

Abstract:

Biostratigraphic fossil field research (Lower Devonian, basing Upper Emsian, Emsquartzit) is summarized in this report about the Koblenz-area. In this region belonging to the Rhenish Schiefergebirge thick layers of quartzites were deposited in the beginning of the Upper Emsian substage. Only few fossil horizons with rich faunas proving normal marine shallow water conditions could be investigated. It can be presumed, that the visible field distribution of fossil horizons depends on paleogeographic facts. In the youngest Upper Emsian sand was deposited into the Mosel-trough, probably delivered by the Siegen-swell. Numerous outcrops show dominating thick quartzit layers resulting on changing sedimentary conditions. Heavy storms eroding older sediment, washed out all faunal assemblages. Other faunal elements may have been suffocated by sand masses when the storms were slacking. So it can be believed, that optimal living conditions for Emsquartzit-faunas were reduced only to few locations. The second part of this report contains investigations and remarks about the trilobite species *Digonus intermedius* (VIËTOR) and *Trimerus crassicauda* (SANDBERGER 1849), the Bivalvia species *Stappersella lodanensis* (FRECH), *Leptodesma (Peraptera) lodanensis* (FRECH), *Myalina (Myalina) circularis* (FRECH), *Myalina (Myalina) peltata* n. sp., *Rhenanomya tumida* (A. FUCHS) and the brachiopod species *Euryspirifer robustiformis* MITTMEYER. The brachiopod species *Adolfia prümiensis* (DREVERMANN) must be added to other valid index fossils of the basing Upper Emsian substage.

Liste der Emsquartzit-Fauna:

Vertebrata

Lunaspis prümiensis (KAYSER) 2 Exemplare, Slg, GRÄSSLE, 10

Trilobita

Acastava ex aff. *schmidti* (R. RICHTER) 7, 10

Acastava sp. Slg. GRÄSSLE 10

Treveropyge sp., 10

Digonus intermedius (VIËTOR) 7, 10

Digonus sp., 4, 10

Ostracoda

?Ostracoda indet. Bohrung Güls

Cephalopoda

?*Jovellania* cf. *triangularis* (ARCHIAC & DE VERNEUIL)¹ 7, ⁶ 7

Orthoceras planoseptatum SANDBERGER 7, 10

Orthoceras sp. aff. *kahlebergense* DAHMER, 10

Orthoceras tenuilineatum SANDBERGER, 10

Orthoceras sp. 7, 10

Tentaculitida

Tentaculites alternans A. ROEMER¹ 7, 10

Tentaculites scalaris SCHLOTHEIM 7

Tentaculites schlotheimi KOKEN¹ 4, 7, 10, 69, 70, 81, Bohrung Güls

Crinoidea

Acanthocrinus gregarius ZEILER & WIRTGEN 7

Acanthocrinus sp., 4, Slg. SCHÖNBORN 7, Wurzelspirale 10, 69

Ctenocrinus decadactylus (GOLDFUSS)?⁶ 7

Ctenocrinus ex aff. *rhenanoides* W. E. SCHMIDT 7

Ctenocrinus ex aff. *signatus* W. E. SCHMIDT, Slg. GREBEL 7

Ctenocrinus signatus W. E. SCHMIDT, Slg. GRÄSSLE 10

Ctenocrinus sp. 7

Culicocrinus inermis JAEKEL¹ 7

Eifelocrinus sp., Slg. SEIBERT 7

Eifelocrinus pulvinatus W. E. SCHMIDT, Abdruck eines Kelches, Slg. STEINMEYER 7

Gastrocrinus rugosus W. E. SCHMIDT, Slg. SCHWERD⁴ 7, ¹ 7
Crinoidea indet. 4, 7, 10, Bohrung Güls

Asteroidea

Spaniaster latiscutatus (SANDBERGER) 7(=*Xenaster simplex* SIMONOWITSCH)¹ 7
Xenaster dispar SCHÖNDORF 10
Asteridae sp. 7

