

CONTRIBUTIONS TO THE PRODUCTIVITY ASSESSMENT OF THE IEZER - PĂPUȘA MASSIVE MOUNTAIN GRASSLANDS

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Abstract. Mountain grasslands in the subalpine and alpine levels of the Carpathians have been less studied in terms of green mass production (GMP) and pastoral value (PV) due to their isolation and accessibility. In the Iezer - Păpușa massif of the Southern Carpathians, 8 grassland associations belonging to 4 phytosociological alliances, orders and classes were studied, located at an average altitude of 2,075 m (1,600-2,400 m), especially on sunny exposures. The number of cormophyte species averages 26 and the vegetation cover 55% due to stony soil and rain and wind erosion. In these extreme conditions, the average productivity of the grasslands is quite low due to the 21% participation in the grassy carpet of species with fodder value. The average GM production was rated at 1.21 and a PV index of 13 (very poor), which allows a loading of 0.4 LU/ha for a 65-day grazing season with young sheep in particular. The most valuable association is *Scorzonero roseae - Festucetum nigrescentis* with 3.1 t/ha GM and 23.3 PV index. Productivity data are used to determine optimal grazing capacity, conserve biodiversity and avoid degradation.

Keywords: Iezer-Păpușa massif, alpine and subalpine grasslands, green mass production, pastoral value, grazing capacity

DOI 10.56082/annalsarsciagr.2024.1.12

1. Introduction

In the high mountains above the expansion limits of the spruce forest and juniper thickets are extensive areas of perennial grasses on soils with surface rocks.

In these extreme climatic conditions, a primary and secondary grassland vegetation develops, poor in species and with low productivity. Using these areas with sheep, especially young ones, is an ancient practice in the Carpathian Mountains.

In order to better know the grazing capacity, in order to preserve biodiversity and avoid rain and wind erosion through overgrazing, studies were continued on the

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