

THE FIRST CENOZOIC MAMMAL FAUNA FROM THE CHILEAN ALTIPLANO

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Extensive mammalian faunas have been recovered from the Chucal Formation near Salar de Surire. These represent the first known assemblages from the Chilean Altiplano. The Chucal Formation represents more than 1100 meters of fluvio-lacustrine strata interbedded with pyroclastic units unconformably deposited over the Lupica Formation (Late Oligocene?-early Miocene). K/Ar determinations indicate that the study section in the Chucal Formation is younger than 21 Ma (Lupica Formation) and older than 11 Ma.

Specimens were recovered from 44 sites in five areas around Cerro Chucal. At least three horizons produced abundant specimens and multiple taxa. These assemblages are conservatively treated as a single fauna but ultimately may be found to represent distinct faunas of recognizably different age. The current faunal list includes: hegetotheriine hegetothere (cf. *Pseudohegetotherium*), at least two mesotheriine mesotheres, toxodontid toxodont (*Nesodon*), macraucheniid litoptern (similar in size to *Theosodon*, but morphologically distinct), “?dasypsectid” rodent (not close to any known taxon), armadillo, turtle, and at least two birds.

The Chucal Formation fauna is clearly middle Cenozoic, probably middle Miocene, in age. Taxa in this assemblage range elsewhere from Santacrucian to Chasicuan or Huayquerian, with most overlapping in the “Friasian.” As these are the northernmost Cenozoic mammalian fauna(s) known from Chile, the assemblages from Cerro Chucal permit comparisons of an extensive latitudinal series (more than 30 degrees) of middle Cenozoic faunas from west of the Andean crest. The occurrence of these faunas near an important modern biotic disjunction (Atacama Desert - Bolivian Orocline bending axis), and west of varied Cenozoic faunas from a variety of paleoelevations in Bolivia, may ultimately allow assessment of the biotic history along a east-west transect from eastern Bolivia through Chile.