A Rancholabrean Community of Giant Gopher Tortoises (Gopherus hexagontus) within Willacy County, Texas

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ABSTRACT

The paleontology of the Rio Grande Valley of South Texas is an underrepresented field in the scientific literature. Only a handful of fossils have been documented in the area, with various sites ranging from the Eocene to the Holocene. The late Pleistocene Beaumont Formation in Willacy County has yielded a number of relatively complete fossils of several giant gopher tortoises (Gopherus hexagonatus). This site contains a mass concentration of fossil shells that was exposed in the late 1980s when several archaeological surveys were conducted during the development of drainage canals in an area near the city of Raymondville. Numerous adults with more or less complete shells were recovered at this site along with large whole and broken bones. Especially remarkable was the discovery of a female individual that had preserved burrowing behavior and a nest of 5-6 eggs; further indicating a population of interbreeding giant tortoises being preserved within the remains of an ancient flood plain. Here we present the latest work on this unique and rare Rancholabrean ecosystem, including additional work on the stratigraphy and taphonomy of this site. We are also developing a chronology for the site using optically stimulated luminescence (OSL), which will help constrain the timing of deposition of the Beaumont Formation.

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