Geotope 51: Wolayer Valley 1 – The Classroom for Geologists
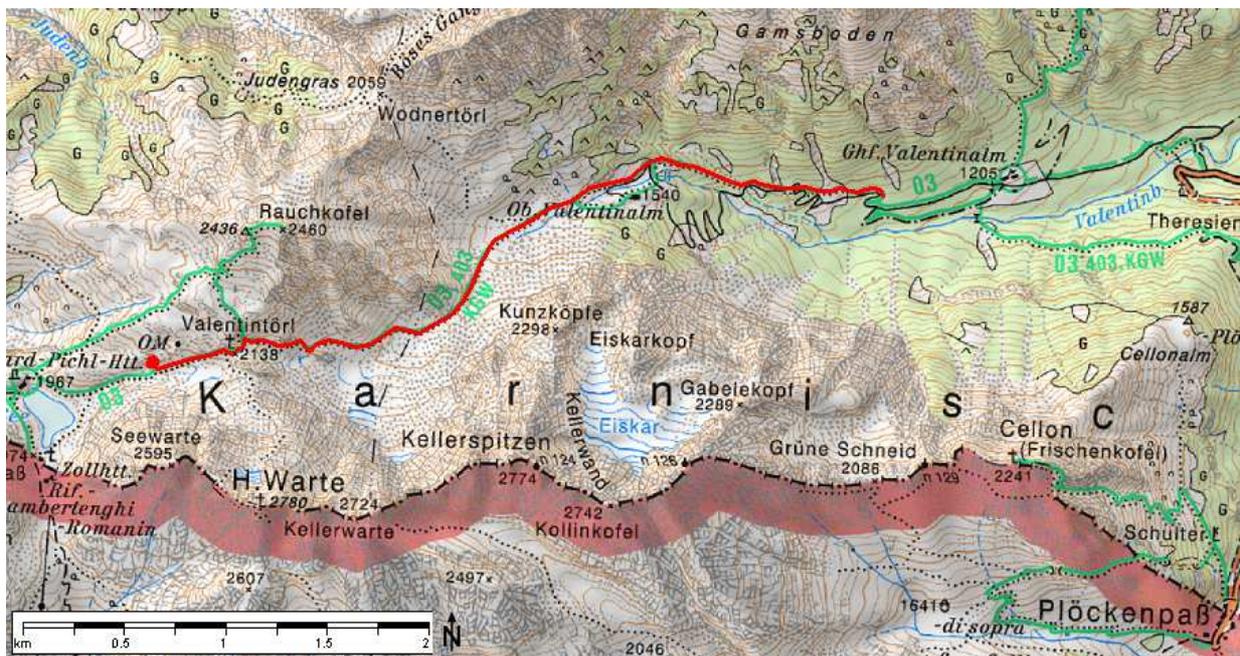
Red marking: Hiking route according to advance description; green tracks: hiking trails; ©BEV: Federal Office for Calibration and Measurement, 2005.

Access:

The trail starts from Untere Valentinalm crossing the Valentin Törl to Lake Wolayer. About half distance from the Törl to the lake the Geotope is exposed on the right side of the trail.

Description of the Geotope

Limestone sequence through the Middle Devonian Period.

Between Valentintörl and Lake Wolayer the hiker passes a short rocky wall with white painted numbers. They mark sample spots for microfossils which were processed in the laboratory. If more material is needed the exact position of a sample can easily be re-collected. Since there are al-most no macrofossils occurring in this sequence, i.e. those visi-ble with the naked eye, this site was chosen for the search for microfossils and in particular for conodonts, the skeletal remains of an enigmatic chordate. During the Lower Paleozoic this group of animals was rapidly evolving and hence, they serve as excellent time-markers for limestones and other rocks of this time. For example, at this locality the boundary beds between the Lower and Middle Devonian were exactly placed by help of conodonts, which is the bedding plane between the nos. 28 and 29. Another surprising result was the overall small thickness of the limestone sequence during the 12 million years lasting for the Middle Devonian Period which does not exceed some 6.5 m rock sequence. At the same time at the opposite cliff of Seewarte and Hohe Warte several hun-dred meter of lime mud was deposited. Hence, the two are-as must have been much far-ther away than today.
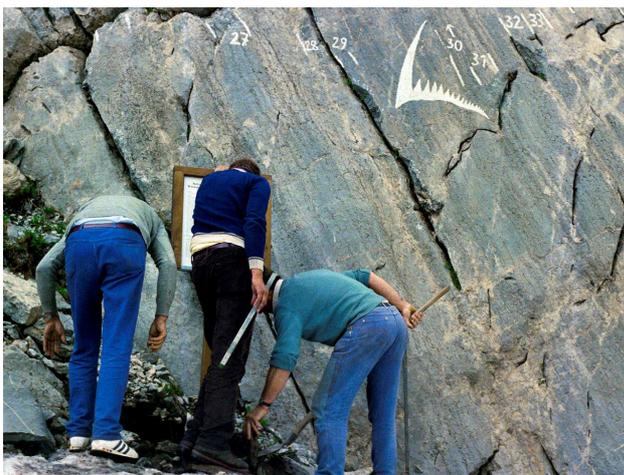
Sampling for microfossils with marking the sample numbers.