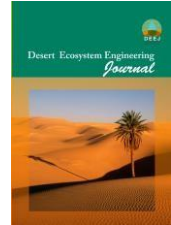




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An Investigation on Autecology of *Stipagrostis pennata* in sandy lands of Roudab

Seyed Mahdi Delbari¹, Zohre Delbari², Esmail filehkesh³, Nader Biroodian⁴, Vahed, Bardi Sheikh⁵

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Abstract

Management of rangeland ecosystems and protection of ovegetation in the arid zones its also essential to know the ecological requirements of Indicator species that dominate these areas and ecosystems. One of the most important species in the sandy soil of Roudab is *Stipagrostis pennata* which to high plant density of this area have high compatibility with soil conditions and the environment. The current study was to determine the ecological characteristics of this species to expand its habitat in similar areas. In the current study, a random systematic design has been applied in 600 hectares. The goal was to determine the characteristics of the vegetative canopy and measured *Stipagrostis pennata* and soil sampling sites along the four transects and climatic, geological, phenology stages, habitat types, plants, vegetation variables and soil samples taken from 2 depths 0 - 30 cm and 30-60 cm. The physical characteritics soil and the amount of N, P, K, C, Na, Mg, Ca, EC and pH were determined in a soil lab. The resut showed that in addition to the impact of the stracture of sands simple as the dominant plant grows in low annual precipitation of about 150 mm and soil alkalinity of 7/9 to 8/4 and electrical conductivity of 0.34 ds/m to 0.44 ds/m. The results also show that there is a direct relationship between the amount of nitrogen and calcium with growth properties of *S. pennanta*. *Moreavery* the most important ecological factor for the growth and distribution of *S. pennanta* in sands plain desert region as a dominant species, species soil compatibility with sandy hair root sheath and the development of the root system in wide area network.

Keywords: Plant ecology, growth properties of *S. pennanta*, Roudab.

1. *Corresponding Author, M.Sc. in Arid zone, Hakim sabzevari univercity, sabzevari, Iran, Email: delbari.sm@gmail.com.

2. Senior Supervisor Agricultural Education, Department of Sabzevar Agriculture. Sabzevar, Iran.

3. Assistant Professor, Research Center of Agriculture and Natural Resources of sabzevar, Sabzevar, Iran.

4 & 5. Associate Professor of the Range and Watershed Management Faculty, Gorgan University of Agricultural Sciences and Natural Resources.