

X INTERNATIONAL

CONGRESS

ON FOSSIL

CNIDARIA AND PORIFERA



August 12–16, 2007  
St. Petersburg, Russia



ABSTRACTS



St. Petersburg, 2007



The Late Campanian–Maastrichtian transgression has led to enrichment of deposits by organic material. Fossil communities dominated by planktonic foraminifers and calcareous nanoplankton indicate the bathyal depositional environment in the basin. At the same time, the occurrence of *Actinastrea* and *Smilotrochus* corals, malacofauna, and shallow-water benthic foraminifers clearly demonstrate the photic environment in the basin at that time. The Maastrichtian transgression is often connected with the enhancing of interplate volcanic activity as a result of increasing rates of spreading in the mid-oceanic ridges. These events, probably, activated the volcano-tectonic processes resulting in flats in the study region.

### UNUSUAL OFFSETTING IN SERPUKHOVIAN (LOWER CARBONIFEROUS) REPRESENTATIVES OF THE RUGOSE CORAL GENUS *SCHOENOPHYLLUM* SIMPSON, 1900

SERGIO RODRÍGUEZ<sup>1</sup> & E. WAYNE BAMBER<sup>2</sup>

<sup>1</sup>Departamento y U.E.I. de Paleontología, Facultad de Ciencias Geológicas, U.C.M y C.S.I.C., c/ José Antonio Novais, 2, 28040 Madrid, SPAIN; [sergrodr@geo.ucm.es](mailto:sergrodr@geo.ucm.es)

<sup>2</sup>Geological Survey of Canada, 3303–33<sup>rd</sup> St.N.W., T2L2A7 Calgary, CANADA; [wabamber@nrcan.gc.ca](mailto:wabamber@nrcan.gc.ca)

*Schoenophyllum* has been described as a columellate, fasciculate genus in which the corallites bear slender lateral processes regarded as supporting structures (Simpson, 1900; Hill, 1981) or as tubules connecting adjacent corallites (Sando & Bamber, 1985). Recent investigation of Serpukhovian specimens from the Etherington Formation and its lateral equivalents in western Canada has shown these lateral processes to be sub-horizontal to moderately elevated tubules forming the initial stages of new offsets and commonly containing tabulae. These tubules locally reach and may interfere with the walls of neighboring corallites, but remain structurally distinct from them and do not allow communication between parent and adjacent corallites. The initial, tubule stage is followed by a steeply elevated to vertical, sparsely septate stage in which a variable axial structure is developed as a prolongation of the cardinal septum.

#### References

- Hill, D. 1981. Part F, Coelenterata, Supplement 1, Rugosa and Tabulata, 762 pp. In: C. Teichert (Ed.), *Treatise on Invertebrate Paleontology*. Geological Society of America and University of Kansas, Lawrence.
- Sando, W.J. & Bamber, E.W. 1985. Coral zonation of the Mississippian System in the Western Interior Province of North America. *U. S. Geological Survey Professional Paper* 1334. Washington, 61 pp.
- Simpson, G.B. 1900. Preliminary descriptions of new genera of Paleozoic rugose corals. *Bulletin of the New York State Museum* 39 (8): 199–222. Albany.

### EMSIAN REEFAL DEVELOPMENT IN OSSA-MORENA ZONE (SW SPAIN): STRATIGRAPHIC SUCCESSION, MICROFACIES, FAUNA AND DEPOSITIONAL ENVIRONMENT

SERGIO RODRÍGUEZ<sup>1</sup>, ESPERANZA FERNÁNDEZ-MARTÍNEZ<sup>2</sup>, PEDRO CÓZAR<sup>1</sup>, JOSÉ IGNACIO VALENZUELA-RÍOS<sup>3</sup>, JAU-CHYN LIAO<sup>3</sup>, MIGUEL V. PARDO<sup>3</sup> & ANDREAS MAY<sup>4</sup>

<sup>1</sup>Departamento y U.E.I. de Paleontología, Facultad de Ciencias Geológicas, U.C.M y C.S.I.C., c/ José Antonio Novais 2, 28040 Madrid, SPAIN; [sergrodr@geo.ucm.es](mailto:sergrodr@geo.ucm.es)

<sup>2</sup>Facultad de Biología y Ciencias ambientales, Campus de Vegazana, Universidad de León, 24071 León, SPAIN; [e.fernandez@unileon.es](mailto:e.fernandez@unileon.es)

<sup>3</sup>Departamento de Geología, Universitat de València, c/Dr. Moliner 50, E-46100 Burjassot (Valencia), SPAIN; [Jose.I.Valenzuela@uv.es](mailto:Jose.I.Valenzuela@uv.es); [Miguel.V.Pardo@uv.es](mailto:Miguel.V.Pardo@uv.es); [Jau.Liao@uv.es](mailto:Jau.Liao@uv.es)

<sup>4</sup>Saint Louis University – Campus de Madrid, Avda. del Valle, 34 E-28003 Madrid, SPAIN

The Devonian succession between the Guadiana and Guadalquivir Valleys in the Obejo-Valsequillo Domain comprises more than 600 m of shale and sandstone with some interbedded limestone and marl. The most complete sequences are located in the Guadamez-2, Arroyo del Lobo, Zújar, Peñón Cortado and Arroyo del Pozo del Rincón sections. Pragian reefal facies occur at most of these localities but Emsian reefs are well developed only in the Guadamez-2 section.

involved.

