

## Implications of changing the Jurassic-Cretaceous boundary on the chronostratigraphic correlation between marine and coastal–continental sequences: the example of the dinosaur-rich Villar del Arzobispo Fm (E Spain)

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The Villar del Arzobispo Formation is a mixed siliciclastic-carbonate unit that crops out at eastern Spain and has been traditionally assigned to the Late Tithonian–Middle Berriasian. In the Maestrazgo and South-Iberian Basins, this unit, which includes abundant dinosaur remains, was deposited in an inner platform that evolved upwards into a coastal and alluvial plain, and finally into an inner platform again (CAMPOS-SOTO et al., 2016a; 2016b). The detailed micropaleontological study of this unit has shown the presence of a larger foraminifera association dominated by *Alveosepta personata* in its lower part, indicating a Kimmeridgian age for the lower part of the unit (CAMPOS-SOTO et al., 2016a). The upper part of the unit contains a larger foraminifera association dominated by *Anchispirocyclina lusitana*, indicating a Tithonian–earliest Berriasian? age for the uppermost part (CAMPOS-SOTO et al., 2016b). A Late Jurassic age for the Villar del Arzobispo Fm is, in fact, consistent with the dinosaur fossils preserved in the unit, which show a Late Jurassic affinity (COBOS et al., 2014).

The Jurassic-Cretaceous boundary has been recently formally changed by the Berriasian Working Group and it has been placed in the middle of Chron M19n, at the base of Calpionellid Zone B (delimited by the *Crassicollaria* to *Calpionella* turnover) in deep shelf to pelagic marine deposits (OGG et al., 2016). This change will have implications when dating coastal and continental deposits, which typically contain very scarce fossils with chronostratigraphic value. This is the case of the Villar del Arzobispo Fm, which contains dinosaur fossils currently considered as typical of the Late Jurassic (COBOS et al., 2014; CAMPOS-SOTO et al., 2016b).

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CAMPOS-SOTO, S. et al., 2016a. [dx.doi.org/10.5209/rev\\_JIGE.2016.v42.n1.51920](https://doi.org/10.5209/rev_JIGE.2016.v42.n1.51920)

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