

SMALL CARNIVORANS: DOGS, CATS, RACOONS, SKUNKS, & BADGERS PLUS PECCARIES, BOVIDS, DEER AND PRONGHORN

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The carnivoran and artiodactyl (less camels) fauna of the Pliocene to Pleistocene Anza-Borrego Desert, as discussed in the book chapters, is based on the known fossil specimens from the area, including hypothesized physical descriptions of the living fauna and their probable habitats, life-histories, and the general environment. These chapters provide a descriptive inventory of the likely species represented by the fossil carnivoran and artiodactyl specimens recovered from the Anza-Borrego Desert. Descriptive information obtained from published data regarding the species listed combined with data obtained from other taxa and studies within the Park help to develop an overall picture of the predominant local and regional environment and how it changed throughout the Pliocene and Pleistocene.

Since many of the Anza-Borrego fossils are only fragments of isolated skeletal elements, definitive identification is often restricted to the family or genus level. Very few of the specimen identifications have been based on detailed measurement and comparison with known species. Such detailed research is beyond the scope of the current project. However, most of the local fossil specimens are readily identifiable to at least order or family rank with a high degree of confidence, and many at least to genus rank. The age of particular fossils, derived from the geochronologic age of the sediments where they were found, combined with a family or genus rank identification allows for speculation of which species are represented by the fossils. This is strictly a biochronologic and biogeographic approach, based on published paleontologic studies of other faunas of similar age, and without detailed research on this fauna the conclusions are broadly conjectural. The likelihood that a new species may be discovered among the fossil specimens is always a possibility, although most of the carnivoran and artiodactyl taxa presented here belong to genera with wide ranging and well known species.

The fossil carnivorans and artiodactyls both provide evidence for changes in local and regional climatic and environmental conditions. Between the middle of the Pliocene and the middle of the Pleistocene the local carnivoran and artiodactyl faunal composition changed from taxa known to prefer dry open savanna conditions to a fauna including some species requiring continuous flowing water; some inhabiting brushy to open wooded environments; and others found near cliffs or steep slopes. The mid-Pleistocene faunal composition is more representative of drier conditions.