

# Valbertad 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, brownish and greenish siltstones to arenaceous shales and rare fine-grained graywackes and sandstones.

## Description

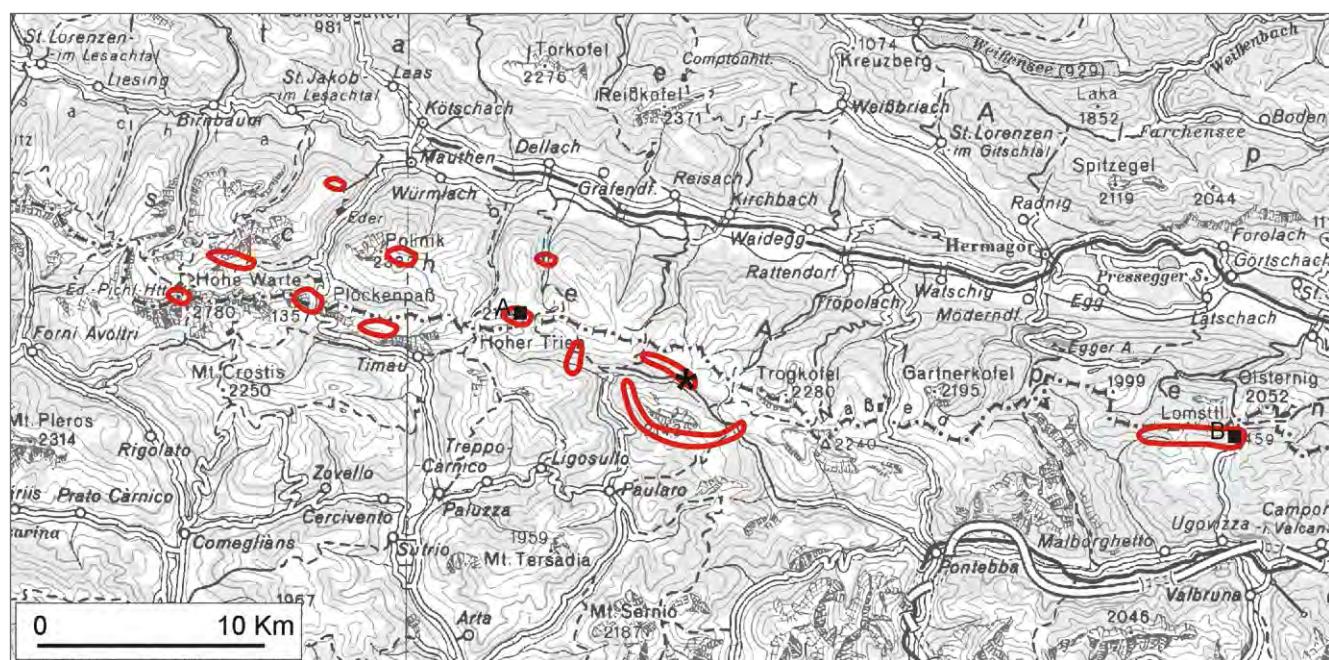
The Valbertad Formation consists of thin to very thin-bedded grayish, brownish and greenish siltstones to arenaceous shales. Some horizons show indistinct bedding and are more compact resembling fine-grained graywackes and sandstones. Fossils, abundant in some levels, are more or less de-calcified. In the upper part of the unit, the shales are increasingly interbedded with thin to very thin nodules of gray mud- and wackestone.

