

ARIGNA VALLEY AND PIZZO DI COCA GLACIER

You are traveling along the Arigna Valley, a valley that until about 10000 years ago was occupied by glaciers which, with their erosive action, shaped it making it a "U" profile valley. You may be wondering then why it currently comes in a "V" shape instead. In fact, it took on this narrow and steep aspect after the end of the glaciations due to the incision made by the water.

Although the altitudes are not very high, only in 3 points, in fact, it exceeds 3000 meters of altitude, the Arigna Valley still hosts some of the best examples of glacialism present along the ridge of the Orobie, thanks to the effect combined of:

- abundant winter snowfall,
- the steep slopes that release numerous avalanches e
- the narrow and recessed shape of the valleys which reduces the summer melting of snow.

The Arigna Valley is in fact the valley with the most glaciers in the Orobie sector, even if for the most part they are now only glacieret. These small glaciers are all fed by avalanches except for the Lupo glacier, the largest of the Orobie glaciers, which is mainly fed directly, therefore by snowfalls. This also explains in part the difference between this glacier, in which the terminal portion is marked by numerous fractures called crevasses, compared to the others, which have a rather flat surface and of which, lately, it is difficult to recognize the shape. Also worth mentioning is the Marovin Glacier, which climbs up the slopes of Pizzo di Coca at 3052 m; this is one of the Lombardy glaciers with the terminus located at the lowest altitude, due to its exposure to the north, and to the good avalanche feeding during the winter which allow it to extend its front, partially covered by debris, up to about 2000 m of the Scimur valley.

The Arigna Valley extends from about 300 meters at the bottom of the valley, where it flows into the Adda, up to about 2900 m at its head. Consequently, you will be able to observe the different types of vegetation that cover the steep slopes passing from the riparian woods along the Adda to those of broad-leaved trees and subsequently of conifers, up to the high-altitude grasslands.

The valley is considered a SCI or a Site of Community Interest with the code IT2040034, thanks to some peculiarities including the presence of some plant species that see here the center of gravity of their geographical distribution. For this reason and also having a very limited distribution they are defined as endemic species. Among these you can observe the *Sanguisorba dodecandra*, this is the scientific name of the frassenella or salvastrella orobica, easily recognizable for the pale green leaves, often sprinkled with drops of humidity, on which stands a pendulous cylindrical inflorescence, soft and feathery, of a pale greenish-yellow that dangles with every gust of wind and that can exceed one meter in height. In the Tertiary era, that is a few million years ago, it probably had a greater geographical diffusion, but due to the climatic fluctuations linked to the glacial periods of the Quaternary it disappeared from vast areas surviving, with a fragmented distribution, on the Orobie Alps where you are now. For this reason, it can also be defined as a relict species.

As for the fauna, in the Arigna Valley there is an invertebrate that is now very rare in the region: the crayfish, a crustacean that is very sensitive to pollution and human disturbance. Furthermore, one of the most valuable elements of the ichthyofauna of the valley is the grayling, a freshwater fish of the Salmonidae family which is also sensitive to pollution.

Finally, for hydraulic engineering enthusiasts, the Arigna Valley also hosts three lakes of Santo Stefano, two of which are barred by hydroelectric dams. These lakes are easily accessible and located on terraces of glacial origin; despite being close to each other, they have different colors and settings, so it is worth visiting them all.