					June, 1, 2010

The Mesozoic Corals.
Bibliography 1758-1993.

Supplement 15 (-2009)

Compiled by Hannes Löser[1]

Summary

This supplement to the bibliography (published in the Coral Research Bulletin 1, 1994) contains 32 additional references to literary material on the taxonomy, palaeoecology and palaeogeography of Mesozoic corals (Triassic - Cretaceous; Scleractinia, Octocorallia). The bibliography is available in the form of a data bank with a menu-driven search program for Windows-compatible computers. Updates are available through the Internet (www.cp-v.de).

Key words: Scleractinia, Octocorallia, corals, bibliography, Triassic, Jurassic, Cretaceous, data bank

Résumé

Le supplément à la bibliographie (publiée dans Coral Research Bulletin 1, 1994) contient 32 autres références au sujet de la taxinomie, paléoécologie et paléogéographie des coraux mesozoïques (Trias - Crétacé; Scleractinia, Octocorallia). Par le service de mise à jour (www.cp-v.de), la bibliographie peut être livrée sur la base des données avec un programme de recherche contrôlée par menu avec un ordinateur Windows-compatible.

Mots-clés: Scleractinia, Octocorallia, coraux, bibliographie, Trias, Jurassique, Crétacé, base des données

Zusammenfassung

Die Ergänzung zur Bibliographie (erschienen im Coral Research Bulletin 1, 1994) enthält 32 weitere Literaturzitate zur Taxonomie und Systematik, Paläoökologie und Paläogeographie der mesozoischen Korallen (Trias-Kreide; Scleractinia, Octocorallia). Die Daten sind als Datenbank zusammen mit einem menügeführten Rechercheprogramm für Windows-kompatible Computer im Rahmen eines Änderungsdienstes im Internet (www.cp-v.de) verfügbar.

Schlüsselworte: Scleractinia, Octocorallia, Korallen, Bibliographie, Trias, Jura, Kreide, Datenbank

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Preface

Numerous hints given by colleagues and new papers edited the previous year yield 32 references for a supplement to the bibliography. For the form of arrangement and abbreviations please refer to the bibliography itself (Coral Research Bulletin 1, 1994).

I am indebted to all colleagues who have sent me copies of their recently published papers for their help in completing the bibliography.

The supplement

ARKADIEV, V.V., BOGDANOVA, T.N. & LOBACHEVA, S.V.

2005. Novye dannye po biostratigrafii Beriasskih otloßenij bassejna r. Tonas (Gornyj Krym). [In:] ARKADIEV, V.V. & PROZOROVSKIJ, V.A. [Eds.]: The Cretaceous system of Russia: problems of stratigraphy and palaeogeography. – 111-135; St. Petersburg. C • k • UA

BARON-SZABO, R.C.

2008. Corals of the K/T-boundary: Scleractinian corals of the suborders Dendrophylliina, Caryophylliina, Fungiina, Microsolenina, and Stylinina. – *Zootaxa*, 1952: 244 pp.; Auckland. N • k

