

Kellergrat Formation

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Österreichische Karte 1:50.000

Blatt BMN 197 Kötschach

Blatt BMN 198 Weißbriach

Blatt UTM 3109 Oberdrauburg

Blatt UTM 3116 Sonnenalpe Naßfeld

Carta Topografica d'Italia 1:50.000

Foglio 018 Passo di Monte Croce Carnico

Foglio 031 Ampezzo

Foglio 032 Tolmezzo

Foglio 033 Tarvisio

Definition

Compact massive reefal limestones (Frame- and Bafflestone, Float- and Rudstone) with large stromatoporoids and corals either *in situ* or as bioclasts.

Description

Massive gray limestone with abundant bioclasts and biogenes or reef-building organisms. Largest biogenes are stromatoporoid colonies and tabulate and colonial rugose corals. *Amphipora* and *Stachyodes* are common accessory reef-builders.

Fossil content

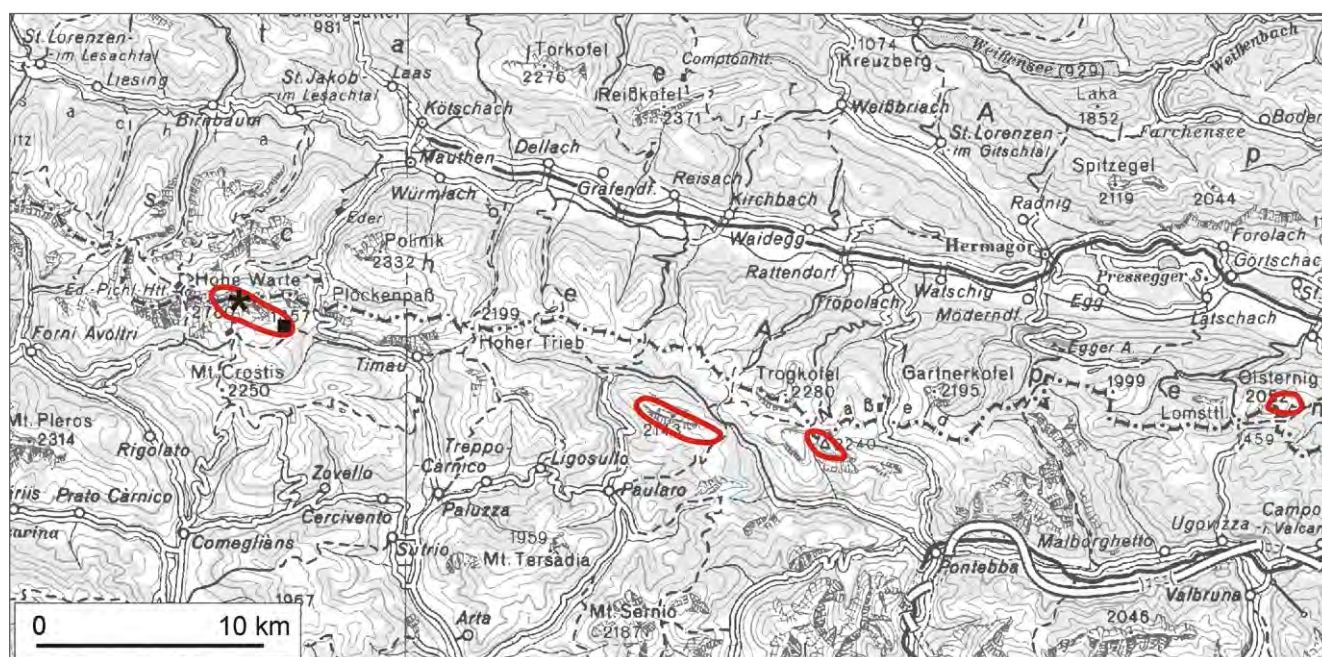
Brachiopods, calcareous algae, calcispheres, conodonts, rugose and tabulate corals, echinoderms, gastropods, stromatoporoids, trilobites.

