Zollner 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

Well bedded light gray, greenish to black chert cm to dm thick, interlayered with rare limestone lenses, and black siliceous shale.

Description

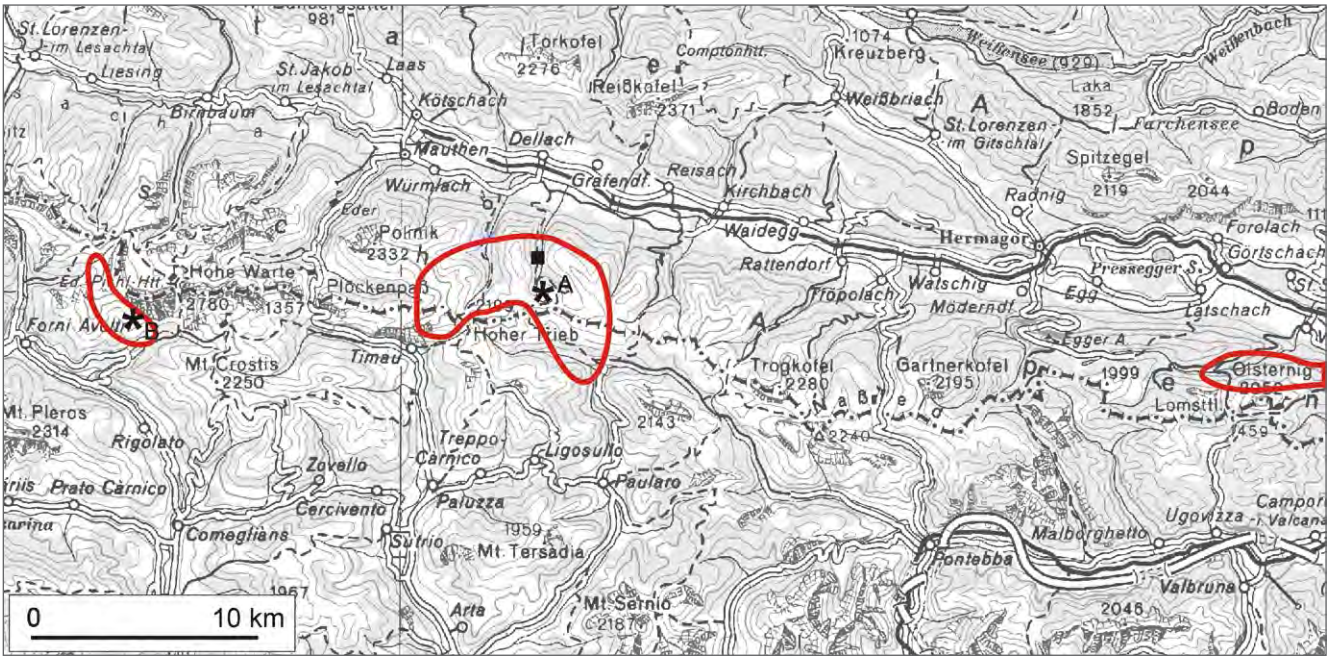
The Zollner Formation consists mainly of radiolarian chert with interbedded rare limestone and black siliceous shale. The limestones are represented by centimetric/decimetric lenses and rare layers of wackestone/mudstone; present along the whole unit. The black shales are more abundant in the lower part of the formation.

