

Unterer Althofenkalk / Lower Althofen Limestone

THOMAS J. SUTTNER

Validity: Invalid; first observations within the limestone deposits near Althofen were made by REDLICH (1905) and later described in more detail by HABERFELNER (1936). A description including all criteria necessary for a formal lithostratigraphic characterization is provided by SCHÖNLAUB (1971c: Figs. 1, 2, p. 291).

Type area: ÖK50-UTM, map sheet 4102 Althofen (ÖK50-BMN, map sheet 186 Sankt Veit an der Glan).

Type section: Ancient quarry of Aich (SCHÖNLAUB, 1971c: Figs. 1, 2, p. 289) some hundred meters NNW of the town Treibach-Althofen (N 46°52'46" / E 14°28'03").

Reference section(s): -

Derivation of name: After the town Althofen, Carinthia.

Synonyms: -

Lithology: Platy limestone with chert, dark flaser and laminated limestone with black marly layers and crinoidal debris layers interbedded, light grey dolomite, thin bedded limestones.

Fossils: Conodonts, crinoids, ostracods?, radiolarians, tentaculites.

Origin, facies: Marine limestone, pelagic unit.

Chronostratigraphic age: Emsian–Eifelian.

Biostratigraphy: The conodont assemblage hints to an Emsian age, but definite zones are not mentioned (SCHÖNLAUB, 1971c).

Thickness: Approx. 40 m.

Lithostratigraphically higher rank unit: Althofen Group (see Text-Fig. 3 and remarks).

Lithostratigraphic subdivision: -

Underlying unit(s): Mölbling Dolomite (conformable contact); Mölbling Limestone (conformable contact).

Overlying unit(s): Reef-debris limestone of Althofen (conformable contact).

Lateral unit(s): Prank Metaclastics; Ursch Dolomite (Kaindorf Dolomite); Eisenhut Group.

Geographic distribution: Carinthia, in the area between Althofen and Töscheldorf.

Remarks: The Althofen Group (compare Text-Fig. 3) was introduced by SCHÖNLAUB (1971c). This group is subdivided into four distinctive units, consisting of the Lower Althofen Limestone, Reef-debris limestone of Althofen, Althofen Limestone Breccia and the Upper Althofen Formation.

Complementary references: SCHÖNLAUB (1979, 1992), NEUBAUER & PISTOTNIK (1984), KREUTZER et al. (1997).

Riffschuttkalke von Althofen / Reef-debris limestones of Althofen

THOMAS J. SUTTNER

Validity: Invalid; first observations within the limestone deposits near Althofen were made by REDLICH (1905) and later described more in detail by HABERFELNER (1936). A description including all criteria necessary for a formal lithostratigraphic characterization is provided by SCHÖNLAUB (1971c: Figs. 1, 2, p. 297).

Type area: ÖK50-UTM, map sheet 4102 Althofen (ÖK50-BMN, map sheet 186 Sankt Veit an der Glan).

Type section: Ancient quarry of Aich (SCHÖNLAUB, 1971c: Figs. 1, 2, p. 289) some hundred meters NNW of Treibach-Althofen (N 46°52'46" / E 14°28'03").

Reference section(s): -

Derivation of name: After the town Althofen.

Synonyms: Graue Riffkalke (HABERFELNER, 1936); Althofen Biogenschuttkalke (SCHÖNLAUB, 1971c).

Lithology: Grey massive limestone, rich in macrofossils.

Fossils: Calcareous green algae, conodonts, crinoids, red algae, rugose and tabulate corals, stromatoporoids.

Origin, facies: Shallow marine limestone, neritic unit.

Chronostratigraphic age: Eifelian.

Biostratigraphy: Conodonts constricting the age of the unit to late Eifelian (SCHÖNLAUB, 1971c), but a distinct zone is not mentioned.

Thickness: Approx. 3 m.

Lithostratigraphically higher rank unit: Althofen Group (see remarks at Lower Althofen Limestone).

Lithostratigraphic subdivision: -

Underlying unit(s): Lower Althofen Limestone (conformable contact).

Overlying unit(s): Althofen Limestone Breccia (unconformable contact).

Lateral unit(s): -

Geographic distribution: Carinthia, in the area between Althofen and Töscheldorf.

Remarks: -

Complementary references: SCHÖNLAUB (1979, 1992), NEUBAUER & PISTOTNIK (1984), FENNINGER & HUBMANN (1994), KREUTZER et al. (1997).

Nock-Gruppe / Nock Group

BERNHARD HUBMANN

Validity: Invalid; name and position of the unit published within a lithostratigraphic frame in SCHÖNLAUB & HEINISCH (1993: "Nock Group").

Type area: ÖK50-UTM, map sheet 3106 Radenthein (ÖK50-BMN, map sheet 183 Radenthein).

Type section: No type section defined; type region at the Nockalmstraße (Nockalmhof: N 46°57'15" / E 13°43'37").

