

Acritarch biostratigraphy of the Lower-Middle Cambrian boundary in the Iberian Peninsula

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At the present time one important biostratigraphic problem lies in the successions that including the Lower-Middle Cambrian transition. A global regressive event (Hawke Bay regression; Palmer and James, 1980), caused the emersion of numerous areas during the Cambrian. Together with this factor there is the problem of the provincialism of the trilobites used for the biostratigraphy of the Cambrian, making the intercontinental correlation difficult (Sdzuy 1995). Because of this still does not exist a stratotype of the Lower-Middle Cambrian boundary.

The Iberian Peninsula presents exceptional conditions for the study of this problem, since there are when existing areas where a gradual transition takes place. One of these areas is the Iberian Chains (Northeastern Spain), where a continuous record of acritarchs has been recently studied by Palacios and Moczydlowska (1998) who identified the Lower Cambrian *Heliosphaeridium disimilare-Skiagia ciliosa* and *Volkovia dentifera-Liepaina plana* acritarch zones, and an informal lowermost Middle Cambrian acritarch zone characterised by the first appearance of *Eliasium llaniscum*, *Celtiberium dedalinum* and *Retisphaeridium dichamerum*.

Herein we report the occurrence of a continuous record of acritarchs, in the Ossa-Morena Zone at the section of la Albuera del Castellar (South-western Spain). Palacios (1993) published the primary report on these acritarchs. The stratigraphic level for the Lower-Middle Cambrian boundary is re-evaluated and is suggested to be placed within the upper part of La Lapa Formation, in contrast with a previously proposed position in the Lower part of the Playón Beds. A first detailed biostratigraphical correlation between the transitional levels of the North and South of the Iberian Peninsula is accomplished, defining formally the last acritarch Assemblage Zone of the Lower Cambrian and the first one of the Middle Cambrian in the Iberian Peninsula.

References

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