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Biostratigraphic Analysis and Environmental Implications of La Luna Formation, R'ó Loro Section, Western Venezuela

The study is directed to the determination of the age of Río Loro section, being based on Premoli Silva & Sliter zonation (1999), as well as to make interpretations of the environmental conditions during the period in which the section was deposited. Those conditions have influence on the morphologic complexity, diversity and life strategies of the planktonics foraminifers and their assemblages. The biostratigraphic data was correlated to stable isotopes of $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ curves.

The age of the section is geochronologically located between the late Turonian and Campanian. There were defined the following Zones:

Dicarinella concavata Zone

Dicarinella asymmetrica Zone

Globotruncanita elevata Zone

Radotruncana calcarata - *Globotruncana vetricosa* Zone

Environmentally, euxinic conditions prevailed from its beginning (late Turonian-Coniacian) being progressively increased until the mid Santonian, where more oxygenated conditions appear and become more evident toward the early Campanian.

Although La Luna Formation was deposited in a transgressive period characterized by low oxygenation, and oligotrophic stable conditions that allow the development of stratification in the water column, the overall section shows three periods, characterized by greater oxygenation and represent abrupt changes toward eutrophic conditions that favor the development of opportunists organisms as well as assemblages dominated by benthonic organisms. The first occurs in the early Coniacian, the second in the mid Santonian and the third in the mid Campanian which represents the maximum marine transgression evidenced by the presence of glauconite and phosphates in condensed layers. In this way were identified five intervals, all of them lead into stables isotopes incursions.