Desert roadside vegetation in eastern Egypt and environmental determinants for its distribution

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Abstract:

The purpose of this study was to describe the flora and vegetation at Qift-Qusier roadsides in the central part of the Eastern Desert of Egypt, and to relate floristic composition to edaphic conditions. A total of 61 species (28 annuals and 33 perennials) belonging to 50 genera and 27 families were recorded. On the basis of their presence values, classification of the 61 species recorded in 43 stands by cluster analysis yielded six vegetation groups. The results of CCA ordination indicated that the soil organic matter, Na, K, Ca, and pH were the most important factors for distribution of the vegetation pattern along the road verges in the study area. The DCA and CCA results suggested a strong correlation between vegetation and the measured soil parameters.

Keywords:
arid environments, Egypt, flora, multivariate analysis, roadside vegetation, soil-vegetation relationship.

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