					June, 1, 2014

The Mesozoic Corals.
Bibliography 1758-1993.

Supplement 19 (-2013)

Compiled by Hannes Löser[1]

Summary

This supplement to the bibliography (published in the Coral Research Bulletin 1, 1994) contains 36 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 36 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 36 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

[1] Estación Regional del Noroeste, Instituto de Geología, Universidad Nacional Autónoma de México, Hermosillo, Sonora, México; loeser@paleotax.de

Preface

Numerous hints given by colleagues and new papers edited the previous year yield 36 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).

The supplement

ANONYMOUS

2013a. Pseudocoenia d'Orbigny, 1850 (Coelenterata, Scleractinia): proposed conservation of usage by the designation of a lectotype for the type species not approved. – *Bulletin of Zoological Nomenclature*, 70, 3: 207-209. C • j • F

The Commission has ruled that the application to conserve the name Pseudocoenia d'Orbigny, 1850 by designating a new lectotype for its type species, Pseudocoenia bernardina d'Orbigny, 1850, is not approved. [original abstract]

ANONYMOUS

2013b. Fossilien aus dem Campan von Hannover. – 290 pp.; Hannover. D • k • D

BOSCH, K., KUTZ, M., SCHWEIGERT, G. & DIETZE, V.

2013. Mitteljurassische Riffkorallen auf Hartgrundsuche. – *Fossilien*, 30, 3: 182-189. D • j • F

CARPENTIER, C., LATHUILIÈRE, B., FERRY, S. & SAUSSE, J.

2007. Sequence stratigraphy and tectonosedimentary history of the Upper Jurassic of the Eastern Paris Basin (Lower and Middle Oxfordian, Northeastern France). – *Sedimentary Geology*, 197, 3/4: 235-266; Amsterdam. C • j • F

In the present study, the difficulty which lies in the identification of sea-level fall discontinuities in deep depositional environments led the authors to use the transgressive surfaces (i.e. the most noticeable surfaces in the present case) to determine depositional cycles. Four (3rd order?) Lower and Middle Oxfordian cycles were identified (S1, S2, S3, and S4) in the Eastern Paris Basin. These four cycles can be organised into two lower frequency cycles (So I and So II) which comprise the S1, S2 and the S3, S4 cycles respectively. During the time intervals of the S1, S2, and S3 cycles, sedimentation occurred along a southward dipping carbonate-siliciclastic ramp, prograding from the northern Ardennes area. The S4 cycle shows the development of a reefal distally steepened ramp which subsequently evolved into a flat-topped platform as a result of the compensation infill of the available accommodation space by the carbonate production during a climatic warming, in this case reef growth. Isopach and facies maps suggest synsedimentary activities of hercynian faults coevals with the floodings of the So I and So II cycles. One of these events generated a diachronism of the maximum flooding (Plicatilis Zone) during the So II cycle between the northwestern and southeastern parts of the studied area. The depositional patterns found in the Eastern Paris Basin and the Swiss Jura show great similarities for the Early – Middle Oxfordian. Both regions were probably connected and recorded the same tectonosedimentary evolution. In contrast a tectonic control certainly generated differences between the sequence-stratigraphic framework of the Eastern Paris Basin and the eustatic chart. [original abstract]

FRANKOWIAK, K., MAZUR, M., GOTHMANN, A.M. & STOLARSKI, J.

2013. Diagenetic alteration of Triassic coral from the aragonite Konservat-Lagerstätte in Alakir Cay, Turkey: implications for geochemical measurements. – *Palaios*, 28, 6: 333-342; Lawrence, Kan. D • t • TR

Skeletons of Norian corals from the aragonite Konservat-Lagerstätte in Alakir Cay, Turkey are commonly considered to be exceptionally preserved. However, one example of Pachysolenia cylindrica show that although aragonite is the dominant mineral phase (about 86.2%) the distribution of microscale diagenetic features in the skeleton complicate its usage as a paleoenvironmental archive. We used a density separation technique to isolate aragonite-enriched powders o skeletal material, which compared to powders of bulk skeleton (~8.3% more calcite than aragonite-enriched powders), exhibit higher Sr/Ca (by an average of 0.27 mmol/mol), lower Mg/Ca (by an average o 1.34 mmol/mol), and lower d18O (by an average of 0.28‰). In addition paleo-sea surface temperatures calculated using values from bulk measurements are 1.1–3.4 6C colder (3.3–3.4 6C for Sr/Ca and 1.1–2.0 6Cfor d18O) than temperatures calculated from the density-separated aragonite-enriched powders. These data suggest that the presence o about 13.8% of secondary calcite can influence the robustness o geochemical proxies and that density separation is an effective tool fo recovering the original geochemical signal from diagenetically altered samples. [original abstract]

FRERICHS, U.