## Fossil content

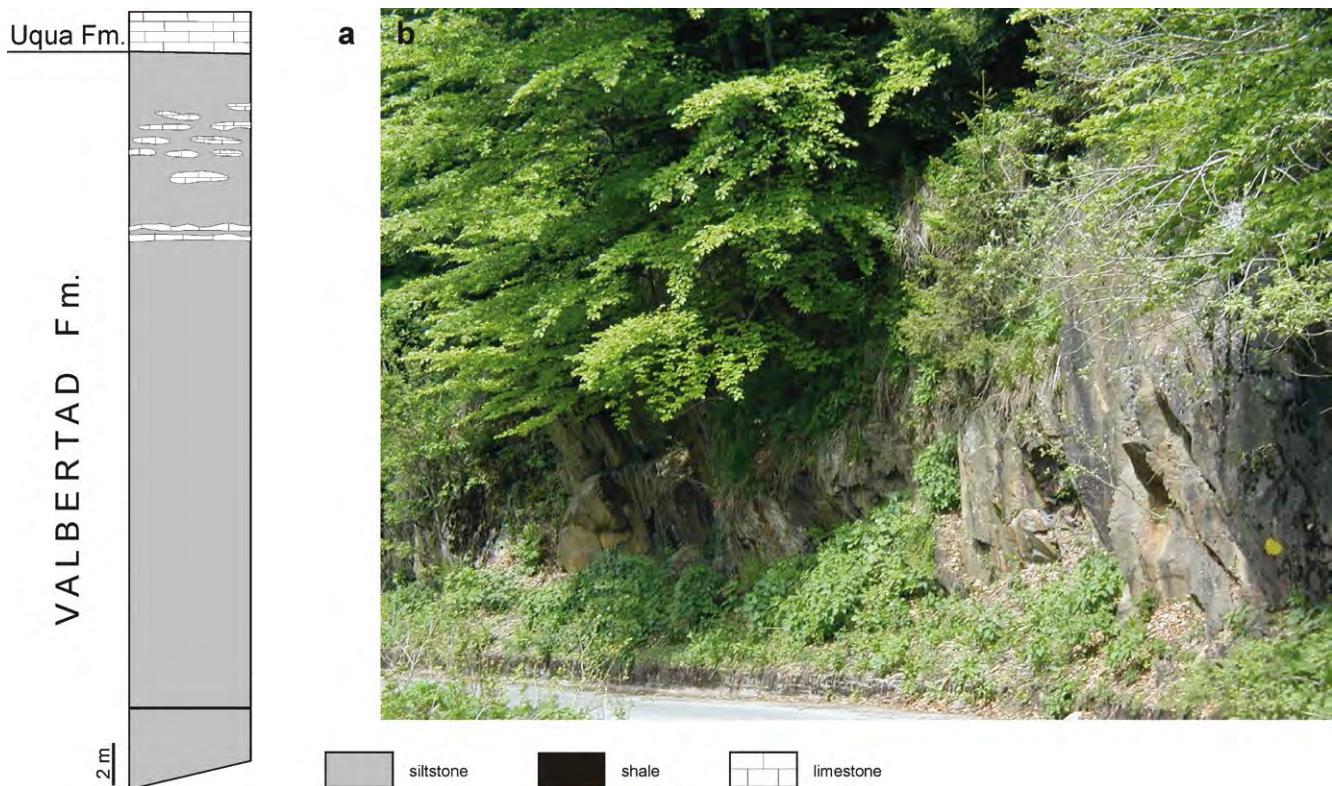
Acritarchs, brachiopods, bryozoans, cephalopods (nautiloids), cystoids, gastropods, hyoliths, tentaculites, trilobites.

## Depositional environment

Moderately deep marine environment.



Areas of outcrop of the Valbertad Formation with indication of the stratotype (asterisk) and reference sections (squares). A: Hoher Trieb Section; B: Rifugio Nordio Section.



The Valbertad Section. a) log of the section (redrawn after BAGNOLI et al., 1998); b) view of the section (photo L. SIMONETTO).

## Stratotype

Valbertad Section (BAGNOLI et al., 1998; CORRADINI et al., 2012) along the road from Paularo to Passo di Lanza at coordinates N 46°34'31.6", E 13°08'38.6".

## Reference sections

Uqua Creek Section, near Rifugio Nordio (VAI, 1971) north of Ugovizza at coordinates N 46°36'32", E 13°29'03", an important historical section.

Hoher Trieb Section (SCHÖNLAUB, 1969, 1971; JAEGER et al., 1975; HAVLICEK et al., 1987), north of Mt. Hoher Trieb/Cuestalta at coordinates N 46°36'02", E 13°03'10", particularly rich in fossils.

## Type area

Carnic Alps.

## Main outcrop areas

Northern part of Mt. Cellon (Cellonalm), Hoher Trieb, Base of Mt. Seekopf, northern side of Rio di Lanza valley, Mt. Pizzul, Mt. Zermula, Uqua Creek.

## Thickness

15 m to more than 100 m.

## Boundaries

*Underlying units* – Fleons Formation (conformable? contact) (SCHÖNLAUB & FLAJS, 1993).

*Overlying units* – Uqua Formation (conformable contact).

*Lateral units* – Himmelberg Formation, Fleons Formation.



Views of the Valbertad Formation in the field. a) the outcrop on the top of Mt. Pizzul (photo L. SIMONETTO); b) cystoid in the Valbertad Section (photo L. SIMONETTO).

## Derivation of name

After Casera Valbertad.

## Synonymy

Strophomena Horizont: STACHE (1884).

Calcescisti, calcari saccaroidi ed argilloscisti di Mauthen [partim]: TARAMELLI (1895).

Scisti Ordoviciani: GORTANI (1926).

Scisti argilloso-ocracei con vene e noduli calcarei: GORTANI & DESIO (1927).

Uggwaserie: GAERTNER (1931).

