A 10,000 YEAR EL NIÑO-POCKET GOPHER (*THOMOMYS BOTTAE*) RESPONSE RECORD FROM NORTHERN BAJA CALIFORNIA, MEXICO

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Reconstructing paleoenvironments of the Holocene period (~10,000 YBP-Present) in North America can lead to a better understanding of the effects of climate change on animal and human populations and give insight into past interactions between humans and their environments. Since each animal species exhibit distinct ecological tolerances, an abundance of a particular species in an assemblage can be an indicator of the environment of the area at the time of deposition. This method has been used to reconstruct climate histories in North America but areas such as Baja California lack this paleoenvironmental data. The El Niño/Southern Oscillation (ENSO) is a major source of climatic variation worldwide, with significant impacts on modern human and animal populations. In this study, I compared El Niño periodicity to the relative abundance of Botta's Pocket Gopher (*Thomomys bottae*) from Abrigo de los Escorpiones, a well-dated, trans-Holocene vertebrate fauna from northern Baja California, Mexico. I used this comparison as a measure for reconstructing the environment of the coastal region and investigating the effects of variable climate on pocket gophers. The abundance of pocket gophers through time varied significantly with El Niño based precipitation and sea surface temperatures derived from eastern Pacific geological data. These results have implications not only for our understanding of past climate history of the region but for the dynamics of small rodent populations during future ENSO variation.