This study is the second of two parts of a taxonomic review of the scleractinian corals of the Maastrichtian and Paleocene periods. The first part (Baron-Szabo, 2006) focused on the scleractinian suborders Astrocoeniina, Faviina, Rhipidogyrina, and Amphiastraeina. The second part deals with the remaining five suborders: Dendrophylliina, Caryophylliina, Fungiina, Microsolenina, and Stylinina. The two parts together represent the first extensive compilation of coral species of the K/T-(Cretaceous/Tertiary) boundary, and deal with more than 2500 records of 550 nominal taxa, of which 259, belonging to 149 genera (including Lazarus taxa=taxa that disappeared before the Maastrichtian and re-occurred after the Paleocene) are considered valid. In the five suborders evaluated in this paper, 136 valid species (including in an addendum 3 taxa belonging to the suborders of the first part) of 81 genera can be reliably documented as occurring in the Maastrichtian and/or the Paleocene. For the following taxa, new combinations are proposed: Palaeopsammia collignoni (Alloiteau, 1958), Palaeopsammia zitteli (Vaughan, 1900) non Wanner, 1902, Bathycyathus corneti (Alloiteau & Tissier, 1958), Bathycyathus lloydi (Vaughan, 1920), Bathycyathus piveteaui (Alloiteau & Tissier, 1958), Trochocyathus speciosus (Gabb & Horn, 1860), Deltocyathus cupuliformis (Alloiteau, 1951), Asterosmilia alloiteaui (Alloiteau & Tissier, 1958), Dasmosmilia kochii (Pratz, 1910), Desmophyllum excavatum (Hagenow, 1839), Smilotrochus cornucopiae (Duncan, 1869), Smilotrochus milneri (Gregory, 1898), Alveolocyathus felixi (Filkorn, 1994), Pleurocora arachnoides (Knorr & Walch, 1777), Meandrophyllia textilis (Goldfuss, 1826), Meandrophyllia velamentosa (Goldfuss, 1826), Cyathoseris catadupensis (Vaughan, 1899), Heterogyra murchisoni (d'Archiac & Haime, 1853), Pattalophyllia grumi (Catullo, 1852), Stephanophyllia cribraria (Stephenson, 1916), Siderofungia morloti (Reuss, 1864), Hindeastraea garloica (Tchéchmédjiéva, 1975), Aspidastraea clathrata (Goldfuss, 1826), Paracycloseris nariensis (Duncan, 1880), Fungiastraea flexuosa (Goldfuss, 1826), Ellipsocoenia conferta (Umbgrove, 1925), Baryphyllia maxima (Umbgrove, 1925), Tubicora aylmeri (Gregory, 1900), Phacellocoenia thomkai (Eliášová, 1991), and Euphyllia calyculata (Catullo, 1852). One species is newly described: Polyphylloseris microkothos n. sp. In addition to the re-examination and re-evaluation of described forms, this study also includes the first description of the largest Maastrichtian coral assemblage known (consisting of about 4000 specimens from Jamaica), as well as new material from the Campanian-Maastrichtian of Argentina, Lower Maastrichtian of Mexico (Cerralvo), and the Paleocene of Austria (Kambühel-Kalke). Furthermore, lost or "forgotten "coral collections were discovered and illustrated for the first time, including the type and original material of d'Achiardi (1875, Eocene of Italy), Wanner (1902, Maastrichtian-Danian of Egypt), Berryhill, in Berryhill et al. (1960, Danian of Puerto Rico), and Schlotheim (1820, Mesozoic-Recent). A diagnosis is provided for each species, as well as for each higher level taxonomic category, and issues concerning new taxonomic assignments are discussed in detail. The descriptions are accompanied by illustrations of representatives of each species, and in many cases, include illustrations of type or original material. Also included is the first comprehensive overview of the stratigraphical and geographical ranges of each taxon. The largest number of species occurring at the K/T-boundary are in the suborders Faviina (79), Fungiina (51), and Caryophylliina (41). In all of the nine suborders 259 valid species are known from the Maastrichtian and/or Paleocene, of which 204 occurred before the K/T-event and 106 species (52 %) crossed the K/T boundary. In the Paleocene 55 new species appeared. While species of all suborders crossed the K/T-boundary, no new species of the suborders Rhipidogyrina, Amphiastraeina, and Microsolenina appeared in the Paleocene. On the genus level 96 of the 131 genera (=73.3%) that occurred before the K/T-event crossed the K/T-boundary. Thirty-five genera went extinct and 18 genera have their first occurrence in the Paleocene. A generic extinction rate of 26.7% across the K/T-boundary, as estimated here, is considerably less than the rates of around 60% previously stated, but is quite similar to recently reported results for other macroinvertebrate groups after taxonomic revision (e.g., echinoids). [original abstract]

COQUAND, H.

1859. Synopsis des animaux et des végétaux fossiles observés dans la formation crétacée du sud-ouest de la France. – *Bulletin de la Société géologique de France*, (2) 16: 945-1023; Paris. C • k • F

ELIÁŠOVÁ, H.

2008. Corals from the Stramberk Limestone (Silesian Unit, Outer Western Carpathians, Czech Republik). – *Geologia*, 34, 3/1: 151-160; Kraków. D • j • CZ

FLÜGEL, E.

1963. Zur Geologie der Sauwand bei Gusswerk (Steiermark). – *Mitteilungen des Naturwissenschaftlichen Vereines für Steiermark*, 93: 64-105, 4 pls.; Graz. D • tk • A

FÜRSICH, F.T., OSCHMANN, W., PANDEY, D.K., JAITLY, A.K. & SINGH, I.B.

