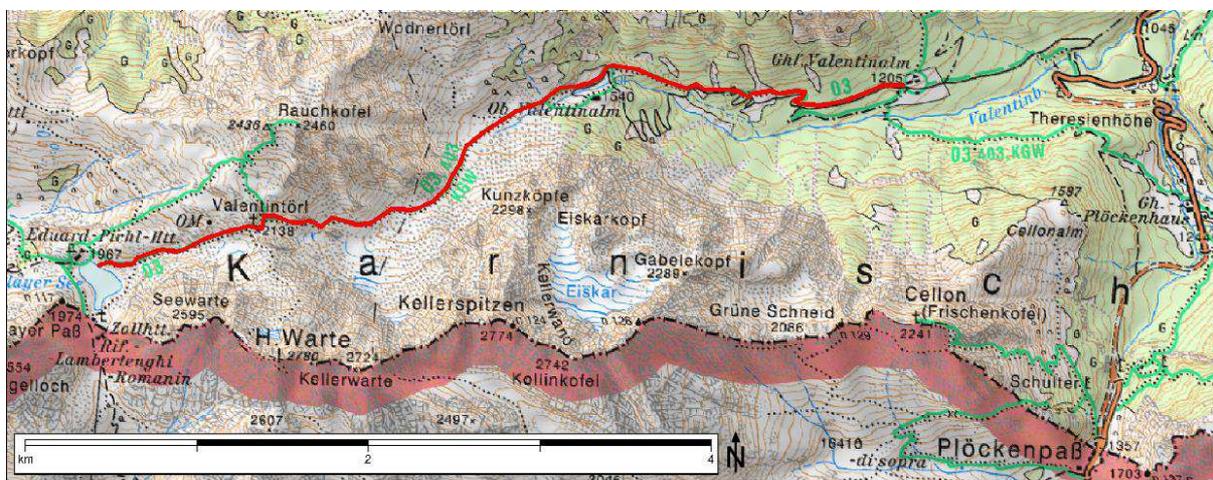


## Geotope 6. Lake Wolayer – The Green Eye



Red marking: Hiking route according to advance description; green tracks: hiking trails; ©BEV: Federal Office for Calibration and Measurement, 2005.

### Access:

Untere Valentinalm. Along the road from Kötschach-Mauthen to Plöckenpass a small road is leading close to the cemetery of World War 1 to the parking at Untere Valentinalm. The hiking trail starts at the Alm to Obere Valentinalm via Valentintörl to Lake Wolayer.

## Description of the Geotope

Lake Wolayer is located in the centre of the Carnic Alps and surrounded by impressive mountain peaks, e.g. Hohe Warte, Seewarte, Seekopf, Biegengebirge and Rauchkofel. Either mountain has often been cited in the geological literature. In fact, some strata reflect an age of almost 500 million years.

At Lake Wolayer different geological worlds are gathering: ancient limestones of the Lower Paleozoic which originally were deposited in a shallow sea or even formed a coral reef structure with rich occurrences of fossils (e.g., mountains Hohe Warte, Seewarte, Seekopf). These strata are closely juxtaposed with reddish marly and variegated limestones representing once the living space of deep-sea cephalopods and other microscopic creatures. The mountain Rauchkofel and its southern slopes are composed of these rocks. For those interested to collect fossils it is recommended to sample in the boulders surrounding the lake where corals, sea-lilies, bivalves, snails etc. can be found.



Lake Wolayer with mountain Seekopf. The basal tectonically duplicated section with the overlying limestone cliff of Devonian age (420 to 360 million years BP) has long been famous for its fossiliferous limestones.

Lake Wolayer served as tongue basin for a melting glacier at the end of the last Ice Age (70,000 to 10,000 years BP). Pollen found at the bottom of the 14 m deep lake record an age between 10 and 11,000 years. Hence, at that time the glacier has already disappeared and the lake was formed. The lake is fed by spring water in the subsurface which supply water in equilibrium with the outflow next to the hut of the Austrian Alpine Club. The lake covers an area of almost half a square kilometer, the surface temperature does not exceed 14°C. Also, the lake is characterized by a high content of zoo- and phytoplankton.