

Wolayer Formation

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Österreichische Karte 1:50.000
Blatt BMN 197 Kötschach
Blatt BMN 198 Weißbriach

Carta Topografica d'Italia 1:50.000
Foglio 018 Passo di Monte Croce Carnico

Blatt UTM 3109 Oberdrauburg
Blatt UTM 3110 Kötschach-Mauthen

Definition

White and locally pinkish massive, coarse-grained cystoid-bryozoan limestone (packstone-grainstone).

Description

10 to 17 m thick white to grayish and locally pinkish massive or indistinctly bedded coarse-grained pelmatozoan limestone. No macrofossil clearly recognizable at naked eyes. At higher magnification, the Wolayer Formation is rich in cystoid debris, bryozoans, crinoids, corals, algae, conodonts and rarely occurring ostracods and trilobites. According to DULLO (1992), the parautochthonous bioclasts were derived from bryozoan mounds, although such structures have never been found.

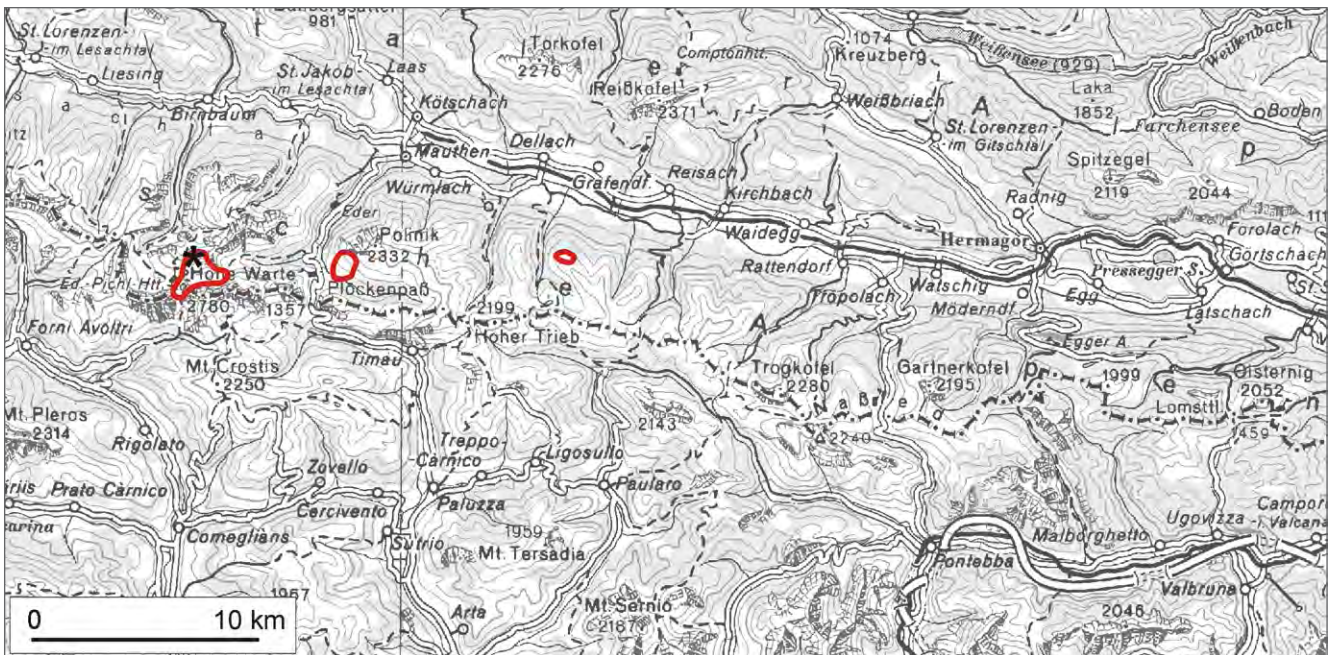
The upper boundary of the limestone is marked by a peculiar and easily recognizable discontinuity surface, strongly undulated, which defines the Ordovician/Silurian boundary. An ironstone horizon is well developed at the boundary in the Lake Wolayer area.

Fossil content

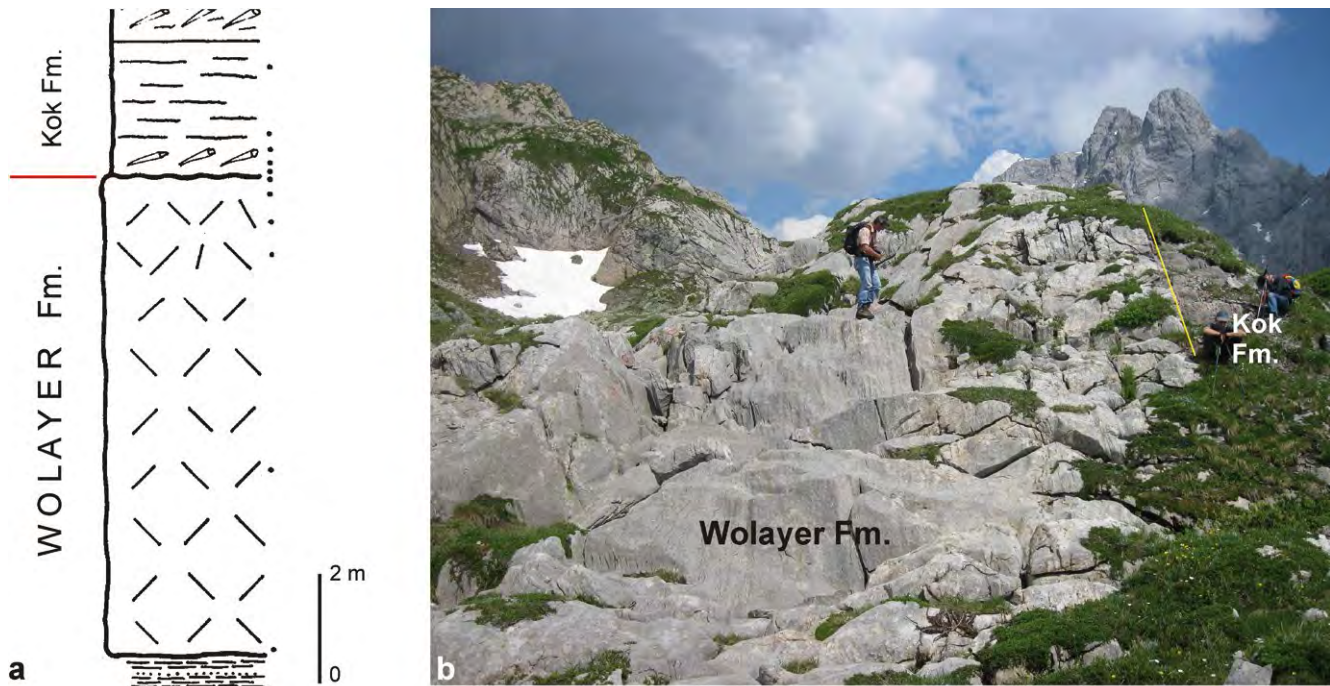
Algae, brachiopods, bryozoans, conodonts, corals, crinoids, cystoids, ostracods, trilobites.