2004. Paleoecology of Middle to Upper Jurassic Macrofaunas of Kachchh Basin, Western India: An overview. – *Journal of the Palaeontology Society of India*, 49: 1-26. C • j • IND

GAMEIL, M. & ALY, M.F.

2004. Aptian corals from Gabal Abu Ruqum, North Sinai, Egypt: taxonomy and adaptive morphotypes. [In:] 7th International Conference on the Geology of the Arab World, Cairo University, February 2004 – p. 265-285. N • k • ET

Colonial and solitary corals of variable morphotypes are abundant in the Aptian rocks of Gabal Abu Ruqum, North Sinai. A taxonomic study on these corals revealed the occurrence of 24 species 11 solitary and 13 colonial species. Six species are established as new: Trochosmilia cretacea, Montlivaltia amini, Meandrastraea sinaiensis, Peplosmilia gawadi, Acrosmilia egyptiaca and Epistreptophyllum manzourensis. The solitary corals belong to genera Montlivaltia, Epistreptophyllum, Ellipsosmilia, Paracycloseris, Acrosmilia and Rennensismilia. Ceratoid and trochoid forms with a narrow base and a curved corallite dominate in these corals. Most corallites are filled with fine sand grains or clogged with large forams (mainly Orbitolina). Discoid solitary corals are rare and are represented by Paracycloseris sp. The dominance of ceratoid and trochoid forms in addition to the small-sized and curved corallites reflects unfavorable conditions with high terrigenous supply. On the other hand, colonial corals belong to the genera Eugyra, Stylina, Thamnastrea, Fungiastrea, Leptoria, Actinastrea and Ellipsocoenia. The colonial forms show a wide range of adaptation to the soft substrate with much terrigenous influx. Most forms are hemispherical to mushroom shaped with wide bases for stability. These forms usually have a long peduncle or are usually elevated above the substrate to avoid being buried by sand and mud. Only two species (Eugyra (P.) rariseptata and Leptoria sp.) have an encrusting morphotypes. [original abstract]

KIESSLING, W., RONIEWICZ, E., VILLIER, L., LÉONIDE, P. & STRUCK, U.

2009. An early Hettangian coral reef in southern France: Implications for the end-Triassic reef crisis. – *Palaios*, 24, 10: 657-671; Lawrence, Kan. D • j • F

The oldest known Jurassic coral reef is exposed in the Ardeche region of southern France. This reef site, consisting of at least three reefal bodies, is of early Hettangian age and thus immediately postdates the end-Triassic mass extinction, which is well known for its catastrophic effect on reef building. Bulk carbonate carbon isotopes of the limestones below the reef are likely to record environmental perturbations subsequent to the mass extinction. The main reef is surprisingly well developed (20m in thickness, 200m in lateral extent) and composed of at least four genera and six species of corals ? not only holdover genera from the Triassic, but also one newly evolved genus (Phacelophyllia), contributed to reef construction. Just like their latest Triassic counterparts, the reef is dominated by phaceloid corals with a considerable contribution of microbialite. The reef predates similarly well developed structures by almost ten million years. The shelf setting of the reef renders it unlikely that refuges around oceanic islands are needed to explain survival of corals across the end-Triassic mass extinction. [original abstract]

LATHUILIÈRE, B. & MARCHAL, D.

2009. Extinction, survival and recovery of corals from the Triassic to Middle Jurassic time. – *Terra Nova*, 21: 57-66. G

Recognizing extinction events and determining their cause at the Triassic/Jurassic (T/J) transition and near the Pliensbachian–Toarcian (Lower Jurassic) boundary is a field of growing interest. We provide arguments for these events through a literature based new evaluation of coral diversity from Triassic to Dogger and a new palaeobiogeographical map. The T/J extinction of corals is clearly related to the breakdown of reef environments. Origination curves show that Hettangian (the lowest Jurassic stage) was not only a survival phase but already rather a recovery phase. Post-extinction evolution of reefs and their survival only in the northernmost margin of the Tethys support the hothouse hypothesis for the T/J extinction event. During Pliensbachian, many new taxa appear, but mostly solitary corals, not really framebuilders. Many of these taxa do not occur anymore during the following stages. The new increase in diversity is related to the development of Bajocian (Middle Jurassic) reefs. [original abstract]

LAURIDSEN, B.W., GALE, A.S. & SURLYK, F.

2009. Benthic macrofauna variations and community structure in Cenomanian cyclic chalk-marl from Southerham Grey Pit, SE England. – *Journal of the Geological Society*, 166: 115-127; London. C • k • GB

LELOUX, J.

