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Investigate dynamic and trend changes of vegetation on desert ecosystems (case study: Jajarm region, North Khorasan)

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Abstract

Rangeland ecosystems in arid and semiarid regions strongly were influenced by climatic factors and their kind of exploitation of management. These changes usually occur in combination and structure of vegetation over time. Because understanding the dynamics of pasture can choose the appropriate management practices and proper help, the changes of vegetation in desert ecosystem of Jajarm area, based on new method relies Factors of climate and soil moisture monitoring over a period of 4 years (1388-1391) were studied. In this study, with the establishment of three permanent transects and plotting to systematic randomic method for ten plots per transect, vegetation and soil moisture monitoring and measurement operations at the 120 plots in the review period was followed. The results showed that the study area, plant species with high regeneration ability such as Artemisia sieberi and Salsola orientalis with ephemerals (annual species) of vegetation determine the trend of change and while the changes of soil organic carbon is slow and gradual, the soil moisture reciprocally proportional to rainfall changes, has shown that the variability factor. Given the relative stability stone and gravel soil cover and litter, total vegetation cover is subject to change. So, necessary for the scientific management of rangelands in arid and desert regions is continuous monitoring of vegetation in accordance with the soil moisture changes, the amount and distribution of rainfall, physiological characteristics of the dominant species and management by focusing on the measurement of variables that govern the operation of plant and soil.

Keywords: Monitoring, rangelands ecosystem, shrub plants, soil moisture, Embrothermic, Jajarm region.

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