below. The overlying intra-Permian volcanics, however, are missing in this sequence.

Fossils: No fossils have yet been found in this presumably continental sequence except some reworked conodonts in limestones pebbles of the conglomerates at the base.

Origin, facies: Sedimentologically, the Präbichl Formation represents three fining-upward megasequences with alluvial fan deposits at the base suggesting a braided alluvial channel system and a distal sheet flood facies (KRAINER & STINGL, 1986).

Chronostratigraphic age: Lower Permian (?).

Biostratigraphy: -

Thickness: At the type locality some 160 m, at other locations 50 to 100 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): The transgressive post-Variscan cover unconformably overlies different lithologies ranging from the Carboniferous Eisenerz Formation to Devonian limestones and the Upper Ordovician Blasseneck Porphyry (SCHÖNLAUB, 1982a).

Overlying unit(s): Werfen Formation (Triassic).

Lateral unit(s): -

Geographic distribution: According to Krainer & Stingle (1986) the transgressive sequence at the base of the Northern Calcareous Alps in Salzburg (Leogang) and Tyrol (Wörgl) displays similar lithologies like the Präbichl Formation of the type area. A direct correlation, however, is not possible due to the lack of volcanics characterizing the intra-Permian volcanic episode and the break in the sequence in the type area obliterating the transition to the Werfen Formation. Similarly, to the east the Präbichl Formation can be recognized as far as the Semmering area although the abundance of basal breccias and conglomerates seems to be replaced by smaller-sized gravel bearing alluvial fan deposits (CORNELIUS, 1936, 1937; CLAR, 1972; SOMMER, 1972).

Remarks: -

Complementary references: -

Kristbergschichten / Kristberg Beds

HANS P. SCHÖNLAUB

Validity: Invalid; the term was introduced by VAN AMEROM et al. (1982: p. 287) for a tripartite clastic sequence which unconformably overlies crystalline rocks of the Silvretta Phyllitgneissic Nappe in the Montafon region of Vorarlberg.

Type area: ÖK50-UTM, map sheet 1230 Bludenz (ÖK50-BMN, map sheet 142 Schruns), Außerkristberg north of Silbertal near Schruns, Vorarlberg (VAN AMEROM et al., 1982).

Type section: Creek between Bartholomäberg and Kristberg ("Profil Kristberg") of VAN AMEROM et al., 1982) (N 47°06'15" / E 09°57'49").

Reference section(s): -

Derivation of name: After locality Kristberg northeast of village Schruns in the Province of Vorarlberg.

Synonyms: -

Lithology: Clastic fluviomarine fining-upward megasequences consisting at the base of poorly sorted conglomerates and breccias with clasts of the underlying basement rocks up to 30 cm diameter, succeeded by an alternation of greyish laminated and partly bioturbated sandstones and bedded and laminated siltstones with intercalations of up to 2 m thick blackish carbonate beds and capped by reddish alluvial fan deposits.

Fossils: Plants in the clastic beds and calcareous algae, ostracods, foraminifers and fish remains in the limestone beds.

Origin, facies: The lithology and fossil content of the whole sequence indicates short lasting marine incursions interrupted by a lacustrine environment favouring vegetation and the formation of caliches and paleosols.

Chronostratigraphic age: Upper Carboniferous (Stephanian) to Lower Permian (?).

Biostratigraphy: Callipteris sp. group conferta, C. flabelliformis, Lebachia piniformis, L. parvifolia, Ernestiodendrum filiciformis, Odontopteris sp. and others.

Thickness: At the type locality some 70 meters.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Crystalline Complex of Silvretta (granite gneisses).

Overlying unit(s): Gröden Formation.

Lateral unit(s): -

Geographic distribution: The Kristberg Formation is restricted to the Province of Vorarlberg and distributed between the Rellstal in the west and the Klostertal in the east extending laterally over some 15 km.

Remarks: -

Complementary references: -

Silbersberg-Formation / Silbersberg Formation

FRANZ NEUBAUER

Validity: Invalid; first nomination by CORNELIUS (1952b: p. 51; "Silbersbergserie") with later descriptions by LESKO (1960), NIEVOLL (1984) and NEUBAUER et al. (1994).

Type area: ÖK50-UTM, map sheet 4212 Mürzzuschlag (ÖK50-BMN, map sheet 105 Neunkirchen), Eastern Greywacke Zone near Gloggnitz, Lower Austria.

Type section: The type locality of the Silbersberg Formation is at the southern slope of the Silbersberg near Gloggnitz (Lower Austria).

Reference section(s): -

Derivation of name: After mount Silbersberg near Gloggnitz (Lower Austria).

Synonyms: Silbersbergschichten (CORNELIUS, 1952a); Silbersbergkonglomerat (CORNELIUS, 1952a); Silbersbergserie (CORNELIUS, 1952b); Silbersbergschiefer (NIEVOLL, 1984).