2011. Epöken: Über Siedler und "Piraten". – *Fossilien*, 5: 295-298. D • k • D

GAETANI, M.

1970. Faune hettangiane della parte orientale della provincia di Bergamo. – *Rivista italiana di paleontologia*, 76, 3: 355-442; Milano. D • j • I

GALLEMÍ, J.

2013. La col·lecció paleontològica Gómez-Alba del MGB-MCNB. – *Treballs del Museu de Geologia de Barcelona*, 19: 59-149; Barcelona. C • jk • E/F/GB

We present the catalogue of the palaeontological collection belonging to the late Dr. Julio Gómez-Alba, former curator of Palaeontology at Barcelona's Museum of Geology, now integrated in Barcelona's Natural History Museum Consortium. He proposed the donation of his collection to the city of Barcelona in November 2010 and the Barcelona's Institute of Culture (ICUB) accepted it on the 11th February 2011. Formed by 4.990 specimens and 25 batches, it is not the col- lection of a palaeontological researcher but that of a general palaeontologist. Many items in this collection were figured in a field guide authored by Gómez-Alba (1988) dealing with the fossils of Spain and Europe. The catalogue is, apart from some minor corrections, the literal transcription of the database originally associated to the collection that –since its acceptation– has neither been updated nor revised. [original abstract]

GARBEROGLIO, R.M., LAZO, D.G. & PALMA, R.M.

2013. An integrate analysis of an Hauterivian coral biostrome from the Agrio Formation, Neuquén Basin, west-central Argentina. – *Cretaceous Research*, 43: 97-115; London. D • k • RA

A coral biostrome from the lower Hauterivian of the Neuquén Basin, west-central Argentina, was examined in detail. Taxonomic analysis established it as a mo nospecific assemblage of the scleractinian colonial coral Stereocaenia triboleti (Koby). Palaeoecological analysis of the species allows us to infer that it was an opportunisti c species, capable of thriving in mixed carbonate-siliciclatic environments, on a soft substrate under a moderate to low sedimentation rate showing great regenerative capacity. Taphonomic analysis, together with lithofacies and microfacies analysis, allowed us to establish that the coral biostrome was deposited in a middle ramp setting under open marine and well-oxygenated conditions. Corals colonized a sof t substrate during a transgressive phase and reaching its climax in the maximum flooding zone under lowest clastic input. They managed to form a low coral meadow of ramose forms of up to 30 cm in height. Coral remains were exposed on the interface after death and thus were subject to severe encrustation and bioerosion. The coral biostrome is interpreted as a mixed biogenic-sedimentologic skeletal concentration deposited by an interplay of an initial biogenic concentration through later episodes of physical reworking, probably storms, which yielded a largely parautochthonous fossil assemblage with minimum lateral transport. As sedimentation rate increased during a highstand interval, the coral-dominated community could not cope with it and was finally buried. The described coral biostrome recorded at the base of a shallowing-upwards cycle closely resembles coral biostromes described from the Hauterivian of Peru and Turkmenistan, and differs significantly from framework reef facies recorded in the Hauterivian of the Tethys region from the Paris Basin to Crimea. [original abstract]

GARCÍA Y BARRAGÁN, J.C. & JACQUES-AYALA, C.

2011. Estratigrafía del Cretácico de Sonora, México. – *Universidad Nacional Autónoma de México, Instituto de Geología, Boletín*, 118: 113-199. C • k • MEX

ILCHEVA, A. & MOTCHUROVA-DEKOVA, N.

2011. Catalogue of type collections of Early Cretaceous corals (Scleractinia, Anthozoa) at the National Museum of Natural History, Sofia. – *Spisanie na Balgarskoto Geologicesko Druzestvo*, 72, 1-3: 129-140; Sofia. D • k • BG

The catalogue provides information about the availability of type material of Early Cretaceous coral taxa in the invertebrate fossil collections of National Museum of Natural History, Sofia, Bulgaria. The major part of the fossil coral type material was published by Zlatarski (1966; 1967a, b; 1968a, b; 1970; 1972). At present most of Zlatarski's type specimens and thin sections are housed in the museum. They belong to 24 coral species from the Barremian–Lower Aptian of several localities in central North Bulgaria (Fore-Balkan). Second well represented part of the coral type collection contains all the type specimens and all thin sections of 6 new species of Valanginian corals collected in Lyubasha Mountain, Pernik district (Srednogorie, SW Bulgaria) and published by Roniewicz (2008). Some new species introduced by Zlatarski and Roniewicz are also type species of new genera. A syntype, described by Toula (1889) is also included in the catalogue. [original abstract]

JUNGE, W.

