COMPARATIVE STUDY OF STEPPIC GRASSLANDS PRODUCTIVITY AND GRAZING PRESSURE IN BABADAG AND CASIMCEA PLATEAUS

Teodor MARUȘCA¹, Daniyar MEMEDEMIN², Groza ATENA³, Oliviu POP⁴, Ioana SIMION⁵, Elena TAULESCU⁶

Abstract. Determining the production and forage quality of a permanent grassland is essential for establishing the optimal stocking rate in order to preserve the biodiversity and the traditional landscape. The paper presents an assessment of the productivity of steppic grasslands from the two large geographical entities of the ROSCI 0201 North Dobrogean Plateau protected area, respectively Babadag and Casimcea Plateaus. The grasslands from the Babadag Plateau have undergone an accelerated process of degradation in the last 50 years due to the very large share of sheep and goats, almost 90% of the total grazing livestock, that graze all year round except for the days when the soil is covered with a layer of snow. The grasslands from the Casimcea Plateau have generally maintained their productivity for the last 45-50 years as the structure of the vegetal layer has been better preserved, a situation due to the 27% of the total livestock of cattle and horses that were maintained in the stable in the cold season. Currently, the grazing pressure exceeds carrying capacity of these steppic grasslands for 5.5 times in Babadag and 5 times in Casimcea, which is why it is necessary to balance the structure and number of livestock, expand fodder crops in arable land and implement more efficient management measures.

Keywords: steppic grasslands, feed productivity, carrying capacity, biodiversity conservation

1. Introduction

¹ Assoc. Prof. Ph.D. Eng., Association for Sustainable Development DAKIA, Bucharest, Romania, Corresponding Member of the Academy of the Romanian Scientists (e-mail: maruscat@yahoo.com).

²Ph.D., Eng., Association for Sustainable Development DAKIA, Bucharest, Romania (e-mail: daniyar_memedemin@yahoo.com).

³M.Sc., Association for Sustainable Development DAKIA, Bucharest, Romania (e-mail: atena@dakia.ro).

⁴Ph.D., Association for Sustainable Development DAKIA, Bucharest, Romania (e-mail: oliviu.grigore.pop@gmail.com).

⁵Ph.D., Association for Sustainable Development DAKIA, Bucharest, Romania (e-mail: si261968@gmail.com)

⁶Researcher, Research-Development Institute for Grasslands, Braş ov, Romania (e-mail: taulescuelena@yahoo.com)