Uqua Formation

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Österreichische Karte 1:50.000
Blatt BMN 197 Kötschach
Blatt BMN 198 Weißbriach
Blatt BMN 199 Hermagor

Blatt UTM 3109 Oberdrauburg
Blatt UTM 3110 Kötschach-Mauthen
Blatt UTM 3116 Sonnenalpe Naßfeld
Blatt UTM 3117 Nötsch im Gailtal

Carta Topografica d'Italia 1:50.000
Foglio 018 Passo di Monte Croce Carnico
Foglio 031 Ampezzo
Foglio 032 Tolmezzo
Foglio 033 Tarvisio

Definition

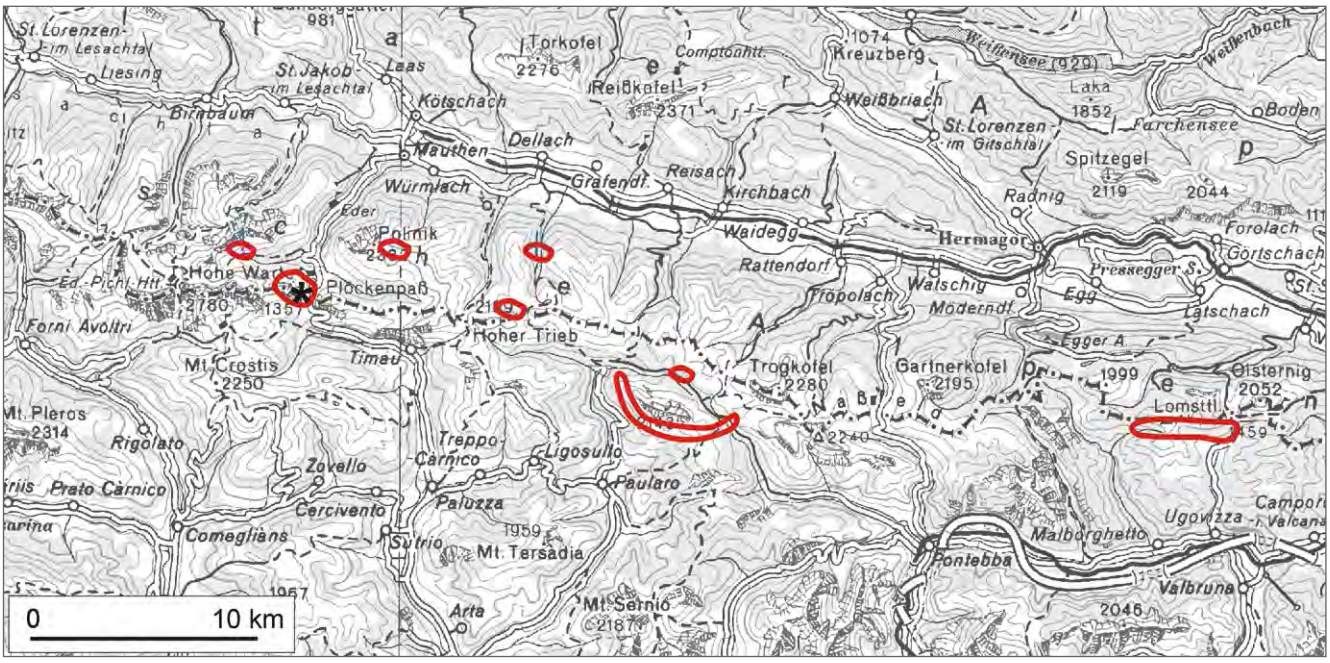
Grayish flaser limestone with debris intercalations (bioclastic wackestone-packstone). In the upper part greenish siltstones are interbedded into the limestone sequence.