Gastropoda

Bembexia daleidensis (F. ROEMER)¹ 7, 10
Bembexia sp. 10
Bucanella acuta (SANDBERGER) 7
Bucanella tumida (SANDBERGER) 7
Bucanella tumida subsp. aff. *kahlebergensis* DAHMER 69
Gastropoda indet. 7
Murchisonia polita MAURER 69
Murchisonia sp. Slg. SEIBERT 7
Platyceras contortum BARROIS 7
Platyceras eegense A. FUCHS¹ 7
Phragmostoma tholus (SOLLE) 69
Gastropoda indet. 62

Conulata

Conularia subparallela SANDBERGER 7

Bivalvia

Palaeoneilo obesa (GOLDFUSS) 10
Palaeoneilo sp. 81
Ctenodonta insignis BEUSHAUSEN 10
Ctenodonta prisca (GOLDFUSS)¹ 7
Nucula confluentina BEUSHAUSEN 10
Nucula curvata MAURER¹ 7 Slg. SCHWERD
Nucula grandaeva GOLDFUSS¹ 7 Slg. SCHWERD
Nucula cf. *grandaeva* GOLDFUSS⁶ 7
Nucula krachtae A. ROEMER¹ 7
Nucula lodanensis BEUSHAUSEN¹ 7, 10
Nucula sp. 69
Nuculana cf. *ahrendi* A. ROEMER 10
Nuculana securiformis GOLDFUSS¹ 7
Nuculana sp. aff. *lodianensis* BEUSHAUSEN⁶ 7
Nuculites sp. 7
Cyrtodonta follmanni (BEUSHAUSEN) 69
Cyrtodonta sp. 10
Cypricardella sp.⁶ 7
Stappersella angulosa (FRECH)¹ 7, 10, 69
Stappersella lodanensis (FRECH)¹ 7, 10, 69 Slg. FABISZISKY
Stappersella trigona (GOLDFUSS) 4, 7, 10, 69
Stappersella truncata ROEMER 7, 10 Slg. GRÄSSLE
Stappersella sp. 10, 69
Kochia capuliformis (C. KOCH) 81
Myalina (Myalina) circularis (FRECH) 69
Myalina (Myalina) sp.⁶ 7
Actinodesma malleiforme SANDBERGER⁶ 7
Actinodesma cf. *malleiforme* SANDBERGER⁶ 7
Micropteria ventricosa GOLDFUSS¹ 7
Cornellites fasciculatus (GOLDFUSS) 7, 10, 69
Cornellites cf. *fasciculatus* (GOLDFUSS) 4, 10
Cornellites costatus (GOLDFUSS)¹ 7, 10, 69
Cornellites subcostatus (FRECH)¹ 7
Cornellites sp. (aus der *subcostatus*-Gruppe) 7
Cornellites laevis (GOLDFUSS)¹ 7, 69
Cornellites sp. 81
Tolmaia lineata erecta (DAHMER)¹ 7 Slg. SCHWERD, 10, 69 Slg. FABISZISKY
Tolmaia lineata lineata (GOLDFUSS) 4, 7, 10, 69
Tolmaia sp., 10, 69
Beushausenella expansa (MAURER) 7, 10

