)

Los Angeles Police Station, Wilmington, Los Angeles: LACM 1602
Geologic formation: San Pedro Sand
Relative age: Rancholabrean
Taxa: Zalophus sp.
Cetacea
Sources: Miller (1971), Langenwalter (1975)

Magnolia Avenue and Ocean Boulevard, Long Beach: LACM 6896
Relative age: Rancholabrean
Taxon: Cetacea

Malaga Cove Wash, Palos Verdes Estates: LACM 4013, 4193
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Odontoceti

Mobil Oil Refinery 190th Street, Torrance: LACM 4444
Relative age: Rancholabrean
Taxon: Cetacea

Naval Housing Unit, Harbor City, Los Angeles: LACM 5598 (and
unnumbered field localities)
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Cetacea

Pacific Avenue and Oliver Street, San Pedro: LACM 186
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Zalophus sp.
Source: Langenwalter (1975)

Pacific Ocean off Redondo Beach: LACM 3064
Relative age: ? Rancholabrean
Taxon: Cetacea

Palos Verdes: LACM 3258
Geologic formation: ? Palos Verdes Sand
Relative age: Rancholabrean
Taxon: Cetacea

Pennsylvania Avenue between Chandler and Sidebotham Sand Pits,

Rolling Hills Estates: LACM 1277
 Geologic formation: Palos Verdes Sand
 Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
 Taxon: Cetacea
 Source: Langenwalter (1975)

Pine Avenue and 12th Streets, Long Beach: LACM 3550 (?= LACM 1144)
 Geologic formation: Palos Verdes Sand
 Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
 Taxon: Pinnipedia
 Source: Langenwalter (1975)

Rancho La Brea, Los Angeles: LACMHC Pit 67
 Relative age: early Holocene
 Taxon: Cetacea (human artifact)

Redondo Beach: LACM 1254, 3064
 Relative age: Rancholabrean
 Taxon: Cetacea
 Source: Miller (1971)

San Clemente Island: LACM 1669
 Relative age: Rancholabrean
 Taxon: cf. Lissodelphis sp.

San Pedro Lumber Company (?= San Pedro Lumber Yard), Hill number 48, San Pedro: LACM 187 (?= LACM 1026, 1057); UCMP 2047
 Geologic formation: Palos Verdes Sand
 Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
 Taxa: Enhydra sp. cf. E. lutris
 Arctocephalinae
 Zalophus californicus
 Delphinidae
 Mysticeti
 Sources: Mitchell (1966), Miller (1971), Langenwalter (1975), Kurten and Anderson (1980)

San Pedro Lumber Yard (?= San Pedro Lumber Company, Hill number 48), San Pedro: LACM 1026, 1057 (?= LACM 187); (?= UCMP 2047)
 Geologic formation: San Pedro Sand
 Relative age: Rancholabrean
 Taxon: Otariidae
 Sources: Miller (1971), Kurten and Anderson (1980)

Terminal Island, San Pedro: LACM 4587
 Relative age: Rancholabrean
 Taxon: Cetacea

Torrance Sand and Gravel, Crenshaw and Pacific Coast Highway: LACM 65118

Relative age: Rancholabrean
Taxon: Cetacea

Union Oil 76 Refinery number 1, San Pedro: UCMP V70004
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Phoca sp. cf. P. vitulina
Source: Langenwalter (1975)

Union Oil 76 Refinery number 2, Los Angeles Harbor Yard, San
Pedro: LACM 3262, LACMIP 1210; UCMP V70027
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
(specimen/s not listed in UCMP TAXIR)
Taxon: Otariidae
Source: Langenwalter (1975)

U. S. Veterans Hospital, Long Beach: LACM 3757
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxa: Enhydra sp.
Cetacea
Source: Langenwalter (1975)

Western Avenue and Westmont Drive, Palos Verdes: LACM(CIT) 484
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxa: Eumetopias sp.
Mirounga sp. cf. M. angustirostris
Sources: Miller (1971), Langenwalter (1975)

Lomita Boulevard and Main Street (Wilmington Boulevard),
Wilmington: LACM 3085
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean, ¹⁸O substage 5e (130-120 ka BP)
Taxon: Delphinidae
Source: Langenwalter (1975)