Fossil content

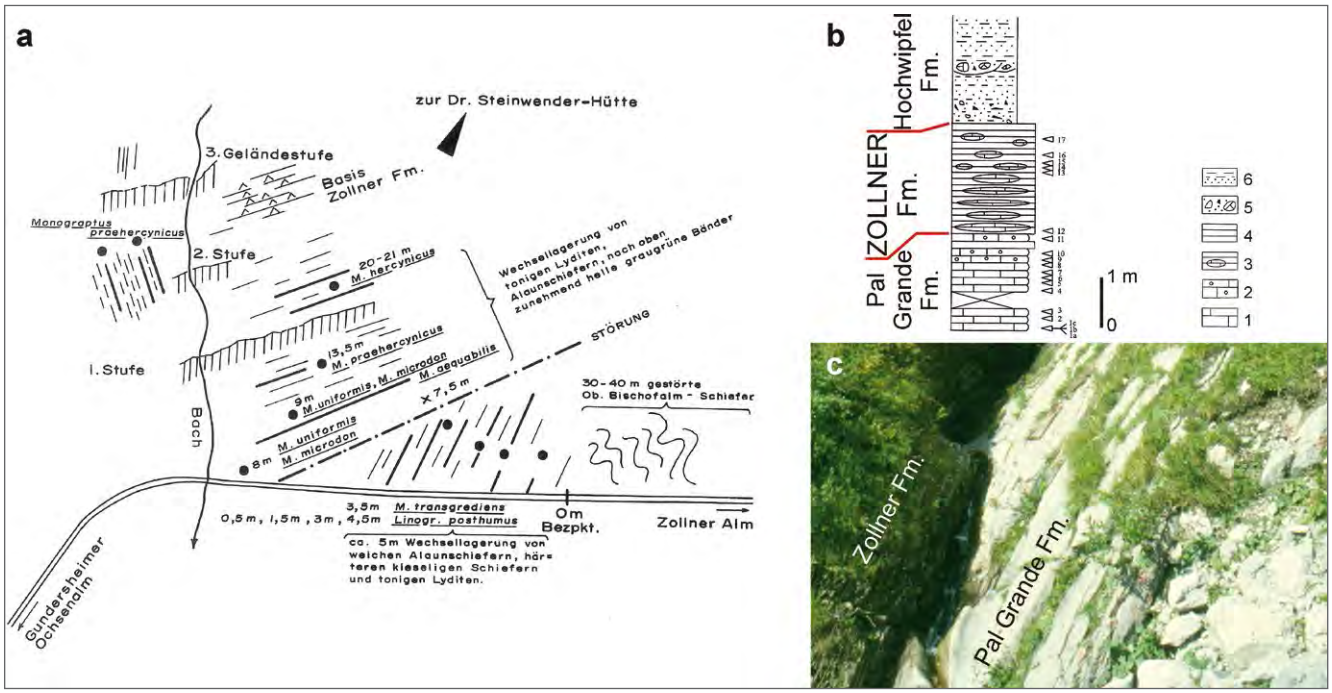
Conodonts, graptolites (in the lowermost part), radiolarians.

Depositional environment

Pelagic.



Areas of outcrop of the Zollner Formation with indication of the stratotype of the lower and upper boundary (asterisks), A: Wasserfall Section; B: Rio Chianaletta Section. Reference section (square), Oberbuchach 3 section.



The Zollner Formation type section. a) sketch of the Wasserfall Section (after SCHÖNLAUB, 1985); b) log of the Rio Chianaletta Section (modified after PERRI & SPALLETTA, 1998). Legend: 1. biomicrite; 2. radiolarian-enriched mudstone; 3. radiolarian chert with interbedded limestone levels and lenses; 4. radiolarian chert; 5. breccia of the Hochwipfel Formation; 6. sandstone and pelite of the Hochwipfel Formation; c) view of the section in the field (photo M.C. PERRI).

Stratotype

Wasserfall Section near Lake Zollner (SCHÖNLAUB, 1985), at coordinates N 46°36'18", E 13°04'11" for the lower boundary.

Rio Chianaletta Section (PERRI & SPALLETTA, 1998), at coordinates N 46°36'13.7", E 12°50'02.8" for the upper boundary.

Reference sections

Oberbuchach 3 section (JAEGER & SCHÖNLAUB, 1980) below Gundersheimer Alm at coordinates N 46°37'29.1", E 13°05'52.6", where the transition with the Bischofalm Formation is well exposed.

Type area

Carnic Alps.

Main outcrop areas

The Zollner Formation crops out mainly in the Cima Ombladet-Rio Chianaletta area to the west, in a wide area of the Central Carnic Alps, and in the area between Mt. Poludnig and the Gail River to the east.

Thickness

The maximum estimated thickness is more than 100 m. Continuous sections exposing the whole unit are not known.

Boundaries

Underlying units – Bischofalm Formation (conformable, gradual contact).

Overlying units – Hochwipfel Formation (conformable, gradual contact) in most cases affected by tectonic strain.

Lateral units – Findenig Formation, Valentin Formation and Pal Grande Formation.

Derivation of name

After Lake Zollner.

Views of the Zollner Formation in the field. a) radiolarian chert with limestone lenses at Rio Chianaletta (photo C. SPALLETTA); b) radiolarian chert in the Pramosio Pass area (photo C. VENTURINI).

Synonymy

Radiolariti (liditi): SPALLETTA et al. (1982).
Zollner Formation: SCHÖNLAUB (1985); SCHÖNLAUB et al. (2004).
Radiolarites and shales: SPALLETTA & VENTURINI (1990).
Rio Chianaletta Radiolarites: BRIME et al. (2008).
Radiolariti del Rio Chianaletta: SPALLETTA (2009).
Zollner-Formation/Zollner Formation: SUTTNER & KIDO (2014).

Chronostratigraphic age

Devonian – Carboniferous: Lochkovian to lower Visean.

Biostratigraphy

Conodonts. – The youngest level of the formation has been assigned to the *texanus-homopunctatus* Zone (PERRI & SPALLETTA, 1998).

Graptolites. – *Monograptus hercynicus* Zone for the oldest level of the formation (HERZOG, 1983, 1988).

Complementary references -

Remarks -

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