Leptodesma (Leiopteria) drevermanni longialata SPRIESTERSBACH, 69
Leptodesma (Leiopteria) pseudolaewis (OEHLERT)¹ 7
Leptodesma (Peraptera) lodanensis (FRECH) 7, 10
Limoptera (Limoptera) cf. orbicularis OEHLERT, 10
Limoptera (Limoptera) semiradiata FRECH¹ 7 Slg. SCHWERD, 10, 69
Limoptera (Limoptera) orbicularis OEHLERT 7
Limoptera (Limoptera) sp. aff. orbicularis (OEHLERT)⁶ 7
Limoptera (Limoptera) suborbicularis OEHLERT⁵ 7
Limoptera (Limoptera) sp. 10
Cypricardites frechi SOLLE¹ 7, 10
Cypricardites cf. frechi (BEUSHAUSEN), 10
Cypricardites quarziticus (FRECH) 7, 10
Cyrtodontopsis kayseri (FRECH) 7 Slg. STEINMEYER
Aviculopecten mosellanus FRECH¹ 7
Aviculopecten radiatus (GOLDFUSS) 7
Modiomorpha lamellosa SANDBERGER 7
Modiomorpha modiola BEUSHAUSEN¹ 7
Modiomorpha simplex BEUSHAUSEN¹ 7
Modiomorpha praecedens BEUSHAUSEN 69
Modiomorpha speciosa DREVERMANN 10
Modiomorpha sp. 10
Goniophora bipartita ROEMER 7
Goniophora cf. applanata BEUSHAUSEN¹ 7
Goniophora nassoviensis KAYSER¹ 7 Slg. SCHWERD, 10
Goniophora rhenana BEUSHAUSEN¹ 7
Goniophora schwerdi BEUSHAUSEN 7, 10
Goniophora sp., Bohrung Güls
Carydium sociale BEUSHAUSEN¹ 7, 10
Myophoria beushauseni MAURER 10
Myophoria cf. beushauseni MAURER⁶ 7
Myophoria roemeri BEUSHAUSEN 4, 7, 10
Myophoria cf. roemeri BEUSHAUSEN 10
Myophoria circularis BEUSHAUSEN 7 Slg. SCHWERD, 10
Myophoria gutta DAHMER¹ 7, 10
Myophoria inflata A. ROEMER 4, 7, 10
Myophoria peregrina BEUSHAUSEN¹ 7
Myophoria sp., 10
Leptodomus latus (KRANTZ)¹ 7
Leptodomus pelecycides A. FUCHS² 7
Prosocoelus consobrinus BEUSHAUSEN 7
Crassatellopsis hauchecornei BEUSHAUSEN 7, 10
Montanaria curta SPRIESTERSBACH 10
Paracyclas marginata (MAURER)¹ 7
Grammysia marginata GOLDFUSS 7, 10
Grammysia ex aff. marginata GOLDFUSS 7
Grammysia obscura BEUSHAUSEN¹ 7
Palaeosolen sp., Bohrung Güls
Dechenia follmanni SPRIESTERSBACH 7
Dechenia sp. 7
Conocardium zeileri BEUSHAUSEN¹ 7
Rhenanomya tumida (A. FUCHS)¹ 7 Slg. SCHWERD, 69

Mollusca incertae sedis

Coleoprion gracilis SANDBERGER¹ 7⁶

Brachiopoda

Inarticulata

Orbicula arduennensis SCHNUR (= *daleidensis* SCHNUR)¹ 7
Petrocrania „proavia“ (GOLDFUSS)¹ 7, 69
Petrocrania sp., 10

Articulata

Schizophoria (Paraschizophoria) antiqua antiqua SOLLE¹ 7
Schizophoria vulvaria (SCHLOTHEIM) 7, 10, Bohrung Güls
Platyorthis tectiformis (K. WALTHER)⁶ 7