Schiefer des Caradoc: HABERFELNER & HERITSCH (1932).

Formazione di Ugva: SELLI (1963).

Formazione di Uggwa: ASSERETO et al. (1968).

Sandige Schiefer mit Bryozoen: SCHÖNLAUB (1969).

Siltstones et Grès de L'Uqua: VAI (1971).

Formazione dell'Uqua: BRAGA et al. (1971).

Grünlichgraue Siltsteine der Stillwasser-Fazies: SCHÖNLAUB (1971).

Greygreen siltstones: SCHÖNLAUB (1971).

Sandig-pelitische Uggwafazies: SCHÖNLAUB (1979).

Formazione di Uqua: VAI et al. (1984), VENTURINI (1990).

Uggwa-Schiefer: SCHÖNLAUB (1985).

Uggwa-Schiefer/Shale: SUTTNER et al. (2014).

## Chronostratigraphic age

Ordovician: Katian, based on the brachiopod Foliomena Fauna (VAI, 1971; SCHÖNLAUB 1980; VAI & SPALLETTA, 1980; HAVLICEK et al., 1987; HARPER et al., 2009).

## Biostratigraphy -

## Complementary references -

## Remarks

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

## References

- ASSERETO, R., DESIO, A., DI COLBERTALDO, D. & PASSERI, L.D. (1968): Note illustrative della Carta Geologica d'Italia alla scala 1-100.000. Foglio 14A Tarvisio. Ministero dell'Industria, del Commercio e dell'Artigianato. Direzione Generale delle Miniere. – Servizio Geologico d'Italia, 1-70, Ercolano.
- BAGNOLI, G., FERRETTI, A., SERPAGLI, E. & VAI, G.B. (1998): Stop 1.2 – Late Ordovician conodonts from the Valbertad Section (Carnic Alps). – In: PERRI, M.C. & SPALLETTA, C. (eds.): Southern Alps Field Trip Guidebook. Seventh International Conodont Symposium held in Europe. – Giornale di Geologia, Special Issue, **60**, 138–149, Bologna.
- BRAGA, G.P., CARLONI, G.C., COLANTONI, P., CORSI, M., CREMONINI, P., FRASCARI, F., LOCATELLI, D., MONESI, A., PISA, G., SASSI, F.P., SELLI, R., VAI, G.B. & ZIRPOLI, G. (1971): Note illustrative della Carta geologica d'Italia. Foglio 4c-13 M. Cavallino-Ampezzo. – Ministero dell'Industria, del Commercio e dell'Artigianato, Direzione Generale delle Miniere, Servizio Geologico d'Italia, 108 p., Roma.
- CORRADINI, C., PONDRELLI, M., CORRIGA, M.G., SIMONETTO, L., KIDO, E., SUTTNER, T.J., SPALLETTA, C. & CARTA, N. (2012): Geology and stratigraphy of the Cason di Lanza area (Mount Zermula, Carnic Alps, Italy). – Berichte des Institutes für Erdwissenschaften, Karl-Franzens-Universität Graz, **17**, 83–103, Graz.
- GAERTNER, H.R. von (1931): Geologie der Zentralkarnischen Alpen. – Denkschrift der Österreichischen Akademie der Wissenschaften, mathematisch-naturwissenschaftliche Klasse, Abteilung 1, **102**, 113–199, Wien.
- GORTANI, M. (1926): Guida geologica del Friuli. Parte generale. – Stabilimento Tipografico Carnia, 64 p., Tolmezzo.
- GORTANI, M. & DESIO, A. (1927): Note illustrative della carta geologica delle Tre Venezie. Foglio "Pontebba". – Ministero dei Lavori Pubblici. Ufficio Idrografico del Regio Magistrato alle Acque. Sezione Geologica, 86 p., Padova.
- HABERFELNER, E. & HERITSCH, F. (1932): Obersilurische Lydite am nördlichen Valentintörl, Karnische Alpen. – Verhandlungen der Geologischen Bundesanstalt, **1932/7–8**, 113–116, Wien.
- HARPER, D.A.T., HISTON, K. & SCHÖNLAUB, H.P. (2009): Late Ordovician, deep-water *Foliomena* brachiopod fauna from Cellon, Carnic Alps. – 53<sup>rd</sup> Annual Meeting of the Palaeontological Association, Birmingham, UK, December 2009, 53, Birmingham.
- HAVLICEK, V., KRIZ, J. & SERPAGLI, E. (1987): Upper Ordovician Brachiopod Assemblages of the Carnic Alps, Middle Carinthia and Sardinia. – Bollettino della Società Paleontologica Italiana, **25**, 277–311, Modena.