1999. Koralen [=1]. – *Teylers Magazijn*, 18, 2 (=63): 13-14; Haarlem. D • k • NL

LELOUX, J.

2000. Koralen (2). – *Teylers Magazijn*, 19, 1 (=66): 10-14; Haarlem. D • k • NL

LÖSER, H.

1994. La faune corallienne du mont Kassenberg à Mülheim-sur-la-Ruhr (Bassin crétacé de Westphalie, Nord Ouest de l'Allemagne). Deutsche Zusammenfassung und Bestimmungsschlüssel. – *Coral Research Bulletin*, 3, Anh.: 8 pp.; Dresden (CPress Verlag). D • k • D

LÖSER, H.

2004. Un coral del Cretácico. – *Nuestra Tierra*, 1: 15; Hermosillo (Universidad Nacional Autónoma de México). D • k • MEX

LÖSER, H.

2009a. Revision of the Scleractinian coral genus Diplocoenia and re-description of the Cretaceous species. – *Rivista italiana di paleontologia e stratigrafia*, 115, 1: 49-58; Milano. D • k • F/E/GR/I/PL

The Cretaceous species of the coral genus Diplocoenia are revised, mainly on the basis of sample material. This genus is characterised by polygonal calices in a cerioid arrangement, compact septa in a regular symmetry and a dissepimental ring with the appearance of a second inner wall. Of the 18 Cretaceous species reported in the literature, five are confirmed, four are synonyms and nine do not belong to this genus. The species with the widest geographic and stratigraphic distribution is Diplocoenia dollfusi Prever, 1909, originally described from the Monti d'Ocre complex in the Abruzzen province. The genus occurs in the Cretaceous only in the central Tethys and in the Boreal, and ranges from the Middle Jurassic to the Aptian (?Early Albian). Only about 50 samples from the Cretaceous exist or are known from the literature, making Diplocoenia rather rare in the Cretaceous. [original abstract]

LÖSER, H.

2009b. Morphology, taxonomy and distribution of the Early Cretaceous coral genus Holocoenia (Scleractinia) and its first record in the Caribbean. – *Revista mexicana de ciencias geológicas*, 26, 1: 93-103; Mexico City. D • k • D/F/MEX

Although ten species are currently assigned to the Early Cretaceous coral genus Holocoenia, its characteristics are poorly known. Using both material from the type locality of the type species Astrea micrantha along with described and undescribed material from France, Mexico, Poland and Spain, the genus is revised. It has a cerioid form with small calices, compact septa, a styliform columella, and an incomplete septothecal to synapticulothecal wall. Provisionally, it is assigned to the family Thamnasteriidae, being closely related to Mesomorpha and Thamnasteria. The genera Stereocaenia and Paretallonia are considered junior synonyms of Holocoenia. According to the present revision the genus contains only two species, which range from the Valanginian to the Aptian. Holocoenia micrantha is restricted to the central Tethys whereas Holocoenia jaccardi extends geographically from South America (Aptian of Argentina) and southern North America (Aptian of Puebla, Mexico) to the eastern Tethys (Hauterivian of Georgia). The indication of the genus in the San Juan Raya area in Puebla is the first indication in Central America. While the genus has been indicated in only eleven outcrop areas, making it rather rare, in many of these localities samples of Holocoenia are common. [original abstract]

LÖSER, H.

2009c. Fossile Korallen aus Jura und Kreide. Aufbau, Klassifikation, Bestimmung und Fundmöglichkeiten. – VI, 206 pp.; Dresden (CPress Verlag). D • k

Coral reefs are complex ecosystems. Their main producers - the corals - are more primitive organisms. Nevertheless they create complicated constructed skeletons presenting a wide range of shapes. For half a billion years exist corals, for about 250 million years the stony corals (Scleractinia) which colonize also today oceans. Changing environmental conditions forced the sensible organisms to create again and again new constructions resulting in a almost unlimited richness of forms through time. Not much is known about the relationship between the construction of the skeleton made of calcium carbonate and the biology of the living animal, mainly for groups which lived in periods long ago making classification and taxonomy difficult. This book will be help to work with Mesozoic corals (without Triassic) and gives in five large chapters (morphology; palaeoecology, diversity and evolution; sampling and examination; systematics and list of common genera; coral localities) insight in the most important aspects of a difficult organism group. The book is based on lecture material and is written for geology and biology students, as well for interested amateurs and biologists or geologists who want to gain insight in this invertebrate group. Much yet unpublished data on systematics, diversity and taxonomy makes the book up to date and might be interesting also for specialists. All drawn figures of the book are new; the majority of fossil thin sections has been not published before. The numerous illustrations of fossil corals have been selected from a pool of more than 4000 scanned thin sections and peels - material from the whole world, among them samples from countries as exotic as the Iran, Jamaica, Japan or Tanzania. [summary]

LÖSER, H., STEMANN, TH.A. & MITCHELL, S.F.