Platyorthis circularis circularis (SOWERBY) 10, Bohrung Güls
Chonetes (Chonetes) sarcinulatus (SCHLOTHEIM) 7, 10, Bohrung Güls
Chonetes (Plebejochonetes) plebejus (SCHNUR)¹ 7, 10, 69, Bohrung Güls
Chonetes (Plebejochonetes) semiradiatus (SOWERBY) 4, 7, 69, Bohrung Güls
Loreleiella dilatata (F. ROEMER)¹ 7, 10
"Stropheodonta" indet. 10, 69
"Stropheodonta" sp. aff. *solitaria* BARRANDE 10
Iridistrophia hipponyx (SCHNUR) 7, 10
Iridistrophia sp. 10
Mesoleptostrophia (Mesoleptostrophia) explanata (SOWERBY) 7
Dictyostrophia (Plicostropheodonta) piligera (SANDBERGER) 7, 10, 69
Dictyostrophia (Plicostropheodonta) ex aff. piligera (SANDBERGER) 7
Protodouvillina sp. 10
Leptaena ex aff. rhomboidalis WAHLENBERG 69
Oligoptycherhynchus daleidensis (F. ROEMER) 4, 7, 10, 70, Bohrung Güls
Oligoptycherhynchus daleidensis (F. ROEMER) subsp.(?) 9
Oligoptycherhynchus sp. aff. *daleidensis* (F. ROEMER), 10
Oligoptycherhynchus siegenensis (A. FUCHS) 10
Straelenia dunensis (DREVERMANN) Bohrung Güls, 7 Slg. SCHWERD
Uncinulus antiquus (SCHNUR)¹ 7, 10
Uncinulus eifeliensis DREVERMANN¹ 7, 10
Uncinulus pila (SCHNUR)¹ 7, 10
Uncinulus sancti Michaëlis (KAYSER)
Anoplotheca venusta (SCHNUR) Bohrung Güls
Meristella follmanni (DAHMER) 10, 81
Athyris undata DEFRANCE 7 Slg. SCHWERD, 10
Athyris sp. 10
Anoplotheca venusta (SCHNUR) 7
Cyrtina hetroclita intermedia OEHLERT (vel *heteroclita heteroclita* DEFRANCE e.p.?)¹ 7
Cyrtina intermedia OEHLERT, Bohrung Güls
Cyrtina multiplicata (DAVIDSON) 69
Cyrtina sp., 7
Arduspirifer arduennensis arduennensis (SCHNUR) 4, 7, 10, Bohrung Güls
Arduspirifer latestriatus (DREVERMANN) 7
Euryspirifer robustiformis MITTMAYER 7 sehr große Form
Brachyspirifer carinatus rhenanus SOLLE 7 Slg. SCHWERD, 10 Slg. GRÄSSLE, 69, Bohrung Güls
Brachyspirifer carinatus (SCHNUR) subsp. 9, 10
Brachyspirifer ignoratus (MAURER) 7, 10
Brachyspirifer ? crassicosta (SCUPIN) Bohrung Güls
Brachyspirifer cf. ignoratus (MAURER) 10, 69
Brachyspirifer sp. 7, 10, 70
Adolfia prümiensis (DREVERMANN) 10
Adolfia sp., 10
Subcuspidella subcuspidata (SCHNUR) 7, 10, 69, 70
Subcuspidella humilis (SCUPIN) 4, 10, Bohrung Güls
Subcuspidella incerta (A. FUCHS) 10
? *Subcuspidella* sp. 10, 81
Tenuicostella tenuicosta (SCUPIN)¹ 7, 81, Bohrung Güls
Rhenothyris compressa (MAURER), 10
Kymatothyris sp. aff. *kroemmelbeini* STRUVE 10
Kymatothyris undulifera (KAYSER) 7
Kymatothyris sp. aff. *bornicensis* (A. FUCHS) 7 Slg. SCHWERD
Spiriferida indet.
Centronella sp. ⁶ 7
Meganteris archiaci SUESS 7
Meganteris ovata ovata (MAURER) 7, 10
Meganteris ovata suessi (DREVERMANN) 10
Meganteris ovata subsp. Bohrung Güls
Meganteris sp. ⁶ 7, 10
Mutationella confluentina (A. FUCHS) 81, Bohrung Güls
Cryptonella macrorhyncha (SCHNUR)¹ 7, 10
Cryptonella rhenana (DREVERMANN)¹ 7, 10, Bohrung Güls

Cryptonella sp. aff. *rhenana* (DREVERMANN) 10
Cryptonella sp. 81
Brachiopoda indet. 7

Bryozoa

Dendrozoum rhenanum A. FUCHS¹ 7
Fenestella sp. 7
Fenestrellina sp. , Bohrung Güls
Hederella sp.¹ 7
Bryozoa div. gen. ind. ⁶ 7, 10

Anthozoa

Favosites sp. , 10
Favosites sp., ästige Form, Slg. SCHÖNBORN 7, Bohrung Güls
Pleurodictyum giganteum E. KAYSER¹ 7, ⁶ 7 Slg. SCHWERD
Pleurodictyum problematicum GOLDFUSS 7, 10
Pleurodictyum selcanum GIEBEL Slg. SCHWERD, 10
Pleurodictyum cf. *selcanum* GIEBEL 81
Zaphrentis sp.¹ 7, ⁶ 7, 69

Vermes

Caulostrepsis taeniola CLARKE¹ 7, 10, 69
Spirorbis sp. ⁶ 7
Spirophyton eifeliense KAYSER 81
Vermes gen. et sp. indet.

Ichnofossilia

Cruziana dispar LINNARSSON 10 (vermutlich Ruhespur von *Digonus intermedius*)