

## 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?

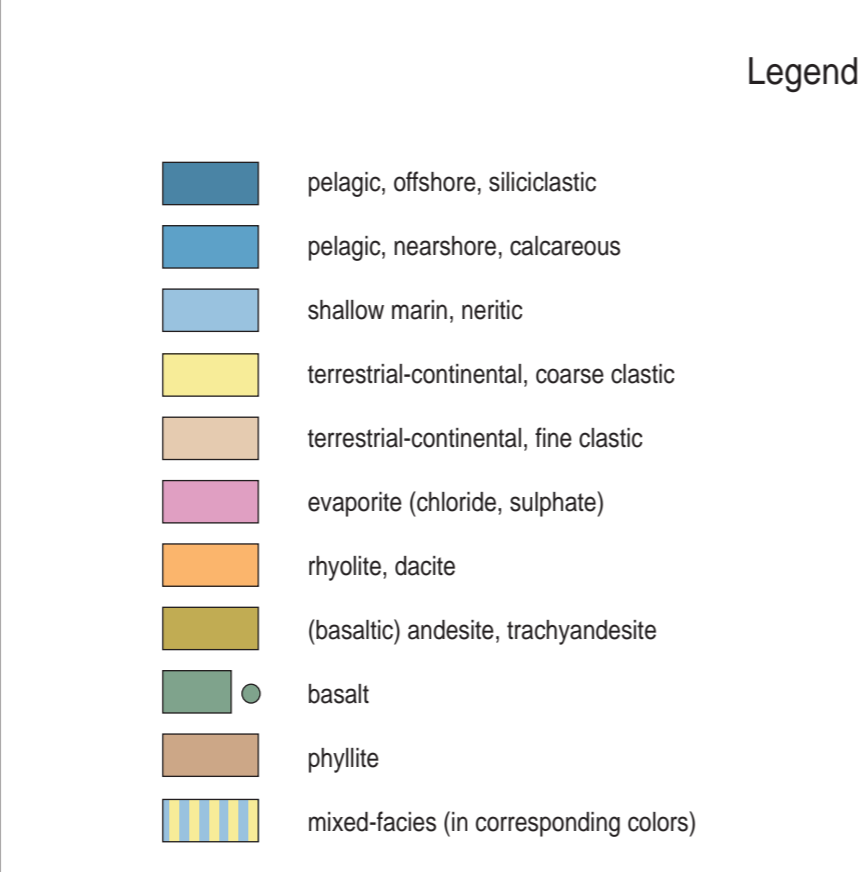
# Austrian Stratigraphic Chart 2004 - Paleozoic

(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 / Dzhulfian	255						
		CAPITANIAN	260						
		WORDIAN	265						
		ROADIAN	270						
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275		
						ARTINSKIAN	280		
						SAKMARIAN	285		
						ASSELIAN	290		
		PERMIAN	TRIAS			GZHELIAN	295	TRIAS	U. CARBONIFEROUS / PENNSYLVANIAN
KASIMOVIAN	300								
MOSKOVIAN	305								
BASHKIRIAN	310								
TRIAS	LOWER CARBONIFEROUS / MISSISSIPPIAN			SERPUKHOVIAN	315				
				VISEAN	320				
				TOURNAISIAN	325				
PERMIAN	DEVONIAN			FAMENNIAN	350	DEVONIAN	UPPER DEVONIAN		
				FRASNIAN	355				
				GIVETIAN	360				
		EIFELIAN	365						
		DEVONIAN	LOWER DEVONIAN	EMSIAN	370				
				PRAGIAN	375				
				LOCHKOVIAN	380				
		PERMIAN	DEVONIAN	LUDFORDIAN / GORSTIAN	385			DEVONIAN	MIDDLE DEVONIAN
				HOMERIAN / SHEINWOOD	390				
				TELYCHIAN	395				
AERONIAN	400								
RHUDDANIAN	405								
PERMIAN	SILURIAN			HIRNANTIAN	410				
				LLANDOVERY	415				
				WEN-LUD-LOCK	420				
PERMIAN	ORDOVICIAN			DARRIWILIAN	425	ORDOVICIAN	UPPER ORDOVICIAN		
				TREMA-DOCIAN	430				
		PAIBIAN	435						
		PERMIAN	MIDDLE CAMBRIAN	440					
				445					
				450					
		PERMIAN	CAMBRIAN	455	CAMBRIAN			LOWER CAMBRIAN	
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Cutout and English adaptation of the "Die Stratigraphische Tabelle von Österreich 2004": Geological Survey of Austria

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