2011. Ein Korallenvorkommen aus dem Oberjura bei Hannover. – *Fossilien*, 5: 309-313. D • j • D

LIAO, WEI-HUA, JI, ZHAN-SHENG & WU, GUI-CHUN

2012. Late Jurassic scleractinian corals from Gêrzê, Northwestern Xizang (Tibet). – *Acta Palaeontologica Sinica*, 51, 3: 290-302, 5 pls.; Beijing. N • j • RC

Although Mesozoic marine strata are well developed in Xizang(T ibet) and they include a very rich scleractinian coral fauna their study has been limited for a long time by the well known rigours of exploration on the Qinghai-Tibetan Plateau. The coral-bearing beds discussed here are located in the Late Oxfordian to Kimmeridgian Tukari Formation at northern Oma village of Gêrzêcoun-ty, northwestern Xizang. They belong to the Bangong Co-Nujiang Stratigraphic Zone, which borders the Qiangtang Stratigraphic Zone in the North and the Gangdise Stratigraphic Zone in the South. The Jurassic scleractinian corals described and illustrated here from Oma comprise 17 genera and 23 species, including one new species - Stylosmilia xizangensis sp.nov.and six which are specifically indeterminable.Amongst hem: Heliocoenia aff. etalloni and H. bandukidzea have been found from the Upper Jurassic in Azerbajan and Baingoin in northern Tibet, China. Heliocoenia orbignyi has been reported from the Upper Jurassic of Poland, Romania and Gêgyai, northwestern Tibet, China. Isastraea bernensis is widely distributed in Late Jurassic limestones of Switzerland, France, Romania and Tingri in southern Tibet, China.Whereas Axosmilia sessilis occurs in the Middle Jurassic of Cutch, India, the Upper Jurassic of Germany and also at Baingoin in northern Tibet, China. Cryptocoenia octosepta is widely distributed occurring in Switzerland, Georgia and Baingoin, northern Tibet, China. The geological range of genus Dermosmilia is from Jurassic to Cretaceous and D.laxata has been found in the Upper Jurassic from Germany and Switzerland, with a very similar species, D.cf.laxata, recorded from the present locality in Tibet. Thecosmilia trichotoma is a characteristic and widespread in the Upper Jurassic from the Germany, Poland, Ukraine, Czech, Portugal, Greece and China. Thamnasteria coquandi has been reported from the Upper Jurassic of Switzerland, France, Azerbaijan and Baingoin, northern Tibet, China.Whilst Thamnasteria mettensis has been reported from the Middle and Upper Jurassic beds in England, France, India and China. Mitrodendron ogilvieae has been found before from the Upper Jurassic in Germany and Rhipidogyra flabellum from the Upper Jurassic in Switzerland, Poland and Madagascar. Finally, Isastraea rariseptata is a widespread species in the Late Jurassic beds from northern Tibet (Rutog, Baingoin, Xainza and Gêrzê), China, and Latiastraea pakongensis and Mitrodendron yilashanensis have been reported from the Upper Jurassic from Baingoin and from Nagqu, also in northern Tibet, China respectively. Taken as a whole, the scleractinian coral fauna described here indicates a Late Jurassic age. It bears a close relationship with those of Europe (Portugal, France, Germany, Switzerland, Poland, Czech, Romania, Ukraine and Greece), w ith Central South Asia (Azerbaijan, Georgia), and with parts of Gondwana (Madagascar and India). [original summary]

LÖSER, H.

2013a. Late Aptian (Cretaceous) corals from Central Greece. – *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, 267, 1: 89-116; Stuttgart. D • k • GR

Twenty-six coral species from twenty-one genera of Late Aptian (Early Cretaceous) age are reported from the Helicon Mountains in the Greek province of Boeotia. The studied section close to the village Aliartos includes mainly coarse, massive limestone-conglomerates with a relatively high amount of lithoclasts and carbonatic intraclasts. Most of the intraclasts originate from reefal limestones of similar environments and age. The fauna encompasses typical Early Cretaceous elements of the suborders Archeocaeniina, Faviina, Fungiina, Heterocoeniina, Meandrinina, Microsolenina, and Stylinina. The range of two genera has changed - the first occurrence of Adelastrea Reuss, 1854, and Pachyphyllia Alloiteau, 1957, were assigned to the Late Aptian, unlike the Turonian as considered earlier. The fauna shares species with localities worldwide, and their ages mainly range from Barremian to Early Albian. In contrast to very common Early Aptian coral faunas, Late Aptian faunas are rare. The present fauna helps to understand relationship to Albian and Cenomanian faunas. [original abstract]

LÖSER, H.

