

A preliminary vegetation database analysis of mountain wetland habitats within Irano-Turanian climatic territory, N Iran

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The wetland habitats are sharply embedded within vegetation of the Irano-Turanian steppes that are more characteristic of this region and are of interest both in themselves and for wider comparison with Euro-Siberian wetlands. The Alborz Mts. (Western and Central sections), the second largest range in Iran, is, on its southern slopes, mainly covered by steppe vegetation. These dry slopes also include 'green islands' of wetland with wide range of vegetation. Multivariate analysis of 990 phytosociological relevés collected across 135 of these little-studied wetland sites resulted in the subdivision of the wetland vegetation of the Alborz range into two large groups, referable to aquatic and telmatic wetlands. The latter were further sub-divided broadly into three end-groups (i.e. wet meadow, mire and spring vegetation) using Two Way Indicator Species Analysis (TWINSPAN). The TWINSPAN end-groups could be recognized in the Detrended Correspondence Analysis (DCA) graphs as well. The ordination of relevés along the first axis is closely related to the gradient from aquatic habitats toward wet meadow habitats. The occurrence of similar telmatic wetlands in other parts of Irano-Turanian region, as well as in adjacent Pontic and Mediterranean areas, examined and character species comparisons with these regions are discussed. Alborz telmatic wetland vegetation has broad affinities with three widespread European vegetation classes, i.e. *Molinio-Arrhenatheretea*, *Scheuchzerio-Caricetea fuscae* and *Montio-Cardaminetea*. Despite the high presence of many pluriregional plants across all the telmatic wetlands studied in Alborz, many species of the Irano-Turanian and adjacent areas are also found, and the communities are vicariant versions of Euro-Siberian telmatic vegetation. It is in very priority to conserve these wetlands in drylands of Iran. Climate change and ecosystem management are the main determining factors on the existence of such a sensitive ecosystem.