Upper Marianian (Cambrian Series 2) trilobites from the Totanés–Noez area (Central Iberian Zone, Toledo province, Spain)

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Abstract

In this work, we present a systematic study of the Marianian (Cambrian Series 2) trilobites from the area between the Totanés and Noez localities (Central Iberian Zone) and their biostratigraphical significance. Two different fossiliferous assemblages were recognized: the first is characterized by the presence of *Serrodiscus bellimarginatus*, *Chelediscus garzoni*, *Atops calanus*, and *Pseudatops reticulatus*. The second assemblage is composed of *Serrodiscus bellimarginatus*, *Triangulaspis* sp., *Andalusiana* aff. *cornuta*, *Termierella* (*Brevitermierella*) n. sp., and *Acanthomicmacca* sp., along with brachiopods and a small shelly fauna. These fossil assemblages indicate a late Marianian age in the regional stratigraphic chart for the Cambrian of the Iberian Peninsula, as *Serrodiscus*, *Chelediscus* and *Pseudatops* have been recorded in the upper Marianian stage, and *Triangulaspis*, *Andalusiana*, *Termierella*, *Atops* and *Acanthomicmacca* are characteristic of the middle to upper Marianian.
The taxa reviewed herein have a remarkable regional and international correlation potential: *Andalusiana* and *Termierella* occur in the Ossa Morena Zone, the Iberian Chains and Morocco; *Chelediscus*, *Triangulaspis*, *Acanthomicmacca*, *Atops* and *Pseudatops* have also been recorded from the Ossa Morena Zone, Morocco, Newfoundland, Siberia, and other regions, while *Serrodiscus* has a worldwide geographic distribution. In addition, the proposal made by the ISCS regarding the assemblage composed of *Hebediscus* Whitehouse, *Calodiscus* Howell, *Serrodiscus* and *Triangulaspis* as a potential marker for the base of the Cambrian Stage 4 may imply that the upper Marianian deposits of this area could be roughly correlated with the base of this stage.

Keywords: Trilobita, Central Iberian Zone, Cambrian stages 3 and 4, systematics, biostratigraphy, palaeobiogeography

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