

OVETIAN CRYPTIC ARCHAEOCYATHS, LOWER CAMBRIAN FROM LAS ERMITAS (CÓRDOBA, SPAIN)

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The record of archaeocyathan community supports the evidence that these cryptic organisms were pioneers in crevices into neoproterozoic andesites in Las Ermitas (Pedroche Formation, Ossa-Morena, Spain) during the Ovetian times. The different filling phases and the cavity-dwelling biota are described in Vennin *et al.* 2003. The archaeocyaths and calcified microbial are major components, we described the archaeocyathan taxa from the crevices and breccias. The poriferan cryptic community is composed by coelobiontic forms in life position, *Dokidocyathus avesiculoides*, *Nochoroicyathus* sp., *Erismacoscinus* sp., *Neoloculicyathus magnus*, *Protopharetra gemmata* and *Protopharetra* sp. They were attached to hard substrates, such as calcified microbial or archaeocyathan skeletons during the first phases to filling the cavities and crevices. In the last filling phases are common debris skeletons of cancelloriids, hyoliths, brachiopods, trilobites, and reworked *Okulitchicyathus andalusicus*.

The immediately overlies levels to the cavities are breccias, calcimicrobial limestones and lutites with carbonate nodules. The archaeocyathan diversity is high in these platform sediments, 41 taxa in total. We described the species from breccias too, *Okulitchicyathus andalusicus*, *Rotundocyathus* sp., *Leptosocyathus?* sp., *Urcyathus?* sp. and the new *Nochoroicyathus simoni*.

The Ovetian cryptic archaeocyathan community from Las Ermitas is composed by *Dokidocyathus* and *Protopharetra* which are the first occurrence as cryptic taxa in Atdabanian2. *Neoloculicyathus* is common to others cryptic communities of Atdabanian2 in the Siberian Platform, but *Okulitchicyathus* was described of Tommotian and *Erismacoscinus* of Atdabanian1, both in the Siberian Platform. Therefore this cryptic archaeocyathan assemblage is different from others described during the Atdabanian and there are not obligate cryptobionts because the same taxa appear in the platform sediments outside the cavities.

Forty species in total have been described in the reef complex from Las Ermitas. The cryptic community represents the eleven per cent, the mound community the twenty three per cent; but in other facies the archaeocyaths present high diversity, the fifty eight per cent, in the nodular and interbiohermal facies, meanwhile it is only the eight percent in the breccias.

References

- Vennin, E.; Álvaro, J.J., Moreno-Eiris, E. & Perejón, A. 2003. Early Cambrian coelobiontic communities in tectonically unstable crevices developed in Neoproterozoic andesites, Ossa-Morena, southern Spain. *Lethaia* 36, 53-65.