Depositional environment

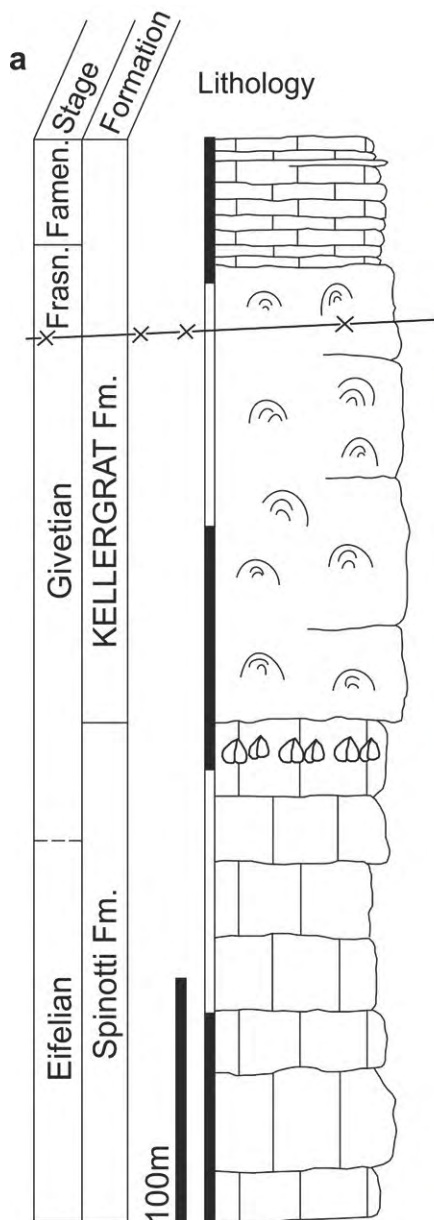
Neritic reef limestone.

Stratotype

Kellergrat (located between the Kellerspitzen to the West and the Kollinkofel/Creta di Collina to the East, N 46°36'39", E 12°54'04").



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



The Kellergrat Section. a) simplified log and b) photo of the stratotype section at Kellergrat measured by KREUTZER (1990) between Kellerspitzen and Kollinkofel. Somewhere between Givetian and Frasnian is a fault shown. Probably substantial parts of the section are missing (photo H.P. SCHÖNLAUB). c) auxiliary section at the abandoned quarry along trail #149 to Collina (photo T.J. SUTTNER).

Reference sections

Abandoned quarry along trail n. 149 to Collina (GORTANI, 1911), where the base of the unit is easily accessible and reef deposits are well visible on the polished quarry walls (coordinates N 46°35'41.64", E 12°55'36.26").

Type area

Central Carnic Alps.

