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Survey of Effective Climatic Factors on Growth and Distribution of Astragalus sp. Plant Types in Sistan and Baluchestan Province by Multivariate Statistical Methods

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Abstract

Vegetation plays a very important and effective role in terms of environment, medicinal and industrial plants and livestock fodder production for local communities, which unfortunately for various reasons such as excessive and premature grazing, severe and consecutive droughts in recent years and economic view of rangelands It is being destroyed. In this study, in order to investigate the effect of climatic factors affecting the growth and distribution of plant species in Sistan and Baluchestan province, multivariate statistical methods have been used. For this purpose, climatic parameters of Zahedan, Zabol, Kerman, Nehbandan, Khash stations have been used. , Saravan, Konarak, Chabahar and Ianshahr 136 were selected for each station and after validation as well as correlation between variables were analyzed. For factor extraction in factor analysis, PCA method was used and for maximum increase in correlation, Varimax method was used and the rotating factor was determined as humidity-temperature and temperature-number of rainy days with 93.6 Percent can represent other variables. Examination of the produced maps with field reality shows that the temperature-number of rainy days is in good agreement with nature, but the humidity-temperature factor is not consistent with reality due to the type of masses entering the area.

Keywords: **Climatic data, factor analysis, Gon, Sistan and Baluchestan**