

# Valentin Formation

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Österreichische Karte 1:50.000  
Blatt BMN 197 Kötschach  
Blatt BMN 199 Hermagor

Carta Topografica d'Italia 1:50.000  
Foglio 018 Passo di Monte Croce Carnico  
Foglio 031 Ampezzo  
Foglio 033 Tarvisio

Blatt UTM 3109 Oberdrauburg  
Blatt UTM 3117 Nötsch im Gailtal

## Definition

Strongly bioturbated grayish wackestone, and packstone, with a phosphorite horizon in the uppermost part.

## Description

Bioclastic wackestone represents the major part of the formation. In the lower part of the formation also iron-coated bioclasts and micritic oncoids occur abundantly. The bedding is mostly obliterated by bioturbation (SCHÖNLAUB et al., 2004; HÜNEKE, 2006, 2007).

## Fossil content

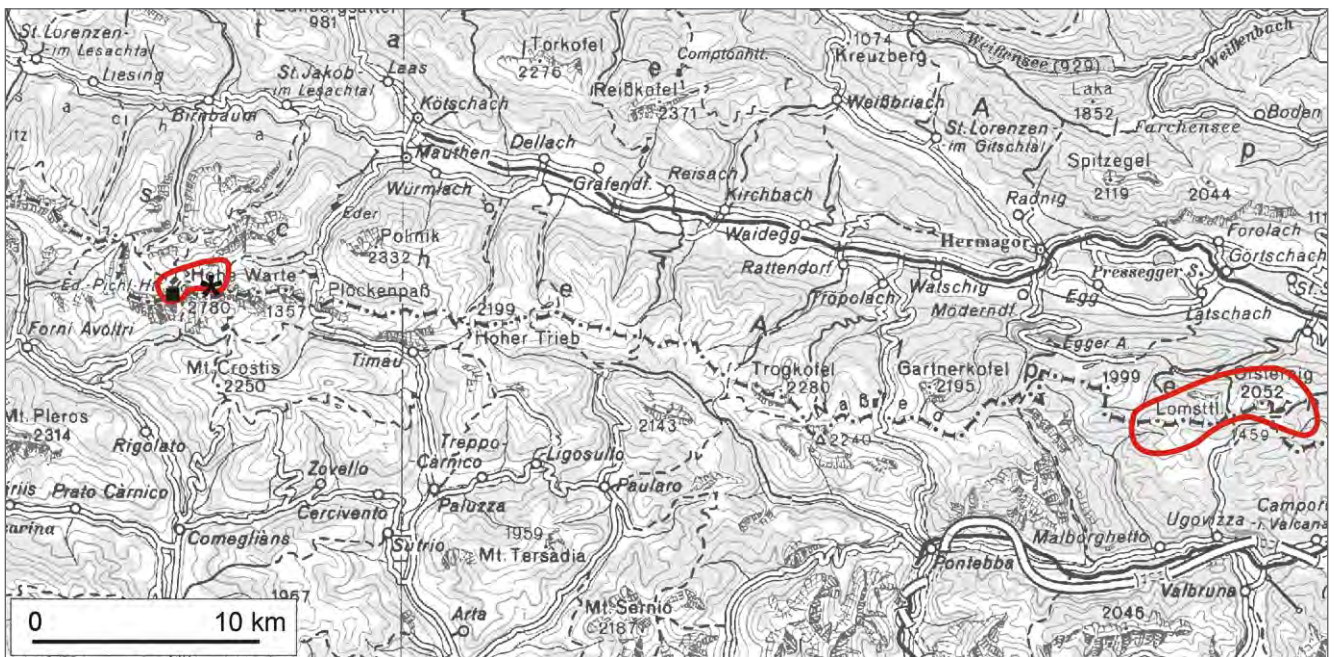
Bivalves, brachiopods, calcispheres, cephalopods, conodonts, crinoids, fish remains, foraminifers, ostracods, rugose corals, styliolinites.

## Depositional environment

Pelagic, with very low sedimentation rate and erosion/re-deposition controlled by bottom currents.

## Stratotype

Wolayer "Glacier" Section (SCHÖNLAUB, 1980), located along the northern side of Wolayer Valley, at coordinates N 46°36'49.0", E 12°52'34.7".



Areas of outcrop of the Valentin Formation with indication of the stratotype (asterisk) and reference section (square).



The Wolayer "Glacier" Section. a) log of the section (modified after SCHÖNLAUB, 1980); b) view of the section on the field (photo T.J. SUTTNER).

## Reference sections

Costone Lambertenghi/Seekopf Sockel Section (SCHÖNLAUB, 1980), west of Lake Wolayer at coordinates N 46°36'33.0", E 12°51'58.5", where the lower part of the formation and the boundary with the Findenig Formation is well exposed.

## Type area

Carnic Alps.

## Main outcrop areas

Wolayer Valley (west of Valentintörl), vicinity of Lake Wolayer/Volaia, and Mt. Oisternig area.

## Thickness

About 15 m.

## Boundaries

*Underlying units* – Findenig Formation (conformable, gradual).

*Overlying units* – Pal Grande Formation (unconformable, paraconformity).

*Lateral units* – Hohe Trieb Formation in the proximal part; Zollner Formation in the distal part.

## Derivation of name

After Valentintörl.

## Synonymy

Valentinkalk: SCHÖNLAUB (1971–1973).

Calcarei nodulari a tentaculiti [partim]: VAI in BRAGA et al. (1971).

Grauer Styliolinen-Flaserkalk: BANDEL (1974).

Calcarei pelagici a tentaculiti [partim]: SPALLETTA et al. (1982).

Valentin-Kalk: SCHÖNLAUB (1985).

Tentaculite pelagic limestone [partim]: SPALLETTA & VENTURINI (1990).

Valentin Limestone: KREUTZER (1992).

Calcarei di Cuestalta [partim]: SPALLETTA & PONDRELLI (2009).

Valentin-Formation/Valentin Formation: SUTTNER & KIDO (2014).



Views of the Valentin Formation on the field. a-c) the Valentin Formation at Costone Lambertenghi Section (photos C. CORRADINI); d) upper part of the Valentin Formation at Wolayer "Glacier" Section, with the level of the phosphatic nodules (photo T.J. SUTTNER).

## Chronostratigraphic age

Devonian: Emsian to Frasnian.

## Biostratigraphy

*Conodonts*. – From the upper part of the *serotinus* Zone (GÖDDERTZ, 1982) to the Lower *hassi* Zone (Frasnian Zone 7 and 8) (JOACHIMSKI et al., 1994).

## Complementary references

*Carbon isotopes*. – JOACHIMSKI et al. (1994).

## Remarks -

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