Description

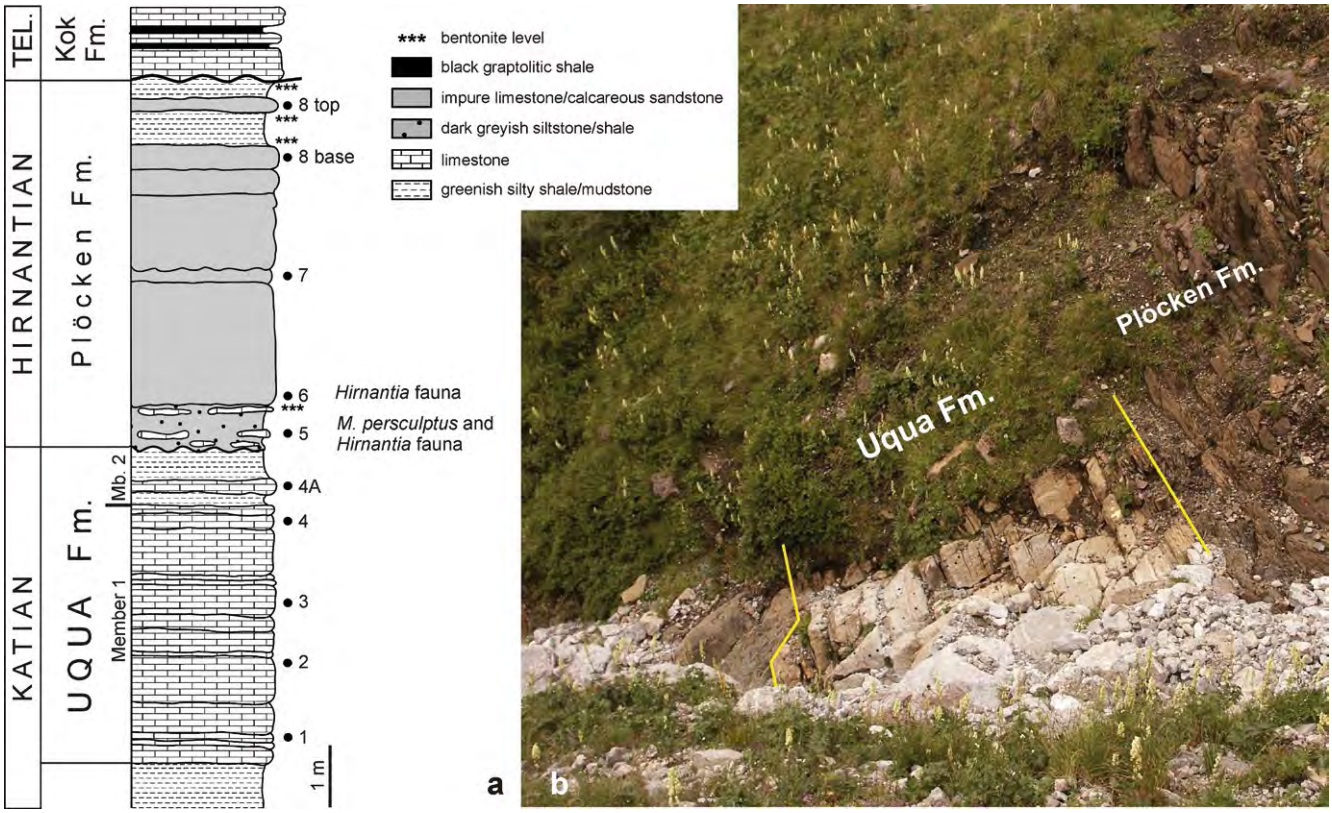
The calcareous Uqua Formation varies in thickness and lithology from 1.5 to 9 m; at the type locality at Cellon it reaches 7.3 m. The main lithology displays a bedded flaser-type limestone (member 1 in SCHÖNLAUB et al., 2011), while other occurrences of the Uqua Formation represent more marly or even nodular limestones. At the type locality the upper part of the unit is characterized by interbeds of greenish siltstones (member 2 in SCHÖNLAUB et al., 2011). Fossils, in particular microfossils but also macrofossils are rather abundant, either occurring in debris layers or irregularly distributed in the matrix.

Fossil content

Acritarchs, brachiopods, conodonts, cephalopods, chitinozoans, crinoids, foraminifers, gastropods, ostracods, sponge spiculae, trilobites.



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



The Cellon Section. a) log of the Ordovician part of the section (modified after SCHÖNLAUB et al., 2011); b) view of the section (photo H.P. SCHÖNLAUB).

Depositional environment

Marine limestone, represented by allochthonous deposits of deeper water derived from the shallower and high-energy Wolayer Formation.

Stratotype

Cellon avalanche gorge (Beds 1-4 after WALLISER, 1964), located in the eastern slope of Mt. Cellon/Creta di Collinetta (GAERTNER, 1931) at coordinates N 46°36'32", E 13°29'03".

Reference sections -

Type area

Carnic Alps.

Main outcrop areas

Uqua Valley, area of Mt. Zermula-Mt. Pizzul, Hoher Trieb-Elferspitz, Nölblinggraben, surroundings of Plöckenpass, Lake Wolayer, Rauchkofel Boden.

Thickness

1.1 m at Rifugio Fratelli Nordio to 7.3 m at Cellon.

Boundaries

Underlying units – Valbertad Formation (conformable).

Overlying units – Plöcken Formation (conformable).

Lateral units – Wolayer Formation.

Views of the Uqua Formation at the Cellon Section (photos L. SIMONETTO).

Derivation of name

After Uqua Creek, north of the village of Ugovizza.

Synonymy

Knollenkalk: STACHE (1884).
Calcescisti, calcari saccaroidi ed argilloscisti di Mauthen [partim]: TARAMELLI (1895).
Tonflaserkalk: SPITZ (1909); SERPAGLI & GRECO (1965).
Scisti argilloso-grafitici con vene e noduli calcarei [partim]: GORTANI & DESIO (1927).
Formazione di Ugva: SELLI (1963).
Formazione di Ugva (="Tonflaserkalke"): SERPAGLI (1967).
Formazione di Uggwa: ASSERETO et al. (1968).
Formazione dell'Uqua: BRAGA et al. (1971); CARULLI (2006).
Calcaire Réticulaire de L'Uqua: VAI (1971).
Flaserkalke, Knollenkalke, Kalkknollenschiefer: SCHÖNLAUB (1971).
Ashgill-Tonflaserkalk der Stillwasserfazies: SCHÖNLAUB (1971).
Uggwakalk: SCHÖNLAUB (1979).
Formazione di Uqua: VAI et al. (1984); VENTURINI (1990, 2006).
Uggwa Formation: KREUTZER (1992).
Uggwa Limestone Formation: SCHÖNLAUB (1980); SCHÖNLAUB et al. (2011); ŠTORCH & SCHÖNLAUB (2012).
Uggwa-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 (SERPAGLI, 1967; FERRETTI & SCHÖNLAUB, 2001 and references therein).

Complementary references

Geochemistry (iron, sulfur and carbon isotope chemistry) has been recently investigated in the Cellon section (SCHÖNLAUB et al., 2011).

Remarks

In the western Karavanke Alps the equivalents of the Uqua Formation are exposed in the Feistritzgraben section (SCHÖNLAUB, 1979, 1982, 1985).

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