Depositional environment

Shallow marine limestone, neritic unit consisting of parautochthonous bioclasts derived from crinozoan mounds.



Areas of outcrop of the Wolayer Formation with indication of the stratotype (asterisk).



The Rauchkofel Boden Section. a) log of the lower part of the section (modified after SCHÖNLAUB, 1980); b) view of the Wolayer Formation (photo H.P. SCHÖNLAUB).

Stratotype

Rauchkofel-Boden Section (GAERTNER, 1931) on the southern slope of Mt. Rauchkofel at coordinates N 46°36'54", E 12°52'30".

Reference sections -

Type area

Central Carnic Alps.

Main outcrop areas

Base of Mt. Seekopf, Valentin Törl, Rauchkofel Boden.

Thickness

10 to 17 m.

Boundaries

Underlying units – Himmelberg Formation (conformable contact?).

Overlying units – Kok Formation (disconformable contact).

Lateral units – Uqua Formation.

Derivation of name

After the Wolayer region in the central Carnic Alps.

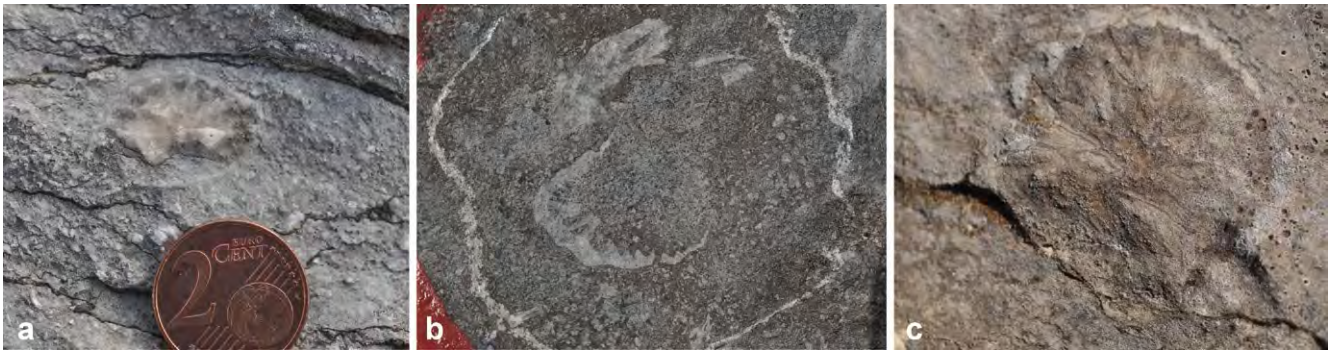
Synonymy

Stufe der weissen und grauen Kalke: STACHE (1884).

Graue, massige, versteinungsleere Kalke auf der Höhe des Thörl: FRECH (1887).

Graue massige Kalke: FRECH (1894).

Massige Bank von grauem aber hell anwitterndem Kalk: GEYER (1903).



Details of the Wolayer Formation at the Rauchkofel Boden Section. a) cross-section of a spherical theca of a cystoid (photo H.P. SCHÖNLAUB); b) a broken rugose coral (photo H.P. SCHÖNLAUB); c) cross-section of the algae *Coelosphaeridium* (photo H.P. SCHÖNLAUB).

Helle massige Bank: SPITZ (1909).

Roter und weißer hell verwitternder Krinoidenkalk: GAERTNER (1931).

Biocalciliti mandorlate («Tonflaserkalk»): MANARA & VAI (1970).

Grey massive crinoid limestone: SCHÖNLAUB (1971).

Ashgill-Crinoiden-Calcarenit: SCHÖNLAUB (1971).

Calcare a crinoidi, bioruditic Ist. («Cystoideenkalk»): SPALLETTA et al. (1982).

Cystoideenkalk: DULLO (1992).

Cystoidean Limestone: DULLO (1992).

Wolayer-Kalk/Limestone: SUTTNER et al. (2014).

Chronostratigraphic age

Ordovician: Late Katian (Ka3-Ka4 Stage slices *sensu* BERGSTRÖM et al., 2009) to (?) basal Hirnantian.

Biostratigraphy

Conodonts. – *Amorphognathus ordovicicus* Zone (FERRETTI & SCHÖNLAUB, 2001 and references therein).

Complementary references -

Remarks -

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