

Determination of vegetation properties of the Karaören Village rangeland (Seyitgazi-Eskişehir)

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Abstract: Rangeland is the basis of any livestock operation that purports to be truly sustainable. Rangelands in the semiarid regions are diversified ecosystems that have adapted to natural conditions and human activities for a long time. Recently, global climate change and deterioration of the land in these regions have become matters of concern. Furthermore, the rangelands of the Turkey support a wide variety of rare and endangered species. This research was conducted in Karaören Village Rangeland, in the vegetation period of 2016. The study area is located within Eskişehir/Seyitgazi district boundaries and its average altitude is about 1050 meters and also slopes about 5%. The aim of this study is to determine to the plant-covered area, botanical composition, aboveground biomass, underground biomass and rangeland condition. Transect and quadrat methods were used in order to determine the rangeland flora of the case study area. The main soil characteristic of the research area has been examined and texture class has been found as a sandy loam texture. It has been figured out that soil is in average level with the following features; slightly alkaline with the amount of pH 7.66, low chalky with the rate of 1.16%, with 0.98% of organic matter. In the study area, 89 plant taxa, belonging to 49 families, were identified; and 10, 8, and 71 of these belonged to the poaceae, fabaceae, and other families, respectively. The plant-covered area was found as nearly 51.2%. Additionally, the botanical composition of rangeland consists of 44.28% Poaceae, 22.56% Fabaceae and other families 33.16%. The aboveground and underground biomass yields were calculated as 351.6 kg/da and 560.7 kg/da, respectively. The rangeland condition was established as good. On the other hand the investigation, it was concluded that vegetations of the rangeland were big part of composed of invader plants. There is an immediate need to improve the plant cover on these rangelands to protect soil resources.

Keywords: Eskişehir, Vegetation structure, Plant-covered area, Botanical composition

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