MORPHOMETRIC ANALYSIS OF TEN POPULATIONS OF ONONIS SPINOSA L. IN IRAN

<u>M. Bashari¹</u>, M. Noori², A. Ahmadi²

¹School of Tehran Payam Noor University, Tehran, Iran ²University of Arak, Arak, Iran

Email: mrymbashari@yahoo.com

Morphometric differentiations may explain biogeographic distinctions among populations of a given species. The possibility of morphometric distinctions between ten populations of Ononis spinosa L. collected from the different habitats and region in west of Iran (10 samples of 10 populations in 10 habitats) and in addition some herbarium specimens from Iranian Herbaria were examined. After encoding data a detailed systematic analysis of different samples (45 quantitative and qualitative morphological characters) was undertaken using statistical methods (principal component analysis). The hierarchical pattern of variation as revealed by cluster analysis has been used as the basis of a hierarchical classification of the species. Results showed sepal and petal sizes and stomata density characters (>0.6 coefficient) can be separator for populations of the species. Also results confirmed based on perennial petals and dimorph monadelfus stamen character, Ononis belongs to Ononoideae tribe and not to Trifolieae tribe. Different habitats and climatic conditions may explain, in part, these morphological variations between the studied populations.