MONTEREY COUNTY

Monterey Bay:
Relative age: Rancholabrean
Radiometric date: ¹⁴C 18,940 ± 1,100 yr BP
Taxon: Hydrodamalis sp.
Source: Jones (1967)

ORANGE COUNTY

Newport Bay Mesa, Newport Beach: LACM 1066-1067, 1100, 1240,
3877
Geologic formation: Palos Verdes Sand
Relative age: Rancholabrean

Taxa: Enhydra lutris
Otariidae
Mirounga sp. cf. M. angustirostris
Lagenorhynchus sp.
Mysticeti
Sources: Miller (1971), Kurten and Anderson (1980)

San Juan Capistrano: USGS 1428
Relative age: Rancholabrean
Taxon: cf. Tursiops sp.

SAN DIEGO COUNTY

La Jolla: UCMP V65282
Relative age: Rancholabrean
Taxon: ? Arctocephalus sp.
Sources: Hay (1927), Carter (1957), Barnes and Mitchell (1975)

Poway Valley: LACM 1256
Relative age: Rancholabrean
Taxon: Cetacea

SAN FRANCISCO COUNTY

Golden Gate, San Francisco: CAS; USNM
Relative age: Rancholabrean
Taxa: Odobenus rosmarus
Hydrodamalis gigas

Islitas, San Francisco: UCMP V34010
Relative age: Rancholabrean
Taxon: Cetacea

SAN JOAQUIN COUNTY

Romoser Bayshore: UCMP V70073
Relative age: Rancholabrean
Taxon: Enhydra sp.

SAN LUIS OBISPO COUNTY

Pecho Creek, north of Point San Luis: LACM 5802
Relative age: Rancholabrean
Radiometric date: uranium series 82.8 ± 3.4 ka BP
Taxon: Delphinidae
Source: Jefferson et al. (in press)

Pecho Creek, west, north of Point San Luis: LACM 5831
Relative age: Rancholabrean
Radiometric date: uranium series 49.0 ± 0.8 ka BP
Taxon: Hydrodamalis sp.
Source: Jefferson et al. (in press)

Point San Luis: LACM 5803
Relative age: Rancholabrean
Radiometric date: uranium series 63 ± 1.5 ka BP
Taxon: Cetacea
Source: Jefferson *et al.* (in press)

SANTA BARBARA COUNTY

Cañada Tecolote, Santa Rosa Island: SBMNH
Relative age: Rancholabrean
Taxon: Enhydra lutris
Source: Mitchell (1966)

Corralitos Canyon, Point Sal (listed in TAXIR as San Luis Obispo
County): UCMP V71018
Relative age: Rancholabrean
Taxon: Mysticeti

Gaviota State Beach: USGS 7819
Relative age: Rancholabrean, ^{18}O substage 5a (80-85 ka BP)
Taxon: Enhydra lutris
Source: Kennedy *et al.* (in press)

San Miguel Island: CCSD SMI-V-7, SMI-V-10 through SMI-V-12
Relative age: Rancholabrean
Radiometric dates: numerous determinations ^{14}C 32,143 \pm 787 to
11,890 \pm 95 yr BP
Taxon: Enhydra lutris
Source: Guthrie (in press)

VENTURA COUNTY

Pierpoint Bay, Ventura: UCMP V58009
Relative age: Rancholabrean
Taxon: Otariidae or Phocidae

San Buenaventura:
Relative age: Rancholabrean
Taxon: Eumetopias sp.
Source: Hay (1927)

San Nicolas Island: LACM 5956-5957
Relative age: Rancholabrean
Taxon: Otariinae
Source: G. L. Kennedy (pers. comm. 1990)

COMBINED TAXONOMIC LIST OF RANCHOLABREAN
MAMMALS FROM CALIFORNIA

Order: Insectivora

Family: Soricidae

- Sorex sp. cf. S. cinereus Kerr, 1792
S. ornatus C. Merriam, 1895
S. palustris Richardson, 1828
S. sp. cf. S. trowbridgii Baird, 1858
Notiosorex crawfordi (Coues, 1877)

Family: Talpidae

- Scapanus latimanus (Bachmann, 1842)

Order: Chiroptera

Family: Desmodontidae

- Desmodus stocki Hutchison, 1967 -E

Family: Vespertilionidae

- Antrozous pallidus (Le Conte, 1856)
Lasiurus cinereus (Palisot de Beauvois, 1796)
Myotis leibii (Audubon and Bachmann, 1842)
M. thysanodes Miller, 1897
Myotis sp. cf. M. yumanensis (H. Allen, 1864)
or Corynorhinus sp.

- Plecotus sp. cf. P. townsendi Cooper, 1837

- Pipistrellus hesperus (Allen, 1864)

Family: Molossidae

- Tadarida sp.

Order: Primates

Family: Hominidae

- Homo sapiens Linnaeus, 1758

Order: Edentata

Family: Megalonychidae

- Megalonyx jeffersonii (Desmarest, 1822) -E

Family: Megatheriidae

- Nothrotheriops shastensis (Sinclair, 1905) -E

Family: Mylodontidae

- Glossotherium harlani (Owen 1840) -E

Order: Lagomorpha

Family: Leporidae

- Ochotona princeps (Richardson, 1828)
Brachylagus idahoensis (C. H. Merriam, 1891)
Sylvilagus audubonii (Baird, 1858)
S. bachmani (Baird, 1858)
Lepus californicus Gray, 1837

Order: Rodentia

Family: Aplodontiidae

- Aplodontia rufa (Rafinesque, 1817)

Family: Sciuridae

Sciurus griseus Ord, 1818
Marmota flaviventris (Audubon and Bachmann, 1841)
Spermophilus beldingi C. H. Merriam, 1888
S. lateralis (Say, 1823)
S. beecheyi (Richardson, 1829)
S. mohavensis C. H. Merriam, 1889
S. tereticaudus Baird, 1858
Spermophilus sp. cf. S. variegatus (Erxleben, 1777)
Amospermophilus sp. cf. A. leucurus (C. H. Merriam, 1889)
A. sp. cf. A. nelsoni (C. H. Merriam, 1893)
Tamias minimus Bachmann, 1839
T. panamintinus
Tamias sp. (intermediate-size)
Tamias sp. (large-size)
Tamiasciurus douglasi (Bachmann, 1839)
Glaucomys sabrinus (Shaw, 1801)

Family: Geomyidae

Thomomys bottae (Eydoux and Gervais, 1836)
T. microdon Sinclair, 1905
T. monticola J. Allen, 1893

Family: Heteromyidae

Dipodomys agilis Gambel, 1848
Dipodomys sp. aff. D. ingens (C. H. Merriam, 1904)
Dipodomys sp. cf. D. merriami Mearns, 1890
Perognathus baileyi C. H. Merriam, 1894
P. californicus C. H. Merriam, 1889
P. formosus C. H. Merriam, 1889
P. longimembris (Coues, 1875)
P. penicillatus Woodhouse, 1852
P. sp. cf. P. inornatus C. H. Merriam, 1889
Perognathus (Perognathus) sp.
Perognathus (Chaetodippus) sp.

Family: Castoridae

Castor canadensis Kuhl, 1820

Family: Cricetidae

Reithrodontomys megalotis (Baird, 1858)
R. sp. cf. R. humulus (Audubon and Bachmann, 1841)
R. raviventris Dixon, 1908
Peromyscus anacpahensis White, 1966 -E
P. boylii (Baird, 1855)
P. californicus (Gambel, 1848)
P. californicus or P. eremicus (Baird, 1858)
P. imperfectus Dice, 1925 -E
P. maniculatus (Wagner, 1845)
P. nesodytes Wilson, 1936 -E
P. truei (Shufeldt, 1885)
Peromyscus sp. cf. P. crinitus (C. Merriam, 1891)

Peromyscus (Peromyscus) sp.
Peromyscus (Haplomyloms) sp.
Onychomys torridus (Coues, 1874)
Neotoma albigula Hartley, 1894
N. cinerea (Ord, 1815)
N. fuscipes Baird, 1855
N. lepida Thomas, 1893
N. stevensi Goldman, 1905
Microtus californicus (Peale, 1848)
Ondatra zibethica (Linnaeus, 1766)
Lagurus curtatus (Cope, 1868)
Family: Erethizontidae
Erethizon dorsatum (Linnaeus, 1758)

Order: Carnivora

Family: Canidae
Canis latrans Say, 1823
C. lupus Linnaeus, 1758
C. dirus Leidy, 1858 -E
C. familiaris Linnaeus, 1758
Urocyon cinereoargenteus (Schreber, 1775)
U. littoralis (Baird, 1858)
Vulpes vulpes (Linnaeus, 1758)
V. macrotis C. Merriam, 1888
Family: Procyonidae
Procyon lotor (Linnaeus, 1758)
Bassariscus astutus (Lichtenstein, 1830)
Family: Ursidae
Arctodus simus (Cope, 1879) -E
Ursus americanus Pallas, 1780
U. arctos horribilis (Ord, 1815)
Family: Mustelidae
Martes americana (Turton, 1806)
M. nobilis Hall, 1926 -E
Mustela frenata Lichtenstein, 1831
Taxidea taxus (Schreber, 1778)
Spilogale putorius (Linnaeus, 1758)
Mephitis mephitis (Schreber, 1776)
Lutra canadensis (Schreber, 1776)
Enhydra lutris (Linnaeus, 1758)
E. macrodonta Kilmer, 1972 -E
Family: Felidae
Smilodon brevipes (J. Merriam and Stock, 1932) -E
S. fatalis (Leidy, 1868) -E
Homotherium serum (Cope, 1893) -E
Panthera atrox (Leidy, 1835) -E
P. onca agusta Simpson, 1941 -E
Felis concolor Linnaeus, 1758
F. daggetti J. Merriam, 1918 -E
Felis sp. (small-size)
Lynx rufus (Schreber, 1776)
Family: Otariidae

Arctocephalus sp.
Eumetopias jubatus (Scherber, 1776)
Zalophus sp.
 Family: Odobenidae
Odobenus rosmarus (Linnaeus, 1758)
 Family: Phocidae
Mirounga sp. cf. M. angustirostris (Gill, 1886)
Phoca sp. cf. P. vitulina Linnaeus, 1758

Order: Cetacea
 Family: Delphinidae
Lagenorhynchus sp.
 cf. Lissodelphis sp.
 cf. Tursiops sp.
 Family: Eschrichtiidae
Eschrichtius sp. cf. E. robustus Lilljeborg, 1861

Order: Sirenia
 Family: Dugongidae
Hydrodamalis gigas (Zimmerman, 1780) -E

Order: Proboscidea
 Family: Mammutidae
Mammut americanum (Kerr, 1791) -E
 Family: Elephantidae
Mammuthus columbi (Falconer, 1857) -E
M. exilis Stock and Furlong, 1928 -E

Order: Perissodactyla
 Family: Equidae
Equus occidentalis Leidy, 1865 -E
E. conversidens Owen, 1869 -E
E. pacificus Leidy, 1869 -E
 Family: Tapiridae
Tapirus californicus J. Merriam, 1913 -E
T. merriami Frick, 1921 -E

Order: Artiodactyla
 Family: Tayassuidae
Platygonus sp. cf. P. compressus LeConte 1848 -E
 Family: Camelidae
Camelops hesternus (Leidy, 1854) -E
Camelops sp. aff. C. minidokae Hay, 1927 -E
Hemiauchenia macrocephala (Cope, 1893) -E
Lamini sp. ? sp. nov. -E
 Family: Cervidae
 ? Navajoceros sp. Kurten, 1975 -E
Odocoileus sp. cf. O. hemionus (Rafinesque, 1817)
O. sp. cf. O. virginianus (Zimmerman, 1780)
Cervus sp. cf. C. elaphus Linnaeus, 1758
 Family: Antilocapridae
Capromeryx minor Taylor, 1911 -E

Stockoceros sp.
Antilocapra americana (Ord, 1815)
Family: Bovidae
Bison alaskensis Rhoads, 1897 -E
B. antiquus Leidy, 1852 -E
B. latifrons (Harlan, 1825) -E
Oreamnos americanus (Blainville, 1816)
Euceratherium collinum Furlong and Sinclair, 1904
-E
Ovis canadensis Shaw, 1804
O. c. nelsoni C. H. Merriam, 1897

(E = extinct)

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