

## Late Cretaceous foraminiferal turnover along the Colon-La Luna contact (Northern Colombia): Biostratigraphy and palaeoenvironmental overview

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Compared with other areas in the Tethyan realm, the latest Cretaceous (Campanian-Maastrichtian) strata in northern South America lack of detailed studies about their foraminiferal assemblages. Among the few surveys published from the Colon and La Luna formations surveys focused on biostratigraphic or paleoenvironmental aspects in each separated unit, but never about the transition between them (e.g. MARTÍNEZ, 1989; PARRA et al., 2003).

Recent studies on exploratory wells (cores and cutting material) suggest a late Campanian to Maastrichtian age for the lowermost Colon Formation. The foraminiferal assemblages are highly diverse, mainly composed by epifaunal benthic foraminifera and non-keeled planktonics, suggesting an inner shelf setting with oligotrophic to mesotrophic conditions. Well preserved taxa such as *Globotruncana* spp., *Rugoglobigerina* spp., *Siphogenerinoides* spp., *Anomalina* spp., *Pullenia cretacea*, *Praebulimina petroleana* and *Haplophragmoides excavata* are common elements in the lowermost Colon Formation. Due to shallowing of the area, the recognition of the K-T boundary with foraminifers proved to be challenging. In contrast, an abrupt change in the foraminiferal assemblages is observed for the uppermost part of the La Luna Formation. There, the assemblages are less diversified, with a high proportion of recrystallized infaunal foraminifera, biserial and keeled planktonics. An oxygen-depleted upper shelf environment is suggested, probably related with regional upwelling conditions or local anoxia. In addition, a Coniacian to Campanian? age is proposed by the presence of *Bolivinooides* spp., *Anomalina redmondi*, *Praebulimina* spp., *Whiteinella* spp. and *Heterohelix* spp.

This contrast in the foraminiferal assemblages from the respective formations and their inferred paleoenvironments agrees with previous studies which propose a regional unconformity between the Colon and La Luna formations and coeval units in Colombia.

MARTÍNEZ, J.I., 1989. *Micropaleontology*, **35/2**, 97–113.

PARRA, M. et al., 2003. *Palaios*, **18**, 321–333.