

Excursion of the Swiss Young Geomorphologists (SGmS)

Geomorphological landscapes in Southern Swiss Alps

Bike excursion to explore landscapes and historical natural events of
Valle Leventina

1 – 2 May 2025



Photo : G. Li, 2025

The first Swiss Young Geomorphologists excursion of 2025 took place in Valle Leventina, in the Canton of Ticino, attended by 10 participants from the University of Lausanne, University of Fribourg, SUPSI and members of the Swiss Geomorphological Society currently working in private offices.

For the first time of the SYG history, the excursion was made by bicycle. We made a one-way journey of about 50 km, mostly downhill, over 2 days with an overnight stop in Scruengo locality (Municipality of Quinto). Our tour guides were the Prof. Dr. Cristian Scapozza and PhD student Alessandro De Pedrini, both from the Institute of Earth Sciences of SUPSI, sharing their expert local knowledge of this region with us. Free to travel efficiently and easily along the valley floor, we were able to cover several different sites where we could best observe the various rockslides, rock avalanches, and the glacial history spanning many thousands of years, along with approaches to risk management, hazard monitoring and engineering in the modern era.

The bike excursion began in Airolo, where Prof. Dr. Scapozza told us about the Sasso Rosso rockslide occurred at the end of the 19th century and explained the methods used to study this historical natural event. Alessandro De Pedrini also presented the Val Canaria rockslides and their monitoring systems. In Ambri, we discussed risk management for snow avalanches and the specific case related to the ice rink of HC Ambri-Piotta.

After spending night in Scrungo, the excursion continued towards the village of Dalpe. From the viewpoint located at the Motto Del Corvo, we observed the landscape of Valle Leventina and discussed both older and more recent theories on the geomorphology of the upper valleys of the Ticino Canton, as well as the origin of terraces. Observing the deposit of Chironico rock avalanche, the third largest collapse in crystalline rocks in the European Alps, we learned about the rock avalanche itself, lake formation, and subsequent erosion and incision by the Ticino river, revealing some enormous boulders, well-known to rock climbers as one of the best bouldering sites in the country. Importantly, we were able to learn about human history and how this intertwines with the geomorphological story of these landscapes, which is both diverse and ancient. We learned how late 19th century tourism at Faido even led to the birth of modern geomorphology as the scientific discipline we recognize today through the visit of the American geomorphologist William Morris Davis, which contributed to his theory of alpine valley glacial erosion. And in the city of Biasca, we learned of the disaster of 1515 (also known as “Buzza di Biasca”) resulting from the catastrophic breaching of the rock-avalanche-dammed lake.



Alessandro De Pedrini explains the monitoring system of the Val Canaria rockslides. Photo: C. Del Siro, 2025

The weather was magnificent, which we can only thank our Ticinese colleagues for enormously, which, along with the quality gelato, contributed to the holiday in the sunshine vibes. And as discussed, a good geomorphologist is never really on holiday, or is it that a geomorphologist's work is akin to a holiday? To discuss further at the next meeting.

Many thanks to our presenters and guides, and to all those who participated in the excursion. We are looking forward to seeing many of you again at the next ones.

Organisers

Chantal Del Siro, Lea Schmid, Ben Robson

Kindly supported by:

