Pleistocene Vertebrate Fossils from Pinto Basin, Joshua Tree National Park, Mojave Desert, Southern California

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BACKGROUND

The presence of vertebrate fossils in the Pinto Basin was first documented by Campbell and Campbell (1935), who briefly mentioned the presence of mineralized vertebrate bones – mainly horse and camel. These authors noted that the fossils appeared to be derived from somewhat older sedimentary units, though they did not provide further details. Subsequent investigations have documented the presence of a variety of vertebrate fossils, including mammals, birds, and possibly reptiles. Previous investigations have focused on the identification of mammalian fossils, particularly from the Pleistocene epoch, which is characterized by significant environmental changes and the presence of large herbivores.

METHODS

The initial field survey was conducted in February, 2003; subsequent field efforts were conducted in April, 2004. Palaeoecological resources, including the presence of vertebrate fossils, were identified during the field surveys. The fossil-bearing strata were mapped and documented in detail. All fossils were recovered from the field and stored in the collections of the Division of Geological Sciences, San Bernardino County Museum. Use of the GPS units in the field allowed for precise location of each fossil discovery, facilitating their identification and classification.

RESULTS

A total of more than 120 discrete fossil specimens (>500 total specimens, including fragments) were recovered from 37 sites. A detailed inventory of all the fossils is provided in parentheses following the specimen description. The fossils include a variety of mammalian taxa, as well as a large number of bird and reptile fossils. Despite the small number of bird and reptile fossils, the diversity of mammalian fossils is significant, including species that are characteristic of the Pleistocene epoch.

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REFERENCES