More favourable environments for evolutionary or ecological "experiments" where pioneer coral colonies may have isolated areas of shallower water above the deep-water sea bed. These isolated elevated areas could have provided the top of microbial mounds. The microbial mounds may perhaps have created topographic relief that provided suggesting an alternation of high- and low-energy periods. Moreover, the typical environment for first occurrences is fasciulates occur in limestones containing a notable percentage of lime mud (micrite) and common broken bioherms, published data. Investigations on the taxa having short stratigraphical ranges and/or endemism show that most new but the first occurrence that gives vital information on the original environment is not always easy to identify from Most new fasciulates occur in shallow-water carbonate shelf environments, often associated with transgressions, other taxa have a more localised geographical distribution (endemic) and/or much shorter stratigraphical range.

Some of these new genera achieve a long stratigraphical range and broad geographical distribution, but many from *Dibunophyllum*; 2) established fasciulate taxa develop morphological changes producing new species or Fasciulate corals may have two different origins: 1) development of colonialism from solitary corals (e.g. *Corwenia* interval. An analysis of such new occurrences provides some interesting data.

The appearance of new fasciulate rugose corals occurs throughout the Palaeozoic, from the Upper Ordovician to the Permian. However, new occurrences are especially abundant in some periods, notably the Viséan-Serpukhovian

[ian.somerwillie@ucd.ie](mailto:ian.somerwillie@ucd.ie)

<sup>2</sup>UCD School of Geological Sciences, University College Dublin, Belfield, Dublin 4, IRELAND;

28040 Madrid, SPAIN; [sergrod@geo.ucm.es](mailto:sergrod@geo.ucm.es)

<sup>1</sup>Departamento y U.E.I. de Paleontología, Universidad Complutense de Madrid e Instituto de Geología Económica,

SERGIO RODRÍGUEZ<sup>1</sup> & IAN D. SOMERVILLE<sup>2</sup>

#### A REVIEW

#### APPEARANCE OF FASCIULATE RUGOSE CORALS IN THE VISÉAN AND SERPUKHOVIAN:

*This work is a contribution to the DGICIT-BTE2003-02065 and ICGP 499 Projects.*

the Second International Palaeontological Congress, Beijing: 369.

multidisciplinary approach. In: Q. Yang, Y. Wang & E.A. Weldon (eds.), *Ancient life and modern approaches*. Abstracts of faunistic succession from the Obispo-Valsequillo-Puebla la Reina Domain (Ossa-Morena Zone, Spain); a preliminary Valenzuela-Ríos, J.I., Liao, J.-C., Pardo Alonso, M.V., Fernández-Martínez, E., Rodríguez, S. & Cózar, P. 2006. Lower Devonian

#### References

sediments and subsequent establishment of a rich brachiopod fauna. Each episode abruptly begins with a well-developed body of skeletal limestones (facies C in the first episode; facies B2 in the others). The middle interval is composed of limestones belonging to facies D and represents the stabilization and colonization phases in which ramose tabulate corals, bryozoans and laminar stromatoporoids are the main faunal components. Finally, the third interval (lacking in episode 2) is composed of the stromatoporoid-tabulate boundstones with diverse bryozoans, tabulates and rugose corals. Reefal development was terminated by an influx of siliclastic

Three reefal episodes, each comprising two or three development intervals, are recognized in this succession. facies. Microfacies B2, D and G represent development of patch-reefs superimposed on the shoals. a sequence of environments from middle platform (A) to tidal flat (F), including shoals (B1) and shallow platform brachiopod grainstone/packstone; and G, stromatoporoid-tabulate boundstone. Microfacies A, B1, C, E and F represent packstone; C, echinoderm packstone; D, tabulate rudstone/boundstone; E, brachiopod wackestone-packstone; F, echinoderm-brachiopod wackestone-packstone; B1, echinoderm grainstone; B2, bryozoan-echinoderm grainstone-Lochkovian to at least the upper Emsian (Valenzuela et al., 2006). Eight microfacies types have been identified: A, reefal limestone in its upper part. Conodont and brachiopod data indicate that this section spans the interval from the locality, in Badajoz province, consists mainly of shale and calcareous shale in its lower part and shaly, skeletal and The Guadamez-2 outcrop, located on the western bank of the Guadamez River, near the Zalamea de la Serena

