
The Late Viséan Rugose coral association of NW Turkey

Denayer, J.

Evolution and Diversity Dynamics Lab, University of Liège, allée du Six-Août B18, Sart Tilman, B-4000 Liège, Belgium; (julien.denayer@ulg.ac.be)

In Zonguldak and Bartın area (NW Turkey), the late Viséan strata are dominated by shallow-water limestone containing rugose corals, tabulate corals and brachiopods. Two successive rugose coral assemblages are recognized. The lower assemblage, present in both areas, is dominated by lithostrotionids corals (in order of abundance: *S. asiaticum*, *S. pauciradiale*, *S. martini*, *S. irregulare*, *S. scaleberense*, *S. kleffense*, *Lithostrotion araneum*) associated with numerous specimens of the solitary corals *Palaeosmilia murchisoni*, *Aulophyllum fungites*, *Clisiophyllum keyserlingi*, *Koninckophyllum interruptum* and *Siphonophyllia sibly*. This first assemblage is typical of the lower Warnantian (c. Asbian) RC7 β rugose coral zone of Western Europe and is dominated by taxa with a wide spatial distribution in Europe. The second assemblage is only known in Zonguldak whereas in the Bartın area where the upper part of the Yılanlı Formation was eroded at the end of the Viséan. The taxa forming this assemblage are *S. asiaticum*, *S. pauciradiale*, *S. martini*, *S. rallii*, *S. irregulare*, *S. scaleberense*, *Lithostrotion decipiens*, *Palastrea konincki*, *Corwenia* cf. *vaga*, *Nemistium* cf. *affine* and the solitary species *Aulophyllum fungites*, *Palaeosmilia murchisoni*, *Axoclisia* cf. *cuspiforma* and *Pseudozaphrentoides* cf. *juddi*. *Palastrea*, *Corwenia* and *Nemistium* are the guide taxa of the upper Warnantian (Brigantian) RC8 biozone. The palaeobiogeographic affinity of these two assemblages is European and they are similar to the Late Viséan coral fauna of Belgium and England. Only *S. asiaticum* indicates a more Asian influence. The complete lack of *Dibunophyllum*, *Axophyllum* and *Lonsdaleia* from NW Turkey is still unexplained but might be related to a southern location of the region in the Palaeotethys Ocean for the considered time-slice.