Reference section(s): -

Derivation of name: After the "Nockberge", mountains of rounded shape.

Synonyms: Nock-Serie (LOESCHKE, 1989b); partly: Nockgruppe (HOLDHAUS, 1933), vulkanogene Basisfolgen (NEUBAUER & PISTOTNIK, 1984).

Lithology: Greenschists and phyllites; in the upper part limestones occur.

Fossils: Conodonts (from limestones in the upper part of the succession).

Origin, facies: Probably shallow marine environment.

Chronostratigraphic age: ?Middle–Upper Ordovician.

Biostratigraphy: -

Thickness: Some hundreds of meters?

Austrian Stratigraphic Chart 2004 - Paleozoic

(sedimentary successions)

Austrian Stratigraphic Commission



ERA	SYSTEM / PERIOD / SERIES / EPOCH	STAGE / AGE	DURATION Ma	Global Classification					
				ERATHM / ERA	SYSTEM / PERIOD / SERIES / EPOCH				
PALEOZOIC	PERMIAN	CHANGHSINGIAN / Dorashanian	251	PERMIAN	MID PERMIAN / GUADALUPIAN / LOPINGIAN				
		WUCHIAPINGIAN / Dabuffian	255						
		CAPITANIAN	260						
		WORDIAN	265						
		ROADIAN	270						
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275		
						ARTINSKIAN	280		
						SAKMARIAN	285		
						ASSELIAN	290		
		PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			GZHELIAN	295	PERMIAN	LOWER PERMIAN / CISURALIAN
KASIMOVIAN	300								
MOSKOVIAN	305								
BASHKIRIAN	310								
PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			SERPUKHOVIAN	315				
				VISEAN	320				
					325				
PERMIAN	LOWER PERMIAN / MISSISSIPPIAN			TOURNAISIAN	330	PERMIAN	LOWER PERMIAN / MISSISSIPPIAN		
				335					
				340					
		345							
		350							
		355							
		359.2							
		365							
		370							
		375							
PERMIAN	UPPER DEVONIAN	FAMENNIAN	380	PERMIAN	UPPER DEVONIAN				
		FRASNIAN	385						
		GIVETIAN	390						
		EIFELIAN	395						
		DEVONIAN	LOWER DEVONIAN			EMSIAN	400		
						405			
		DEVONIAN	LOWER DEVONIAN			PRAGIAN	410		
						415			
		PERMIAN	LOWER DEVONIAN			LOCHKOVIAN	420	PERMIAN	LOWER DEVONIAN
						425			
430									
435									
440									
443.7									
445									
450									
455									
460									
PERMIAN	UPPER ORDOVICIAN	LUDFORDIAN / GORSTIAN	465	PERMIAN	UPPER ORDOVICIAN				
		HOMERIAN / SHEINWOOD	470						
		TELYCHIAN	475						
		AERONIAN	480						
		RHUDDANIAN	485						
		HIRNANTIAN	490						
		495							
		498.3							
		500							
		505							
PERMIAN	MIDDLE ORDOVICIAN	DARRIWILIAN	510	PERMIAN	MIDDLE ORDOVICIAN				
		515							
		520							
		525							
		530							
		535							
		540							
		542							
		PERMIAN	LOWER ORDOVICIAN			TREMA-DOCIAN	545	PERMIAN	LOWER ORDOVICIAN
						550			
555									
560									
565									
570									
575									
580									
585									
590									
PERMIAN	UPPER CAMBRIAN	PAIBIAN	595	PERMIAN	UPPER CAMBRIAN				
		600							
		605							
		610							
		615							
		620							
		625							
		630							
		635							
		640							
PERMIAN	MIDDLE CAMBRIAN	PAIBIAN	645	PERMIAN	MIDDLE CAMBRIAN				
			650						
			655						
			660						
			665						
			670						
			675						
			680						
			685						
			690						
PERMIAN	LOWER CAMBRIAN	PAIBIAN	695	PERMIAN	LOWER CAMBRIAN				
			700						
			705						
			710						
			715						
			720						
			725						
			730						
			735						
			740						



- Legend**
- pelagic, offshore, siliciclastic
 - pelagic, nearshore, calcareous
 - shallow marin, neritic
 - terrestrial-continental, coarse clastic
 - terrestrial-continental, fine clastic
 - evaporite (chloride, sulphate)
 - rhyolite, dacite
 - (basaltic) andesite, trachyandesite
 - basalt
 - phyllite
 - mixed-facies (in corresponding colors)
 - coal (may include several seams)
 - ? position/age doubtful/controversial
 - | equal units
 - \ older unit left \ younger unit right
 - hiatus
 - unconformity
 - GSSP
 - Fm. Formation
 - Ls. Limestone

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Cutout and English adaptation of the "Die Stratigraphische Tabelle von Österreich 2004": Geological Survey of Austria

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