

عنوان مقاله:

Determining the structure and map of vegetation of Mirabad protected area (Iran) using DEM and Geographic Information Systems (GIS)

محل انتشار:

دوفصلنامه رستنیها، دوره 19، شماره 1 (سال: 1397)

تعداد صفحات اصل مقاله: 23

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خلاصه مقاله:

The Mirabad protected area (S. Azarbaijan, Iran) has a variety of ecological nurseries due to elevation of the sea, physiographic factors, micro-climates and soil types, and has high vegetation diversity. Mirabad protected area in the Piranshahr-Sardasht axis is between the latitudes of $36^{\circ} 23'$ and $36^{\circ} 31'$ north, and the lengths $45^{\circ} 15'$ and $45^{\circ} 25'$, with an area of 11435 ha, in the elevation range $1177-2068$ m above sea level. The average rainfall and annual temperature over the age of 19 years are 696 mm and 12.3°C , respectively. The present study, examines the vegetation structure of the region in the year 2017 where two types of classification and GIS were used. Thus, with the help of ArcGIS software (ArcGIS 9.3), maps, slope, aspect, and elevation were prepared. From the integration of these maps, in the map of the units of work, 224 study units were homogeneous and identified and then field studies were done in these units. To sample vegetation by random distribution method, Whittaker multi-scale unit parts in plant types, 447 plant species were identified from 81 families and 301 genera. In the next step, plant types were based on biological diversity at a similar level of 75% in four distinct clusters, with the highest genetic distance between the Astragaleto-Ferulaetum plant type and the Querceto-Amygdaletum plant type. The highest and lowest similarity index was observed between Gulke 57% Gulke and Soeystan 12%, respectively. Biological diversity was higher in Quercetum, Querceto-Amygdaletum and Querceto-Pistaciaetum species than in other types.

کلمات کلیدی:

Classification, plant brigades, sardasht, Similarity Index, Whittaker multi-scale plots

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