ANALYSIS OF THE STATE OF BEECH FORESTS FROM THE PLANNING ASPECT IN THE AREA OF THE MANAGEMENT UNIT "VELIKI JASTREBAC PROKUPAČKI" IN SOUTHERN SERBIA

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ABSTRACT

The subject of this research are pure even-aged beech forests in the area of the management unit "Veliki Jastrebac Prokupački". In order to study the state of these forests, 2 experimental fields of square shape and size of 0.25 ha were set up. The age of both stands is 80 years, while the production potential of the habitat differs. The stand on EF-1 is located in a valley where the soil is medium deep and fresh while the stand on EF-2 is located on a steep slope where the soil is shallow and drier. Different habitat conditions have affected the production potential of these stands. The number of trees in the stand on EF-1 is 400 trees per ha, and in the stand on EF-2 356 trees per ha. The volume of the stand on EF-1 is 593 m^3/ha, which is 46% higher than the stand on EF-2 where the volume is 323 m^3/ha. Confirmation of the inequality of habitat conditions can be found in the results of the height of the dominant tree per basal area (hg max), which in the stand on EF-1 is 37.9 m, and in the stand on EF-2 25.6 m. Habitat potential, stand characteristics and mutual relations of tree species within them, have resulted in high productivity and ecological stability of these forests. The variety of conditions in which the analyzed stands occur imposes the need for a different approach when defining management plans.

Key words: beech forests, stand state, production potential, forest management plans