

**Underlying unit(s):** Bronteus Limestone (conformable contact).

**Overlying unit(s):** Limestones (unconformable contact).

**Lateral unit(s):** Seeland Crinoidal Limestone; Limestones, Lydites; Lydites, Limestone Breccia; Shale, Limestones.

**Geographic distribution:** Karavanke Mountains (Eisenkappel and Seeberg area).

**Remarks:** -

**Complementary references:** PENECKE (1887), SCHÖNLAUB (1971b, 1979), TESSENSOHN (1974a), MOSHAMMER (1987), RANTITSCH (1990, 1992b), RAMOVŠ (1999), SCHÖNLAUB & HISTON (1999, 2000).

### Kalke, Lydite / Limestones, Lydites

THOMAS J. SUTTNER

**Validity:** Invalid; described by KUPSCH et al. (1971); lithological characters and biostratigraphy by TESSENSOHN (1974a) and MOSHAMMER (1989, 1990).

**Type area:** ÖK50-UTM, map sheet 4114 Bad Eisenkappel (ÖK50-BMN, map sheets 212 Vellach, 213 Bad Eisenkappel).

**Type section:** -

**Reference section(s):** Stanwiese section in Vellach (TESSENSOHN, 1974a: p. 115); Trögen Klamm section-group B (N 46°28'00" / E 14°30'24"), C (N 46°27'59" / E 14°35'03"), E (N 46°28'00" / E 14°30'30"), F1 (N 46°28'02" / E 14°30'12"), F2 (N 46°28'01" / E 14°30'18") published by MOSHAMMER (1989, 1990).

**Derivation of name:** After dominating lithologies.

**Synonyms:** Dunkelblaugraue, gebankte, verkieselte Schuttkalke (MOSHAMMER, 1990: Fig. 2); schwarzer Lydit (MOSHAMMER, 1990); "Radiolarien Chert" (MOSHAMMER, 1990: p. 575).

**Lithology:** Blackish limestone alternating with lydites and blackish shale.

**Fossils:** Conodonts, crinoids, radiolarians.

**Origin, facies:** Marine limestone, pelagic unit.

**Chronostratigraphic age:** Emsian–Givetian.

**Biostratigraphy:** *varcus* conodont zone (MOSHAMMER, 1989).

**Thickness:** Approx. 30 m.

**Lithostratigraphically higher rank unit:** -

**Lithostratigraphic subdivision:** -

**Underlying unit(s):** Bronteus Limestone (conformable contact).

**Overlying unit(s):** Lydites, Limestone Breccia (conformable contact).

**Lateral unit(s):** Seeberg Coral-Crinoidal Limestone.

**Geographic distribution:** Karavanke Mountains (Eisenkappel and Seeberg area).

**Remarks:** -

**Complementary references:** SCHÖNLAUB (1971b, 1979), MOSHAMMER (1987), SCHÖNLAUB & HISTON (1999, 2000).

### Lydite, Kalkbreckzie / Lydites, Limestone Breccia

THOMAS J. SUTTNER

**Validity:** Invalid; first recognized by LIPOLD (1856b); later described by KUPSCH et al. (1971); lithologically defined and biostratigraphically dated by TESSENSOHN (1974a) and MOSHAMMER (1989, 1990).

**Type area:** ÖK50-UTM, map sheet 4114 Bad Eisenkappel (ÖK50-BMN, map sheets 212 Vellach, 213 Bad Eisenkappel).

**Type section:** -

**Reference section(s):** Hainschgraben near Zell Pfarre (Eisenkappel area); Stanwiese section in Vellach (TESSENSOHN, 1974a: p. 115); Trögen Klamm section-group B (N 46°28'00" / E 14°30'24"), C (N 46°27'59" / E 14°35'03"), E (N 46°28'00" / E 14°30'30"), F1 (N 46°28'02" / E 14°30'12"), F2 (N 46°28'01" / E 14°30'18") published by MOSHAMMER (1989, 1990).

