

ASSESSMENT OF PERMANENT GRASSLAND PRODUCTIVITY IN POIANA RUSCĂ MOUNTAINS (SOUTH- WEST ROMANIAN CARPATHIANS)

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Abstract. *The paper presents an application of a new method of evaluating the productivity of permanent grasslands based on the abundance-dominance and frequency data of the species from the floristically studies. Nine vegetation associations of representative grasslands from the Poiana Ruscă Mountains were studied, for which the pastoral value was evaluated for the forage quality. This indicator ranges from 5.0 for As. *Viola declinatae* - *Nardetum* up to 88.3 for As. *Trifolio repenti-Lolietum perennis*, being on average 36.7, mediocre in appreciation. The production of useful fresh phytomass is generally low, being on average 6.62 t/ha green matter, from 0.61 t/ha to 18.63 t/ha in the same phytocenoses mentioned for the pastoral value. Based on these results, the optimal grazing capacity of the permanent grasslands in the study area can be determined.*

Keywords: permanent grasslands, pastoral value, fresh matter yield, Poiana Ruscă

1. Introduction

In the mountainous area, which occupies about a third of Romania's national area, there are permanent meadows with an important role in animal husbandry, especially sheep and cattle. (Bărbulescu & Motcă, 1983) [2]. For a better management of this pastoral patrimony, in addition to the vegetation inventory studies, it is necessary to evaluate the productivity of the meadows, respectively the quality and the fodder production.

The assessment of the meadow yield is usually done on fenced areas where the grass is sown and weighed and quality analyses are performed in the laboratory. This method requires high costs of fencing and guarding them in isolated areas, being impossible to apply in the Romanian Carpathians, in most cases. For these reasons, we have developed a new method for evaluating the productivity of meadows based on floristic survey (phytosociological relevés) Marușca (2019) [7].

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