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**Upper Bathonian foraminifera from the  
North-Lusitanian Sub-Basin, Portugal**

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The main purpose of this paper is to present the biostratigraphy and environmental control on the distribution of benthic foraminifera in the Upper Bathonian of the North-Lusitanian subbasin in two sections: the Brenha and the Cabo Mondego sections.

Some recent works refer to the foraminifera of the Brenha Formation, Stam (1986. *Utrecht Micropal. Bull.*, Netherlands, 34:168), Carapito & Ruget (1991. 3<sup>rd</sup> *International Symposium on Jurassic Stratigraphy, Poitiers*, 23), Carapito (1994. *Doctoral Thesis, University of Aveiro*: 253) and Carapito *et al.* (1998. 5<sup>th</sup>. *International Symposium on the Jurassic System, Vancouver*, 14).

These deposits are part of the Megasequence H (Soares *et al.*, 1993. *Comptes Rendus de l'Académie des Sciences*, 2 (318): 1659-1666). During Megasequence H deposition (Cabo Mondego Fm., Upper Part; Middle Bathonian-Callovian), the hemipelagic sedimentation was limited to a western residual gulf in the Mondego area. Bituminous shales were deposited during the latest Bathonian (Soares *et al.*, 1993).

The stratigraphic ranges of common species were compiled into a distribution chart for the Brenha and the Cabo Mondego sections.

Almost 56 species were identified and grouped in 6 assemblages. The dominant species are *Spirillina infima* (Strickland), *Lenticulina münsteri* (Roemer), *Reophax sterckii* (Haeusler), *Lenticulina quenstedti* (Gümbel), *Verneuilinoides mauriti* (Terquem), *Verneuilinoides minuta* (Said & Barakat).

The Megasequence H is in general of regressive tendency (Carapito, 1994). The analysis of the foraminiferal assemblages points to some probable changes on the sea level.

The abundance of *Spirillina* spp. may indicate a relatively shallower water environment in an inner to middle shelf; but the diversity of species and the amount of specimens identified points to a water depth, nutrients, oxygen, salinity and temperature sufficient to allow their existence (Carapito *et al.*, 1998).