2009. Oldest Scleractinian fauna from Jamaica (Hauterivian, Benbow Inlier). – *Journal of Paleontology*, 83, 3: 333-349; Lawrence, Kan. N • k • JA

From the oldest Cretaceous marine sediments of Jamaica, the Copper Limestone within the Devils Racecourse Formation (Benbow Inlier, Clarendon Block), the oldest known coral fauna of the Caribbean is described. The small but diverse fauna encompasses 18 species in 17 genera of the suborders Amphiastraeina, Archeocaeniina, Heterocoeniina, Faviina, Fungiina, Microsolenina, and Stylinina. The fauna contains the first representatives of the suborder Amphiastraeina in the Caribbean and the Americas. One genus of the family Amphiastreidae, Monoaulastrea, and three species - Monoaulastrea rawi, Latusastrea rubrolineata, Camptodocis corralesi - are described as new. The preoccupied coral genus Floria is replaced by the new name

Floriastrea. The new fauna shows relationships to faunas from the late Berriasian to late Albian. Most species are shared with the Hauterivian faunas from Georgia in the central Tethys and the Paris Basin in the Boreal, but also with younger faunas such as the Barremian of Central Mexico, the early Aptian of Greece and the early Albian of the Bisbee Basin (Northern Mexico). [original abstract]

MASSE, J.P., MORYCOWA, E. & FENERCI-MASSE, M.

2009. Valanginian-Hauterivian scleractinian coral communities from the Marseille region (SE France). – *Cretaceous Research*, 30, 1: 178-192; London. D • k • F

Coral beds associated with Valanginian and Hauterivian platform carbonates from the Marseille region show two faunal assemblages corresponding with a Stylosmilia-Baryphyllia community (late Valanginian) and a Mesomorpha-Dimorpharaea community (early Hauterivian). The stratigraphic position of this fauna is based on the associate microfossils and correlation with ammonite-bearing beds. The internal architecture of the coral beds is loosely packed, the geometry of the corresponding bodies is tabulate and flat, and their depositional setting being the deeper, muddy part of the infralittoral zone. The biostratigraphic significance of the encountered species which include: Stylosmilia cf. corallina, Eocomoseris raueni, Mesomorpha ornata, Dimorpharaea catalaunica and Baryphyllia haimei, is low and our data tend to broaden the stratigraphic range of some of them. Assuming that the corresponding species were zooxantellate suggests the existence of an oligotrophic rather than a mesotrophic oceanic regime, postulated by some workers for the time span in question. [original abstract]

MOOSLEITNER, G.

2002. Fossilien sammeln in Südfrankreich. – 208 pp., 104 pls.; Korb (Goldschneck Verlag). D • jk • F

MORYCOWA, E.

2008. Koralowce scleractinia z wapieni egzotykowych typu sztramberskiego polskich karpat zewnętrznych. – *Geologia*, 34, 3/1: 129-137; Kraków. D • j • PL

MORYCOWA, E. & MASSE, J.P.

2009. Lower Cretaceous Microsolenina (Scleractinia) from Provence (Southern France). – *Annales Societatis Geologorum Poloniae*, 79: 97-140; Kraków. N • k • F

In the Lower Cretaceous (Urgonian) limestones of the Provence region (South France) shallow-water scleractinian corals are very common. This paper concentrates on corals from the suborder Microsolenina. They represent 34 taxa (including 5 new species) belonging to 14 genera from two families: Microsolenidae and Latomeandridae. This coral assemblage is representative for the late Early Cretaceous Tethyan realm but also shows some endemism. Its characteristic feature is the abundance of hydnophoroid specimens from the genus Hydnophoromeandraraea Morycowa. The Barremian–Early Aptian age of the studied corals is based on foraminifera (mainly orbitolinids), dasycladale algae and rudists, and agrees with that of the whole studied coral fauna. [original abstract]

ONOUE, T. & STANLEY, G.D.

