

Chronostratigraphic age: Carboniferous (?)

Remarks: The age of the formation is unknown but due to the presence of undeterminable fragmental plant remains a Carboniferous age is proposed (HASENHÜTTL, 1994).

Biostratigraphy: -

Thickness: Probably several hundreds of meters.

Lithostratigraphically higher rank unit: Laufnitzdorf Group (FLÜGEL, 2000).

Lithostratigraphic subdivision: -

Underlying unit(s): Tectonic boundary to the Schattleitner Member (St. Jakob Formation).

Overlying unit(s): ?

Lateral unit(s): -

Geographic distribution: Styria, highland in the surroundings of Graz; ÖK50-BMN, map sheet 134 Passail.

Remarks: -

Complementary references: -

Bärenschtz-Formation / Bärenschtz Formation

BERNHARD HUBMANN

Validity: Valid; first description by ZIER (1981: "Karbonkalke", "Mixnitzer Karbon"); formalized by FLÜGEL (2000: p. 37; Bärenschtz-Formation).

Type area: ÖK50-UTM, map sheet 4223 Weiz (ÖK50-BMN, map sheet 134 Passail).

Type section: No type section selected, although ZIER (1981) described four sections in the area of the Rote Wand (Hochlantsch region) ÖK50-BMN, map sheet 134 Passail (N 47°21'54" / E 15°25'47").

Reference section(s): See above.

Derivation of name: After "Bärenschtzklamm", a gorge west of Mixnitz, approx. 45 km north of Graz.

Synonyms: Partly Hochlantschkalk [sic!] (CLAR, 1874), Hochlantsch-Kalk (H. FLÜGEL, 1975).

Lithology: Reddish to yellow and grey cephalopod limestones with cherts.

Fossils: Conodonts, cephalopods.

Origin, facies: Open marine environment with pelagic organisms.

Chronostratigraphic age: Tournaisian–Serpukhovian ("Namurian B"); not Moskovian as indicated in the ASC 2004.

Biostratigraphy: *declinognathodus noduliferus* conodont zone.

Thickness: About 100 m.

Lithostratigraphically higher rank unit: Mixnitz Group (FLÜGEL, 2000).

Lithostratigraphic subdivision: At the base of the Bärenschtz Formation red-brown brecciated limestones and dolostones are developed following an erosional relief. This breccia horizon is integrated into the Nadelspitz Bed (FLÜGEL, 2000).

Underlying unit(s): Hochlantsch Formation.

Overlying unit(s): -

Lateral unit(s): -

Geographic distribution: Styria, highland in the surroundings of Graz; ÖK50-BMN, map sheet 134 Passail.

Remarks: -

Complementary references: -

Höchkogel-Formation / Höchkogel Formation

BERNHARD HUBMANN

Validity: Valid; first nomination and description by CLAR (1933: "Kalkschiefer vom Höchkogel"); formalized and re-described by FLÜGEL (2000: p. 30–31; Höchkogel-Formation).

Type area: ÖK50-UTM, map sheet 4229 Graz (ÖK50-BMN, map sheet 164 Graz).

Type section: No type section defined, but FLÜGEL (2000) proposed a type region at Höchkogel near Gratkorn (elevation spot 643 m on ÖK50-BMN, map sheet 164 Graz) (N 47°09'22" / E 15°22'36") 16 km northwest of Graz.

Reference section(s): -

Remarks: CLAR's (1933) conception of the "Kalkschiefer vom Höchkogel" integrated different stratigraphic units (see FLÜGEL, 2000) and therefore the term was re-interpreted by FLÜGEL (2000). EBNER (1978a) summarized those units following the Steinberg and Sanzenkogel Formations to the "Folge der Dult" which he subdivided into two lithologically different parts. Limestones of the lower part which are developed upon an erosional surface (i.e., "Kalke der Dult" sensu EBNER, 1978a = Höchkogel Formation) are overlain by shales (i.e., "Schiefer der Dult" sensu EBNER, 1978a = Hahngraben Formation).

Derivation of name: After the hill Höchkogel 16 km northwest of Graz.

