



Investigation and comparison of Plant Diversity in Semi-Steppe Grazed and Enclosed Sites in Zagros (Case study: Rangeland of Perdanan- Piranshahr)

Omar Amousi^{1*}, Sholeh Ghollasimood², Bakhtiar Fattahi³

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Abstract

Studying the differences between plant biodiversity in grazing pastures under improved management of grazed and enclosed rangelands has great importance in rangeland management improvement. The purpose of this study is comparing semi-steppe rangeland vegetation of Perdanan, Piranshahr in the field under grazed and enclosed sites. Sampling was done in both grazed and enclosed sites. Five 40 meter transects were established in each study and a total of 40 plots per square meter were harvested. The results revealed in enclosed area, 44 species belonging to 35 genera and 14 families and in the grazed area 26 plant species belonging to 24 genera of 11 families were seen, and the greatest cover of the species in the enclosed area is related to the family of Poaceae and Asteraceae respectively with 34.11 and 13.64 percent and in the grazed area is related to the family of Asteraceae and Apiaceae with 30.74 and 23.08 percent. Uniformity and diversity of species richness and diversity indices as Shannon - Wiener, Simpson, alpha Fisher, McIntosh, and Margalef and Menhinick were calculated by EstimateSWin 752, PAST AND BIO-DAP softwares. The results of the analysis of species richness in both areas claimed that the numerical richness, evenness and diversity of the enclosed area was greater than the under grazed area. The test results showed statistically significant differences between Shannon, Margalef and alpha Fisher indices between two areas.

Keywords: species diversity, enclosed pastures, grazing, Perdanan – Piranshahr.

1. M. Sc. in Range Management- Faculty of Natural Resources- University of Birjand- Birjand- Iran o_amousi@yahoo.com
 2. Assistant professor- Faculty of Natural Resources- University of Birjand- Birjand- Iran sghollassi@yahoo.com
 3. Scientific member- Faculty of Environment & Natural Resources, University of Malayer, Malayer, Iran