

# Cimalegna Geologic-Pedologic field trip

A hike on Monte Rosa to learn about the geological history of the Alps and the characteristic of high-elevation soils



Cimalegna plateau is reached by the Monterosaski cableways: a cable car from Alagna, Valsesia, and a cable car from Gressoney La Trinitè, Lys Valley, link the villages to Passo dei Salati at 2980 m altitude.

- Cable car arrival
- Trace Route
- Panels
- Soil pits
- Geological overviews
- Points of interest

## Alagna - From Passo dei Salati to Col d'Olen

Along the Cimalegna Plateau alt. 2900 m

Cimalegna is a glacial plateau with a triangular shape that from the border ridge between Piemonte and Valle d'Aosta (at about 3000 m of altitude) gently slopes down toward Valsesia, down to 2600 m, above the Bocchetta delle Pisse. To the north, Cimalegna is limited by Conca delle Pisse (Bors glacier) and, to the south, by Vallone d'Olen.

The watershed ridge extends from Stolenberg 3202 m to Passo dei Salati 2946, Corno del Camoscio 3024 m, Col d'Olen 2881 m and Corno Rosso 3022 m.

Cimalegna is a perfect place to examine the geological history of the north-western Alps, with particular regard to the last 200 million years geodynamic evolution. The natural environment is interesting also from a pedological point of view, allowing

the recognition of soils that formed from their parent rocks in a subhorizontal zone, at high elevation and under extreme climatic conditions.

The Geologic-Pedologic field trip is a loop route along which 8 panels briefly describe the geological history of this sector of the alpine chain, main rocks and related soils.

It begins at Salati Pass (2936 m), gently descends southward to the Scientific Institute Angelo Mosso, near the Lake Bowditch, and the area of Rifugio Vigevano, then reaches the Col d'Olen (2881 m), goes up the southern slope of Corno Camoscio, to its summit (3024 m), which offers a 360° panorama of the Monte Rosa massif, the Gressoney and Sesia valley and then goes down toward north, back to Passo dei Salati.

### Panels description

#### Passo dei Salati

**Pann. 1a** - Route description and regional geology.

**Pann. 1b** - Geology of Cimalegna plateau: map and profile.

#### Istituto Scientifico A. Mosso

**Pann. 2a** - From the Tethyan mesozoic ocean to the collisional alpine chain. Lithospheric sections and geodynamic of north-western Alps from the Jurassic to the Eocene.

**Pann. 2b** - Pedology: the soil and the five forming factors.

#### Rifugio Vigevano

**Pann. 3a** - Lithological and structural characteristics of the Monte Rosa Nappe, european unit. Lithotypes of the Sesia-Lanzo Zone, african unit.

**Pann. 3b** - High-elevation soils and the characteristics of Cimalegna soils.

**Pann. 4a** - Lithological and structural characteristics of the Ophiolitic Piedmont Zone: geology of the Combin Unit at Olen Pass and of the Zermatt-Saas Unit at Corno del Camoscio.

**Pann. 4b** - The soil forming factors at Cimalegna plateau and vegetation.



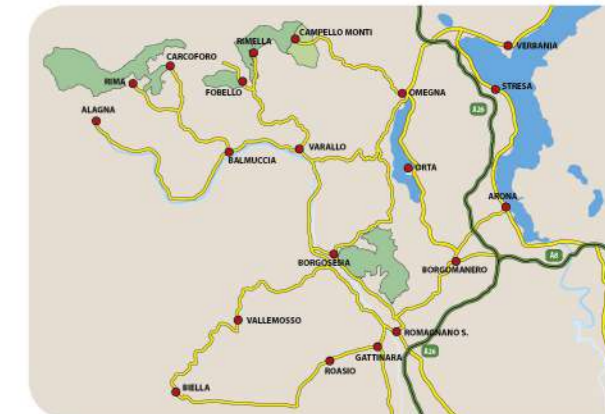
Soil teaching activities (ph. Chiara Leonoris)



Geological teaching activities (ph. Chiara Leonoris)



One of the panoramic panels (ph. Chiara Leonoris)



## Info, accommodation:

#### Ente di Gestione delle Aree Protette della Valle Sesia

C.so Roma 35 - 13019 Varallo VC - tel. - fax +39.0163.54680  
 mail: [info@areeprotettevallesesia.it](mailto:info@areeprotettevallesesia.it)  
 p.e.c: [areeprotettevallesesia@pec-mail.it](mailto:areeprotettevallesesia@pec-mail.it)  
[www.areeprotettevallesesia.it](http://www.areeprotettevallesesia.it)

#### Alagna Valsesia:

Visitor Center and Botanical Gardens - Alpe Fum Bitz (1600 m)

#### Rima:

Park House - Alpe Brusà (1400 m) - mob. +39.346.6347687  
 Ref. Vallè - Alpe Vallè di sopra (2175 m) - tel. +39.328.4424913

#### Carcoforo:

Natural History Museum Loc. Tetto Minocco  
 Ref. Massero - Alpe Massero (2082 m) - tel. +39.0163.95650  
 mob. +39.345.8511191 - mail: [rifugiomassero@alpinrunner.it](mailto:rifugiomassero@alpinrunner.it)

#### Fobello:

Visitor Center - Fraz. Roj (1011 m)

#### Grignasco - Frazione Ara:

House caves of Ara - Grignasco (No) Frazione Ara Via Cavour  
 Località Giardino delle Grotte - Tel. +39.327.54.83.776  
 mail: [3ppiemonte@gmail.com](mailto:3ppiemonte@gmail.com) - web: [www.casagrotteara.com](http://www.casagrotteara.com)

Cover:  
 Cimalegna plateau and the dividing ridge between Sesia Valley and the Lys Valley  
 (ph. Chiara Leonoris)



monterosa ski

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