



## Excursion of the young geomorphologists (SGmS)

# Becs de Bosson rock glacier

### 10-11 October 2020

The excursion took place in the Réchy Valley in the central part of Valais Canton. The upper part of this valley is protected at national level as geotope n°216 (VS) for its periglacial geomorphology and its swamps. It has a longitudinal profile shaped by glaciers, alternating between small ombilic glacier basin and verroux.

The excursion started on the 10<sup>th</sup> of October. From Chalais, we took the cable car to Le Crêt du Midi (2332 m). From there, we walked to L'Ar du Tsan (2185), the first verrou-ombilic area where the Rèche river flows into its meanders that are surrounded by swamps (Fig. 1). We followed the trail to the next verrou-ombilic area, le Tsan, where it is possible to observe other swamps and a fossil rock glacier (Fig. 2). Above, a rock wall separates the highest ombilic, occupied by the Le Louché lake (2567 m).

Unfortunately, the stormy and snowy weather conditions prevented us to see the Becs de Bosson rock glacier (2640-2850 m). This rock glacier has been studied since the late 1980s. Geodetic surveys as well as ground and air temperature monitoring are conducted by the Geomorphology research group of the University of Fribourg. Moreover, this site is part of the kinematic section of the PERMOS (Permafrost Monitoring in Switzerland) network. Instead of visiting the study site, we directly went to seek refuge at the Becs de Bosson hut (2982 m) where Eloi, the hut guardian, warmly welcomed us. Once dried up, we continued our discussion about the rock glaciers in the region and permafrost monitoring in general around a cup of tea.

After having spent the night in the hut, we continued our excursion in a winter-like atmosphere as we descended through the Pas de Lona (2788 m, Fig. 3) to the Lona Lake (2640 m). From there, it was possible to observe the Lona push-moraine (2700, Fig. 4), which owes its existence to the advance of the former Sasseneire glacier during the Little Ice Age. We took the opportunity to make a short break and discuss about the first researches made on this site in the late 1980s and the punctual field campaigns that are undertaken by the Geomorphology research group of the University of Fribourg. The insights and questions from the participants brought a lively discussion about glacier-permafrost interactions during the Little Ice Age.

We then continued towards the small mountain pasture of Lona, to the snowy way down to Les Crêts and to arrive finally to Grimentz, where we took the bus at the end of the excursion.

Despite the challenging weather conditions, seven (incl. the organisers) motivated young geomorphologists from the University of Lausanne, the University of Fribourg and the ETH Zurich participated at this excursion.



Fig. 1 – L'Ar du Tsan. Meanders of the Rèche river and swamps.



Fig. 2 – Le Tsan and the fossil rock glacier.



Fig. 3 – The group is walking to the Pas de Lona (2788 m).



Fig. 4 – Lona lake (2640 m) and push moraine under the Sasseneire peak (3253 m).

Organisers

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