SOME MICROFOSSILS OF THE TAMAULIPAS LIMESTONE (HAUTERIVIAN-LOWER ALBIAN) IN SANTA ROSA CANYON, SIERRA DE SANTA ROSA, NUEVO LEON, MEXICO

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ABSTRACT

About 2,000 meters of upper Jurassic (Tithonian) to upper Cretaceous (Maestrichtian) rocks are exposed in Santa Rosa Canyon. The Tamaulipas is composed of resistant, light gray to black, thin- to thick-bedded, well-indurated lime wackestones and lime mudstones with rare megafossils but with typically pelagic microfossils. It is about 800 meters in thickness and is bounded by the Taraises below and the Cuesta del Cura above. A medial unit (64 meters) of black, laminated, thin-bedded lime wackestones allows division of the succession into three parts, for which many different stratigraphic names have been employed or are applicable.

Microfossils are rare to sparse in the lowest unit but are abundant in the medial unit and common in the upper unit. Extreme induration has prevented disaggregation and recovery of individual specimens; consequently this study is limited to thin sections of the rock. The general aspect of the fauna is pelagic and is dominated by radiolarians and foraminifers, although colomiellids, nannoconids, calcispheres, and pelagic pelecypods(?) are abundant at some levels in the upper unit.

Identifiable and chronostratigraphically useful taxa include *Colomiella mexicana* Bonet, *C. recta* Bonet, *Favusella washitensis* (Carsey), *Globigerinelloides algerianus* Cushman and Ten Dam, *G. barri* (Bolli, Loeblich, and Tappan), *G. ferreolensis* (Moullade), *Planomalina cheniouriensis* (Sigal), *Microcalamoides diversus* (form B) Bonet, *M. diversus* (form C) Bonet, *Nannoconus steinmanni* Kamptner, and *N. wassalli* Bronnimann.

The distribution of these taxa indicates that virtually all of the lower unit of the Tamaulipas is Hauterivian and Barremian. The middle unit is Aptian, and the upper unit is lower Albian.

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