

Geo-Microbiology and Bio-Geochemistry in Alpine Environments

**A 3-day Field Trip to geobiologically and geohydrochemically interesting
Ecosystems in the Eastern Swiss Alps
for Earth and Environmental Science Students at the Master Level**

Monday, August 29 to Wednesday, August 31, 2011

Guided by

Kurt Hanselmann ETHZ Dept. for Earth Sciences, Climate Geology / Geomicrobiology
(with C. Vasconcelos ETHZ, S. Kraemer U Wien, M. Lehmann U Basel)

Locations:

Day 1: Iron mine Gonzen and Weissfluhjoch – Totalpsee – Davos.
Day 2: Davos Dorf – Wägerhus - Jöri Lakes - Davos Dorf.
Day 3: Scuol-Tarasp - Ftan - Fuschna - Nairs – Rablönch.

Topics:

Iron dominated microbial habitats in former mine shafts; alpine water resources, geology of the Lower Engadin Window, organics in peninnic shale deposits, low temperature geobiochemistry in mineral springs, evolution of mountain lakes, modern and ancient nutrient sequestration and cycling in high altitude aquatic ecosystems, soil formation in glacier flood plains, coupling of Fe-Mn-P-cycling, erosion patterns in carbonate, gneiss and serpentine contact zones, travertine and carbonate ice formation in CO₂ outgassing zones

Accommodation:

Youthpalace, Davos Dorf, 2 nights, breakfast and dinner included

Meeting points:

Monday, August 29, 09.35: Sargans railroad station (train arr. 09.32)
Tuesday, August 30, departure by bus at 07.55 from Davos-Dorf, RhB station
Wednesday, August 31, 08.05, train from Davos Dorf to Scuol (arr.09.16) via Klosters

Costs:

CHF 170
included are accommodations for 2 nights, 2 breakfasts, 2 dinners, local transport: Klosters – Davos - Parsenn. Field trip preparations.
Not included: back pack lunches, travel to Davos / Scuol and back, local bus trips.

Fitness:

Walking on rough mountainous terrain and work in the field for 6-9 hrs daily

Clothing:

Good mountain walking boots, layers of cloths for warm, sunny as well as for rainy, cold weather. The temperature in the mine is 13°C

Insurance:

Is the responsibility of each participant, incl. REGA.

Preparation:

Pre-excursion meeting on Tuesday, May 24, 2011, 13-15 h, Bernoullianum, room120

Enrolment:

Sekretariat UGW (Frau K. Liesenfeld), starting Monday, 21 February 2011 (preference is given to MSc students)

Participants:

max 10

Information:

moritz.lehmann@unibas.ch (Bernoullianum, Room 144); details will follow upon enrollment