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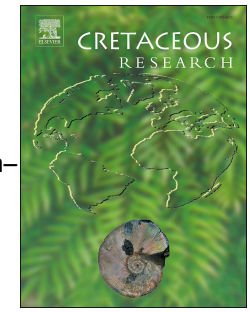

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Tethyan plankton bioevents calibrated to stable isotopes across the upper Santonian - lower Campanian transition in north-western Tunisia

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Abstract

Calcareous nannofossil and planktonic foraminifera biostratigraphic datums are correlated with carbon isotope stratigraphy across the upper Santonian-lower Campanian transition from Ain Zouakra outcrop (Ellès area) in north-western Tunisia. Twenty two calcareous microplankton bio-events are identified and discussed, including 11 planktonic foraminiferal and 11 nannofossil events. The studied upper Santonian-lower Campanian succession can be divided into five nannofossil zones (CC17/UC13 to CC21/UC15c) equivalent to three planktonic foraminiferal zones named *Dicarinella asymetrica, Globotruncanita elevata, Globotruncana ventricosa*. The Santonian/Campanian Boundary Event (SCBE) is characterized by a positive $\delta^{13}C$ double peak. The first peak (a) occurs within the uppermost CC17 Zone and *Dicarinella asymetrica* Zone. The second peak (b) directly occurs below the base of CC18 (FO of *Bronsonia parca parca*) and last occurrence (LO) of *Dicarinella asymetrica*. It is marked by several extinction bioevents of representatives of *Whiteinella, Dicarinella* and *Sigalia* and the gradual disappearance of species of *Marginotruncana* (all