



## **Paleoecology of benthic foraminifera from the Miocene of the San Jacinto Basin, Colombia**

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Quantitative benthic foraminifera analysis was conducted on 34 samples collected from a borehole core (393.72m deep) drilled by Colombian Hydrocarbon Agency (ANH) on 2009 in the San Jacinto basin (Northern Colombia). The aims of the research were to define a taxonomical data-bank of Miocene benthic foraminifera for this region, to use the benthic foraminifera assemblages to interpret the paleoenvironment and to identify paleoenvironmental changes.

The bottom of the section was dated between lowest Burdigalian to middle Langhian (20.393-17.721 Ma) based on calcareous nannofossils bioevents: LO *Helicosphaera ampliaperta*, HCO *Sphenolithus belemnoides* and LCO *Sphenolithus heteromorphus*.

The benthic foraminifera fauna identified in the studied samples is composed for the majority of calcareous hyaline tests and is dominated by infaunal taxa. Species belonging to the genera *Uvigerina* and *Lenticulina* are commonly occurring in the studied section together with other species typical of outer-shelf upper-bathyal environment. *Cibicides* spp., abundant in the lower part of the section, abruptly decreases in abundance in the upper part. Species belonging to the opportunistic genera *Bulimina* and *Bolivina* are more abundant in the upper part of the section.

Variability in the abundance of opportunistic species can be associated with tectonic disturbance on the Sinu-San Jacinto fold belt (NW of Colombia) as a result of collision of the Caribbean plate against NW of South America. The tectonics could lead a perturbation on deep ocean sedimentation and circulation.