2008. Sedimentary facies from Upper Triassic reefal limestone of the Sambosan accretionary complex in Japan: mid-ocean patch reef development in the Panthalassa Ocean. – *Facies*, 54: 529-547; Erlangen. D • t • J

Microfacies of the Early to Middle Norian reefal limestone of the Sambosan Accretionary Complex (SAC) at Kamase locality, southwest Japan, are classified into seven major facies types in stratigraphic order: peloidal grainstone-packstone, unfossiliferous lime-mudstone, tubular problematica-rich wackestone, sponge-coral floatstone, sponge bafflestone, coral rudstone, and peloidal-bioclastic packstone-grainstone. The SAC records patch reef development on a mid-oceanic seamount in the Panthalassa Ocean. Because most examples of Triassic reefs come from the former Tethys, counterparts such as those from the SAC are pivotal in resolving paleogeographic issues as well as clarifying the depositional patterns between the eastern Tethys and adjacent western Pacific (Panthalassa). We also reveal that the primary stratigraphy of the reefal limestone was disrupted by submarine landslides of the seamount in an open-ocean realm during the late Middle to Late Jurassic time. [original abstract]

ONUKI, Y. & MORI, K.

1961. Geology of the Ofunato district, Iwate Prefecture, southern part of the Kitakami massif, Japan. – *Journal of the Geological Society of Japan (= Nihon-Chishitsu-Gakkai)*, 67: 641-654; Tokyo. C • k • J

PANDEY, D.K., FÜRSICH, F.T. & BARON-SZABO, R.C.

2009. Jurassic corals from the Jaisalmer Basin, western Rajasthan, India. – *Zitteliana*, A, 48/49: 13-38; München. D • j • IND

The first comprehensive taxonomic description of Jurassic corals from the Jaisalmer Basin, a pericratonic shelf basin on the northwestern slope of the Indian peninsular shield, is based on 75 specimens, which belong to ive suborders, seven families, nine genera, and ten species. In Upper Bajocian rocks, all corals belong to the suborder Faviina, in Middle Bathonian rocks 75% of the specimens are members of the Stylinina, whereas corals occurring in the Tithonian all belong to the Caryophylliina. [original abstract]

PROZ, P.-A.

2002. Les collections du département de géologie et de paléontologie du Muséum d'histoire naturelle de Genève. 77. La collection générale (Coelenterata). – *Revue de Paléobiologie*, 21: 881-897; Genève. C • jkn

REOLID, M., MOLINA, J.M., LÖSER, H., NAVARRO, V. & **RUIZ-ORTIZ, P.A.**

2009. Coral biostromes of the Middle Jurassic from the Subbetic (Betic Cordillera, Southern Spain): facies, coral taxonomy, taphonomy and palaeoecology. – *Facies*, 55, 4: 575-593; Erlangen. D • j • E

Coral biostromes from the Camarena Formation (External Subbetic, Betic Cordillera) are reviewed under palaeoecologic, taphonomic and palaeontologic aspects. The biostromes are dominated by phaceloid forms and are characterised by a typical shallow-marine microencruster assemblage with photophilic microencrusters and scarce microbial crusts. The abundance of stylinid corals and light-dependant microencrusters suggest oligotrophic conditions. Coral colonies were located among oolitic shoals which were unfavourable for coral growth. The corals were developed in phases without oolitic production alternating with phases of oolitic production, forming metric-scale sequences. A relative sea-level fall would have reduced the ooidal production and led to the deposition of thin layers of micritic facies in intertidal areas. The cementation and hardening of the bottom resulted in a hardground that was colonized by corals after a subsequent relative sea-level rise. The progressive increase of the energetic conditions induced an increasing production of ooids and the migration of oolitic shoals, which covered and finished the coral biostromes. Repetition of this process gave rise to sequences reflecting small pulses of oscillations in the relative sea level. [original abstract]

RICHARDS, H.G.

1968. Catalogue of Invertebrate Fossil Types at the Academy of Natural Sciences of Philadelphia. – *Special Publications. Academy of Natural Sciences of Philadelphia, Pennsylvania*, 8: 222 pp.; Philadelphia, Penn. C • kn • USA

RONIEWICZ, E. & STANLEY, G.D.