Lithology: The Silbersberg Formation mainly comprises quartz-rich greyish-greenish metaconglomerates and quartzphyllites of variable composition ranging from quartz-rich to mica-rich phyllites interlayered with quartz-rich metaconglomerates. The areal extent was mapped by NEUBAUER et al. (1994). All rocks are metamorphosed in lower greenschist facies metamorphic conditions.

Fossils: -

Austrian Stratigraphic Chart 2004 - Paleozoic

(sedimentary successions) **Global Classification Austrian Stratigraphic Commission DURATION Ma** SYSTEM / PERIOD SERIES / EPOCH Ma STAGE / TIME AGE 251 CHANGHSINGIAN
Dorashamian

WUCHIAPINGIAN
Dzhulfian Kristberg Beds Haselgebirge 255 Northern Calcareous Alps 260 Bellerophon Bellerophon Formation CAPITANIAN 265 ⊐ WORDIAN ROADIAN 270 Gröden Formation Gröden Formation KUNGURIAN Σ Z 275 ⋖ ۵ Tarvis Breccia 280 Treßdorf Limestone ARTINSKIAN 2 Clastic Trogkofel Formation Trogkofel Limestone 285 M D SAKMARIAN 290 Upper Pseudoschwagerina Formation 0 Northern Calcareous Alps 295 **Grenzland Formation** Rattendorf Formation **ASSELIAN** Drau Range 299 Upper Carbonifer of St. Paul Lower Pseudoschwagerina Formation SZ GZHELIAN Auernig Group Auernig Group \simeq Z **□** < KASIMOVIAN 305 ш. Waidegg Formation O > MOSKOVIAN 310 SB \simeq Höchkg. Formation SZ 6.4 315 Badstub Formation BASHKIRIAN \supset \square S 320 SERPUKHOV-325 335 Carboniferous of Nötsch 340 345 2 350 TOURNAISIAN 13.9 60.2 355 359.2 UPPER EVONIAN FAMENNIAN 0 370 = 375 Seeberg Coral-Crinoidal Limestone 10.8 380 FRASNIAN N 385 GIVETIAN 390 **EIFELIAN** 395 0 400 D NER NOWER EMSIAN Crinoid-Stromatoporoid Limestone PRAGIAN LOCHKOVIAN 4.8 Dolomites O egaerella Ls. ticola Limestone LUDFORDIAN
GORSTIAN
HOMERIAN
SHEINWOOD. \supset Southern Burgenland LLANDOVERY ΓELYCHIAN Nodular Limestone Dolomites, Limestones Dienten Schists 435 AERONIAN 15.5 4 S 27.7 440 RHUDDANIAN Red Sparitic Ls. 443.7 **HIRNANTIAN** 445 Graz Paleozoic UPPER RDOVICIAN **D** 12.1 450 "Untere Schichten" Polster Quartzite 455 Conglomerates 0 South Karavanke Mountains, Blasseneck Porphyry 460 Blasseneck Porphyry MIDDLE ORDOVICIAN O Val Visdende Fm. **DARRIWILIAN** 465 Carnic Alps 3.7 470 0 Remschnigg/Sausal Western Greywacke Zone Eastern Greywacke Zone 475 480 0 RDO' TREMA-Legend DOCIAN 485 pelagic, offshore, siliciclastic coal (may include several seams) 488.3 490 UPPER SAMBRIAN pelagic, nearshore, calcareous position/age doubtful/controversial shallow marin, neritic 12.7 495 terrestrial-continental, coarse clastic older unit left \ younger unit right Geologische Bundesanstalt terrestrial-continental, fine clastic hiatus **PAIBIAN** 500 evaporite (chloride, sulphate) unconformity MIDDLE AMBRIAN rhyolite, dacite **GSSP** 505 (basaltic) andesite, trachyandesite 12.0 Formation 510 Limestone 515 α mixed-facies (in corresponding colors) CAMBRIAN \mathbf{m} 520 © Commission for the Palaeontological and Stratigraphical Research of Austria (CPSA) of the Austrian Academy of Sciences ≥ and Austrian Stratigraphic Commission **Universität** 525 Cutout and English adaptation of the "Die Stratigraphische Tabelle von Österreich 2004": Geological Survey of Austria 530 OWER The Austrian Stratigraphic Chart 2004 - Paleozoic is a supplement of: Hubmann, B., Ebner, F., Ferretti, A., Kido, E., Krainer, K., Neubauer, F., Schönlaub, H.-P. & Suttner, T.J. (2014): The Paleozoic Era(them), 2nd edition. – In: Piller, W.E. [Ed.]: The lithostratigraphic units of the Austrian Stratigraphic Chart 2004 (sedimentary successions) – Vol. I – 535 Abhandlungen der Geologischen Bundesanstalt, 66, 9–133, Wien. 540 Printing: Grasl Druck & Neue Medien GmbH, Bad Vöslau **Naturhistorisches Museum Wien**

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