

**PALEOECOLOGY OF BENTHIC FORAMINIFERA  
FROM THE UPPER BURDIGALIAN-LOWER LANGHIAN LA VEDOVA SECTION  
(CÒNERO RIVIERA, MARCHE REGION, ITALY)**

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A quantitative and statistical analysis on benthic foraminifera from the upper Burdigalian-lower Langhian astronomically-tuned La Vedova composite-section cropping out along the Adriatic coast (Cònero Riviera, Marche region, Italy) is presented. The benthic foraminiferal assemblages indicate a middle bathyal paleodepositional depth. A remarkable change in the distribution patterns of the species is recorded at 37 m highlighting two intervals: 0–37 m and 37–63 m. The transition between these two intervals occurs at the top of Megabeds interval and is almost coincident with the paracme beginning (PB) of *Sphenolithus heteromorphus*, located at 36.27 m and astronomically dated at 15.74 Ma. The benthic foraminiferal assemblages of the lower interval (16.3 Ma–15.74 Ma), mainly represented by *Bolivina lata*, *B. spathulata*, *Globocassidulina subglobosa*, *Oridorsalis umbonatus*, *Pullenia bulloides*, and *Uvigerina semiornata/U. striatissima*, indicate dysoxic/suboxic conditions during the deposition of the Megabeds, and a relatively high primary productivity with an influx of organic matter at the sea floor. The benthic foraminiferal assemblages of the upper interval (15.74 Ma–15.3 Ma), mainly represented by *Siphonina reticulata* together with *B. reticulata*, *Cibicidoides cicatricosus*, *C. dutemplei/subhaidingerii* suggest a relative decrease of primary productivity and an overall amelioration of the environmental bottom conditions, which became oxic. The presence of several peaks of *Cassidulina laevigata* together with the discontinuous occurrences of *B. spathulata* and *G. subglobosa* as well as the reduction of *O. umbonatus* and *P. bulloides* indicate pulses of relatively warm and less salty bottom water masses with respect to the lower interval. The observed changes in the benthic foraminiferal assemblages at 15.7 Ma may reflect variations of the sea bottom conditions related to the end of the Middle Miocene Climatic Optimum and/or to the Mediterranean Langhian transgression.