

STRUCTURAL CHARACTERISTICS OF MIXED SESSILE OAK AND TURKEY OAK FORESTS ON BUKULJA MOUNTAIN IN CENTRAL SERBIA

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ABSTRACT

The paper presents the results of research on the structural characteristics of mixed sessile oak (*Quercus petraea* /Matt./Liebl.) and Turkey oak (*Quercus cerris* L.) forests on Bukulja mountain in central Serbia. In order to define the structural characteristics and production potential of these forests, 3 experimental fields of square shape and size of 0.25 ha were set up. In terms of phytosociology, these forests belong to the group of ecological units - sessile oak and Turkey oak forests (*Quercetum petraeae - cerris*) on various soils on loess, silicate rocks and limestones. The experimental fields are located at an altitude of 470-520 m, on very steep terrain with a slope of 16-20° and the eastern exposure. The studied forests are even-aged, 70 years old, of coppice origin and complete canopy (0.7). Depending on the stand conditions, the number of trees ranges from 276-484 trees per ha, with sessile oak the most common species whose share ranges from 35.4-85.1%, the share of Turkey oak ranges from 4.1-49.3%, while Hungarian oak is also significantly represented. The basal area ranges from 18.3-20.2 m²/ha, with the largest share of sessile oak 41.5-86.6%, while the volume ranges from 152.5-161.9 m³/ha, where the largest share has also sessile oak 41.0-86.6%. The condition of these forests can be generally defined as unsatisfactory, considering their origin, productivity and quality. The management of these forests in the future should be focused on planning and implementing adequate silvicultural and ameliorative measures to improve their condition and conversion into a high forest in parts where possible.

Key words: structural characteristics, sessile oak and turkey oak forests, mountain Bukulja, Serbia