2013b. An Early Albian shallow marine coral fauna from Southern France – insight into evolution and palaeo-biogeography of Cretaceous corals. – *Palaeobio-diversity and Palaeoenvironments*, 93, 1: 1-43. N • k • F

A species rich hermatypic coral fauna from the late Early Albian (Mammillatum Zone) from Padern (Les Corbières, Aude, France) is taxonomically revised. The fauna encompasses 45 species in 24 genera. Genera of the suborders Faviina and Microsolenina dominate, followed by genera of the suborders Stylinina and Fungiina. The suborders Caryophylliina, Fungiina, Heterocoeniina, Meandrinina and Rhipidogyrina are represented by only a few genera. One species of the genus Parnassomeandra is described as new. The hitherto poorly known genera Trochoseropsis and Cyathophoropsis are supported with new material and described and depicted in greater detail. The overall faunal composition is comparable with Aptian to Early Albian coral faunas of the same region and facies, however, the fauna shows some exotic elements that persisted into the Late Cretaceous. Most species are known from Barremian to Albian faunas of the Western Atlantic, the Aptian of the Central Tethys and the Albian Boreal South England Basin. [original abstract]

LÖSER, H.

2013c. Morphology and taxonomy of the genus Valloria (Scleractinia; Late Cretaceous). – *Batalleria*, 18: 25-27; Barcelona. D • k • E

The Late Cretaceous coral genus Valloria is revised on the basis of topotypical material from the type locality. Based on its septal structure, the genus is assigned to the family Phyllosmiliidae (suborder Meandrinina). It shows a meandrinoid growth pattern with a strongly reduced coenosteum, indistinct calices and a lamellar columella. The genus is very closely related to Pachygyra, but differs by ist much narrower coenosteum. Two species are included: the type species and Orbignygyra pyrenaica Reig Oriol, 1997. [original abstract]

LÖSER, H.

2013d. Revision of the family Asteroseriidae (Cretaceous). – *Geodiversitas*, 35, 1: 23-31; Paris. D • k • E/F

The Cretaceous coral family Asteroseriidae (suborder Fungiina) is revised on the basis of its type genus and respective type species. The family encompasses small solitary patellate corals with compact septa in a regular hexameral symmetry. Septa are made of large trabeculae expressed in a regularly ornamented upper septal margin and septal lateral face. Synapticulae are present. In addition to the name-giving genus Asteroseris de Fromentel, 1867, the genera Actinoseris d'Orbigny, 1849 and Microseris de Fromentel, 1867, from the Cretaceous of France are assigned to the family. All genera are revised on the basis of the types of their respective type species, as far as available. Possible species of all three genera are presented. The family ranges from Hauterivian to Cenomanian. [original abstract]

LÖSER, H.

2013e. Revision of the Hauterivian (Early Cretaceous) corals of the Paris Basin, France: a work in progress. – *Bulletin d'information des géologues du Bassin de Paris*, 50, 1: 17-24; Paris. D • k • F

The coral fauna that comes from sediments cropping out widely in the Aube, Haute-Marne and Yonne departments, is the most species-rich Early Cretaceous coral fauna known. The literature reports 159 species, among which 18 type species have their type locality in the study area. This article gives a brief overview of the research history, geology,

lithostratigraphy, outcrop situation and gives a preliminary list of genera with illustrations. [original abstract]

LÖSER, H.

2013f. Taxonomy and distribution of the Early Cretaceous coral genus Actinastraeopsis. – *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, 269, 2: 189-202; Stuttgart. D • k • CO/E/F/GE/GR/MEX/RC/USA/YV

Abstract: The poorly known Early Cretaceous coral genus Actinastraeopsis is revised on the basis of available type material. It includes six species (Cladophyllia birleyoe Gregory, 1899; Thecosmilia catalaunica Angelis d'Ossat, 1905; Enallhelia gracilis Orbigny, 1850; Stylosmilia organisans Orbigny, 1850; Actinastraeopsis phaceloides Sikharulidze, 1977; Actinastraeopsis sp.); most of them were formerly assigned to the genus Cladophyllia. Actinastraeopsis forms phaceloid colonies made of densely packed thin branches. These colonies may reach large dimensions and form bioherms measuring several meters in width and height. Actinastraeopsis specimens show a large variation in their calicular dimensions, whereas the number of septa is regular within colonies and shows little variation. Septal counts and calicular dimensions are mainly used to distinguish species. To cope with variation within Actinastraeopsis species, the available material was systematically measured and statistically analysed. About fifty samples from numerous worldwide localities ranging from the Hauterivian to the Middle Albian were included. [original abstract]

LÖSER, H.

2013g. The Cretaceous corals from the Bisbee Group (Sonora; Late Barremian - Early Albian) : genus Stelidioseris (Actinastraeidae). – *Paleontologia mexicana*, 63: 79-89; Mexico City. D • k • MEX

The current work constitutes the second part of the systematic revision of the corals from the Bisbee Group (Late Barremian to Early Albian) and deals with the genus Stelidioseris (Family Actinastraeidae, suborder Archeocaeniina). To distinguish samples within the Sonoran fauna and species of this genus, systematic measurements of the corals were taken and statistically analysed. From the Bisbee Group, six Stelidioseris species are here described and illustrated: S. bellensis, S. hourcqi, S. japonica, S. major, S. ruvida, S. whitneyi. Most of them are common Early Cretaceous species with a wide geographic and stratigraphic distribution. [original abstract]

LÖSER, H.