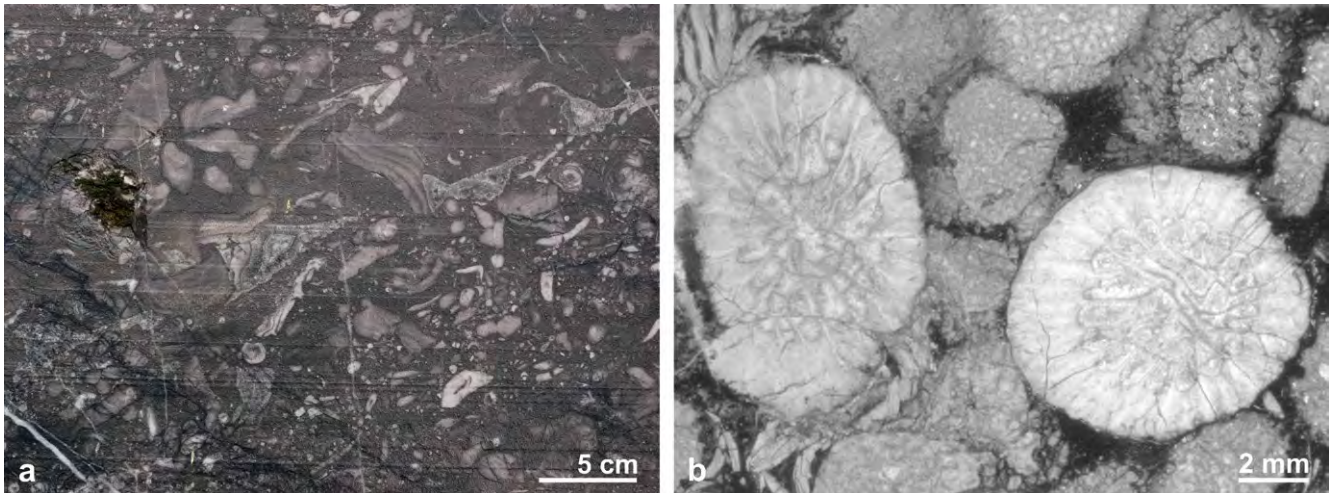
Main outcrop areas

The Kellergrat Formation crops out along the main peaks of the Central Carnic Alps, mainly at Mts. Kellerspitzen (Cime di Chianevate), Hohe Warte (Mte. Coglians), and on the southern slopes of these massives (Creta di Collina, Casera Val di Collina, Collina Grande).

Quarries above Rio Chiaula (VAI, 1963; BANDEL, 1972).

Thickness

More than 180 m (KREUTZER, 1990).



Important bioconstructors and bioclasts of the Kellergrat reef. a) corals, crinoids and brachiopods (photo H.P. SCHÖNLAUB); b) well-preserved rugose corals and *Amphipora* (photo E. KIDO).

Boundaries

Underlying units – Spinotti Formation (conformable contacts).

Overlying units – Creta di Collina Formation (conformable contacts).

Lateral units – Spinotti Formation, Polinik Formation, Freikofel Formation, Cellon Formation, Vinz Formation.

Derivation of name

After the Kellergrat between Mt. Kollinkofel/Creta di Collina in the east and Mt. Kellerspitzen in the west (KREUTZER, 1990).

Synonymy

La serie calcarea di M. Zermula [partim]: FERRARI & VAI (1966).

Stromatoporen-Korallen-Riffkalk im Gipfelbereich der Hohen Warte: SCHÖNLAUB (1971–1973).

Phillipsastrea Lst.: SCHÖNLAUB (1980).

Phillipsastrea-Kalk: KREUTZER & SCHÖNLAUB (1984).

Stromatoporen/Korallenschutt-K.: SCHÖNLAUB (1985).

Phillipsastrea/Brachiop.-K.: SCHÖNLAUB (1985).

Eiskar-Kalk [partim]: KREUTZER (1990, 1992).

Riff-Kalk: KREUTZER (1990).

Korallenkalk: SCHÖNLAUB (1991).

Korallen-Stromatoporen-Kalk und *Phillipsastrea*-Kalk: KREUTZER (1992).

Riffkalke im Gipfelbereich der Hohen Warte und der Kellerwände: OEKENTORP-KÜSTER & OEKENTORP (1992).

Givetische Rindenkornkalke der Hohen Warte und des Kollinkofels [partim]: OEKENTORP-KÜSTER & OEKENTORP (1992).

Calcarei a *Phillipsastrea*: CARULLI (2006).

Chronostratigraphic age

Devonian: Lower Givetian to Frasnian (SCHÖNLAUB, 1985; KREUTZER, 1990).

Biostratigraphy

Conodonts. – From the *timorensis* Zone (SUTTNER, unpublished data) to the Early *rhenana*-Zone (KREUTZER, 1990).

Rugose corals. – *Scruttonia julli* (PEDDER, 1986) indicates Frasnian age for the upper part of the formation (KÜSTER, 1987).

Complementary references -

Remarks

HERITSCH (1943) provides a comprehensive list of fossils found in the Kellergrat Formation by various workers including Vinassa de Regni, Gortani and Geyer.

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