

Ruppiopsis cirrhosa (Ruppiopsis) is an aquatic vascular plant which has been the source for numerous balls of plant material found along the eastern shoreline of Paleolake Otero in the Tularosa Basin in southern New Mexico. Since some of them have been found adjacent to purported human and Ice Age megafauna tracks and trackways, it has been hypothesized by some researchers that they are Pleistocene megafauna coprolites (fossilized feces). An alternative explanation is that the Ruppiopsis seed balls are formed by wave action (oscillating back and forth) during late Pleistocene storm events in the littoral zone of the lake. Both the coprolite and lake ball hypotheses were tested by comparing the Paleolake Otero Ruppiopsis seed balls to modern and fossil coprolites and other Ruppiopsis seed balls that formed by wave action from known analog/modern saline lake locations in North America. The fabric of the seed balls lacked any evidence that the plant material had been inside the gut of a megaherbivore. Instead, the fabric of the seed ball is consistent with the proposition that they are formed by Ruppiopsis inflorescences breaking apart, drifting to near shore by wind and being rolled into balls by wave action during late Pleistocene thunderstorms.


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