**Derivation of name:** After dominating lithologies.

**Synonyms:** Gailthaler Schichten (Kalk und Schiefer) (LIPOLD, 1856b: p. 349); schwarzer Lydit (MOSHAMMER, 1990: Fig. 2); "Radiolarien Chert" (MOSHAMMER, 1990: p. 575).

**Lithology:** Limestone breccia (with pebble sized components of reef rubble), lydite alternating with limestone beds.

**Fossils:** Conodonts, corals, crinoids, radiolarians.

**Origin, facies:** Marine pelagic deposits; note wrong color code in the ASC 2004.

**Chronostratigraphic age:** Givetian–Frasnian.

**Biostratigraphy:** *varcus* conodont zone (MOSHAMMER, 1989).

**Thickness:** Approx. 6 m.

**Lithostratigraphically higher rank unit:** -

**Lithostratigraphic subdivision:** -

**Underlying unit(s):** Limestones, lydites (conformable contact).

**Overlying unit(s):** Shale, limestones (conformable contact).

**Lateral unit(s):** Seeberg Coral-Crinoidal Limestone.

**Geographic distribution:** Karavanke Mountains (Eisenkappel and Seeberg area).

**Remarks:** -

**Complementary references:** SCHÖNENBERG (1965, 1967), SCHÖNLAUB (1979), MOSHAMMER (1987), SCHÖNLAUB & HISTON (1999, 2000).

### Tonschiefer, Kalke / Shale, Limestones

THOMAS J. SUTTNER

**Validity:** Invalid; first recognized by LIPOLD (1856b); later described by KUPSCH et al. (1971); lithologically defined and biostratigraphically dated by TESSENSOHN (1974a) and MOSHAMMER (1989, 1990).