2013h. The Late Cretaceous coral genus Hydnophoropsis. – *Batalleria*, 19: 24-40, 4 pls.; Barcelona. D • k • A/D/E/ET/F/GR/JAM/MEX/SO/UAE

The coral genus Hydnophoropsis is revised on the basis of a remaining syntype of its type species H. thecalis. The genus is valid and replaces the genus Paraplacocoenia. Hydnophoropsis belongs to the Placocoeniidae family. It occurs exclusively in the Late Cretaceous. Sixty-four specimens were examined, among them nine type specimens. Fourteen species are distinguished on the basis of their small inner calicular diameter, septal symmetry and septal number. Half of them remain in open nomenclature. Several coral species have their locus typicus in Catalonia; they are revised on the basis of their type material and assigned to Hydnophoropsis. [original abstract]

LÖSER, H.

2013i. Revision of the family Felixaraeidae (Scleractinia; Cretaceous). – *Geodiversitas*, 35, 4: 775-793; Paris. N • k • A/E/F/I/JA/MEX

The Late Cretaceous coral family Felixaraeidae (suborder Fungiina) is revised on the basis of its type genus and respective type species. The family encompasses solitary and colonial forms with very strong and perforated radial elements with a subregular radial symmetry. Radial elements are composed of large trabeculae expressed in a strongly ornamented upper septal margin and septal lateral face. Synapticulae are present. Together with the name-giving genus Felixaraea Beauvais, 1982, the Tethyan coral genera Brachycaulia Beauvais, 1982, Pseudofavia Oppenheim, 1930, and Thecoseriopsis Alloiteau, 1957, as well as the Western Atlantic genera Filkornia Löser, 2012, Paracycloseris Wells, 1934, and Trechmannaria Wells 1935, are assigned to the family. The new genus Marcelohelia from the Maastrichtian of Mexico is established. It differs from all known member of the family by its phaceloid growth form. All genera are revised on the basis of the types of their respective type species. Possible species of all genera are presented. The palaeobiogeography of the genera is discussed. The family occurs from the Turonian to Maastrichtian or, possible, Danian. [original abstract]

LÖSER, H.

2013j. Critical review of the Trochoidomeandridae family (Scleractinia; Cretaceous) and the genera Felixigyra, Rhipidomeandra, Trochoidomeandra, and Wellsimeandra. – *Palaeodiversity*, 6: 9-21; Stuttgart. D • k • D/E/GR/I/J/MEX

The Early to early Late Cretaceous coral family Trochoidomeandridae is critically reviewed. Its systematic position is changed from the suborder Rhipidogyrina to the suborder Heterocoenina. A third species – Axosmilia cylindrica Prever, 1909 – is assigned to the type genus Trochoidomeandra. The positions of the other genera formerly assigned to the family are modified. Rhipidomeandra and its junior synonym Wellsimeandra are – together with Felixigyra – gathered in the informal Felixigyra group. The group is assigned to the suborder Meandrinina and considered a very early member of this suborder. Their members differ by smaller trabeculae and a different septal ornamentation from the Trochoidomeandridae family. The genus Rhipidomeandra is revisited and new, hitherto unknown material is presented: two species originally assigned to Phyllastraea, one species originally assigned to the genus Columellogyra, and two species in open nomenclature. Together these additions significantly expand the stratigraphical and palaeobiogeographical distribution of this genus. [original abstract]

LÖSER, H., CASTRO, J.M. & NIETO, L.M.

2013. Late Albian Scleractinian corals from the Prebetic Zone (SE Spain). – *Palaeontographica*, 301, 1/2: 1-62, 10 pls.; Stuttgart (Schweizerbart). N • k • E

From the Prebetic Zone (South-East Spain) the first Late Albian western Tethys shallow marine coral fauna is described. It encompasses 35 species in 28 genera of the suborders Amphiastraeina, Faviina, Heterocoeniina, Microsoleniina, Poritina, Rhipidogyrina, and Stylinina including two new genera (suborder Heterocoeniina) and six new species. The family Elasmocoeniidae Duncan, 1884 within the suborder Heterocoeniina is reintroduced. It encompasses all genera with a bilateral septal symmetry formerly assigned to the Heteroeniidae family. Two genera of this family - Pleurodendron and Heteropistophyllum - are described as new. The type species of Pleurodendron, Pleurodendron prebetica, is new, whereas Heteropistophyllum is based on Pseudopistophyllum quinqueseptatum Turnšek & Buser, 1976. Both genera are known from other localities older than the study area. The fauna contains the last indication of the Amphiastreid genera Aulastrea, Metaulastrea and Mitrodendron, whose last occurrence was previously known as being Aptian. This finding extends the range of the Amphiastraeina suborder until the Late Albian. The fauna encompasses more species that are known from the Aptian and Early Albian than species that have been previously found in the Cenomanian. Also the generic composition of the fauna is similar to Early Cretaceous faunas. For the Late Cretaceous and Tertiary genus Actinacis the study area represents the first occurrence, including the first ever occurrence of the suborder Poritina. [original abstract]

