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**EFFECTS OF EL NIÑO ON HOLOCENE RODENT POPULATIONS IN NORTHERN
BAJA CALIFORNIA, MEXICO**

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Small mammal populations are particularly responsive to changes in their environment, including precipitation, which affect the primary productivity of their habitats. The El Niño phase of the El Niño/Southern Oscillation (ENSO) cycle is a major supplier of precipitation for the western interior of North and South America. El Niño events have been increasing in frequency over the last 3000 yr BP. The archaeofaunal data for this project are a subset of a larger faunal sequence comprised of the remnants of avian feeding activity over the last 15,000 years at the archaeological site “Abrigo de los Escorpiones”, located in northern Baja California. Calculated from these data, the Shannon Weiner Species diversity index, and relative population size were compared to known occurrences of El Niño, derived from sediment stratigraphy collected from Laguna Pallcacocha in Ecuador. These analyses indicate that there is a significant correlation between rodent success and increased frequency of El Niño events. With projected increases in the frequency of El Niño events driving increased precipitation, understanding how small mammal populations have reacted to these changes in the past will allow for predictions of the responses of these populations in the near future, providing insight for how best to direct conservation efforts.