**Type area:** ÖK50-UTM, map sheet 4114 Bad Eisenkappel (ÖK50-BMN, map sheets 212 Vellach, 213 Bad Eisenkappel).

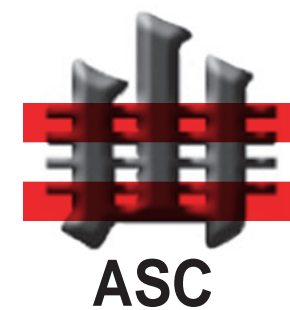
**Type section:** -

**Reference section(s):** Stanwiese section in Vellach (TESSENSOHN, 1974a: p. 115); Trögen Klamm section-group B

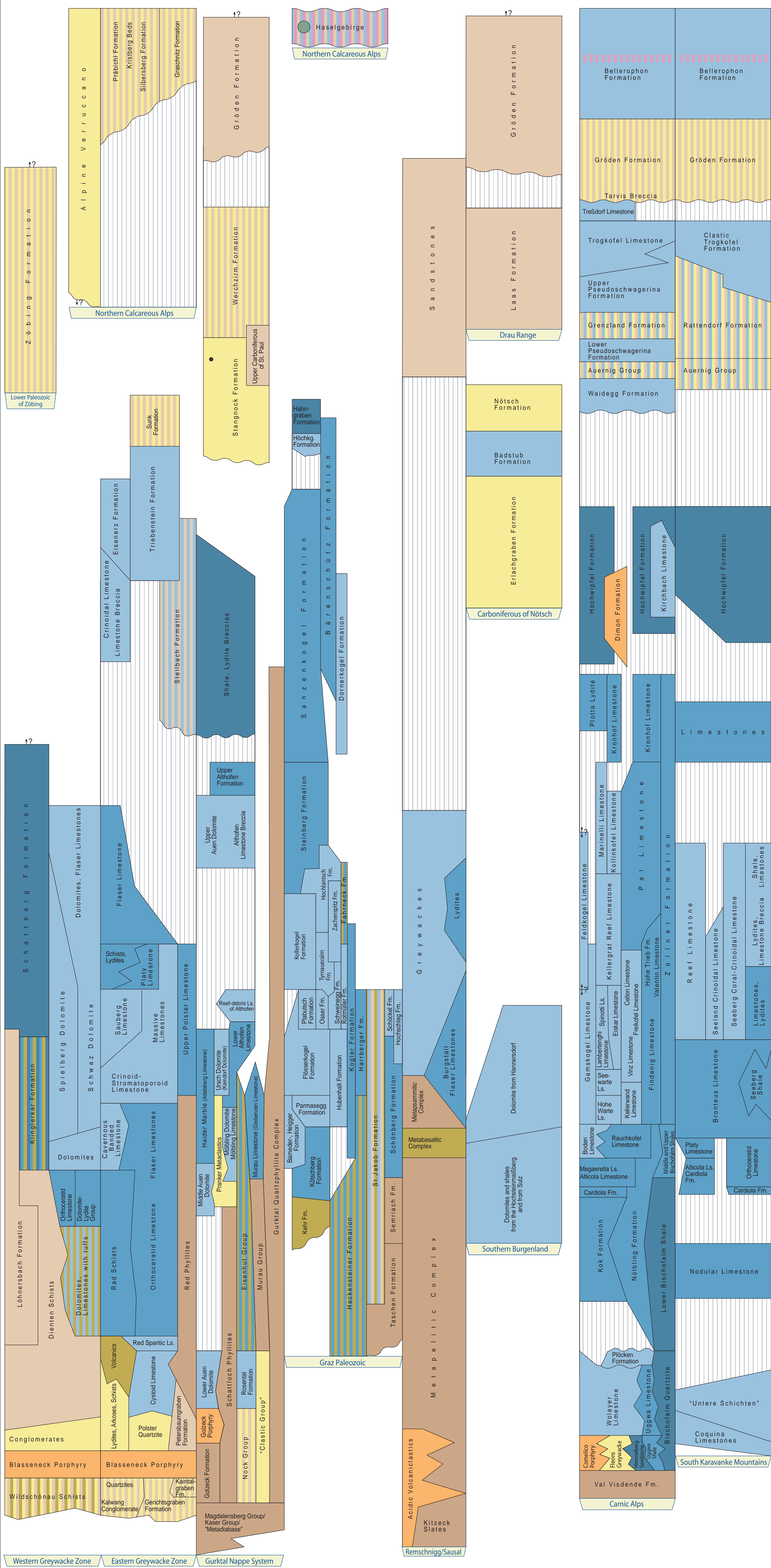
# Austrian Stratigraphic Chart 2004 - Paleozoic

(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 / Dorashamian	251	PERMIAN	MID PERMIAN / GUADALUPIAN / LOPINGIAN				
		WUCHIAPINGIAN / Duhullian	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 / CISURALIAN			TOURNAISIAN	330	PERMIAN	LOWER PERMIAN / CISURALIAN		
				335					
				340					
		345							
		350							
		355							
		359.2							
		PERMIAN	UPPER PERMIAN / DEVONIAN	FAMENNIAN	360			PERMIAN	UPPER PERMIAN / DEVONIAN
				FRASNIAN	365				
				370					
375									
380									
385									
390									
395									
400									
405									
PERMIAN	LOWER PERMIAN / DEVONIAN	EMSIA	410	PERMIAN	LOWER PERMIAN / DEVONIAN				
		PRAGIAN	415						
		LOCHKOVIAN	420						
		425							
		430							
		435							
		440							
		443.7							
		445							
		PERMIAN	UPPER PERMIAN / DEVONIAN			HIRNANTIAN	447	PERMIAN	UPPER PERMIAN / DEVONIAN
450									
455									
460									
465									
470									
475									
480									
485									
488.3									
PERMIAN	UPPER PERMIAN / DEVONIAN	PAIBIAN	490	PERMIAN	UPPER PERMIAN / DEVONIAN				
		495							
		500							
		505							
		510							
		515							
		520							
		525							
		530							
		535							
CAMBRIAN	LOWER CAMBRIAN	537	CAMBRIAN	LOWER CAMBRIAN					
		542							



### 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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