- JAEGER, H., HAVLICEK, V. & SCHÖNLAUB, H.P. (1975): Biostratigraphie der Ordovizium/Silur-Grenze in den Südalpen – Ein Beitrag zur Diskussion um die Hirnantia-Fauna. – Verhandlungen der Geologischen Bundesanstalt, **1975**, 271–289, Wien.
- SCHÖNLAUB, H.P. (1969): Das Paläozoikum zwischen Bischofalm und Hohem Trieb (Zentrale Karnische Alpen). – Jahrbuch der Geologischen Bundesanstalt, **112/2**, 265–320, Wien.
- SCHÖNLAUB, H.P. (1971): Paleoenvironmental Studies at the Boundary Ordovician/Silurian in the Carnic Alps. – Mémories du Bureau de Recherches géologiques et Minières, **73**, 367–376, Paris.
- SCHÖNLAUB, H.P. (1979): Das Paläozoikum in Österreich. Verbreitung, Stratigraphie, Korrelation, Entwicklung und Paläogeographie nicht-metamorpher und metamorpher Abfolgen. – Abhandlungen der Geologischen Bundesanstalt, **33**, 1–124, Wien.
- SCHÖNLAUB, H.P. (1980): Carnic Alps. Field Trip A. with contributions from JAEGER, H., HOUSE, M.R., PRICE, J.D., GöDDERTZ, B., PRIEWALDER, H., WALLISER, O.H., KRÍŽ, J., HAAS, W. & VAI, G.B. – In: SCHÖNLAUB, H.P. (ed.): Second European Conodont Symposium, ECOS II, Guidebook, Abstracts. – Abhandlungen der Geologischen Bundesanstalt, **35**, 5–57, Wien.
- SCHÖNLAUB, H.P. (1982): 6. Paläozoikum der Westkarawanken. – In: HAUSER, C. (ed.): Erläuterungen zur Geologischen Karte der Republik Österreich 1:50.000, Blatt 201-210 Villach-Assling. – 18–20, Geologische Bundesanstalt, Wien.
- SCHÖNLAUB, H.P. (1985): Das Paläozoikum der Karnischen Alpen. – In: SCHÖNLAUB, H.P. (ed.): Arbeitstagung der Geologischen Bundesanstalt 1985 Kötschach-Mauthen, Gailtal – Geologische Bundesanstalt, 34–52, Wien.
- SCHÖNLAUB, H.P. & FLAJS, G. (1993): Neue Fossilfunde in den westlichen Karnischen Alpen. – Jahrbuch der Geologischen Bundesanstalt, **136/1**, 233–245, Wien.
- SELLI, R. (1963): Schema geologico delle Alpi Carniche e Giulie occidentali. Scala 1:100.000. – Giornale di Geologia, **30**, 1–136, Bologna.
- STACHE, G. (1884): Über die Silurbildungen der Ostalpen nebst Bemerkungen über die Devon-, Carbon- und Permschichten dieses Gebietes. – Zeitschrift der Deutschen geologischen Gesellschaft, **36**, 277–378, Berlin.
- SUTTNER, T.J., SCHÖNLAUB, H.P. & FERRETTI, A. (2014): Uggwa-Schiefer/Uggwa Shale. – In: PILLER, W.E. (ed.): The lithostratigraphic units of the Austrian Stratigraphic Chart 2004 (sedimentary successions), Vol. I - The Paleozoic Era(the). – Abhandlungen der Geologischen Bundesanstalt, **66**, 64, Wien.
- TARAMELLI, T. (1895): Osservazioni stratigrafiche sui terreni paleozoici nel versante italiano delle Alpi Carniche. – Rendiconti della Reale Accademia dei Lincei, s. **5**, 4, 185–193, Roma.
- VAI, G.B. (1971): Ordovicien des Alpes Carniques. – Mémories du Bureau de Recherches géologiques Minières, **73**, 437–449, Paris.
- VAI, G.B. & SPALLETTA, C. (1980): The Uqqwa section. – In: SCHÖNLAUB, H.P. (ed.): Second European Conodont Symposium, ECOS II, Guidebook, Abstracts. – Abhandlungen der Geologischen Bundesanstalt, **35**, 48–50, Wien.
- VAI, G.B., BORIANI, A., RIVALENTI, G. & SASSI, F.P. (1984): Catena Ercinica e Paleozoico nelle Alpi Meridionali. – In: Cento anni di geologia Italiana, Volume Giubileo del Centenario S.G.I., 133–154, Bologna.
- VENTURINI, C. (1990): Geologia delle Alpi Carniche centro-orientali. – Pubblicazioni del Museo Friulano di Storia Naturale, **36**, 222 p., Udine.

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