

# Mountain Meadows in the White Carpathians of the Czech Republic

E. BITTNEROVÁ

The White Carpathians (*Bílé Karpaty*, *Weisse Karpaten*) are situated on the Czecho-Slovak border and were in 1980 designated a Protected Landscape Area of about 700 square kilometers in area.

The White Carpathians represent a special protected area in Czechia as they are the highest range of the north-western end of the Carpathian mountain complex. The entire area, but most of all its southern part, has been cultivated by man for many centuries. Nevertheless, or just because of that, extraordinary natural values have remained here and on many sites one can speak of a harmonic landscape. In 1996 the White Carpathians were therefore included in the UNESCO programme Man & Biosphere as a biosphere reserve.

The extensive deforestation of the past had the character of land modelling respecting the local natural conditions. The result is thousands of hectares of unique orchid meadows with scattered trees and shrubs, currently representing the typical scenery of the White Carpathians. From the scientific point of view these meadows are remarkable for their richness of rare plants, such as 25 different orchid species. They belong to the most species-rich biotopes of Europe with plant species densities of up to 70 species per square meter and are study sites of world significance.

Another valuable element are vast beech forests in the northern part of the range with a number of typical Carpathians flora and fauna elements. The scenery of the central and northern part is determined by relatively diffuse settlement patterns, little industry and well preserved architecture in the villages.

Natural and cultural factors thus make the White Carpathians an extremely valuable area also on the European scale.

## Management

Before 1989 nature conservation had to fight with intensive farming on the meadows, that is excessive fertilisation and high concentrations of cattle on pastures.

After that year it came to a fundamental change due to a decrease in agricultural activity, most of all in mountainous and submountainous areas. Change headed to the other extreme: cattle numbers were markedly reduced and meadows and pastures became overgrown with scrub.

Nature conservation therefore immediately started to search for solutions to this problem. An important help have been and still is the Programme for Landscape Management by the Ministry of the Environment which has enabled the maintenance of at least the most valuable sites. However, this is not the complete solution for the entire area. Therefore we consider most suitable the support of local farmers and motivating them to start ecological farming.

As for subsidies, farmers nowadays can receive subsidies from the Ministry of Agriculture for normal meadow maintenance. If a farmer is registered as ecological, extra subsidies can be obtained.

Last year, in providing these subsidies, the botanical quality of each site documented in a zoning system was taken into account too. Nevertheless, it is often difficult to satisfy the demands of both ministries. For instance, subsidies from the Ministry of Agriculture are often paid for maintenance by mulching which clashes with nature conservation demands and does not seem to be a good solution.

To avoid conflicts we try to discuss with farmers in the area which are the best farming methods on their land.

This is done in the following way. After a joint walk in the field we take a map and mark the different conservation zones, sites of conservation interest, and EECONET elements.

We tell the farmer which our demands for farming are and then we try to agree with him on a solution acceptable to both sides. At the same time we suggest appropriate support mechanisms.

In addition, we are currently working on a pilot project to be financed from the SAPARD programme. We have selected three model areas, for which we have proposed a set of measures highly necessary from the viewpoint of nature conservation, but which the farmers are legally not obliged to take.

This concerns for instance planting trees, maintaining marshes, cultivating regional fruit-trees, extensive pasturing, restoring meadows.

A significant part of the project is the restoration of species-rich meadows. This is applied to sites which have been regrassed with production mixtures or heavily fertilised and therefore have a low species diversity.

But also former meadows - now arable land - are the subject of restoration or rather recreation.

Meadow restoration is carried out by sowing with seed mixtures of grass and forb species, either obtained by cultivating species in monocultures on arable land or by harvesting the seed directly on suitable meadows. The demand for this wild plant seed is high and rapidly increasing.

A positive development for the preservation of the rare orchid meadows and the beautiful scenery is the increasing interest in pasturing, particularly with breeds of beef cattle and sheep.

---

**Author:** Dr. Eliska BITTNEROVÁ, Bílé Karpaty Biosphere Reserve, Bartolomejské nám. 47, CZ-69801 VESELÍ NAD MORAVOU

---

In the past the grasslands in the northern and central part of the White Carpathians were mainly used as pastures. The grazing system, however, was quite different. Where as formerly only small numbers of animals were reared around the dispersed farmhouses, today cattle is concentrated in large herds on extensive farms.

This creates a problem, as the vegetation does not profit from intensive pasturing, but so-far sufficient data on optimal cattle concentrations and pasturing methods are missing.

Monitoring the impact of these factors on the vegetation is currently one of the priority tasks of the Protected Landscape Administration.

Securing the management of significant sites is often a complicated and difficult matter. Not only the human factor plays an important role here, but also the further economic development of our country. Despite of all these pitfalls we believe in the success of preserving the beautiful orchid meadows for the next generation.