Synonyms: Kalke der Dult (EBNER, 1978a); partly: Kalke mit *Cladochonus* (HERITSCH, 1930b); Kalkschiefer vom Höchkogel (CLAR, 1933).

Lithology: Dark grey-brownish to black micritic limestones.

Fossils: Conodonts

Origin, facies: Shallow marine deposits.

Chronostratigraphic age: Bashkirian.

Biostratigraphy: Conodonts of the *Declinognathodus-Idiognathoides* group indicate an early Bashkirian age (EBNER, 1977, 1980a).

Thickness: Up to 20 m in thickness.

Lithostratigraphically higher rank unit: Dult Group.

Lithostratigraphic subdivision: FLÜGEL (2000) distinguished two members:

Hartbauer Member (= Typ II-Kalk, EBNER, 1975a = Basis-kalk, EBNER 1978a): Black massive limestones with crusts of hematite; locally dolostones, breccias and shales; maximum thickness of 20 m.

Schrausbauer Member (= Typ III-Kalk, EBNER, 1975a): Black argillaceous shales and oolitic limestones with birdseye-structures; some few meters in thickness.

Underlying unit(s): Sanzenkogel Formation (erosional contact).

Overlying unit(s): Hahngraben Formation.

Lateral unit(s): -

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				
				LOCHKOVIAN	375				
		PERMIAN	DEVONIAN	LUDFORDIAN / GORSTIAN	380			DEVONIAN	MIDDLE DEVONIAN
				HOMERIAN / SHEINWOOD	385				
				TELYCHIAN	390				
				AERONIAN	395				
RHUDDANIAN	400								
DEVONIAN	LOWER DEVONIAN			PRAGIAN	405				
				LOCHKOVIAN	410				
PERMIAN	DEVONIAN			WEN-LOCK / LOW	415	DEVONIAN	LOWER DEVONIAN		
				HIRNANTIAN	420				
				LLANDOVERY	425				
		AERONIAN	430						
		RHUDDANIAN	435						
		DEVONIAN	LOWER DEVONIAN	PRAGIAN	440				
				LOCHKOVIAN	445				
		PERMIAN	DEVONIAN	WEN-LOCK / LOW	450			DEVONIAN	UPPER ORDOVICIAN
				LLANDOVERY	455				
				AERONIAN	460				
RHUDDANIAN	465								
DEVONIAN	LOWER DEVONIAN			PRAGIAN	470				
				LOCHKOVIAN	475				
PERMIAN	DEVONIAN			WEN-LOCK / LOW	480	DEVONIAN	MIDDLE ORDOVICIAN		
				LLANDOVERY	485				
				AERONIAN	490				
				RHUDDANIAN	495				
		DEVONIAN	LOWER DEVONIAN	PRAGIAN	500				
				LOCHKOVIAN	505				
		PERMIAN	DEVONIAN	WEN-LOCK / LOW	510			DEVONIAN	LOWER ORDOVICIAN
				LLANDOVERY	515				
				AERONIAN	520				
				RHUDDANIAN	525				
DEVONIAN	LOWER DEVONIAN			PRAGIAN	530				
				LOCHKOVIAN	535				
PERMIAN	DEVONIAN			WEN-LOCK / LOW	540	DEVONIAN	UPPER CAMBRIAN		
				LLANDOVERY	545				
				AERONIAN	550				
				RHUDDANIAN	555				
		DEVONIAN	LOWER DEVONIAN	PRAGIAN	560				
				LOCHKOVIAN	565				
		PERMIAN	DEVONIAN	WEN-LOCK / LOW	570			DEVONIAN	MIDDLE CAMBRIAN
				LLANDOVERY	575				
				AERONIAN	580				
				RHUDDANIAN	585				
DEVONIAN	LOWER DEVONIAN			PRAGIAN	590				
				LOCHKOVIAN	595				
PERMIAN	DEVONIAN			WEN-LOCK / LOW	600	DEVONIAN	LOWER CAMBRIAN		
				LLANDOVERY	605				
				AERONIAN	610				
				RHUDDANIAN	615				
		DEVONIAN	LOWER DEVONIAN	PRAGIAN	620				
				LOCHKOVIAN	625				



- 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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