PLANT COMMUNITIES WITH PINUS MUGO IN THE ROMANIAN CARPATHIANS

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INTRODUCTION

*Pinus mugo* is generally considered to be a heliophilous pioneer species, but it is often found in extreme sites to which it has been relegated by other competitors. Dwarf pine (*Pinus mugo* s. str.) is a shrub that reaches the optimum of its distribution above the timberline in the Eastern and South-Eastern Alps, the Northern and Central Dinarides, the high mountains of the Balkan Peninsula (the Rhodopes, Rila Mts, Pirin Mts) and the Carpathians. Smaller, isolated populations occur in the Jura Mts, Voges Mts, Šumava Mts, Jizerské hory Mts and Krkonöš Mts; the most southerly isolated occurrence is in the Abruzzo Mts in the Apennines. In most of these mountains, the dwarf pine shrubs form a coherent, climatically conditioned vegetation belt, mostly on the subalpine belt. Less often *Pinus mugo* s. str. occurs on hygrophilous stands on peaty soils in lower altitudes (montane and lower subalpine belt) as azonal vegetation type.

RESULTS AND CONCLUSIONS

The relevés for this study were obtained from the (alti-montane) subalpine belt of the Carpathians (Slovakia, Poland, Romania and Ukraine) – Fig. 1. Krkonöš Mts and Šumava Mts (the Czech Republic, Poland), the Eastern and South-Eastern Alps (Austria, Italy, Switzerland), the Apennines (Italy), the Dinarides (Croatia, Slovenia) and the Rila Mts (Bulgaria). All relevés were sampled following the standard procedures of the Žurich-Montpellier School (Braun-Blanquet 1964), frequently using the modified 9-degree Braun-Blanquet’s sampling scale (Barkman et al. 1964) and were stored in a TURBOVEG database (Hennekens & Schaminée 2001). The data were exported into JUICE 6.4.6 software (Tichý 2002) for analysis. For detailed information about methods and results see papers by Šibík et al. (2008) and Šibík et al. (2010).

Taking into account the obtained knowledge, the limited vertical distribution (the subalpine belt) of studied phytocoenoses, similar physiognomy, and mutual close syngenetic relationships between individual dwarf pine associations, we confirm their current classification within one alliance Pinion mugo Pawlowski in Pawlowski et al. 1928, order Juniper-Finetalia mugo Bojcau 1971 and one class *Roso pendulinae-Pinetea mugo* Theuillier in Theuillier et al. 1995.

REFERENCES