2009. Noriphyllia, a new Tethyan Late Triassic coral genus (Scleractinia). – *Paläontologische Zeitschrift*, 83, 4: 467-478; Stuttgart. N • t • A/RI/TR

Noriphyllia gen. n. is a distinctive coral representing the Coryphylliidae, a group of Late Triassic scleractinian corals. Coral faunas of this age are poorly known. The new coral is distinguished from related corals belonging to the reimaniphylliids by key features of septal microstructure as discerned in thin sections. This microstructure consists of a straight/wavy midseptal zone and lateral septal stereome organized into thin fascicles of fibres, producing a fine and sharp micromorphology of the septal sides. The solitary genus Noriphyllia gen. n. contains two Early Norian species: N. anatoliensis sp. n. chosen as the type species and N. dachsteinae sp. n., and a Carnian species referred to as N. monotutoensis sp. n. The new genus is widely distributed in the Late Triassic, Early Norian reef facies of the Tethys region (Northern Calcareous Alps, Austria; Taurus Mountains, Turkey) and it also occurs in the Carnian of Timor. Noriphyllia gen. n. is unique and details of its microstructural features add new understanding to the composition of both Late Carnian and Early Norian corals. [original abstract]

SCHLAGINWEIT, F.

2009. The incertae sedis Carpathoporella Dragastan, 1995, from the Lower Cretaceous of Albania: skeletal elements (sclerites, internodes/branches, holdfasts) of colonial octocorals. – *Facies*, 55, 4: 553-573; Erlangen. D • k • AL

The incertae sedis Carpathoporella Dragastan, 1995, reported from the Lower Cretaceous of the Western Tethyan domain, is usually interpreted as remains of calcareous algae (Dasycladales or Characeae). New thin-section material from the Aptian of Albania sheds light not only on its biogenic nature but also the morphological variability of this taxon. In fact, Carpathoporella represents the debris of colonial, bushy, most likely gorgonid octocorals with tuberculated spheroids that maybe fused at least near the basal root-like holdfast. Colony branching originates from longitudinally grooved calcareous branches or internodes. Possible relationships to other Upper Cretaceous to Palaeogene genera are discussed and a revised critical inventory of Cretaceous octocorals is presented. Due to the evidenced morphological features, Carpathoporella could either represent an ancestral isidid octocoral of the order Alcyonacea such as Moltkia Steenstrup or, due to the likely primary aragonitic skeletal mineralogy, a representative of Epiphaxum Lonsdale of the order Helioporacea. Due to morphological analogies, the new combination Carpathoporella elliotti (Radoièiæ) is proposed. In any case, the Lower Cretaceous record from Tethyan peri-reefal shallow-water carbonates is highlighted since numerous skeletal findings of fossil gorgonid Octocorallia were so far only known from Upper Cretaceous and younger strata of outer shelf environments of the boreal realm. The origin of deep-water Upper Cretaceous octocorals from Lower Cretaceous shallow-water taxa such as Carpathoporella is proposed as a possible further example of onshore/offshore evolutionary pattern. [original abstract]

STANLEY, G.D.

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STOLARSKI, J. & VERTINO, A.

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he objective of the present article is to document the first stratigraphic occurrence of the colonial oculinid Madrepora, known from the modern seas as an azooxanthellate taxon that contributes to the formation of deep-water coral reefs. The Upper Cretaceous specimens of Madrepora sp. reported herein from Poland were recovered from Upper Maastrichtian (Nasi?ów and Bochotnica localities) and Lower Maastrichtian (Bliz.ów locality) siliceous limestones. The corals are preserved as imprints of the branch fragments and molds of the calices. Despite their moldic preservation, the coral remains exhibit key generic features of the genus Madrepora; including (1) sympodial colony growth form with calices arranged in opposite and alternating rows in one plane of the branch, and (2) imprints of the granular coenosteum texture, occasionally showing peculiar reticulate patterns. Some features of the Cretaceous Madrepora sp., such as the reticulate coenosteum texture, the range of the corallite diameter (2.8–4 mm), and the arrangement of the septa in three regular cycles resemble the skeletal features of the modern, typically constructional, species M. oculata (type species). The lack of any evidence of coral buildups and related debris in the whole Upper Cretaceous/Paleogene sequences from Poland and the sparse occurrence of colony fragments, suggests that the Cretaceous Madrepora sp. formed small, isolated colonies. [original abstract]