



Project title

The Middle Triassic of Sardinia (Muschelkalk) in the frame of the Western Tethys evolution

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Abstract

This project aims to analyze in detail the stratigraphic record of late Early to Middle Triassic (Röt and Muschelkalk facies) in Sardinia to make regional correlations with the coeval successions in eastern Iberia and the Balearic Islands. A further correlation through the western Tethyan domain would also include the Dolomites area.

In the island, Muschelkalk (mostly shallow marine lithofacies) crops out in Nurra (NW), Sulcis-Iglesiente (SW) and in the Sarcidano-Gerrei (central to SE) regions. All of these sections need to be re-studied with the aim to attempt a wider correlation among them and in a larger regional context. The diffuse presence of Dasycladacean Algae, “alpine” Ammonoids and sporomorphs, palaeogeographically locate Sardinia in a communication corridor between Tethys ocean and the SW branch of the Germanic sea. Nevertheless, the position of the future Corso-Sardinian block on the southern edge of the Paleo-Europe is still controversial.

Escudero Mozo (2015) recently made stratigraphical, sedimentological and paleontological insights in Eastern Spanish sectors such as the Iberian Ranges, the Levante area, the Catalan Coastal ranges and the Balearic islands. In these domains, Muschelkalk facies record the development of wide carbonate platforms that were the consequence of the first two broad marine transgressions of the Mesozoic in Iberia. This latter study would be a key point for establishing correlations with Iberia and Southern Alps (Dolomites) with the aim of developing a detailed palaeogeography for the western Tethys during the Middle Triassic, a crucial time for this area that experienced a total reorganization related to the break-up of Pangea and, as consequence, the dismemberment of Cimmeria block.