

Planktonic Foraminiferal Distribution From Uppermost Hauterivian-Lower Barremian Strata At Arroyo Gilico (Betic Cordillera, SE Spain): An Update

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Latest Hauterivian-earliest late Barremian planktonic foraminifera from the Arroyo Gilico section (Subbetic domain, Betic Cordillera) have been investigated in order to correlate their distribution to ammonite zonation, calcareous nannofossil bioevents and stable isotope stratigraphy performed by AGUADO et al. (2008, 2014). This section, 72 m thick, spans the interval between the upper Hauterivian ammonite Crioceratites binelli Subzone, Crioceratites baleraris Zone and the lowermost upper Barremian ammonite Barrancycloceras barremense Subzone, Toxancyloceras vandenheckii Zone. Planktonic foraminiferal assemblages turned out to be much richer and in part more diversified than previously described from the nearby Rio Argos composite section. At the base of the section in the Binelli Subzone, Balearis Zone, as already known, *Hedbergella sigali*, *H. infracretacea*, *H. daminiae* and *Lilliputianella semielongata* are recorded, however new findings can be mentioned, common *Hedbergella praetetrocoidea* and *H. aptiana* along with rare specimens recalling *H. excelsa* for the long and elevated spire. Early appearances of taxa continue up-section with the lowest occurrences (LOs) of *Hedbergella ventriosa*, then *Lilliputianella eocretacea* in the overlying Krenkeli Subzone, followed by *Hedbergella gorbachikae*, while the LO especially of the “clavate” *Lilliputianella pauliani* does occur just before the end of the Hauterivian within the topmost Picteti Subzone. The lower Barremian is punctuated by a number of successive appearances: the most important stratigraphically is the LO of typical *Globigerinelloides blowi* recorded in the upper lower Barremian Compressisima Zone. As already reported by Aguado et al. (2008, 2014), at Arroyo Gilico the acme of the “clavate” morphotypes occurs in the Moutonianum Zone across the Mid Barremian Event (MBE); besides common *Lilliputianella semielongata*, the taxa consistently present are *Lilliputianella pauliani* with typical as well as transitional morphologies, *L. eocretacea* and to a minor extent “*Globigerinelloides*” *sigali*.

AGUADO, R. et al., 2008. Berichte der Geol. B.-A., **74**, 36–37.

AGUADO, R. et al., 2014. Cret. Res., **49**, 105–124.