Climate and Weather

Climate

Laying within full temperate - continental area, Retezat National Park is defined through a complex mountain local climate, with numerous particularities determined by the altitude and general direction of the crests in relation with the direction of the maritime air masses from the west and continental air masses from the east and northeast, the positioning of the slopes with respect to the sun and the incline angle of the slopes.

The amount of heat received, depending on the positioning and incline angles, has the most important role among the climatogenetic factors. As a result of the specialty researches (I.Farcas and V.Sorocovschi, 1993), a pronounced caloric contrast was noticed between the slopes north of the main crest, with values of less than 120 kcal/ cm2 /year and even lower, at the level of the shaded glacial circus (40-50 kcal/ cm2 /year), and the south slopes, where the values of the radiation almost reach 160 Kcal/ cm2/year. In relation to the area of the entire park, the areas with low heat values received annually are more extended, most of the slopes being shaded and north oriented.

From the point of view of the air temperature, January is the coldest month (with temperatures between –11 and +5 0 C), July is the warmest (between +16 0C and +6 0C) below the altitude of 1800 m and August at higher altitudes. The lowest temperatures can be measured on the Peleaga , Păapuşa , Retezat, Bucura peaks.

The 10 0 C isotherm is characteristic to the upper limit of the arborescent vegetation and is to be found at the altitude of 1900 m on the southern flank and around 1800 m on the northern flank.

The frost, determined by the lowering of temperature below 00C, is almost a permanent phenomenon on the crests, where it can also happen in the summer months. In the alpine area, the number of days with frost increases up to 250- 275 days/ year, in the lower regions being of only 175- 200-days/ year. The earliest frost appears around the 20th of November and the latest one at the middle of May.

The air humidity, less differentiated vertically, increases from 74- 75% at the foot to 85-87% on the crests. The maximum humidity deficit appears in October.

The nebulousness is a more frequent phenomenon in the Park in May- June, due to the circulation of the humid air on the slopes and it appears the most seldom in October. Moreover, the crests higher than 1700- 1800 m are situated, in autumn and winter, above the stratiform cloud ceiling and enjoy many sunny days.

The fog is a specific phenomenon to the mountain climate. Its frequency increases proportionally with the altitude: from 50- 75 days at the foot to 250 days at 1800 m and even more on the crests. The visibility on the crests decreases, because of the fog, below 1 km in 35- 40% of the autumn days and over 50% of the winter days. The visibility on the crests is low also in summer, because of the convective clouds that cover the mountain crest.

The duration of sunshine, strictly related to the conditions of nebulousness and fog, decreases in summer from 1300 hours (at low altitudes) to 950 hours (on the crests). In winter, the values are between 600 and 800 hours. An average difference of 200-250 hours/ year at

the foot of the mountain and less than 100 hours/ year on the crests appears between the southern slopes (sunny) and the northern ones (shaded).

The precipitations have an uneven distribution, in relation with the advance of the humid air masses (Atlantic and Mediterranean) and altitude. The annual average amount of precipitations is between 900 mm at low altitudes, 1300 mm at medium altitudes and 1600-1800 mm or even more at higher altitudes. On the western, northwestern and southeastern slopes, the precipitations exceed 1400 mm. On the eastern and northeastern, protected slopes, the annual precipitations are 300- 400 mm lower.

June is the richest month in precipitations (120- 150 mm), while the minimum while the minimum is recorded in October- November (50- 70 mm).

The first snow appears in the alpine area in the beginning of September and the latest one in the end of June; these intervals diminish as the altitude decreases. At over 2000 m, it is possible to snow any month of the year. The duration of the snow layer is of around 100 days in the low areas and over 200 days at 2000 m. The snow persists in the glacial basins of the northern part of the Park even in summer. The average height of the snow layer varies in relation with the altitude (from 70- 80 cm at the foot of the mountain to 90- 100 cm on the crests), but also with the disposition of the slopes, the layer can reach 3- 4 m).

The wind, a dominant element of the mountain climate, has a frequency of 94- 95% on the crests in the Park, while the calm has a frequency of 35- 40% in the sheltered from wind valleys. The average speed of the wind increases from 2- 3 m/s at 800m to 10- 11 m/s on the crests, the maximum speed often reaching 40- 60 m/s.

Due to the increased wind speeds and the turbulent character of the wind at big heights, the crest geographic landscape is frequently subjected to the climate paroxysms that accompany these manifestations: the great striking power of the raindrops (on the exposed faces) and of the water vapors from the clouds that continuously invade the crest, the scattering of the snow on the exposed faces and snowing up in the sheltered from wind places.

Weather

Important to know: in Retezat the weather is very changeable. Even in summer the temperature can be under 0o C in alpine area (2000-2500m). Are known some cases when snowed in July.

Please search the weather for the closest towns Hateg and Petrosani (Hunedoara)

Weather Forecast | Weather Maps | Weather Radar Weather Forecast

|
Weather Maps
|
Weather Radar

Administraţia Naţională de Meteorologie

http://www.meteoromania.ro/