LÖSER, H., GARCÍA-BARRERA, P., MENDOZA, C.C. & ORTEGA-HERNÁNDEZ, J.

2013. Corals from the Early Cretaceous (Barremian - Early Albian) of Puebla (Mexico) - Introduction and family Stylinidae. – *Revista mexicana de ciencias geológicas*, 30, 2: 385-403; Mexico City. D • k • MEX

The spatial and temporal distribution of Cretaceous coral faunas from the Tibet range is reviewed in detail. The relationship of the Tibetan faunas to other Tethyan or Caribbean faunas is discussed. Obviously the faunas had closer relationships with Tethyan faunas in Asia and Europe than with Caribbean faunas. The rather large number of new species results from a general abundance of corals in certain time spans. The paper is complemented by an annex, which lists all formations with their localities and coral occurrences.

LÖSER, H., VILAS, L., ARIAS, C., RUIZ-ORTIZ, P.A. & **CASTRO, J.M.**

2013. An Early Aptian coral fauna from the Prebetic (Southern Spain). – *Spanish Journal of Palaeontology*, 28, 2: 193-214. D • k • E

From the Early Aptian of the Betic Cordillera a small hermatypic coral fauna is reported. The sampled outcrop is located in the Sierra de la Muela (Prebetic, Murcia province, Spain). The studied corals come from a carbonate platform megasequence, deposited in the Southern Iberian Palaeomargin during the Early-Late Aptian transition. The coral fauna consists of 19 species in 13 genera belonging to the suborders Archeocaeniina, Faviina, Fungiina, Meandrinina, Microsolenina, and Stylinina. The coral fauna consists of typical and common species. It

shows relationship of mainly Barremian to Early Albian faunas from the Western Tethys. [original abstract]

LÖSER, H., WERNER, W. & DARGA, R.

2013. A Middle Cenomanian coral fauna from the Northern Calcareous Alps (Bavaria, Southern Germany) – new insights into the evolution of Mid-Cretaceous corals. – *Zitteliana*, A53: 37-76; München. N • k • D

In the Northern Calcareous Alps, relics of a formerly widely distributed shallow marine facies belonging to the Branderfleck Formation (Upper Albian to Early Turonian) crop out and contain locally abundant corals. The fauna described here derives from Middle Cenomanian sediments. It encompasses 39 species in 25 genera, belonging to seven scleractinian and one octocorallian suborder. One genus and two species are described as new. The fauna that was formerly located at the northern part of the Apulian plate (Austroalpine unit), south of the Penninic ocean, shows palaeobiogeographic relationships to Cenomanian faunas from the Pelagonium, the Aquitanian Basin, and the Bohemian Basin, indicating stronger connections to Tethyan than Boreal faunas. The fauna also shares species with Aptian and Albian, as well as Late Cretaceous faunas. Ten genera experienced a range extension; five genera have their last occurrence in the Middle Cenomanian fauna, and five genera their first occurrence. The fauna has an intermediate position between the Early Cretaceous and the post-Cenomanian corals showing that the faunal turnover at the Cenomanian/Turonian boundary was not marked by the sudden appearance of new faunal elements, but the disappearance of taxa. Many faunal elements that constitute post-Cenomanian faunas already existed in the Cenomanian but were very rare. [original abstract]

MELNIKOVA, G.K.

2006. The early Jurassic fauna from the Gurumdy and Mynhajir zones of the East Pamirs – *Doklady Akademii Nauk*, 406, 5: 656-658. C • j • TJ

MELNIKOVA, G.K. & RONIEWICZ, E.

