
Formal proposal for the Global Boundary Stratotype Section and Point (GSSP) of the Barremian Stage at Río Argos (Caravaca, SE Spain)

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Abstract

After having been discussed and approved by the Barremian Working Group and the International Subcommittee on Cretaceous stratigraphy, the Global Stratotype Section and Point (GSSP) formal proposal for the Barremian stage is now being discussed by the International Commission on Stratigraphy. The proposed candidate GSSP for the base of the Barremian Stage is defined at the base of bed 171 of the Río Argos section, near Caravaca (SE Spain) and correlated by the first appearance of the ammonite species *Taveraidiscus hugii*. This event falls within the NC5C calcareous nannofossil Subzone, the *Lilliputianella semielongata* planktonic foraminiferal Zone, and the *Dorothia ouachensis* benthic foraminiferal Zone. It roughly coincides with the beginning of a slightly negative trend interval in the

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$\delta^{13}\text{C}$ curve. Indirect calibration to the magnetostratigraphic scale suggests that the boundary falls in the lowermost part of polarity chron M3r. According to the astrochronological analysis, a time interval of 0.74 myr separates the start of the late Hauterivian Faraoni Episode from the base of the Barremian, which is dated at 125.77 Ma.

Keywords: Barremian GSSP, biostratigraphy, chemostratigraphy, magnetostratigraphy, sequence stratigraphy, cyclostratigraphy, astrochronology