

STROMATOPOROIDS FROM THE LATEST REEFAL EPISODE IN THE DEVONIAN (LATE FRASNIAN) OF THE CANTABRIAN MOUNTAINS (NW SPAIN)

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In the Palaeozoic series of the Cantabrian Mountains, reefal carbonates occur first in the Devonian of the Asturian-Leonese Domain. In this period seven reefal episodes of different importance, starting from the Lower Devonian (Pragian) to the Upper Devonian (late Frasnian), were developed. The most widespread reef facies occurred at the end of the Lower Devonian (upper Emsian) and Middle Devonian (Givetian) although some reefal episodes of minor importance took place at slightly older and younger stratigraphic levels (Méndez-Bedia *et al.*, 1994). Stromatoporoids, tabulate and rugose corals were the most prominent members of the reef community.

This work focuses on the latest reefal phase which took place during the Upper Devonian (late Frasnian) within the Crémenes Limestone of the Nocedo Formation (upper Givetian-Frasnian, southern slope of the Cantabrian Mountains). Studies of the distribution of stromatoporoids in upper Frasnian rocks (Stearn, 1987; Mistiaen, 2002; among others) indicate that the diversity of the group had declined by this time. The purpose of this work is to give an example of the low diversity of stromatoporoids occurring in reefal deposits close to the Frasian/Famennian boundary. Moreover, some systematic remarks and outstanding features concerning the growth morphology of the stromatoporoids from these reefal deposits are made. The large majority of species collected from the Crémenes Limestone belongs to the genera *Stictostroma* (*S. saginatum*, *S. sp.*), *Clathrocoilona* (*C. spissa*, *C. cf. inconstans* and *C. sp.*) and *Stachyodes* (*S. australe*). Most stromatoporoids have laminar growth forms, in some cases showing well-developed mamelons. This type of morphology is believed to be a response to environmental conditions. Stromatoporoids are associated with other reef-building organisms such as tabulate and rugose corals. Numerous encrusting and boring organisms (bryozoans, worms and algae) used hard substrates provided by stromatoporoid upper and lower surfaces. In comparison with other reefal deposits of the same age in different areas the stromatoporoid fauna recorded in the late Frasnian reefs of the Cantabrian Zone clearly shows a cosmopolitan distribution.

References

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