2012. Early Jurassic corals of the Pamir Mountains - a new Triassic-Jurassic transitional fauna. – *Geologica Belgica*, 15, 4: 376-381; Brussels. C • t • TJ

Four microstructural groups of corals representing the orders Scleractinia and Hexanthiniaria are known in the Triassic and in the Early Jurassic of the Tethys realm. In the south-eastern Pamir Mountains, Lower Jurassic corals occur from the Hettangian to Toarcian sediments. Hettangian?-Sinemurian and Sinemurian coral faunas discussed in this paper come from the Gurumdy and Mynkhajir facies zones. Coral associations are composed of classical Early Jurassic West European and North African (Moroccan) taxa, accompanied by several genera previously unknown in the West Tethys. After the end-Triassic extinction, the Early Jurassic recovery faunas of the Pamir Mountains contain Stylophyllopsis, Eocomoseris, a genus related to Elysastrea, and a large number of Jurassic genera: Oppelismilia, Archaeosmilia, Archaeosmiliopsis, Stylosmilia, Proaplophyllia, Cylismilia, Intersmilia, Prodonacosmilia, Pachysmilia, Placophyllia and Stephanastrea. More or less fragmented corals and complete skeletons are found in detrital carbonate, oolitic, or micritic limestone facies. Phaceloid growth forms prevail over solitary and massive ones. [original abstract]

MILLER, M. & PAVŠIÆ, J.

2008. Triassic and Jurassic beds in Krim Mountain area (Slovenia). – *Geologija, Razprave in poroèila.*, 51, 1: 87-99; Ljubljana. D • j • SLO

OGORELEC, B.

2011. Microfacies of Mesozoic carbonate rocks of Slovenia. – *Geologija, Razprave in poroèila.*, 54, 2: 1-36, 39 pls.; Ljubljana. D • tjk • SLO

Carbonate rocks of Mesozoic age are widespread in Slovenia where they consitute about 40 % of its territory, and attaining total thickness of more than 5000 metres . With respect to microfacies almost all structure types can be recognized, the limestones and dolomites being formed in various sedimentary environments, such as in open and in restricted parts of carbonate shelf, in lagoons and on coastal plains, in different types of reefs, on slopes and in the basin. Carbonate sedimentation was often accompanied also by the supply of terrigenous material and products of volcanic activity. Among diagenetic processes in investigated carbonate rocks the most extensive are dolomitization and silicification. In the present text 250 microscopic photographs of characteristic limestones and dolomites from Slovenian territory are assembled. In the introductory part, to which for orientation schematic stratigraphic columns are added, the geologic development od these carbonate rocks is briefly outlined. For the sake of completeness in presenting the »carbonate era« in the overview, Upper Permian limestones and dolomites are also described next to Mesozoic beds. [original abstract]

OHGA, H., KOŁODZIEJ, B., NOSE, M., SCHMID, D.U. & TAKAYANAGI, H.

2013. Sedimentary facies and biofacies of the Torinosu Limestone in the Torinosu area, Kochi Prefecture, Japan. [In:] Island Arc – 20 pp. D • j • J

The Torinosu Limestone represents carbonate platform deposits in a foreland basin, the sedimentary setting of which is highly different from those of well-known Late Jurassic reefs in the western Tethys that developed on shelf areas of continental margins and intra-Tethyan platforms. Sedimentological and paleontological analyses were conducted on a 55.5 m-thick Upper Jurassic–Lower Cretaceous (Tithonian–Berriasian) carbonate sequence (Torinosu Limestone) at the Eastern Hitotsubuchi Quarry, Kochi Prefecture, Southwest Japan. The carbonate sequence is composed of two sections that are separated by a subaerial exposure surface. Two and three depositional units have been defined in the lower and upper sections, respectively, based on changes in lithology and the biotic composition of the carbonates; they are numbered from 1 to 5, in ascending order. Calcified demosponges (stromatoporoids and a chaetetid Chaetetopsis crinita) are abundant in three units (2, 3, and 5), in which microencrusters (mostly Lithocodium aggregatum and Bacinella irregularis) and microbialites are also common to abundant. Although most of them are para-allochthonous, in-situ branching stromatoporoids are found on and above the subaerial exposure surface (unit 3). Corals are less common, poorly diverse, and primarily represented by the family Microsolenidae. Siliciclastic grains occur in all units, but they are particularly common in units 1 and 4. The co-occurrence of the Lithocodium–Bacinella association, which is typical of oligotrophic or moderately mesotrophic shallow- water environments, with microsolenids, which are indicative of high nutrient levels and/or low-light intensity due to high turbidity, suggests repeated changes in nutrient levels associated with terrigenous input. Based on lithology, biotic composition, and succession, we infer that sea-level changes and related terrigenous input controlled the sedimentary environment of the studied carbonate sequence. [original abstract]

PALMA, R.M., KIETZMANN, D.A., ADAMONIS, S. & LÓPEZ GÓMEZ, J.

