

## Geotope 15. Lake Zollner Hut – The Million Waterfall



Red circle: location of the geotope; green tracks: hiking trails; ©BEV: Federal Office for Calibration and Measurement, 2005.

## Access:

Lake Zollner Hut is reached from the small village of Weidenburg in the Gail Valley on a road to Zollneralm and further on to Lake Zollner Hut (road is only open for cars during summer.)

## Description of the Geotope



The "Million Waterfall"; the red line marks the bound between the sediments from the Silurian and Ordovician periods.

Immediately east of the hut a small creek drains the southern bog in in northern direction and flows overseveral steps named the "Million Waterfall" to the road below and further on into the Nölbling Valley. Of special scientific interest is the rock sequence which is passed by the creek. It is composed of black siliceous shales, black cherts and radiolarites. The

latter contain the siliceous spherical remains of radiolarians which were part of the marine plankton between 440 and 340 million years ago (Silurian and Devonian Periods). The accompanying black siliceous shales are thin-bedded and strongly inclined and foliated.

During Silurian and Devonian times black and carbon-rich ooze was deposited on the bottom of the sea, the milieu was extremely hostile to life. An exeption represented not only radiolarians but also graptolites floating in the upper zones of the ocean. Graptolites

belonged to an extinct group of animals with distant affinities to living pterobranchs. By splitting the shales with a hammer with some luck imprints of such animals can be found on the surface which resemble a sawing bladelike outline.

Graptolites evolved rather quickly in the Lower Paleozoic rendering representatives of this group as excellent guide fossils for the Ordovician to the mid-Devonian Periods (approx. 500 to 360 m.y. BP). Based on their occurrences in sedimentary sequences a Imprint of a graptolite specific interval of time in the geological



calendar can be determined. More conservative, long ranging organisms are less suitable for such exact age assignments.