

PALEOECOLOGICAL AND TAXONIMICAL IMPLICATIONS FOR THE LATE CRETACEOUS GASTROPOD FAUNA FROM THE MEXCALA FORMATION (GUERRERO STATE), SOUTHERN MEXICO

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A diverse and well preserved gastropod fauna has been recently collected from a single outcrop of the Upper Cretaceous Mexcala Formation in southern México (Guerrero State). The lithology comprises bright brown marls and scarce sandstone. The associated fauna includes benthic and planctic foraminifera, ostracods, corals, ammonoids, nautiloids, bivalvs, scaphopods, annelids, crustaceans, bryozoans, echinoids and chordates. Planctic forams suggested an early Maastrichtian age for these rocks. Preliminar studies on the palynomorphs, as well as on some gastropod and bivalv species suggested some affinities with the Tethyan and Caribbean Provinces; although the first gastropods identified were typical of the Atlantic and Gulf Coast Plain Province. Gastropods represent the most abundant group represented in this locality. At present, more than 25 species have been identified. However, there are two forms which have been systematically located only at the family level; therefore we will describe two new genus and species for the Muricidae and Xenophoridae Families. The xenophorids studied present acute, crossed spines which rise from all around the middle portion of each whorl. Known fossil and recent xenophorids lack this feature. The shell of muricid samples are completely covered by minute but acute spines. Once again, our systematic revision suggests a new genus.

Although sizes of gastropod species are rather small when compared to other Gulf and Atlantic Plain assemblages, it is important to note that defensive structures are more developed among the Mexcala assemblage, as strong nodes, ribs, spines, and thick calluses are common. This might suggest an strong predation on this fauna, produced probably by crustacean attack, as well as for predation among the same gastropods.