2009. Oxfordian reef architecture of the La Manga Formation, Neuquén Basin, Mendoza Province, Argentina. – *Sedimentary Geology*, 221, 1/4: 127-140; Amsterdam. D • j • RA

The Neuquén back-arc basin is located on the west margin of the South American platform between latitudes 36° and 40° S. The basin is famous for its continuous sedimentary record from the Late Triassic to Cenozoic comprising continental and marine clastic, carbonate, and evaporitic deposits up to 2.600 m in thickness. The stratigraphical and paleontological studies of the outcrops of the La Manga Formation, Argentina, located near the Bardas Blancas region, Mendoza province (35° S and 69° O) allow the reconstruction of the sedimentary environments of an Oxfordian carbonate ramp, where outer ramp, middle ramp, inner ramp (oolitic shoal), inner ramp margin (patch reef) lagoon and paleokarst were differentiated. The reefs consist of back reef facies and in si tu framework of coral boundstones that was formed at the top of shallowing-upward succession. Coral reefs were analyzed by defining coral colonies shapes, paleontological content, coral diversity and taphonomy studies. In some studied sections abundant fragments of gryphaeids, encrusting bryozoans, and isolated sponges provided a suitable substrate for coral colonization; however, other sections show an increase in the proportions of ooids, peloidal and coral intraclasts. The core reef facies is composed of white-grey unstratified and low diversity scleractinian coral limestone dominated by robust and thinly branching corals with cerioid–phocoid growths and massive coral colonies with meandroid–thamnasteroid growth forms. The assemblage is characterized by Actinastraea sp., Australoseris sp., Thamnasteria sp. and Garateastrea sp. Internal facies organization and different types of coral colonies allow to recognize the development of varying framework as well as intercolony areas. A superstratal growth fabric characterizes the coral assemblage. On the basis of coral growth fabric (branche and domal types), the reef of La Manga Formation is considered a typical mixstones. The intercolony areas consist of biomicrites and biomicrorudites containing abundant coral fragments, parautochthonous gryphaeids and another bivalves (Ctenostreon sp.), gastropods (Harpagodes sp., Natica sp.), echinoderms test and spines (Plegiocidaris sp.), miliolids, Cayeuxia sp., Acicularia sp., Salpingoporella sp., intraclasts, ooids, peloids an d coated gra ins. The domal growth forms

are probably more protected against biological and physical destruction, meanwhile delicate branching growth forms with very open and fragile framework were more affected and fragmented due to wave action and bioerosion. The reef fabric shows different intervals of truncation as consequence of erosion resulting from coral destruction by storm waves or currents. The maximum flooding surface separates oolitic shoal facies below from the aggradational and progradational coralline limestones facies above. Subsequent sea-level fall and karstifica ti on (148 Ma) affected reef and oolitic facies. [original abstract]

PATERSON, D.M.

1968. Jurassic megafossils of Saskatchewan with a note on charophytes. – *Saskatchewan Government Department of Mineral Resources Geological Report*, 120: 3-135, 8 figs., 26 pls.; Regina. D • j • CDN

RONIEWICZ, E. & STANLEY, G.D.

2013. Upper Triassic Corals from Nevada, Western North America, and the Implications for Paleoecology and Paleo-geography. – *Journal of Paleontology*, 87, 5: 934-964; Lawrence, Kan. N • t • USA

Late Carnian–early Norian corals from the Luning and Osobb formations in west-central Nevada represent an important Late Triassic fauna for understanding the paleoecology and the paleogeography of the eastern Panthalassa region during Late Triassic time. The corals occur in bedded limestone representing biostromes and patch reefs and their composition presages the important global changeover of faunas of the intra-Norian interval. A taxonomic analysis of over 60 specimens reveals a majority of colonial corals ranging from cerioid, astreoid (i.e., cerioid-plocoid lacking walls), meandroid and thamnasterioid types. Surprisingly, remnants of the original aragonite microstructure remain in some specimens, allowing a better comparison with more remote Tethyan corals. In total, 14 genera have been identified from Nevada while two genera remain undetermined. The fauna is composed of species considered typical of both the North American Cordillera and cratonal South America. The following genera and species are new and endemic to the Americas: Khytrastrea silberlingi and K. cuifiamorpha, Flexastrea serialis, Nevadoseris punctata, Areaseris nevadaensis and a new genus Minasteria (with Astrocoenia shastensis Smith, 1927 as type species). Likewise are the new species: Margarogyra silberlingi and Curtoseris dunlapcanyonae. Genera Meandrovolzeia, Margarogyra, Ceriostella, Ampakabastraea, Retiophyllia, Distichomeandra, Curtoseris, Thamnasteria and Astraeomorpha provide important links to the former Tethys province. The revised coral fauna changes previous views of the close taxonomic similarity with the Tethys, instead producing a paleogeographic pattern emphasizing a much greater degree of endemism. This pattern emphasizes the isolation of Nevada from the Tethys and the similarities with some outboard terranes of the Cordillera. [original abstract]

WINKLER, A.

1988. Jura-Fossilien erkennen und bestimmen. II: Muscheln, Korallen. – *Fossilien*, SH3: 48 pp.; Weinstadt (Goldschneck Verlag). D • j • D